Washington State
Department of Transportation

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending
March 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

Four Year Anniversary Edition

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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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 and 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 projects and other projects designated by the legislature in its 2003 Transportation Funding Package. 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 Highway Construction, 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

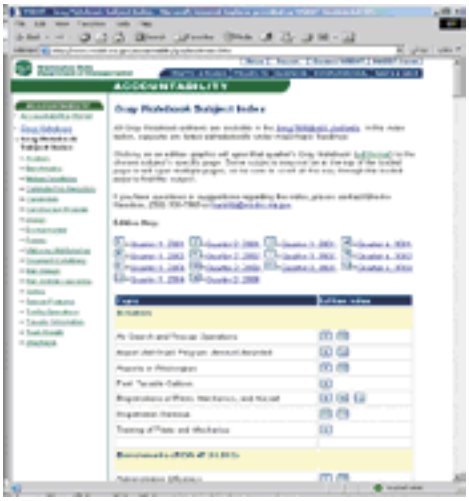
WSDOT's business plan, *Business Directions,* outlines the agency's strategic initiatives and associated activities. It reflects WSDOT's program and project delivery responsibilities with the goal of demonstrating the best possible return for taxpayers' dollars. The *Gray Notebook* complements the plan 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 "Nickel Project" 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.



Measures, Markers and Mileposts

The Gray Notebook for the quarter ending March 31, 2005
17th Edition, Published May 17, 2005

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Project Reporting on the 2003 Transportation Funding Package

Introduction

WSDOT prepares information for legislators, state and local officials, interested citizens and the press on the progress of the program funded by the 2003 Transportation Funding Package. 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:

- **Project Reporting**
- **Current Project Highlights and Accomplishments**
- **Project Delivery**
- **Financial Information**
- **Program Management Information**

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

Overall, 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 2003 Transportation Funding Package

Project Reporting

Project Information Roadmap

Home Page

Gray Notebook

Project Pages

Project Pages report on all WSDOT 2003 Transportation Funding Package (Nickel) projects. Project Pages provide detailed information updated regularly:

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

Quarterly Project Reports (QPRs) summarize quarterly activities:

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

Project Pages

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

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

Currently, approximately 230 Project Pages, of which 115 are Nickel Projects, provide on-line updates.

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/

Current Project Highlights and Accomplishments

Capital Construction Overview

The sixteen-year Capital Construction Program represents over 1300 projects and $17 billion in planned expenditures. While the highway capital construction program represents the largest capital program at WSDOT, other capital projects include ferry vessels and terminals, rail projects, facilities, local programs, and the Tacoma Narrows Bridge. Funding of these projects includes a variety of fund sources, primarily Pre-Existing Funds (PEF) and 2003 Transportation Funding Package (Nickel) funds. The recently passed 2005 Transportation Funding Package provides a total of $7.1 billion for all capital programs for 2005 to 2021 ($6.7 billion for the Highway Construction Program).

The following *Beige Pages* provide information on the delivery of the 2003 Transportation Funding package.

Pre-Existing Funded project information is provided on a programmatic basis in the *White Pages* (Highway Construction Program). The *White Pages* provide information on meeting program advertisement dates, cashflow, details on the delivery of the Safety Improvement Program and selected project highlights and project updates on the Tacoma Narrows and Hood Canal bridge projects.

All Capital Programs Combined: 2005-2021

	Dollars in Millions
Facilities	118.6
Improvement Program	10,474.0
Preservation Program	3,992.0
Traffic	143.7
Ferries	1,832.2
Rail	349.2
Local Programs	166.2
Total	**$17,076.6**

Notes: All programmatic values are preliminary estimates and are subject to change after a full Plan, Specifications and Estimates (PS&E) are completed on a project basis. Values include all source of funds at the programmatic level.
Source data: 2005 legislative final provided to WSDOT on April 25, 2005.
Dollars include: DPS, Reserves, Statewide activities and Reductions.

Pre-Existing Funded Projects: 2005-2021

	Dollars in Millions
Facilities	118.6
Highway Improvement	1,573.0
Highway Preservation	3,341.0
Traffic	143.7
Ferries	1,477.0
Rail	231.6
Local Programs	45.3
Total	**$6,930.2**

2003 Transportation Funding Package: 2005-2021

	Dollars in Millions
Highway Improvement	2,693.7
Highway Preservation	142.9
Ferries	169.8
Total	**$3,006.4**

2005 Transportation Partnership Funding Package: 2005-2021

	Dollars in Millions
Improvement	6,207.3
Preservation	508.1
Ferries	185.4
Rail	118.3
Local Programs	120.9
Total	**$7,140.0**

Current Project Highlights and Accomplishments

Summary of Project Advertisements, Awards and Completions

The following is WSDOT's report of quarterly developments in the delivery of the 2003 Transportation Funding Package for the quarter ending March 31, 2005. This report will focus on project delivery resulting from adjustments adopted by the Legislature and passed in the 2004 Supplemental Transportation Budget and development of the 05-07 Capital Improvement and Preservation Program.

This project information is gathered from a variety of sources within WSDOT and is principally the responsibility of the various regional administrators and their project teams.

As a regular part of its project management and accountability strategy for the Legislature's 2003 Transportation Funding Package, a team of senior WSDOT managers from Olympia meets in each region every quarter to review the progress and status of each project and to offer assistance, support, and coordination of issues or problems arising with any project. This process also facilitates the ability of headquarters staff to discuss project status with legislative members and staff and to report firsthand to the Secretary, the Governor, and the Transportation Commission.

Projects Advertised and Completed Biennium to Date

As of March 31, 2005, 35 highway projects have been advertised. Of those, 12 have been completed.

Recap of Twelve Nickel Projects Completed as of March 31, 2005

Project Description	On Time Advertised	On Time Completed	Within Scope	On Budget (Dollars in Millions)		
				Planned	Actual	
1) SR 9/SR 528 Intersection – Signal	✓	✓	✓	$ 710	$ 565	20% Under
2) I-90, Cle Elum River Bridge	✓	✓	✓	1,272	784	38% Under
3) I-90, Geiger Road to U.S. 2 Median Barrier	Early	Early	✓	781	781	✓
4) I-90, Highline Canal to Elk Heights – Truck Climbing Lanes	Early	Early	✓	4,200	4,483	2% Over [1]
5) I-90, Ryegrass Summit to Vantage – Truck Climbing Lanes	Early	Early	✓	8,389	8,389	✓
6) I-90, Sullivan – State Line Median Barrier	Early	Early	✓	1,040	973	6% Under
7) SR 97A, Entiat Park Entrance– Turn Lanes	✓	Early	✓	196	136	31% Under
8) SR 124, East Jct SR 12 – Reconstruction	✓	✓	✓	295	295	✓
9) I-182/U.S. 395 Interchange – Roadside Safety	✓	Early	✓	76	59	22% Under
10) SR 203, NE 124th/Novelty Road Vicinity	✓	Early	✓	1,487	1,487	✓
11) U.S. 395, Kennewick Variable Message Sign	✓	Late	✓	332	308	7% Under
12) SR 500, NE 112th Ave. – Interchange	Early	Early	✓	21,300	21,300	✓
Cumulative Cost to Date				**$ 40,078**	**$ 39,560**	

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 03-05 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 503 2004 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] During excavation for the new lane, a large amount of saturated clay was found; this increased the cost of construction.

Current Project Highlights and Accomplishments

Summary of Project Advertisements, Awards and Completions

Biennium To Date

1-12 Completed projects see recap on previous page.

Projects Advertised and Awarded

13) I-5, 2nd St.. Bridge – Replace Bridge
14) I-5, Salmon Creek to I-205
15) I-5, Roanoke Vicinity Noise Wall
16) I-5, Pierce County Line to Tukwila
17) I-5, NE 175th St. to NE 205th St. – NB Lane
18) U.S. 12/SR 124 to McNary Pool – Add Lanes
19) SR 16, 36th St.. to Olympic NW – HOV
20) SR 16, HOV Improvements – Union Ave to Jackson Ave.
21) SR 18, Covington to Maple Valley Highway
22) SR 31, Metaline Fall to International Border
23) I-90, Argonne to Sullivan Rd. (includes: I-90, Argonne to Pine Road)
24) I-90, Eastbound Ramps to SR 18 – Signal
25) SR 161, 204th to 176th St..
26) SR 161, 234th Street to 204th St. E
27) SR 161, Jovita Blvd. to South 360th St.
28) SR 240/I-182 to Richland Y – Add Lanes
29) SR 240, Richland Y to Columbia Center Interchange
30) SR 395, NSC – Francis Ave. to Farwell Rd.
31) SR 527, 132nd St. SE to 112th St. SE

Projects Advertised, Pending Award

32) SR 24, I-82 to Keys Road
33) SR 106, Skobob Creek – Fish Passage
34) I-5, South 48th to Pacific Avenue – Core HOV
35) I-5, SR 526 to Marine View Dr.

Awarded Projects

The total amount for the 31 awarded projects is $285 million, $19 million below the pre-bid engineer's estimate of $304 million. Three projects have been advertised and are pending award. These projects are not included in the engineer's estimate of $304 million.

Delayed/Deferred Projects

Ten projects that were scheduled to be advertised prior to March 31, 2005 have not been advertised. The circumstances of these ten projects are as follows:

1) SR 3/SR 303 Interchange (Waaga Way) – New Ramp

Project redesign and remaining work on the environmental permits has delayed the advertisement of this project from December 2004 to May 2005.

2) SR 7/SR 507 to SR 512 – Safety

Local and state elected officials requested that WSDOT delay the project to allow time to pursue additional funding for landscaping and other desirable adjuncts to the project requested by the local community. The ad date is now May 2005.

3) SR 9, Nooksack Rd. Vicinity to Cherry Street

Because of right of way issues as described in June 30, 2003 *Gray Notebook,* the project has been deferred to the 05-07 biennium.

4) SR 9/SR 522 to 228th St. SE – Widening

5) SR 9, 228th St. SE to 212th St. SE (SR 524)

(Projects combined for efficiency)

Delays in completing the design, receiving environmental permits and obtaining right of way have resulted in a three month project advertisement slip from February to May 2005.

6) I-90, Seattle to Mercer Island

WSDOT delayed the advertisement date for this project by thirteen months, from December 2004 to January 2006, to allow time for the issuance of the draft Environmental Impact Statement. This will allow the design to be completed by October 2005. This change was reported in the December 31, 2003 *Gray Notebook*.

7) SR 167, 15th St. SW to 15th St. NW – HOV

Because funding uncertainties had caused the design of this project to sit "on the shelf" for many years, additional time was needed for redesign of stormwater treatment, wetland mitigation and floodplain investigations to meet today's applicable environmental requirements. This project now has a planned advertisement date of October 2005.

8) SR 270, Pullman to Idaho State Line

The advertisement date will be delayed approximately ten months, from January 2005 to November 2005, to make necessary changes to the design plan.

9) SR 522, Bothell – UW Campus Access

The additional funding needed for construction from the legislature, University of Washington, and General Administration did not materialize during the 03-05 biennium. As a result, this project has been deferred to the 05-07 biennium.

10) SR 522/I-5 to I-405

Because of the benefits of coordinating work with the City of Lake Forest Park, the project has been deferred to the 05-07 biennium.

Current Project Highlights and Accomplishments

Contract Advertising and Awards 2003 Transportation Funding Package ("Nickel Funds")

Projects Advertised this Quarter:

I-5, SR 526 to Marine View Dr.
Request for proposal was published on December 1, 2004. The winning proposal is expected to be awarded in the spring of 2005. A full report on this project will be provided next quarter.

I-5, S 48th to Pacific Avenue – Core HOV
This project was advertised in March 2005. Minor changes in retaining wall design led to additional city utility impacts and required WSDOT to pursue additional property easements. At the time of advertisement, the project estimate was raised by approximately $6.5 million above the Nickel budget. This increase reflects the recent rise in structure construction costs, which is the result of increases of primary items, steel and concrete. Construction is expected to start during the summer of 2005.

SR 24/I-82 to Keys Road
The project was advertised for construction in February 2005. On April 13, 2005, bids were opened on this project. The low bid was approximately $4.1 million or 14% above the engineer's estimate. This project was awarded after approval of the increase by the Commission on April 25, 2005. A full report on this project and subsequent programming actions will be provided next quarter.

SR 106, Skobob Creek - Fish Passage
The project was advertised as scheduled in March 2005. Construction is expected to continue into the fall of 2005 with SR 106 being closed near Skobob Creek during the construction of the new bridge. WSDOT will provide detour routes and conduct a comprehensive public awareness campaign before the detours and closures occur.

Current Project Highlights and Accomplishments

Construction Highlights

Highway Construction Program

I-5, Pierce County Line to Tukwila Stage 4 – HOV

This contract was awarded in January 2005 for $35.8 million and is currently on schedule for the 2005 construction season. WSDOT is evaluating a proposal from the contractor to eliminate the planned 26 night time closures and do this same work over three weekend closures. This would require the closure of up to three lanes on I-5, from SR 18 to the Pierce County line, during these weekends to replace concrete panels. The proposal would significantly increase safety for workers and traveling public, produce a more uniform roadway surface, reduce the cost for traffic control and result in shorter construction time. The planned completion date of December 2007 for this project will remain unchanged until review of the contractor's proposal has been completed.

I-5, 2nd Street Bridge – Replace Bridge

This contract was awarded in June 2004 for $9.3 million and is currently 45% complete. The contractor has completed the 21 shafts needed for the foundation and all the columns that will support the new bridge. The contractor is working on building the scaffolding that will support the six spans that make up the new bridge. The first concrete pour for piers 1 and 2 occurred in March 2005. The next I-5 closure to place scaffolding over I-5 will occur by early April 2005. The travel lanes on I-5 will be shifted to accommodate the columns that will support the scaffolding. This project is currently on time and within budget.

U.S. 12 /SR 124 to McNary Pool – Add Lanes

This contract was awarded in December 2004 for $5.6 million and is currently 45% complete. This project constructs two additional lanes and a frontage road. It is the second of five phases that will provide a four-lane section on U.S. 12 from SR 124 to the Wallula vicinity. This is part of an overall, long-range plan to complete a four-lane highway from Burbank to Walla Walla. Work began on the second phase in January 2005. Roadway excavation, embankment compaction and crushed surfacing placement is largely complete. Construction is on schedule and within the proposed budget. The new lanes will be open to traffic by the end of August 2005.

SR 16, 36th St. to Olympic Dr. NW, Core HOV

This project will widen the west side of SR 16 from the new 36th street interchange to the Olympic Drive Interchange. Construction is expected to begin in April 2005 with an estimated completion of the widening of the highway at the end of the 2005 construction season. Currently, the project is on time and within budget. This contract was awarded in December 2004 for $3.9 million.

SR 16/ I-5 to Tacoma Narrows Bridge – HOV

The first contract, which widened SR 16 from 6th Avenue to Jackson, is expected to be completed during April 2005. The second contract, Union to Jackson, was awarded in February 2005 for $47.3 million. This will build the HOV lanes and reconstruct intersections with construction starting in April 2005. The planned completion date for the HOV project is expected by spring 2007 and the improvements will be open for public use by that time.

SR 31, Metaline Falls to International Border

The first contract constructs an all-weather highway and was awarded in October 2004 for $11 million. The project is on schedule with construction planned during the 2005 and 2006 construction seasons. The second contract will replace the Sullivan Creek Bridge. In preparation for the construction season and to protect environmentally sensitive areas, high visibility fencing and silt fencing have been installed to delineate construction areas from the environmentally sensitive areas. Work is expected to begin in May 2005 as weather permits. Design has started for replacement of the Sullivan Creek Bridge with a planned advertisement date in January 2006.

I-90, Build Lanes from Argonne to Sullivan Road

This project constructs one additional lane in each direction on I-90 in the Spokane area. Work on the westbound lanes started in March 2005 ending the winter shutdown. This required the routing of westbound traffic onto the new eastbound lanes. The removal of the existing westbound lanes, drainage installation, and construction of the noise wall near Argonne Road has been started. By November 2005, all lanes should be open to traffic. Currently, the project is approximately 60% complete and on budget.

SR 161, 204th to 176th

This project will have two additional travel lanes and a center turn lane on SR 161. The project was awarded in December 2004 for $5.1 million. Construction is planned to begin in April 2005 and the expected completion date is December 2005, with the possibility of completing this project ahead of schedule. In March 2005 the right of way condemnation trial, reported in the previous edition of the Gray Notebook, was heard by a jury. Based on the trial result, final right of way costs for the project have increased approximately $1.6

Current Project Highlights and Accomplishments

Construction Highlights

million. However, this will not result in a need for an overall increase of Nickel funding for the project since construction costs have been lower than originally projected.

SR 240/I-182 to Columbia Center Interchange - Add Lanes
The project was awarded in February 2005 for $30.5 million and was executed in March 2005. Site preparation activities started during the last week of March 2005, at which time the contractor placed high visibility construction fencing, began disconnecting existing utilities, and started placement of the eastbound roadway embankment.

U.S. 395, NSC - Francis Avenue to Farwell Road
This project constructs two lanes of the North Spokane Corridor between Francis Avenue and Farwell Road and completes the grading between U.S. 2 and Wandermere. This is a multi-phased project with four contracts. The first contract, Farwell Road Lowering, is approximately 85% complete. Footings have been poured for all of the retaining walls on the project and 40% of the fascia panels of the retaining walls have been set. Placement of deck steel for the U.S. 2 - NSC connection ramp structures was completed in March 2005. Grading of the various alignments and construction of the Geo Walls are proceeding as planned. The Farwell Road Lowering contract is within budget and has a completion date planned in May 2005. The second contract, Gerlach to Wandermere Grading, was executed in February 2005 and work is planned to begin in April 2005. Design work is underway for the remaining two contracts, Francis Avenue to U.S. 2 - Grading and Paving and Francis Avenue to U.S. 2 - Structures.

U.S. 395, NSC–U.S. 2 to Wandermere and U.S. 2 Lowering
This is a multi-phased project with two contracts, U.S. 2 Lowering and U.S. 2 to Wandermere. This project completes four lanes between U.S. 2 and U.S. 395. It also constructs interchanges at U.S. 395 and Wandermere and an interchange at U.S. 2 interchange. WSDOT is currently finalizing the preliminary plans for the bridges over U.S. 2, beginning hydraulic design, revising the U.S. 2 interchange plans for approval, and preparing the existing and proposed base map for the project.

Other Capital Programs - Ferries:

Edmonds Multimodal Terminal
The City of Edmonds and WSDOT are working together on this project. This project will include an access road, holding lanes, toll booths, transit center, long and short term parking, terminal buildings, overhead pedestrian loading, and a pedestrian connection to Amtrak and Sound Transit Commuter Rail. A Tribal Agreement has been discussed with all parties and three of the four tribes have agreed. WSDOT has acquired the Unocal property necessary for the construction of the facility. The Department of Ecology is reviewing Unocal's Feasibility Study and the Record of Decision is expected to be received by June 2005. The City of Edmonds has agreed to be the lead agency for the design and permitting process.

Mukilteo Multimodal Terminal
The Mukilteo Multimodal Terminal Project relocates the existing Mukilteo Ferry Terminal and constructs a larger, multimodal terminal facility. The original project design is funded with a combination of Nickel gas tax and secured federal funding. The preferred concept is the "Compact Terminal" design. This concept most closely supports the project objectives, and is the preferred alternative of the project partners (including the Cities of Mukilteo and Everett, Community Transit, and Sound Transit). The current estimate for this concept is $20 million more than current funding. However, there are additional sources of funding being pursued which will close the funding gap. These include right of way donation, shared costs, and partnering for additional grants. Due to a delay at the beginning of this project, WSF will need to shift $2 million from the 03-05 biennium to the 05-07 biennium for the preliminary design. The multimodal terminal is within budget and on track to finish as scheduled by July 2010.

Current Project Highlights and Accomplishments

Construction Highlights

Other Capital Programs - Rail:

Tacoma R.M.D. RR Morton Line Repairs–Phase 2
This project will construct the second phase of the Tacoma Rail Mountain Division's Morton line upgrades to fully restore rail service. Five miles of the lowest quality track have been upgraded, one key bridge has been rehabilitated, and the trans-load facility in Morton has been completed. Rehabilitation of a second key bridge is underway and will be completed in April. A new rail spur to a new shipper in Frederickson and additional track rehabilitation will be constructed in the final quarter of the biennium.

High Speed Crossovers – Titlow
This project will construct a crossover near Titlow Park in Tacoma, which will allow passenger and freight trains traveling in either direction to change tracks. The BNSF Railway began earthwork construction in November 2004. The track and signal system construction began in March 2005, after completion of the earthwork. All work will be completed by mid-June 2005. During construction, train speeds may be reduced in the area depending on the construction activities occurring at the time.

Mt. Vernon Siding Upgrade
This project will allow passenger trains traveling in opposite directions on the single-track mainline to safely move around each other just south of Mt. Vernon. Phase 1 of the project will upgrade the existing rail siding, and Phase 2 will construct storage tracks in the Mt. Vernon/Burlington area. Construction of the first phase will begin in late March 2005. Engineering began on Phase 2 of the project in November 2004 and will continue through the end of June. The overall project will be completed by June 2007, as planned.

Other Capital Programs - Local Projects

I-5, Lexington Bridge
WSDOT is currently evaluating the possibility of advancing construction funding for this project by entering into a Local Agency Agreement with Cowlitz County. By agreeing to use Cowlitz County funds first, construction could begin in the fall of 2006, eighteen months earlier than originally planned.

Columbia Center Blvd. Railroad Crossing
The bridge deck for the railroad crossing has been poured and is scheduled to be open to traffic in April 2005. Once the bridge is completed and traffic is routed onto the bridge, the remaining excavation work for the railroad can be completed. Work will continue through the 2005 construction season on excavation, retaining walls and drainage. The project is within budget and on schedule for completion in November 2005.

Project Delivery

Proposed Adjustments to Delivery Planning

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. The project remains on schedule and within current budget. However, right of way acquisitions are not anticipated to begin until after June 2005. This will delay some of the planned expenditures for the 03-05 biennium. As a result of this change, WSDOT will shift $1.3 million in expenditures from 03-05 to 05-07. This project was also submitted as an opportunity and option in the December 31, 2004 *Gray Notebook* for an additional $1 million dollars to also include an equipment undercrossing. At the time of publication this opportunity and option was approved by the legislature.

I-5 Bakerview Road to Nooksack River Bridge
The original scope of this project was to upgrade the ramp taper and flatten the slope on the southbound off-ramp and flatten the slope on the northbound off-ramp at Slater Road Interchange. During the design process, WSDOT determined that flattening the existing slopes would result in extensive wetland impacts that would outweigh the benefits of the project by increasing the cost to the point of not being cost effective. After an extensive design and safety analysis of the ramps and surrounding roadway, a design deviation was approved that did not require the slope flattening. After investigating other options, WSDOT determined that the work should be postponed to the 2011-2013 biennium and the ramps monitored.

I-5, Roanoke Vicinity Noise Wall
Stage one of this project is experiencing cost increases due to wall alignment changes caused by buried obstructions and construction engineering problems. The estimated project cost is currently $3.8 million, which is $264,000 over the original plan of $3.5 million.

I-5, SR 502 Interchange
This is a complex project due to commercial right of way and environmentally sensitive areas. In February 2005, the preferred alternative for the project was modified to minimize environmental impacts and address public concerns requiring additional preliminary engineering. To keep the project on schedule for the planned November 2006 advertisement, final design and environmental assessment are now scheduled to occur simultaneously. They were originally scheduled one after another. This will advance work into the current biennium. As a result, $350,000 of preliminary engineering funds needs to be advanced from the 2005-07 biennium into the 2003-05 biennium to pay for this work.

I-5, Chehalis River Flood Control
See "Watch List" section for this quarter's information.

SR 7/SR 507 to SR 512 – Safety
See "Watch List" section for this quarter's information.

SR 9/SR 522 to 212th Street SE (Stages 1b & 2)
See "Watch List" section for this quarter's information.

SR 20, Fredonia to I-5 – Widening
Last quarter, WSDOT reported shifting $3 million of right of way expenditures to the 05-07 biennium as a result of a revised acquisition schedule. This quarter, an additional $1.1 million will be deferred into the 05-07 biennium because one of the large industrial parcels that requires relocation is taking longer to acquire than expected. This brings the total amount deferred to $4.1 million. Extensive public comment received during the access hearing has delayed right of way acquisition by five months. As a result the current October 2006 bid advertisement date is at risk of being delayed. WSDOT is now evaluating ways to stage construction in order to keep the project on track. Strategies for staging construction will be reported in the June 30, 2005 *Gray Notebook*.

SR 99, S. 284th to S. 272nd St. – HOV
Last quarter, WSDOT reported a $1.2 million right of way and design spending deferral to the 05-07 biennium. This quarter, an additional $1.4 million right of way spending will need to be deferred because of right of way plan revisions, longer appraisal reviews and more extensive negotiations on some parcels than previously anticipated. The advertisement date will remain unchanged from the last report, occurring in April 2006 .

SR 99, Alaska Way Viaduct and Seawall Replacement
The delay in the selection of a preferred alternative and additional conceptual engineering as a result of scope changes resulted in delaying preliminary engineering work in 03-05. WSDOT determined that a carry forward of $10.6 million from 03-05 to 05-07 will be necessary to fund these adjustments. The shifting of the $10.6 million into the 05-07 biennium will be allocated as follows: $3.8 million to fund design, $500,000 million for EIS, and $6.3 million for right of way.

Proposed Adjustments to Delivery Planning

SR 161, Jovita Blvd. to South 360th Street
On-site work began in March 2005 with the placement of high visibility fencing and silt fencing. Based on the contractor's current schedule, WSDOT is projecting the need to accelerate $1 million of Nickel funding from the 05-07 biennium to the 03-05 biennium.

SR 161, 36th to Jovita
Prior to the scheduled availability of right of way funding for this project, a right of way parcel became available for $700,000. WSDOT purchased the parcel using the right of way revolving account. WSDOT is proposing to replace funds in the revolving account during the 03-05 biennium by advancing the existing right of way Nickel funding from the 05-07 biennium. This change will place funds in the correct phases and does not change the scope, schedule or budget for this project.

SR 167/SR 509 to I-5, New Freeway
SR 167/I-5 to SR 161, New Freeway
SR 167/SR 509 to SR 161, Environmental Impact Statement
See "Watch List" section for this quarter's information on these projects.

SR 704, Cross Base Highway
The spending plan adjustment shifting $1.7 million from the 03-05 biennium to the 05-07 biennium is needed due to the delay of the Environmental Impact Statement approval and lack of funding from RTID. For these reasons, preliminary engineering was slowed during the 03-05 biennium. The original spending plan was created assuming RTID funding and a design-build delivery option was selected in a effort to complete this project quickly.

SR 900, SE 78th St.. Vicinity to I-90 Vicinity.
There was a delay in preliminary engineering and right of way expenditures in the 03-05 biennium; as a result, expenditures have been lower than estimated. WSDOT will shift $624,000 from the 03-05 biennium to the 05-07 biennium. This adjustment will not affect the project schedule or budget.

Other Capital Programs - Ferries:

Catch-Up Preservation
This project addresses the backlog of deferred ferry system preservation work and facilitates reaching the preservation performance standards established by the Legislature's Joint Task Force on Ferries. Design work for two projects that needed to be performed immediately was started in February 2004 - the Tahlequah Dolphin Replacement Project and Lopez Dolphin Replacement Project. The Tahlequah Dolphin Replacement Project was completed in November 2004. The preferred alternative for the Lopez project has been selected and the design report is due by the end of April 2005. The Lopez Dolphin Replacement Project is behind schedule during the preliminary engineering and planning phase. A new schedule has been developed to start Plans, Specifications, and Estimates in May 2005, and $378,000 was reappropriated to the 05-07 biennium. A new schedule was developed, and the project will be complete by June 2007.

Opportunities and Options for Legislative Consideration

The following project will be reported as requiring legislative guidance and offered for legislative consideration in 2006 supplemental budget.

Highway Construction Program:

SR 539, Tenmile Road to SR 546

In the December 31, 2004 *Gray Notebook,* WSDOT reported that right of way costs had increased over the original estimate. The February 2005 right of way estimate is $17.5 million. This is $12.3 million higher than the current right of way budget of $5.2 million. The increase is the result of significant commercial development in the proposed right of way areas, escalation in property values, hazardous material abatement costs, and increases in the relocation and condemnation costs. The final right of way plan approval is expected in May 2005.

To resolve the funding issue, WSDOT proposes funding right of way acquisitions by shifting construction funds from the 07-09 biennium to the 05-07 biennium. However, reducing authorized construction funding in the future biennia by $12.3 million will significantly reduce or eliminate the ability to complete this project as intended.

WSDOT is seeking legislative approval in the 2006 supplemental budget to pursue the first construction contract for Tenmile Road to the southern City limits of Lynden. During the first contract, right of way acquisition for the entire project will continue, allowing property along the project corridor to be purchased at current values. At the same time, development of construction plans for the entire project will also continue. However, the second contract, from the southern City limits of Lynden to SR 546, will require a new authorization of funds for construction for the 07-09 construction season. This approach reduces the scope of work for the project as approved by the 2003 Legislature and the project will not be completed as originally planned.

2003 TRANSPORTATION FUNDING PACKAGE - PROPOSED ADJUSTMENTS TO PROJECT DELIVERY (Dollars in Thousands)

HIGHWAY PROJECTS

Project	03-05			05-07			07-09			09-11			11-13			Total by Project		
Proposed Quarter 7 Budget Versus Last Approved Budget	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**
U.S. 2, U.S. 97 Peshastin East Int.	2,100	856	(1,244)	2,700	3,944	1,244	11,750	11,750	0	-	-	0	-	-	0	16,550	16,550	0
I-5/SR 502 Interchange	2,521	2,871	350	7,479	7,129	(350)	24,730	24,730	0	-	-	0	-	-	0	34,730	34,730	0
I-5, Roanoke Vicinity Noise Wall	1,550	1,614	64	1,950	2,150	200	-	-	0	-	-	0	-	-	0	3,500	3,764	264
I-5, Chehalis River Flood Control	3,000	2,500	(500)	8,000	8,500	500	16,000	16,000	0	3,000	3,000	0	-	-	0	30,000	30,000	0
I-5, Bakerview Rd to Nooksack River Bridge	-	-	0	487	-	(487)	219	-	(219)	-	-	0	-	706	706	706	706	0
SR 7/SR 507 to SR 512 - Safety	974	-	(974)	8,326	9,300	974	-	-	0	-	-	0	-	-	0	9,300	9,300	0
SR 9/SR 522 to 212th St. SE (Stages 1b & 2)	7,662	6,141	(1,521)	21,838	23,359	1,521	-	-	0	-	-	0	-	-	0	29,500	29,500	0
SR 20, Fredonia to I-5	5,346	4,289	(1,057)	20,265	21,322	1,057	48,133	48,132	(1)	2,527	2,527	0	-	-	0	76,271	76,270	(1)
SR 99, So. 284th to S. 272nd-HOV	2,480	1,091	(1,389)	9,720	11,109	1,389	2,596	2,596	0	-	-	0	-	-	0	14,796	14,796	0
SR 99, Alaskan Way Viaduct (3 PIN Rollup)	41,083	30,500	(10,583)	15,917	26,500	10,583	40,000	40,000	0	40,000	40,000	0	40,000	40,000	0	177,000	177,000	0
SR 161, Jovita Blvd. to South 360th	4,022	5,022	1,000	21,126	20,126	(1,000)	-	-	0	-	-	0	-	-	0	25,148	25,148	0
SR 161, 36th to Jovita	580	1,280	700	3,500	2,800	(700)	6,180	6,180	0	9,200	9,200	0	-	-	0	19,460	19,460	0
SR 167/SR 509 to SR 161, EIS	737	940	203	203	450	247	-	-	0	-	-	0	-	-	0	940	1,390	450
SR 167/SR 509 to I-5, New Freeway	7,894	9,505	1,611	20,607	20,354	(253)	15,398	14,687	(711)	-	-	0	-	-	0	43,899	44,546	647
SR 167/I-5 to SR 161, New Freeway	11,177	15,144	3,967	5,370	2,108	(3,262)	1,915	113	(1,802)	-	-	0	-	-	0	18,462	17,365	(1,097)
SR 704, Cross-Base Highway	6,204	4,507	(1,697)	8,796	10,493	1,697	-	-	0	-	-	0	-	-	0	15,000	15,000	0
SR 900, SE 78th St Vic to I-90 Vic	1,226	602	(624)	2,689	3,313	624	10,836	10,836	0	-	-	0	-	-	0	14,751	14,751	0
All Other Projects Minor System Adjustments and Rounding	406,719	406,834	115	831,545	831,339	(206)	625,633	625,625	(8)	546,346	546,538	192	385,232	385,231	(1)	2,795,475	2,795,567	92
Total	505,275	493,696	(11,579)	990,518	1,004,296	13,778	803,390	800,649	(2,741)	601,073	601,265	192	425,232	425,937	705	3,325,488	3,325,843	355
Proposed Quarter 7 Budget Versus 2004 LEAP Budget (Baseline)	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**
Total	560,466	493,696	(66,770)	897,506	1,004,296	106,790	834,329	800,649	(33,680)	608,743	601,265	(7,478)	425,232	425,937	705	3,326,276	3,325,843	(433)

FERRY PROJECTS

Project	03-05			05-07			07-09			09-11			11-13			Total by Project		
Proposed Quarter 7 Budget Versus Last Approved Budget	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**	**Approved Q6 Budget***	**Proposed Q7 Budget****	**Net Change**
Catch-Up Preservation	1,108	730	(378)	7,087	7,465	378	15,689	15,689	-	14,091	14,091	-	954	954	-	38,929	38,929	-
All Other Projects Minor System Adjustments and Rounding	16,413	16,413	-	35,651	35,651	-	143,337	143,337	-	60,543	60,543	-	2,978	2,978	-	258,922	258,922	-
Total	17,521	17,143	(378)	42,738	43,116	378	159,026	159,026	0	74,634	74,634	0	3,932	3,932	0	297,851	297,851	0
Proposed Quarter 7 Budget Versus 2004 LEAP Budget (Baseline)	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**	**2004 LEAP Budget**	**Proposed Q7 Budget****	**Net Change**
Total	17,521	17,143	(378)	42,738	43,116	378	159,026	159,026	0	74,634	74,634	0	3,932	3,932	0	297,851	297,851	0

Notes: * "Approved Budget" column is defined as the last Commission approved adjustment to LEAP 2004 Supplemental Budget.
** "Proposed Budget" column is defined as the current quarter proposal to LEAP 2004 Supplemental Budget.

Note: Totals for the 03-05, 05-07, and 07-09 biennia of the Approved Quarter 6 Budget for Highway Projects differ slightly from those reported in the *Gray Notebook* for December 31, 2004. This is due to minor technical corrections and system roundings.

2003 TRANSPORTATION FUNDING PACKAGE HIGHWAY PROJECTS: OPPORTUNITIES AND OPTIONS (Dollars in Thousands)

Project	03-05			05-07			07-09			09-11			11-13			Total by Project		
For legislative consideration in the 05-07 session	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**
Quarter 4																		
Statewide Guardrail Retrofit	4,031	4,221	190	4,000	8,000	4,000	4,000	4,000	0	4,000	4,000	0	4,000	-	(4,000)	20,031	20,221	190
SR 99, Alaskan Way Viaduct - Des/Early R/W	15,000	15,000	0	7,000	35,000	28,000	40,000	40,000	0	40,000	40,000	0	40,000	12,000	(28,000)	142,000	142,000	0
Quarter 5																		
Statewide Bridge Rail Retrofit	2,030	2,325	295	2,000	3,061	1,061	2,000	2,000	0	2,000	2,000	0	2,000	644	(1,356)	10,030	10,030	0
SR 410, 214th Avenue East to 234th - Widening	-	-	0	1,700	1,700	0	4,300	4,300	0	-	-	0	-	-	0	6,000	6,000	0
Quarter 6																		
U.S. 2/US 97 Peshastin East - Interchange	2,100	2,100	0	2,700	2,700	0	11,750	12,750	1,000	-	-	0	-	-	0	16,550	17,550	1,000
U.S. 2, Dryden - Signal	-	-	0	-	188	188	260	188	(72)	-	-	0	-	-	0	260	376	116
I-90, Eastbound Ramp to SR 18	348	457	109	585	2,655	2,070	2,279	100	(2,179)	-	-	0	-	-	0	3,212	3,212	0
SR 20, Quiet Cove RoadVicinity to SR 20 Spur	-	-	0	1,314	1,366	52	5,746	9,546	3,800	-	-	0	-	-	0	7,060	10,912	3,852
SR 18, Covington Way to Maple Valley	3,014	820	(2,194)	2,533	2,760	227	293	548	255	-	150	150	-	-	0	5,840	4,278	(1,562)
SR 18, Maple Valley to Issaquah/Hobart Rd	2,262	3,823	1,561	1,424	1,424	0	-	-	0	524	524	0	-	-	0	4,210	5,771	1,561
SR 18, Issaquah/Hobart Road to Tigergate	1,886	1,321	(565)	1,114	1,679	565			0			0			0	3,000	3,000	0
SR 18, Tigergate to I-90 - Widening	1,885	1,152	(733)	1,115	1,848	733			0			0			0	3,000	3,000	0
SR 520, Bridge Replacement and HOV	-	-	0	8,000	21,000	13,000	14,000	14,000	0	13,000	-	(13,000)	-	-	0	35,000	35,000	0
SR 522, Snohomish River Bridge to U.S. 2	2,115	1,718	(397)	3,684	5,990	2,306	8,689	28,423	19,734	63,087	55,534	(7,553)	32,100	18,010	(14,090)	109,675	109,675	0
Total Opportunities and Options (Q4 -Q6)	34,671	32,937	(1,734)	37,169	89,371	52,202	93,317	115,855	22,538	122,611	102,208	(20,403)	78,100	30,654	(47,446)	365,868	371,025	5,157
Proposed and Approved Adjustments Thru Q7			493,696			1,004,296			800,649			601,265			425,937			3,326,542
Proposed and Approved Adjustments and O&O			491,962			1,056,498			823,187			580,862			378,491			3,331,699

For legislative consideration in 2006 Supplemental Budget	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**	**Budget***	**O&O Budget****	**Net Change**
Quarter 7																		
SR 539, Tenmile Road to SR 546	4,881	4,881	0	8,269	20,569	12,300	62,850	50,550	(12,300)	8,000	8,000	0			0	84,000	84,000	0
Proposed and Approved Adjustments and O&O			491,962			1,068,798			810,887			580,862			378,491			3,331,699

Notes:

* "Budget" column is defined as the last approved adjustment to LEAP 2004 Supplemental Budget.

** "O&O Budget" column is defined as the proposed Opportunity and Option budget.

"Watch List" Projects – Cost and Schedule Concerns

Items removed from the "Watch List" since December 31, 2004

SR 539, Tenmile Road to SR 546
See, "Opportunities and Options for Legislative Consideration."

Updated Projects from the "Watch List" since December 31, 2004

Highway Construction Program:

SR 4, Svensen's Curve – Realignment
As reported in previous editions of the *Gray Notebook*, this project is experiencing significant right of way acquisition difficulties. WSDOT is concerned about the impact this may have on the future budget of the project.

Half of the parcels necessary for the project have been appraised and WSDOT is making offers to property owners as appraisals are completed. The project will remain in the *Gray Notebook* 'Watch List' as we proceed with right of way acquisition and refine the project's budget and schedule.

I-5, Chehalis River Flood Control
Rather than raise the elevation of I-5, the 2003 Transportation Funding Package sought to alleviate chronic flooding problems in Lewis County using the less expensive approach of increasing the capacity of the Skookumchuck River Dam. This would include building a levee system that would protect I-5 and residential areas in Centralia and Chehalis. Lewis County and the U.S. Army Corps of Engineers (USACE) had been expected to partner with WSDOT in funding this project. In September 2004, USACE advised WSDOT that Congress had not authorized funding for this project. Lewis County and the cities of Centralia and Chehalis are considering forming a flood control district to assist in the funding of the project. WSDOT anticipates the need for preliminary engineering expenditures will be reduced until project partners resolve funding issues. As a result, WSDOT will need to defer $500,000 of preliminary engineering funds from the 03-05 biennium to the 05-07 biennium.

SR 7/SR 507 to SR 512 – Safety
Pierce Transit, one of WSDOT's funding partners, added federal funds to the project, requiring WSDOT to produce the federal environmental documentation. The added federal environmental documentation process is being paid for by Pierce Transit. This will result in a delay of the advertisement to June 2005 and require shifting the remaining $974,000 from the 03-05 biennium to the 05-07 biennium.

New Items Added to the "Watch List" since December 31, 2004

Highway Construction Program:

I-5, Salmon Creek to I-205 – Widening
Construction on this project continues on schedule with the northbound lanes and northbound I-5 bridge over Salmon Creek nearing completion. Once complete, traffic will be switched to the new northbound lanes and work will continue on the southbound lanes, and southbound bridge. As reported in previous Beige Pages, this project encountered a $2 million cost increase last quarter primarily due to additional work required to address unforeseen underground springs during construction of the bridge substructure. Fortunately the contract award amount was well below the original budget amount so even with these increases the project has remained within the original budget. But, since the southbound I-5 bridge is in the same vicinity of the northbound bridge, WSDOT believes there is a high degree of risk that construction of the southbound substructure will encounter the same geotechnical difficulties and has a strong potential for an additional increase in cost. As a result, WSDOT is currently conducting a comprehensive evaluation of the remaining costs, associated risks, and related impacts on the project budget for all remaining construction items on the project. The results of the assessment and a strategy to keep this project within budget will be reported in the *Beige Pages* next quarter.

SR 9/SR 522 to 212th Street SE (Stages 1b & 2)
Delays in completing the design, receiving environmental permits and obtaining right of way acquisitions have resulted in a three month project advertisement slip from February to May 2005. The advertisement delay and slower than anticipated right of way expenditure will result in a deferral of $1.5 million from 03-05 to 05-07. These adjustments will have no impact on the budget for the project or the open-to-traffic date.

SR 9, 212th St. SE Vicinity to SR 96 – Safety
This project constructs safety improvements at four locations along SR 9 beginning in 2008. WSDOT's current estimate exceeds the project budget by approximately $1.0 million

"Watch List" Projects – Cost and Schedule Concerns

due to increased wetland mitigation, stormwater treatment and issues related to widening the roadway in a floodplain. WSDOT will refine the project design to identify cost saving opportunities and report back in September 2005.

SR 9, 268th Street Intersection

This project will construct a northbound left turn lane and a southbound left turn lane from SR 9 to 268th St. in combination with two other projects on SR 9. The current construction estimate of $3.1 million is $1.8 million higher than the budgeted amount of $1.3 million. The increased cost is due to unanticipated poor soil conditions under the existing roadway, which requires adding a retaining wall to protect wetland property and more traffic control to the project. A Value Engineering (VE) study will be conducted in May 2005 with special emphasis on the geotechnical issues. Results from the VE study will be reported next quarter.

U.S. 12, Attalia Vicinity – Add Lanes

Early estimates indicate that the design and construction of this project will come in over the project budget. During discussions with Boise Cascade, an affected business within the project limits, several issues were identified that contributed to a portion of the cost increase. A change from the initial alignment was required to avoid Boise Cascade's waste disposal and composting site. The original alignment would have impacted several monitoring wells, placed the new highway on questionable material, and may have required WSDOT to obtain a replacement waste site. In addition, to improve the safety and operation of the highway around the plant one access point was eliminated and the spacing between the remaining ones increased. This required longer frontage roads than initially planned.

Also, underestimating of a few bid items along with escalation in some construction costs are contributing to a portion of the increase.

The exact amount of the increase, the associated risks, and project impacts are currently being evaluated, and will be finalized and reported in the next quarter.

SR 167/SR 509 to I-5, New Freeway
SR 167/I-5 to SR 161, New Freeway
SR 167/SR 509 to SR 161, Environmental Impact Statement

These three projects share funding and are staged to function as one project for efficiency and to reduce costs. The current issues involve increased costs in the Environmental Impact Statement (EIS), design, and preliminary engineering. The increased cost of the EIS is the result of revisions to the preferred interchange option required by the resource agencies. The revisions will require additional environmental assessment work. The design effort was supported by hiring a Construction Management consultant to develop, analyze and review the characteristics of the project and provide recommendations. Some of the engineering, surveying and geotechnical drilling originally planned for this biennium on the portion between I-5 and SR 161 is being deferred to the next biennium. However, right of way acquisitions have been accelerated due to willing sellers. The availability of these right of way parcels is occurring ahead of schedule. These changes taken together will result in the need to shift $2.5 million from the 07-09 biennium and $3.3 million from the 05-07 biennium, resulting in $5.8 million being added to the 03-05 biennium. The total cost of the three projects is $63.3 million and remains unchanged.

U.S. 395, North Spokane Corridor

The 2003 Legislative Transportation Revenue Package appropriated $189 million for two sections of the North Spokane Corridor project, Francis Avenue to Farwell Road and U.S. 2 to Wandermere and U.S. 2 Lowering. These two projects provide for the construction of four new drivable lanes of the North Spokane Corridor between Farwell Road and Wandermere, including a new connection to U.S. 395 at Wandermere. An interchange at U.S. 2 is also planned for construction and two new drive lanes will be added between Farwell Road and Francis Avenue. Based on a recent cost risk assessment this project is at risk for a major cost increase due to escalating right of way acquisition costs from market increase and court settlements, structure costs from international demand for steel and concrete, current fuel escalation impacts, and increased demand for heavy construction causing a more conservative bidding climate. Assuming the currently identified high-risk items become actual costs, the project estimate for the Nickel funding could increase by as much as $32 million at completion in 2011 over the $189 million allocated. WSDOT is revising the estimated cost for this project, and with these increases the expenditure plan for the projects could be impacted in future biennia. This may jeopardize WSDOT's ability to fully deliver the projects envisioned using the existing Nickel Funding.

"Watch List" Projects – Cost and Schedule Concerns

SR 520, Bridge Replacement and HOV

A Design Options Workshop was held in early February 2005 to review the project. WSDOT also met with members of the Montlake Community to review their proposal for a high level cable suspended bridge through the Portage Bay/ Montlake/ Arboretum areas. The release of the draft EIS has been delayed six months to December 2005 to provide the additional time needed to evaluate the new design options and the high level bridge concept.

SR 543, I-5 to Canadian Border – Additional Lanes For Freight

Update from the December 31, 2004 *Gray Notebook*. This project continues on the Watch List due to complex right of way acquisition issues. Although right of way acquisition is nearly complete, several relocation issues have developed with the potential of adding significantly to the right of way cost.

Also, as reported in the last *Gray Notebook*, an updated cost estimate was completed in January 2005. The cost update has identified several project elements with a significant risk of increasing the total project cost. An estimated potential increase of approximately $5.6 million above the budget has been identified primarily due to higher than anticipated traffic control costs, addition of dowel bars excluded from the original estimate but necessary for the project, the addition of retaining walls not in original plans that are necessary to support the sides of detention ponds, and escalation of steel prices.

It is also necessary to delay the advertisement of this project a minimum of five months to allow enough time to make necessary revisions to the wetland mitigation plans in order to receive approval of environmental permits. Approval is expected in August 2005.

WSDOT is in the process of conducting an extensive assessment of the current risks, reviewing the project design scope, as well as beginning a Value Engineering (VE) Study to develop a strategy to remain within the funding authorization. As part of the VE study the project team will perform a cost estimate validation to reduce the likelihood of construction cost overruns. The results of the VE Study, updated right of way acquisition estimate, and cost reduction strategy with a revised schedule will be reported in the June 30, 2005 *Gray Notebook*.

Other Capital Programs - Rail

Geiger Spur Connection

This project will relocate the spur's current connection to the BNSF mainline in Airway Heights to the Palouse River and Coulee City (PCC) line north of Cheney. The existing five mile spur track serves several rail dependent customers, helping to support 400 manufacturing jobs. However, the Air Force has planned to shut down the spur's mainline rail connection, which runs through Fairchild Air Force Base. To continue existing service, an interim arrangement with the military allows the current line to stay in operation while a permanent solution is developed.

The 2003 Transportation Funding Package provides $3.5 million in the 2005-2007 biennium to construct an alternative connection around the air base. Since 2003, WSDOT has been concerned that project costs will exceed the early estimate by as much as $2 million. Spokane County, the owners of the spur track, and the Spokane County Economic Development Council received $500,000 in federal funds in March 2005. As part of the 2005 Transportation Partnership Funding Package the Legislature included $1.5 million for this project. However, since there has been a delay in starting the project, WSDOT and Spokane County are jointly developing an updated engineering estimate. It is possible to begin this project; however, if additional funds are needed, the entire project may not be completed in the future without an additional source of funds.

Financial Information

2003 Transportation Funding Package - Paying for the Projects

The first *Beige Pages* (June 2003) displayed the revenue assumptions underlying the 2003 Transportation Funding Package. The revenue forecast has now undergone numerous updates. Legislative action since 2003 has also impacted the underlying assumptions, primarily due to changes to the distribution of revenue from vehicle title fees. The following information incorporates the March 2005 forecast projections. Further refinements to debt service estimates have also been made.

Revenue Forecasts

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

Forecast Update

The accompanying charts show the current projected revenues over the next ten years (for the new funding sources) as forecasted in March 2005 by the Transportation Revenue Forecast Council. This forecast is compared to the legislature's assumed 'baseline' projections used in the budget-making process back in March 2003. Both cumulative ten-year totals and individual biennial amounts are shown.

Forecast comparisons include actual revenue collection data to date as well as updated projections based on new and revised economic variables. The March 2005 forecast includes 15 months worth of actual revenue receipt information for both gas tax and license, permit and fee receipts.

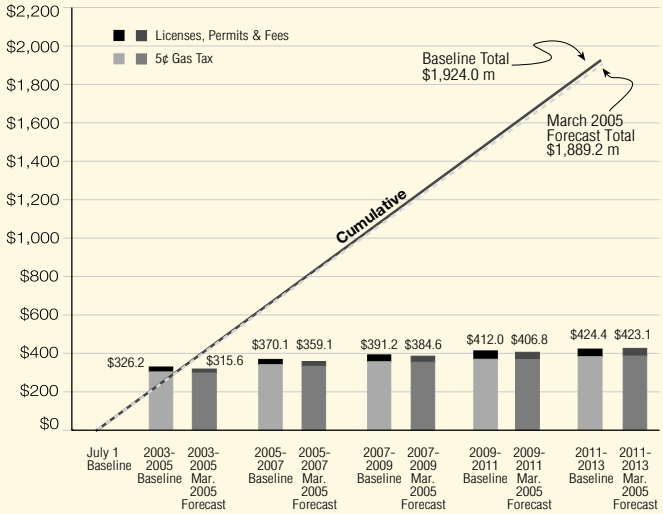
Gas tax receipts for the Transportation 2003 (Nickel) Account, over the ten-year period, are projected to be down from the November 2004 forecast (-0.7%). The forecast for licenses, permits and fees also dropped slightly (-0.5%). Overall, these factors have caused a slight decrease in the ten-year look for the account.

In the Multimodal Account, both vehicle sales tax projections and the plate retention fee are higher than the November forecast resulting in a slight increase in the ten-year look (0.5%). However, forecasted revenues are still closely aligned with the legislative baseline projection.

Transportation 2003 (Nickel) Account Revenue Forecast

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

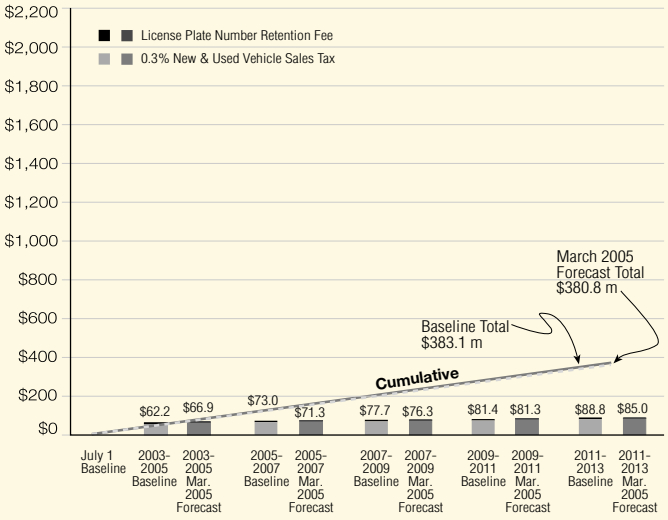
Millions of Dollars



Multimodal Account (New Sources) Revenue Forecast

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

Millions of Dollars



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

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

The proceeds from these gas tax bonds are used to fund highway projects. The debt service is paid by the revenue generated from the nickel increase in the gas tax. The proceeds from the state GO bonds are used to fund rail and ferry projects. Debt service for these bonds is paid from the Multimodal Account. Receipts from the 0.3% sales tax on new and used vehicles are deposited to the Multimodal Account and augment rental car tax receipts and other fees already directed to this account.

2003-2005 Biennium

For the 2003-2005 biennium, the legislature appropriated $275 million in proceeds from the gas tax bonds and $47.7 million from the state GO bonds. The table below shows the bond sales to date.

The final bond sale for the biennium took place in March 2005. Adjustments have been made to the cash flow requirement needs for projects funded by the Transportation 2003 (Nickel) Account, and the ten-year plan has been revised. The financial plan in the next section displays the current projected expenditure plan.

		2003 Transportation (Nickel) Account Bonds		Multimodal Bonds (GO Bonds)	
Date of Sale	**Assumed Interest Rate**	**RCW 47.10.861 Amount Sold**	**True Interest Cost**	**RCW 47.10.867 Amount Sold**	**True Interest Cost**
August 2003	5%	$80,000,000	4.64%	$0	
February 2004	5%	$25,000,000	4.41%	$20,000,000	4.44%
July 2004	5%	$70,000,000	4.67%	$0	
March 2005	5%	$85,000,000	4.47%	$20,465,000	4.48%
Total Bonds Sold to Date		**$260,000,000**		**$40,465,000**	

Transportation 2003 (Nickel) Account

The Transportation 2003 (Nickel) account was established in the state treasury to be the repository for the revenue raised by the nickel gas tax increase and the increases in various vehicle licenses, permits and fees. Proceeds of bonds issued under the $2.6 billion gas tax bond authorization are deposited to this account. Uses of the account include cash funding of highway and ferry projects identified by the legislature, and paying debt service and other associated costs for bonds sold to provide debt financing for highway projects. Since gas tax receipts are deposited to this account, the uses are restricted to highway purposes as required by the 18th Amendment of Washington's Constitution. The financial plan below brings together all of the projected sources (tax revenue, bond proceeds, interest earnings) and uses (2003-2005 expected cash flow needs, 10-year projected program expenditures including newly enacted revenues and expenditure plans from the 2005 legislature, and debt service) for this account.

The gas tax receipts forecast for the ten-year period decreased from the November 2004 forecast ($12.1 million) and the forecast for licenses, permits and fees also decreased ($12.9 million). Changes to projected sources and uses of funds have been updated to reflect the most current forecast as well as the current projection of adjustments for the 03-05 biennium project expenditures. Outer expenditures have not been adjusted. As changes, either positive or negative, are incorporated into the financial plan the ending balances in the outer biennia are affected. The updated *pro forma* predicts a negative ending balance of approximately $5.1 million by the end of the 2011-2013 biennium. The November 2004 *pro forma* predicted a negative $18.4 million ending balance. This change is primarily due to changes in revenue distributions made by the 2005 legislative session.

Key economic factors, tax receipts, and interest rates will continue to change over time. Future updates to forecasts, including actual and revised assumptions pertaining to bond sales and debt service, will continue to affect and change the projected final ending balance.

Transportation 2003 (Nickel) Account Pro Forma
2003-2005 Budget and Ten-Year Financial Plan
March 2005 Forecast with 2005 Enacted Revenues & Expenditures
(dollars in millions)

	03-05	05-07	07-09	09-11	11-13	Ten-Year Total
Balance Forward from Previous Biennium	$0.0	$50.0	$9.3	$30.6	$35.5	
Minimum Balance	($5.0)					
Sources:						
Gas Tax Revenues (new 5¢)	294.9	334.7	353.0	369.0	383.3	1,734.8
Licenses, Permits and Fees Revenues	20.7	25.6	33.1	40.3	41.4	161.2
Interest Earnings	3.8	3.0	3.0	3.0	3.0	15.8
Bond Proceeds	260.0	940.0	863.0	400.0	137.0	2,600.0
Federal Funds	0.0	0.0	0.0	0.0	0.0	0.0
Local Funds	0.0	0.0	0.0	0.0	0.0	0.0
Total Sources of Funds	**$579.3**	**$1,303.3**	**$1,252.1**	**$812.3**	**$564.7**	**$4,511.8**
Uses:						
Cost of Bond Issuance	1.0	2.4	2.2	1.0	0.3	6.9
Bond Sale Underwriters Discount	2.1	7.1	6.5	3.0	1.0	19.7
Debt Service Withholding	22.2	114.0	252.0	346.2	384.0	1,118.4
Highway Improvements	492.1	1,175.0	871.9	429.9	215.9	3,184.8
Highway Preservation	1.7	10.6	0.0	0.0	0.0	12.3
Washington State Ferry Construction	5.2	35.0	98.3	27.4	3.9	169.8
Total Uses of Funds	**$524.3**	**$1,344.0**	**$1,230.8**	**$807.4**	**$605.2**	**$4,511.8**
Biennium Ending Balance	**$50.0**	**$9.3**	**$30.6**	**$35.5**	**($5.1)**	**($5.1)**

Multimodal Transportation Account

The Multimodal Transportation Account was established in 2000 as the repository for tax revenues and operating and capital expenditures not restricted by the 18th Amendment. The 2003 Transportation Funding Package directs receipts to this account from the additional 0.3% sales tax on new and used vehicles and the license plate number retention fee. The most significant pre-existing tax deposited to this account is the rental car tax. The 2003 Funding Package also directs proceeds from the $349.5 million state GO bonds authorization to this account.

Because the newest funding package (enacted in April of 2005) also deposits funds from several new sources of revenue into the Multimodal Account, a clear-cut view of the impact of the Nickel Funding package on this account is less visible. New sources of funds that will be deposited to the account include vehicle weight fees, the $75 fee for motor homes and increased fees for drivers license and related services.

As was displayed at the beginning of the financial pages in this section, forecasts of revenue generated by the 2003 Funding Package are closely aligned with the legislative baseline.

In-depth analysis of the Multimodal Account with all its funding sources and associated expenditure plans is still underway. Future editions of the Gray Notebook will take into account the dynamics of the newly enacted legislation and the impact on this account. Our preliminary analysis indicates that the account is in a positive cash position for the current biennium as well as by the end of the ten-year period.

Program Management Information

Right of Way Acquisition

In 2004, WSDOT acquired 180 parcels on 23 projects funded by the 2003 Transportation Package. Fourteen projects have completed acquisition. Twenty-eight additional cases were sent to the Attorney General's Office for condemnation (see page 20 in the June 30, 2004 *Gray Notebook* about the condemnation process). The condemnation rate was six percent, slightly below the 2001-2003 seven percent rate but still above the historical five percent.

For 2005, 150 parcels on 12 Nickel projects will be needed in advance of project advertisement dates. In addition, work is underway to acquire about 195 parcels on 14 Nickel projects for advertisement in 2006.

The Completed Right of Way Acquisition in 2004
I-5, 2nd Street Bridge – Replace Bridge
I-5, NE 175th St to NE 205th St – Northbound Lane
U.S. 12/SR 124 to McNary Pool – Add Lane
SR 16, 36th to Olympic NW – HOV
SR 16, HOV Improvements, Union to Jackson
SR 24, I-82 to Keys Road
SR 31, Metaline Fall to International Border
SR 161, 204th to 176th Street
U.S. 395, NSC – Francis Avenue to Farwell Road
SR 527, 132nd St. SE to 112th St. SE
I-5, Pierce County Line to Tukwila
SR 16, HOV Improvements – Union to Jackson Avenue
SR 240/I-182 to Richland Y – Add Lanes
SR 240, Richland Y to Columbia Center Interchange

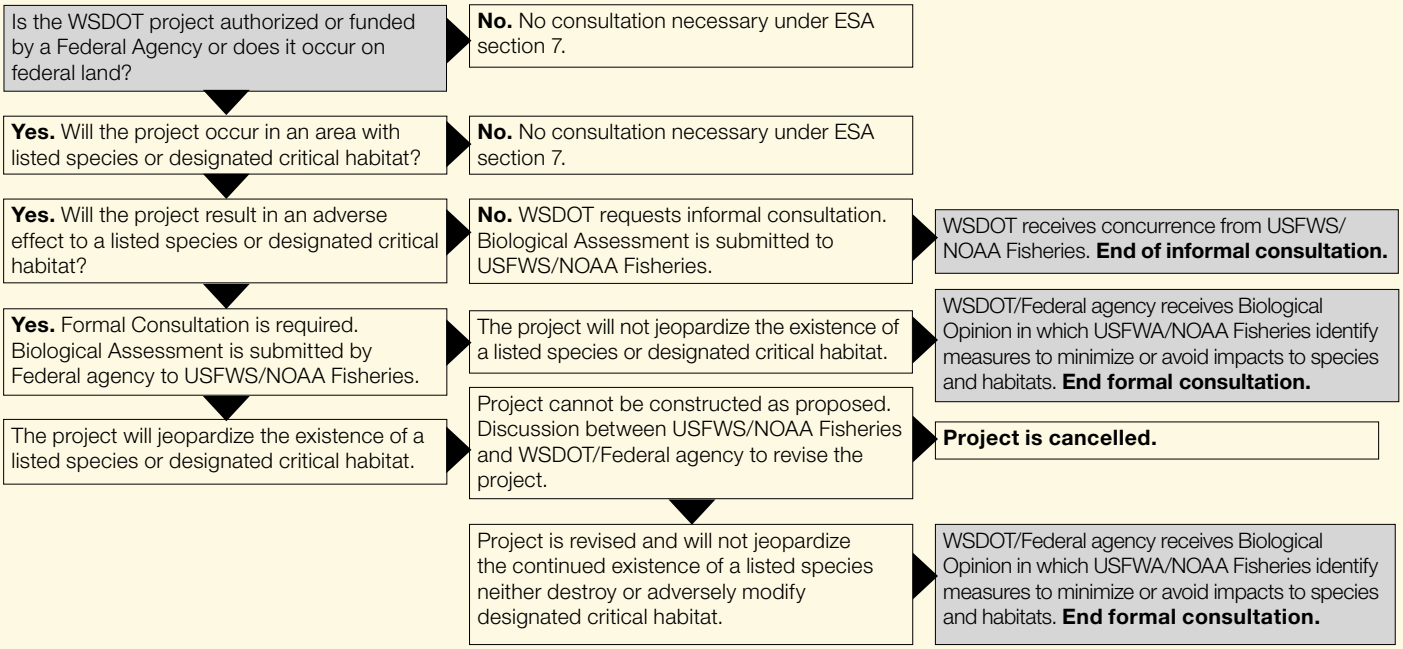
Projects that will Complete Right of Way Acquisition in 2005
I-5 HOV Improvements, S 48th to Pacific Avenue
SR 543, I-5 to International Boundary – Additional Lanes
I-5, SR 526 to Marine View Drive, HOV
I-5, Port of Tacoma to King County Line
SR 9, Nooksack to Cherry
U.S. 12, Attalia Vicinity
I-90 Moses Lake Area Bridge Clearance
SR 270, Pullman to Idaho State Line
SR 516, 208th SE and 209th SE Channelization
SR 9, SR 522 to 212th St. SE Widening (Stages 1B and 2)
SR 202, SR 520 to Sahalee Way (Stage 2)
SR 539, Horton to Tenmile Road

Program Management Information

Environmental Documentation, Review, Permitting, and Compliance

The Endangered Species Act (ESA) requires all projects with federal funds or permits to undergo consultation with the US Fish and Wildlife Service (USFWS) and/or the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries). WSDOT must evaluate the effects that a project will have on listed species. Projects with no effect on listed species do not need to undergo consultation. Projects that may affect listed species must undergo either informal or formal consultation.

ESA Consultation Process: US Fish and Wildlife and NOAA Fisheries



Compliance with the Endangered Species Act

2003-2005 Biennium Construction Season

Seven Nickel projects remain to be advertised for construction this biennium according to WSDOT's delivery plan. Five of these projects have completed their Endangered Species Act consultation. Two projects are being managed to advertisement by local agencies and their Endangered Species Act status is unknown.

Compliance with the Endangered Species Act Status for 7 Projects 2003-2005 Biennium	Number of Projects
Endangered Species Act consultation complete	5
Local project – ESA processing by local government	2

Projects with Completed Consultation Process:

SR 7/SR 507 to SR 512 - Safety

SR 3/SR 303 Interchange (Waaga Way) - New Ramp

SR 9/SR 522 to 212th St. SE

SR 9/228th St SE to 212 St. SE

SR 99, Aurora Ave N Corridor Project

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Program Management Information

Environmental Documentation, Review, Permitting, and Compliance

2005-2007 Biennium Construction Season
WSDOT has completed 21 and started the consultation process on 20 of the 67 Nickel projects for the 2005-2007 construction season. Two projects, (*U.S. 12 Attalia Vicinity - Add Lanes, and SR 522 Interchange*) will be undergoing formal consultation.

ESA Compliance Status for 67 Projects 2005-2007 Biennium	Number of Projects
Endangered Species Act consultation complete	21
Biological Assessment underway	20
Projects lack sufficient information to start the consultation process	26
Local Project- ESA processing by local government	0

Projects with Consultation Completed:

SR 4 Svensen's Curve – Realignment
I-5 Core HOV-S.48th to Pacific Ave
I-5/SR 526 to Marine View Drive
SR 9 Schloman Road. Vicinity - 256th St. E Vic
SR 9, 108th Street NE (Lauck Road)
SR 9, Nooksack Rd Vicinity to Cherry St
SR 16 Burley Olalla Intersection
SR 20/Ducken Road to Rosario Road
SR 20/Fredonia to I-5 – Widening
SR 22/I-82 to McDonald Road
I-90 Moses Lake Area – Bridge Clearance
I-405/SR520 to SR 522
SR 522, UWBCC Campus Access
I-90/Seattle to Mercer Island
SR 167/NB Ramps to Ellingson Road Signal and Ramp Install
I-205 Mill Plain Exit (112th Connector)
SR 519 Intermodal Access Project
SR 539/Tenmile Road to International Boundary
SR 270/ Pullman to Idaho State Line
SR 167, 15th St SW to 15th St NW – HOV
SR 516, 208th and 209th Ave SE

Ferry and Rail Projects 2005-2007 Construction Season
Ferry and Rail projects follow the same consultation process that highway construction projects follow. Two ferry projects (Anacortes Terminal Building and the Mukilteo Multimodal Ferry) are scheduled for the 05-07 biennium and both have begun preparing Biological Assessments.

Three rail projects (*Mt. Vernon Siding Upgrade, Bellingham - Georgia Pacific Area Upgrades, PA Junction Curve Realignment and Delta Yard Storage Tracks*) scheduled for the 05-07 biennium will now have the consultation process conducted by Burlington Northern Santa Fe Railway.

Multi-Agency Permitting Team (MAP Team)

The MAP Team is an interagency project designed to demonstrate how WSDOT and regulatory agencies can work together to meet transportation and environmental goals. It is made up of specialists from WSDOT, Department of Ecology, Fish and Wildlife, the U.S. Army Corps of Engineers, and King County Department of Development and Environmental Services. As a result of this effort, WSDOT is getting a more consistent, predictable, and accountable permitting process.

Status of MAP Team Projects
Of the 52 projects formally assigned to the MAP Team, 18 are Nickel projects. Two examples of permitted projects are below.

I-5, SR 526 to Marine View Drive
The MAP Team helped WSDOT's design team develop strategies that reduced environmental impacts and addressed schedule risks. The project received all permits in 54 days, well ahead of the April 2005 due date.

SR 9, SR 522 to 212th St. SE (Stage 1B and 2)
WSDOT's permit application for this project was late. This put real pressure on the permit processing time lines to minimize or avoid schedule slippage. Due to the good working relationships on the MAP Team between WSDOT staff and the staff of the resource agencies, collaborative efforts with WSDOT's project designers led to strong strategies to manage risks to the permits. The turnaround times were prompt, and all but three months of potential slippage in the ad date was recovered. As a result, this project will not miss the construction season. Permits should be completed by mid-April.

Program Management Information

Construction Safety Information

This section of the *Beige Pages* tracks the job site safety record on the 2003 Transportation Funding Package projects. All recordable injuries are recorded for both WSDOT personnel and the contractors engaged by WSDOT to perform the 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 death and work related illness and injury that results in death, loss of consciousness, days away from work, days of restricted work or medical treatment beyond first aid.

Crew members work safely while preparing to pour a concrete foundation for a new sign bridge.

Number of Recordable Injuries

Project and Project Team: Contractor and WSDOT Project Engineer	Oct.-Dec. 2004	Jan.-March 2004
I-5/Salmon Creek to I-205 (Hamilton Construction and Donald Owings, P.E.)	0	0
SR 500/NE 112th St. Gher Rd. Interchange (Tapani UnderGround and Chuck Ruhsenberger, P.E.)	0	0
I-90/Argonne Rd to Sullivan Rd. (Scarsella Bros Inc. and Darrel McCallum, P.E.)	1	0
I- 90/Highline Canal to Elk Heights (Scarsella Bros. Inc. and Paul Gonseth, P.E.)	Complete	Complete
I-90/Ryegrass Summit to Vantage (Superior Paving Co. and Will Smith, P.E.)	0	0
I-182/U.S. 395 Interchange - Roadside Safety	Completed	Complete
SR 124/East Jct. SR 12 - Reconstruction/Curve	Completed	Complete
SR 9/SR 528 Intersection - Signal (Signal Electric Inc. and Marlin Lennssen, P.E.)	0	0
U.S. 97A, Wenatchee North - Paving (Basin Paving Co. and Terry Mattson, P.E.)	0	0
U.S. 395/Kennewick Variable Message Sign (Colvico Inc. and Moe Davarri, P.E.)	Complete	Complete
SR 527, 132nd St. SE to 112th St. SE (KLB Construction Inc. and Marlin Lennsen, P.E.)	2	1
U.S. 395, NSC - Farwell Road Lowering (Max J. Kuney Co. and Robert Hilmes, P.E.)	0	0
SR 161/234th St TO 204th St. E (Scarsella Bros. Inc. and Howard Diep, P.E.)	0	1
SR 16/6th Ave. to Jackson Ave. - HOV (Tri-State Construction, Inc. and Dave Zeigler, P.E.)	Data Not Available	0
SR 203, NE 124th/Novelty Rd. Vic. Roundabout (Wilder Construction Co. and Brian Dobbins, P.E.)	0	0
I-90/Cle Elum River Bridge 90/134 N (Diamaco Inc. and Paul Gonseth, P.E.)	0	0
I-5/Federal Way-S 317th St. HOV (Icon Materials and John Chi, P.E.)	0	1
SR 14, West Camas Slough Bridge (Peterson Brothers Inc. and Donald Owings, P.E.)	Complete	Complete
I-90, Sullivan Rd to Idaho State Line - phase two (Inland Asphalt Co. and Darrel McCallum, P.E.)	0	0
I-5, 2nd St. Bridge Replacement (Mowat Construction Co. and Dave Chrisman, P.E.)	0	2
SR 543, I-5 to International (Condon- Johnson and Associates and Mark Russell, P.E.)	Complete	Complete
SR 21, SR 25/31 Guardrail (Peterson Brothers Inc. and Ken Olson, P.E.)	0	0
SR 18, Covington Way to Maple Valley (Terra Dynamics Inc. and Derek Case, P.E.)	1	0
I-90, Geiger Rd. to U.S. 2 Median Barrier (N.A. Degerstrom Inc. and Robert Hilmes, P.E.)	0	0
SR 240, SR 240/Yakima River Bridge (Wildish Standard Paving Co. and Moe Davari, P.E.)	0	1
SR 900/Newport Way to I-90 - Widening (Mowat Construction Co. and Dave Becher, P.E.)	0	0
SR 18/Maple Valley to Issaquah/Hobart Rd. (Guy F. Atkinson Co. and Derek Case, P.E.)	0	0
SR 528/SR 529 Paving/Columbia Ave. to 55th (Wilder Construction Co. and Marlin Lennsen, P.E.)	0	0
U.S. 12/SR 124 to McNary Pool - Irrigation Work (Ray Poland and Sons and Moe Davari, P.E.)	0	0
SR 31, Metaline Falls to the International Border (M.A. Deatley Construction and Robert Hines, P.E.)	0	0
SR 161, Jovita Blvd. to S 360th St. (Tri-State Construction and Messay Shiferaw, P.E.)	Prior to Start	1
U.S. 12, SR 124 to McNary Pool (Steelman-Duff, Inc and Will Smith, P.E.)	Prior to Start	5
I-5, NE 175th St. to NE 205th St. (Pacific Road and Bridge and Amir Ahmadi, P.E.))	Prior to Start	0
SR 161, 204th St. to 176th St. (Scarsella Brothers and Howard Diep, P.E.)	Prior to Start	0
SR 16, 36th St. to Olympic Drive (Woodworth & Company and Dave Zeigler, P.E.)	Prior to Start	1
I-5, Roanoke Vicinity Noise Wall	Data Not Available	0

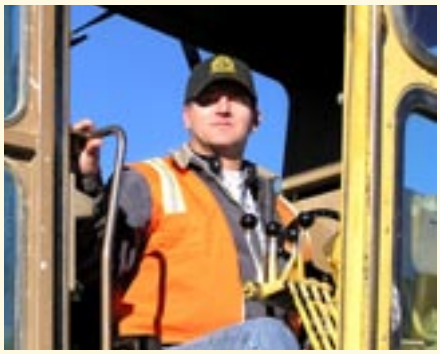
Note: This quarter, for the first time, there are more than three projects with injuries. In one case there are more than two injuries on a project. The majority of of all injuries reported on this page were minor sprains and strains. However, one was a more severe injury.

Program Management Information

Construction Employment Information

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

WSDOT has asked construction contractors 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.



Paul Day of Scarsella Brothers operates machinary.

Average Number of Workers Employed by Prime and Subcontractors

Project/Contractor	Oct. - Dec. 2004	Jan.- March 2004
I-5/Salmon Creek to I-205 (Hamilton Construction and its 50 Subcontractors)	38	26
SR 500/NE 112th St. Gher Rd. Interchange (Tapani UnderGround)	29	Complete
I-90/Argonne Rd. to Sullivan Rd. (Scarsella Bros. and its 26 Subcontractors)	26	6
I- 90/Highline Canal to Elk Heights (Scarsella Bros.)	Complete	Complete
I-90/Ryegrass Summit to Vantage (Superior Paving and its Subcontractors)	16	Complete
I-182/U.S. 395 Interchange - Roadside Safety (Transtate Paving Co.)	Completed	Complete
SR 124/East Jct. U.S. 12 - Reconstruction/Curve (Transtate Paving Co.)	Completed	Complete
SR 9/SR 528 Intersection - Signal (Signal Electric and its 8 Subcontractors)	1	No work
U.S. 97A, Wenatchee North - Paving (Basin Paving)	1	Complete
U.S. 395/Kennewick Variable Message Sign (Colivico)	Complete	Complete
SR 527, 132nd St. SE to 112th St. SE (KLB Construction and its 37 Subcontractors)	22	31
U.S. 395, NSC - Farwell Road Lowering (Max J. Kuney and its 16 Subcontractor)	19	12
SR 161/234th St to 204th St. E (Scarsella Bros. and its 18 Subcontractors)	20	7
SR 16/6th Ave to Jackson Ave. - HOV (Tri-State Construction)	12	Complete
SR 203, NE 124th/Novelty Rd. Vic. Roundabout (Wilder Construction and its 26 Subcontractors)	4	No work
I-90/Cle Elum River Bridge 90/134 N (Diamaco Inc.)	2	Complete
I-5/Federal Way - S 317th St. HOV (Icon Materials and its 35 Subcontractors)	27	45
SR 14, West Camas Slough Bridge (Peterson Brothers and its Subcontractors)	Complete	Complete
I-90, Sullivan Rd to Idaho State Line - phase two (Inland Asphalt and its 9 Subcontractors)	1	No work
I-5, 2nd St. Bridge Replacement (Mowat Construction and its 23 Subcontractors)	20	18
SR 543, I-5 to International (Condon-Johnson and Associates)	Complete	Complete
SR 21, SR 25/231 Guardrail (Peterson Brothers and its 1 Subcontractor)	35	8
SR 18, Covington Way to Maple Valley (Terra Dynamics and its 1 Subcontractor)	1	No work
I-90, Geiger Rd to U.S. 2 Median Barrier (N.A. Degerstrom and its Subcontractors)	2	Complete
SR 240, SR 240/Yakima River Bridge (Wildish Standard Paving and its 4 Subcontractors)	22	15
SR 900/Newport Way to I-90 - Widening (Mowat Construction and its 56 Subcontractors)	27	2
SR 18/Maple Valley to Issaquah/Hobart Rd (Guy F. Atkinson and its 40 Subcontractors)	60	40
SR 528/SR529 Paving/Columbia Ave. to 55th (Wilder Construction and its 10 Subcontractors)	1	No work
U.S. 12, SR 124 to McNary Pool - Irrigation Work (Ray Poland and Sons)	5	Complete
SR 31, Metaline Falls to International Border (M.A. Deatley Construction and its 8 Subcontractors)	3	8
SR 161, Jovita Blvd. to S 360th St. (Tri-State Construction and its 14 Subcontractors)	Prior to Start	2
U.S. 12, SR 124 to McNary Pool (Steelman-Duff, Inc and its 13 Subcontractors)	Prior to Start	31
!-5, NE 175th St. to NE 205th St. (Pacific Road and Bridge and its 15 Subcontractors)	Prior to Start	1
SR 161, 204th St. to 176th St. (Scarsella Brothers and its 9 Subcontractor)	Prior to Start	No work
SR 16, 36th St to Olympic Drive (Woodworth & Company and its 7 Subcontractors)	Prior to Start	No work
I-5, Roanoke Vicinity Noise Wall (Mowat Construction and its 4 Subcontractors)	Data Not Available	5

Worker Safety: Quarterly Update

Recordable Injuries for WSDOT Workers

Maintenance Workers

This quarter, WSDOT experienced the second lowest injury rate (5.63) for maintenance workers in three years. Twenty-one recordable injuries/illnesses were reported during the quarter, accounting for 200 lost workdays. Thirty-eight percent of injuries resulted in no lost workdays and 62% resulted in four or fewer lost workdays. One injury accounted for 36% of all lost workdays. Sprains and strains accounted for 42% of maintenance worker injuries; dislocations and occupational illnesses accounted for 33% of injuries.

Highway Engineering Workers

There were 11 recordable injuries and illnesses reported for engineering workers during the quarter. These injuries accounted for 74 lost workdays. Eighty-two percent (nine injuries) resulted in three or fewer lost workdays. Of those nine injuries, four resulted in no lost workdays. Although there were 74 lost workdays from all engineering worker injuries, two injuries accounted for 88% of those lost workdays. Contusions, occupational illnesses[1] and sprains/strains accounted for 63% of occupational injuries/illness.

[1]Occupational illnesses include repetitive stress injuries (e.g., carpal tunnel), hearing loss and long term exposure to chemicals (e.g., exposure to environmental conditions) These are typically chronic injuries that take years to develop.

Ferry Vessel Workers

Twenty-seven recordable injuries and illnesses were reported for ferry vessel workers during the quarter. These injuries accounted for 545 lost workdays. Only five injuries resulted in three or fewer lost workdays. There were approximately 20 lost workdays per ferry vessel worker injury. Spinal/back injuries accounted for 33% of all injuries, and knee or leg injuries accounted for 26%. Many of this quarter's back and shoulder injuries occurred while handling lines and manipulating "car-blocks".

The only national category comparable to WSDOT Ferry Vessel Workers is Water Transportation Group 44, from the Occupational Safety and Health Administration, with 7.0 recordable injuries per 100 workers. This category includes a wide range of employers such as towing, long haul shipping, and marina dock workers - categories that have lower injury rates due to less frequent docking activities. Many injuries occur at the dock. WSDOT ferry workers experience 300,000 landings and unloadings per year compared to several hundred for deep water shippers.

In next quarter's *Gray Notebook,* an updated set of national benchmarks, from the U.S. Bureau of Labor Statistics, will be presented.

[2] "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.

WSDOT Highway Maintenance Workers

Recordable Injuries[2] 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	
Qtr 3	8.1	8.4	7.05	
Qtr 4	7.0	6.2	9.6	
Total	27.1	28.3	34.6	5.6
Qtrly. Average	**6.8**	**7.1**	**8.6**	**5.6**

Benchmark = 8.2

WSDOT Highway Engineering Workers

Recordable Injuries[2] 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	
Qtr 3	3.4	1.5	0.9	
Qtr 4	2.1	1.6	2.8	
Total	10.7	5.8	6.4	2.1
Qtrly. Average	**2.7**	**1.5**	**1.6**	**2.1**

Benchmark = 1.7

WSDOT Ferry Vessel Workers

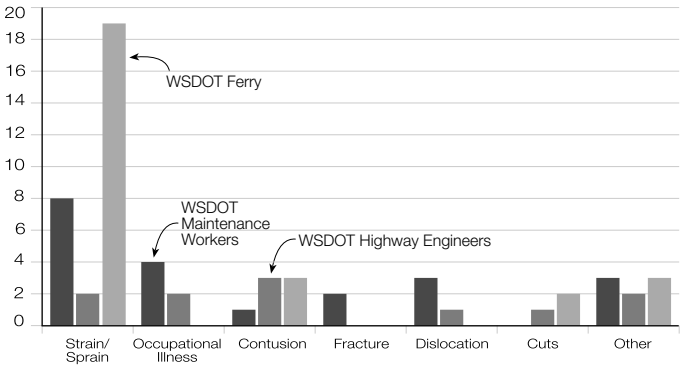
Recordable Injuries[2] per 100 Workers per Calendar Year

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

Benchmark = 7

Number of Work Injuries by Type

January 2005 through March 2005



Source for all charts: WSDOT Safety Office

Worker Safety: Quarterly Update

Prevention Activities

Lead Awareness Program

Protecting employees from lead and other heavy metal exposures is an important part of WSDOT's worker safety program. WSDOT bridge maintenance employees, bridge inspectors, and contractors can be exposed to heavy metals while doing routine maintenance and repair of steel bridges that are coated with lead and zinc-based paints. Including marine transfer spans in the ferry system, WSDOT has approximately 300 painted steel bridges.

Inhalation or ingestion of airborne lead can occur during activities such as seismic retrofitting of bridges, steel rail repairs, steel replacement, preparation for painting, and bridge inspection. Occupational exposure to these heavy metal paints can be hazardous to workers as well as their families.

WSDOT is required to update and evaluate its lead awareness program annually. This evaluation emphasizes exposure prevention through training, hazard recognition, the use and care of personal protective equipment, medical surveillance (employee blood-lead testing and/or a physical examination), and exposure monitoring and hazard assessment work.

Employee blood-lead testing is a primary indicator to evaluate the effectiveness of WSDOT's program. In 2004, employees who were tested had blood lead levels ranging from less than 3.0 micrograms per deciliter (*ug*/dl) to 14.8 (*ug*/dl), well below the 40.0 (*ug*/dl) criteria contained in WAC 296-155-176 safety rules and standards.

Background Information

When lead is scattered in the air as dust, fumes, or mist it can be inhaled and absorbed through the lungs and upper respiratory tract. A significant portion of the lead that a worker inhales or ingests gets into the blood stream. Once in the blood stream, lead is circulated throughout the body and stored in various organs and body tissues. Although some of this lead is quickly filtered out of the body and excreted, some remains in the blood and other tissues. If exposure to lead continues, the amount stored in the body will increase if more lead is being absorbed than the body is eliminating.

Source: OSHA website - www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10642

WSDOT Bridge Maintenance Personnel at the construction of the Bailey Bridge, a safety training exercise.

Training to Reduce Collisions

Nationwide as well as in Washington, vehicle accidents are a leading cause of on-the-job injuries and fatalities. In 2004, the state Office of Financial Management created a requirement that state agencies provide driver safety training to address work-related vehicle and equipment collisions and injuries.

In March 2005, WSDOT began offering employees driver safety training. This program emphasizes how to "maintain a good attitude while on the road, stay focused on driving and ignore distractions, actively seek hazard information, and allow time to react to hazards."

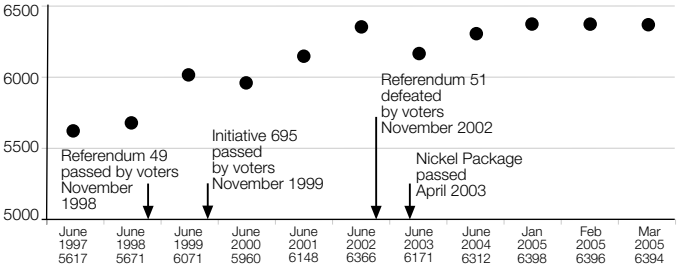
An estimated 2000 WSDOT employees will receive driver safety training over the next several years. WSDOT will continue to track accident data to evaluate whether the training leads to reduced employee collisions.

Workforce and Training: Quarterly Update

WSDOT Workforce Levels Statistics

One indicator of the agency's workforce size is the current number of permanent full-time employees on staff. The accompanying chart 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 has remained relatively stable last quarter at 6,394. This is also only a slight increase from 6,385 at the end of the previous quarter from October to December 2004.

Number of Permanent Full-Time Employees at WSDOT



Source: WSDOT Office of Human Resources

Statutorily Required Training for Maintenance Employees
January-March 2005

Safety Courses	Workers Requiring Training	Completed Basic Training to Date	Workers Needing Basic Training		Workers Needing Refresher Training		Completed Basic Training this Quarter	Completed Refresher Training this Quarter	Total in Compliance (Basic and Refresher)	
Blood Borne Pathogens[2]	632	547	85	13%	277	51%	12	149	270	43%
First Aid	1482	1395	87	6%	99	7%	4	93	1296	87%
Hearing Conservation	1345	1214	131	10%	727	60%	6	133	487	36%
Personal Protective Equipment	1362	982	380	28%	0	0%	70	0	982	72%
Fall Protection	767	602	165	22%	0	0%	30	0	602	78%
Flagging & Traffic Control	1131	1096	35	3%	71	6%	5	118	1025	91%
Maintenance Courses										
Drug Free Workplace	317	269	48	15%	0	0%	2	0	269	85%
Forklift[1]	1145	1005	140	12%	0	0%	111	0	1005	88%
Hazardous Materials Awareness	1001	752	249	25%	459	61%	14	42	293	29%
Aerial Lift	206	97	109	53%	0	0%	0	0	97	47%
Bucket Truck	303	223	80	26%	0	0%	0	0	223	74%
Excavation, Trenching & Shoring	407	285	122	30%	0	0%	0	0	285	70%

[1] Forklift refresher training is no longer required.

[2] The base number of employees requiring Blood Borne Pathogens training changed from 918 to 632 this quarter due to changes in the Washington Administrative Code (WAC 296-823).

Required Training for all WSDOT Employees
January-March 2005

Training Courses	Workers Requiring Training	Completed Basic Training to Date	Workers Needing Basic Training		Workers Needing Refresher Training		Completed Training this Quarter	Total in Compliance	
Disability Awareness[1]	7351	1685	5666	77%	0[3]		208	1685	23%
Ethical Standards [2]	7351	6982	369	5%	1357	18%	915[5]	5625	77%
Security Awareness - all employees	7351	5410	1941	26%	N/A[4]		0	5410	74%
Security Awareness - supervisors	3222	2291	931	29%	N/A[4]		0	2291	71%
Sexual Harassment/Discrimination[1]	7351	4058	3293	45%	0[3]		149	4058	55%
Valuing Diversity[1]	7351	2537	4814	65%	0[3]		151	2537	35%
Violence that Affects the Workplace	7351	5597	1754	24%	N/A[4]		0	5597	76%

Source: WSDOT, Office of Human Resources, Staff Development

NOTE: [1] OEO Diversity training was revised into three classes (Disability Awareness, Sexual Harassment/Discrimination and Valuing Diversity) in June 2002, and only these revised classes are currently reported. Employees who completed the previous versions of OEO Diversity training are not required to attend revised training classes until five years from the anniversary date of the classes taken. [2] Refresher training for Ethical Standards is reported for the first time in this issue. [3] Interval for refresher training (three years) has not been reached; [4] No refresher training required; [5] Includes refresher and basic training

Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

Project Advertisements - Biennium to Date

The Highway Construction Program is the largest capital program in the Transportation Budget. Planned expenditures for the 2003-2005 biennium are approximately $2.1 billion. Overall delivery of the Highway Construction Program is tracked against schedule for advertisement dates and against projected cash flow for construction progress. Funding for the 2003-2005 Highway Construction Program includes a variety of fund sources, including Pre-Existing Funds, 2003 Transportation Funding Package (Nickel) funds, and Tacoma Narrows Bridge funds. The program includes a commitment to advertise 345 projects during the current biennium, of which 46 are Nickel projects and 299 are funded with Pre-Existing Funds.

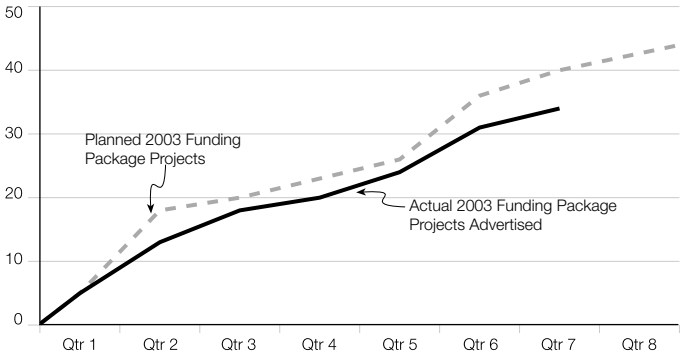
To Date: 2003 Transportation Funding Package (Nickel Funds)

The graph below shows Nickel Projects advertised to date. For detailed information on Nickel Projects, see page 4, "Summary of Project Advertisements, Awards and Completions" of the *Beige Pages*.

Highway Construction Program Advertising

2003 Transportation Funding Package (Nickel Funds)

Planned vs. Actual Number of Projects Advertised
2003 - 2005 Biennium, Quarter 7 ending March 31, 2005
Project Count



Previous *Gray Notebooks* reflected that the number of planned advertised projects for the highway construction program was modified after the adoption of the 2004 Supplemental Transportation Budget. This was an error. This quarter's chart correctly reflects the original planned advertisements from the 2003 Transportation Budget including the reduction of two planned projects turned over to local agencies.

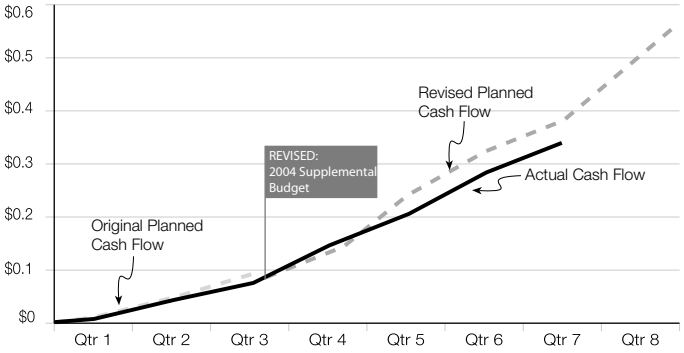
Cash Flow on the 2003 Transportation Funding Package (Nickel Funds)

Expenditures for highway projects through the quarter ending March 31, 2005 were $340 million of the planned $384 million. Currently, expenditures using the 2003 Transportation Funding Package vary from planned expenditures by 11%. Twenty-seven percent of the entire biennium's budgeted cash flow is scheduled to occur during the eighth quarter of the biennium.

Cash Flow on Highway Construction Projects

2003 Transportation Funding Package (Nickel Funds)

Planned vs. Actual Expenditures
2003 - 2005 Biennium, Quarter 7 ending March 31, 2005
Dollars in Billions



Source for all graphs: WSDOT Project Control and Reporting Office

Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

To Date: Pre-Existing Funds Projects

Pre-Existing Funds project advertisements through the quarter ending March 31, 2005 were 207 of the planned 249, or 84% of the "planned" projects. Of the 44 planned advertisements for the seventh quarter, 21* were advertised as scheduled, one deleted, and 22 delayed. Additionally, six projects delayed from previous quarters and one project scheduled for the eighth quarter were advertised.

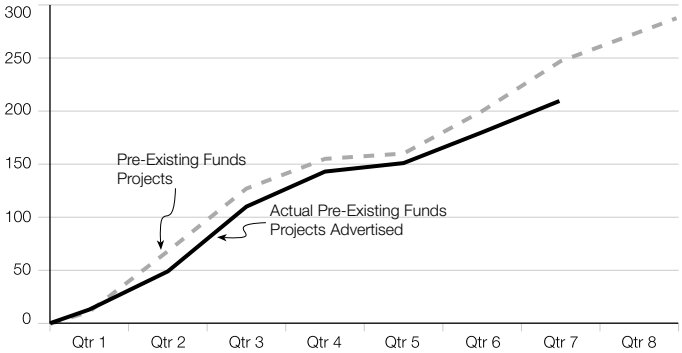
There are nine projects where the contracting agency is not WSDOT and the advertisement is the responsibility of another governmental agency. These are not counted in the total or included in the chart. An example of this type of project is one where a local government receives funds from WSDOT and the local agency designs or constructs the project. These projects are monitored, but not shown on the table because their schedules are not in WSDOT's control.

The table below summarizes the delivery status to date of all projects advertised this biennium using Pre-Existing Funds (PEF). The summary includes the safety improvement projects discussed on page 35 and project delivery accomplishments within this quarter. The summary does not include projects stipulated in the 2003 Transportation Funding Package. For those projects see the previous page and special reports in the *Beige Pages*.

Highway Construction Program Advertisements

Pre-Existing Funds Projects

Planned vs. Actual Number of Projects Advertised
2003 - 2005 Biennium, Quarter 7 ending March 31, 2005
Project Count

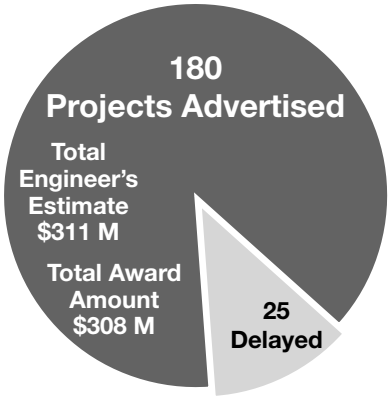


Previous *Gray Notebooks* reflected that the number of planned advertised projects for the highway construction program was modified after the adoption of the 2004 Supplemental Transportation Budget. This was an error. This quarter's chart correctly reflects the original planned advertisements from the 2003 Transportation Budget including the reduction of nine planned projects turned over to local agencies.

Source for all graphs: WSDOT Project Control and Reporting Office

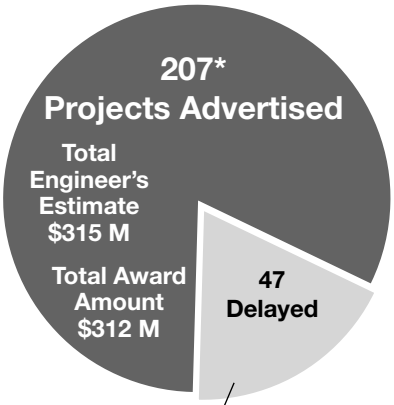
Pre-Existing Funds Projects: A Snapshot of Quarterly Progress and Total Progress to Date

End of Last Quarter
December 31, 2004



Projects Advertised	Projects Through Last Quarter	This Quarter's Progress	Biennium to Date Total
As Scheduled	124	21	145
Project Ads Early	14	1	15
Project Ads Late	38	5	43
Emergency Projects	4	0	4
Total Advertised	**180**	**27**	**207**
Projects Delayed			
Still within the bienniun	17	5	22
Out of the biennium (deferred)	8	17	25
Total Delayed	**25**	**22**	**47**
Projects Deleted			
Projects Deleted	3	1	4
Total Deleted	**3**	**1**	**4**

End of This Quarter
March 31, 2005



These projects have been delayed due to challenges with:

- **Environmental Permitting**
- **Right of Way Acquisition**
- **Changes in Design**
- **Consolidating Projects for Efficiency**

* Total includes I-405/NE 44th St. Vicinity project that was originally planned for advertisement in quarter 7 but was completed in quarter 1.

Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

Pre-Existing Funds projects scheduled for the eighth quarter but advertised early in the seventh quarter (see page 35 for Safety projects):

I-205/SR 500 to I-5 Dowel Bar Retrofit

Thirteen Pre-Existing Funds projects that were scheduled and advertised for the seventh quarter:

SR 107/SR 101 to Chehalis River – Paving

SR 539/Kellogg Road to Horton Road – Paving

SR 9/Cherry Street to International Boundary – Paving

SR 3/Imperial Way to Sunnyslope – Paving

SR14/U.S. 97 to Benton County Line

SR 9/SR 204 Vicinity to 60th Street NE – Paving

SR 522/NE 147th Street to Swamp Creek Bridge

U.S. 2/Bridge 522/150 Vicinity to Woods Creek Bridge 2/22

SR 542/Nooksack River Bridge to Coal Creek Bridge

I-405/NE 44th Street Vicinity[1]

U.S. 101/Pacific County Line to Vicinity Lund Road

SR 104/244th St. SW to 22nd Ave. – Paving

SR 202/SR 522 to Sammamish River Bridge – Paving

Two Pre-Existing Funds projects that were delayed, but advertised in the seventh quarter:

SR 161/255th Street East to 176th Street East

SR 9, Lake Stevens Weigh Station

Five delayed Pre-Existing Funds projects for the seventh quarter advertisements:

U.S. 2/Houston Ave to Center Road – Paving

This advertisement is being delayed four months from January 2005 to May 2005 in order to gain efficiencies by combining this project with the Spokane Area ITS Integration scheduled for advertisement in May 2005. This delay should not affect the construction schedule for this project.

SR 164/SE 436th Street to High Point Street – Paving

This advertisement is being delayed four months from January 2005 to May 2005. Additional time is needed to obtain King County approval for acquiring a wetland mitigation parcel. The parcel is required in order to receive an environmental permit from the U.S. Army Corps of Engineers. This delay should not affect the construction schedule for this project.

SR 524/I-5 to Floral Hills Cemetery Vicinity – Paving

This advertisement is being delayed two months from February 2005 to April 2005. Additional time is needed to analyze bridge rail options and complete necessary local agency agreements. However, the construction schedule will be completed in 2006 which is one year earlier than originally planned because only one construction is needed to complete this project.

SR 524/Floral Hills Cemetery to Richmond Road Vicinity – Paving

The advertisement is being delayed three months from January 2005 to April 2005. The delay is due to issues with companion project SR 524/I-5 to Floral Hills Cemetery Vicinity – Paving and local agency agreement coordination delays. This delay should not affect the construction schedule for this project.

SR 203/NE Big Rock Road to Slough Bridge Vicinity

The advertisement is being delayed three months from January 2005 to April 2005. Further on-site investigation determined additional pavement sections needed repair. Additional time is needed to incorporate the new sections in the design plans prior to advertising the project. This delay should not affect the construction schedule for this project.

Thirteen Pre-Existing Funds projects deferred during the seventh quarter:

There were two Pre-Existing Funds paving projects scheduled for advertisement that were deferred to 2007 in order to balance the paving program with available revenue. Additionally, deferring these projects to 2007 will bring them in closer alignment with their predicted lowest life-cycle-cost due year for pavement rehabilitation.

SR 546/SR 539 to SR 9 – Paving

SR 509/Slayden Road to King County Line – Paving

1. Total includes I-405/NE 44th St. Vicinity project that was originally planned for advertisement in quarter 7 but was completed in quarter 1.

Meeting WSDOT's Scheduled Advertisement Dates

There were five Pre-Existing Funds unstable slope projects scheduled for advertisement that were re-prioritized and deferred to future biennia in order to balance the statewide unstable slope program to available funding.

I-5/SR526 Interchange – Unstable slope

SR900/64th Avenue South Vicinity – Unstable slope

I-90/Bellevue City Limits Vicinity – Unstable slope

SR 2/Index-Galena Road Vicinity – Unstable slope

I-5/South 188th Street Interchange – Unstable slope

There were two Pre-Existing Funds slope stabilization projects on SR 169 that were deferred to the 2005-2007 biennium. In both cases, further field investigation determined the hill associated with the project sites needed to be cut back further in order to stabilize the hill side. Additional time is needed to redesign the project and acquire a property on the crest of the hill.

SR169/196th Avenue SE Vicinity – Slope Stabilization

SR169/SE Jones Road Vicinity – Slope Stabilization

SR 542/Boulder Creek Vicinity – Culvert Replacement
The advertisement is being deferred thirty months from February 2005 to August 2007. Hydraulic analysis of field survey data determined the roadway must be raised in order to provide the required hydraulic capacity in the new culvert. As a result more time is needed to obtain additional right of way and environmental permits.

SR 410/2.8 Miles West of Twin Creek – Culvert Repair
The advertisement is being deferred twenty-three months from January 2005 to December 2006. Further hydraulic and geotechnical evaluation determined the project design needed to be modified. Additional time is needed to complete the design, acquire right of way, and ensure the proposed solution receives concurrence from the Department of Fish and Wildlife and the Muckleshoot Nation. While the project is not located on the reservation, the Tribe has a strong interest in the fish stream located within their Usual & Accustomed Lands. WSDOT is currently meeting with Tribal biologists to discuss the proposed mitigation solutions to make sure WSDOT is addressing their concerns. These include modifying the fill to protect the outfall, constructing step ladders and creating several mini-pools to help the survivability of resident trout, and potential intensive future maintenance.

SR 20/Troxell Road to Cornet Bay Road – Shoulder Widening
The advertisement is being deferred eight months from February 2005 to October 2005. The City of Oak Harbor's funding for the agreed-upon relocation of a waterline has been delayed, but is anticipated in June 2005.

SR 522/City Street to Hall Road – Paving
The advertisement is being deferred twenty-six months from February 2005 to April 2007 to coordinate with a local agency project. The city of Bothell requested this paving project be combined with a city street widening project scheduled for 2007. The city of Bothell will be the lead agency for this combined project.

One Pre-Existing Funds project was deleted from the program during the seventh quarter:

SR20/Reservation Road Vicinity – Slope Stabilization
Further field analysis revealed that the wire mesh installed in 1994 was adequate and did not need to be replaced or modified.

Highway Construction Program

Improvement and Preservation Programs

Cash Flow on Pre-Existing Funds Projects

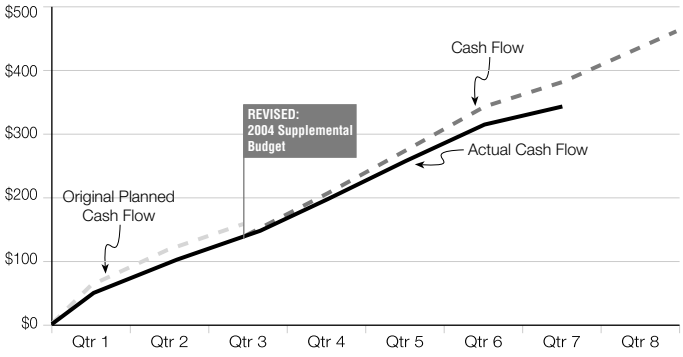
WSDOT submitted an expenditure plan to the Legislature for the first seven quarters of the biennium totaling approximately $915 million. As of March 31, 2005, actual expenditures totaled $839 million, leaving a variance of approximately $75 million or 8% from the plan. The chart shows a revision of the planned expenditures as a result of the adoption of the 2004 Supplemental Transportation Budget.

The 8% variance as of the end of the seventh quarter for the Highway Construction Program is divided between the Improvement and Preservation programs. The Preservation program is under plan by $40 million, or contributing to approximately 53% of the current cash flow variance. The Improvement program is under plan by approximately $35 million contributing to about 47% of the variance. The underspending in the Preservation program is principally due to the lag in planned expenditure for the Hood Canal Bridge. This lag was brought about by the situation at the Port Angeles Graving Dock that first slowed and then essentially stopped construction expenditure when WSDOT abandoned the intentions to develop the facility at the site in December 2004. See the December 31, 2004 *Gray Notebook* for more information.

Improvement Program Cash Flow

Pre-Existing Funds

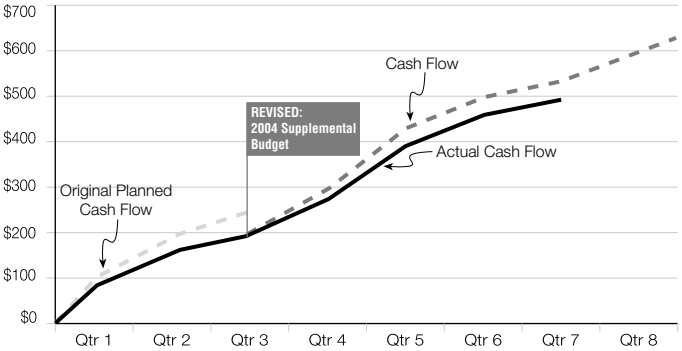
Planned vs. Actual Expenditures
2003 - 2005 Biennium through March 31, 2005
Dollars in Millions



Preservation Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures
2003 - 2005 Biennium through March 31, 2005
Dollars in Millions



Source: for all graphs WSDOTProject Control and Reporting Office

Highway Construction Program

Improvement and Preservation Programs

Pre-Existing Funds for Safety Improvements Program Projects: Quarterly Update

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.

Of the 12 safety projects scheduled for advertisement in the seventh quarter, eight were advertised on time and four were deferred to the 05-07 biennium. There were three safety projects delayed from a previous quarter advertised in the seventh quarter.

Eight safety projects were advertised in the seventh quarter:

SR 5/Southbound On Ramp from Broadway to CD

SR14/32nd Street Intersection Improvement

SR 305/Madison Avenue Intersection – Signal

SR 104/Junction SR 19 Intersection Safety

SR 302/Elgin-Clifton Road Intersection

U.S. 2/SR 522 to Woods Creek Bridge

U.S. 2/ 179th Avenue to Woods Creek Bridge

SR 18/Westbound to I-5 – Signage

Three safety projects were delayed from a previous quarter, but advertised in the seventh quarter:

SR 20/Fruitdale Road Intersection

SR 164/SE 368th Place and 158th Avenue SE

SR 530/Arlington Heights Road/Jordan Road

Four safety projects were deferred into a subsequent biennium during the seventh quarter:

In order to balance available funding for the safety program, WSDOT deferred four lower priority safety projects to future biennia.

SR 3/Imperial Way to Sunnyslope – Widening Safety
Deferred to 2009.

SR 522/NE 195th Street – Signal
Deferred to 2007.

SR 20/Ducken Road to Rosario Road – Channelization (Stage 2)
The advertisement is being deferred eight months from February 2005 to October 2005. Higher than originally anticipated costs in roadside restoration, guardrail replacement, and roadway excavation required this project to be split into two stages due to limited funding in 2005. Stage 1 will be advertised in October 2005 and Stage 2 has been deferred to October 2006.

SR 291/Nine Mile Road Safety Improvements
The advertisement is being deferred ten months from March 2005 to January 2006 due to delays in completing the environmental assessment document needed to begin right of way consultation.

Highway Construction Program

Hot Mix Asphalt for Awarded Contracts

In October of 2004, WSDOT forecasted that 1,779,826 tons of Hot Mix Asphalt (HMA) would be awarded in construction contracts through September 2005. This is a 34% increase in HMA tons forecasted compared to the previous year. This increase is caused, in part, by the passage of the 2003 Transportation Funding Package.

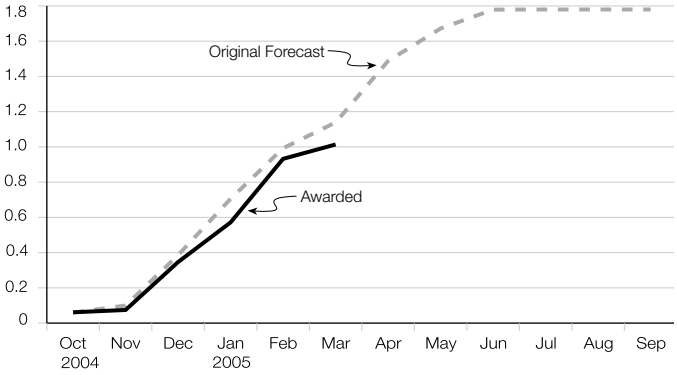
WSDOT forecasted that during the six months from October to March 63 projects would be awarded with a combined total of 1,138,613 tons of HMA (see project awarded on pages 4-5). At the end of March 2005 the total is 58 projects awarded with 1,013,610 tons of HMA. Of this amount, 11 are Nickel projects amounting to 436,585 tons. For more information on Nickel projects see pages 3-17.

A tack truck used for spraying oil on asphalt before paving.

Hot Mix Asphalt Pavement* - Tons Awarded

October 2004 through September 2005

Tons of Asphalt in Millions



** Graph indicates which month projects were awarded, not when HMA was placed.*
Source: WSDOT Construction Office.

Early paving project on South Tacoma Way.

MOVING WASHINGTON 100 YEARS 1905-2005
Washington State Department of Transportation

Tacoma Narrows Bridge Update

As of March 27, design-builder Tacoma Narrows Constructors (TNC) has completed 62.2% of construction on the SR 16 Tacoma Narrows Bridge project.

TNC crews continue to steadily build up the towers with 17-foot concrete lifts. They completed lower tower struts across the west and east towers, and began work on formwork for the middle struts. The east and west towers currently stand at 425 feet.

On the east anchorage, crews completed the interior diaphragms and splay walls, placed roadway approach girders, and poured the concrete top deck. On the west anchorage, crews placed the roadway approach girders, and completed the chamber wall, wingwalls, and diaphragm pours. These anchorage walls form a large room that will protect the main suspension cable as the cable splays into 19 bundles and attach themselves to the anchor rods.

On the roadway side, crews have successfully mitigated potential storm water runoff during the winter season by laying down ground covers and other erosion control measures. East of the bridge, crews constructed a retaining wall under the Jackson Street overpass, excavated and paved the new westbound Jackson Street onramp, began construction of a median retaining wall, and placed drainage. Crews placed the new WSDOT maintenance facility roofing, installed doors and windows, and began interior work. West of the bridge, work has steadily progressed with the toll facility. Crews completed paving the eastbound mainline between 36th and the toll plaza, placed the 112-foot canopy above six manual toll lanes and welded the truss into place, erected the covered walkway framework, and began roofing. Crews also finished exterior work and mechanical installs, and began placing drywall for the toll operations building.

Work has begun to upgrade the lateral bracing beneath the existing bridge deck. Overseas, work continues on fabricating bridge decking and components with several deck section sub-assemblies completed.

For additional information, including financial information, the project schedule, traffic information, photo library, live construction cameras and more, please visit: www.tacomanarrowsbridge.com.

Progress to Date

Percent Complete

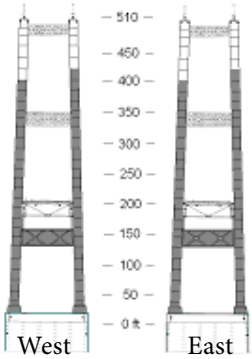
Design	99.9%
Construction	59.4%
Total[1]	**62.2%**

[1]Weighted 7% design progress and 93% construction progress.
Source: WSDOT Engineering and Regional Operations Division.

Tower construction.

East anchorage construction.

Bridge deck fabrication in Japan.



To date, tower construction is progressing as planned. With completion of lift 23 of the 28 lifts, the east and west towers currently stand at 425 feet.

Hood Canal Bridge Update

West end view of proposed bridge span

Pontoon Construction

In March, WSDOT announced three sites as possible locations for the construction of pontoons that will be used to replace the east half of the SR 104 Hood Canal Bridge. For more information on relocation needs see the December 31, 2004 *Gray Notebook*. After an initial engineering and environmental review of 18 site proposals, WSDOT began concentrating on developing plans for the three preferred sites – Mats Mats Bay north of Port Hadlock, Port of Everett South Terminal, and a combination of existing Puget Sound dry dock facilities proposed by FCB Facilities Team. WSDOT also continued to investigate the building of bridge anchors in Port Angeles with the project contractor, Kiewit-General of Poulsbo.

WSDOT will move immediately to discuss environmental and engineering work with FCB Facilities Team, which is a partnership involving the Concrete Technology graving dock on the Blair Waterway in Tacoma, Todd Shipyards located on Terminal Island in Seattle, and the AML/Duwamish Shipyard on the Duwamish Waterway. Concurrently, design and public outreach efforts will begin to support development of new facilities at Mats Mats Bay owned by Glacier Northwest and the Port of Everett South Terminal. Any consideration of other sites will be suspended until the next phase of work can be completed for the three preferred sites.

A report detailing WSDOT's analysis of each site proposal is available at the project web site, www.wsdot.wa.gov/projects/sr104hoodcanalbridgeeast. The report divides the 18 proposals into the likeliest construction locations, possible construction locations, less possible sites and unlikely sites.

Approach Span Replacement

SR 104 Hood Canal Bridge construction continues at the bridge site. In addition to ongoing west-end deck widening, the contractor will build new approach span roadways next to the existing roadway in the summer of 2005. The contractor will place the existing approach span on rollers, roll the existing span onto temporary falsework, then roll the new wider roadway into place. Staging the work in this innovative manner reduces the bridge closure time from a year to just two long weekends.

Three-Day Closures

Two three-day closures (one closure for the approach span replacement at each bridge end) are currently scheduled to take place in the late summer 2005 around August. A three-day closure Fact Sheet is available at the project web site. Based on the contractor's latest schedule update, the Kitsap County side closure will take place starting Friday, August 5 at 8 p.m. and re-open Tuesday, August 9 at 5 a.m. The Jefferson County side would close Friday, August 26 at 8 p.m. and re-open Tuesday, August 30 at 5 a.m.

The previous schedule update indicated that there would be one closure in August and one in September. These dates may be subject to change since the event is six months away. Because the contractor is required to provide notice six weeks prior to the bridge closures, WSDOT will not have a definitive closure schedule until approximately June.

Public Involvement - Open Houses

Project staff are working with not only tourism and business interests, but with community groups and the Peninsula Regional Transportation Planning Organization (members include a broad cross-section of community leaders and interests who are focused on transportation issues on the peninsula) to publicize the weekend closures.

Two open houses about the three-day closures were scheduled. The first open house was Monday, April 18 at the Port Angeles City Hall. The second was on Tuesday, April 19, at the Fort Worden Commons in Port Townsend. About 25 citizens attended the two meetings. Additional input is being collected from an on-line survey at the project web site.

Project Team Readies Anchor Cable Replacement Project

WSDOT awarded a contract to General Construction Company of Poulsbo for the replacement of anchor cables holding the east-half of the Hood Canal Bridge. The nearly $3.4 million contract will replace 16 of the 17 east-half anchor cables. The cables were scheduled to be replaced during the current bridge replacement and retrofit project, but delays in pontoon and anchor construction required WSDOT officials to issue a separate contract for the work.

Ready for new approach span construction

Asset Management: Safety Rest Areas Annual Update

Program Overview

Washington's safety rest areas provide travelers (and their pets) with safe, clean and convenient places to rest and relax during trips. This and the following pages update information presented in the *Gray Notebook* for March 31, 2004.

In the late 1960s the federal government provided funding to construct safety rest areas as an integral part of the interstate highway system. WSDOT's program began in 1967, and most of Washington's safety rest areas were built during that era. WSDOT owns, operates, and maintains 43 safety rest areas (28 on interstate highways and 15 on non-interstate highways). One rest area, the Spokane River Safety Rest Area on I-90, will close this summer (see page 42). Safety rest area facilities encompass 566 acres, 85 buildings, 30 on-site public drinking water systems, 37 on-site sewage treatment/pretreatment systems and 19 recreational vehicle dump stations. All facilities are ADA accessible and have permanent restroom buildings, separate truck/RV and passenger car parking, picnic areas, public drinking water, and refuse receptacles.

This update does not include visitor data. WSDOT is updating its visitor estimating procedure to increase accuracy. Detailed information about the new visitor estimation method will be reported in next year's annual update.

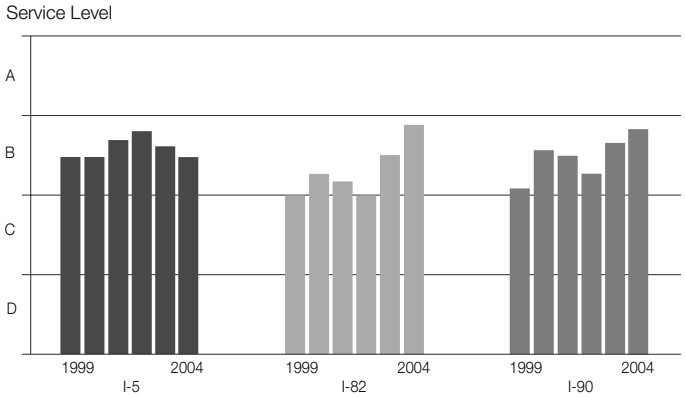
Safety Rest Area Level of Service

The Maintenance Accountability Process (MAP) is WSDOT's tool to measure and communicate outcomes of highway maintenance activities, including safety rest area maintenance. It links strategic planning, the budget, and maintenance service delivery. Twice yearly randomly selected highway sections are inspected. Results are compared to the MAP criteria to determine the Level of Service (LOS) WSDOT has delivered.

For the past four consecutive years, WSDOT has maintained the interstate safety rest areas roadway and associated features at a service level rating of "good condition" (LOS B). Level of Service B is a high maintenance level of service. At LOS B, the rest area is in good condition. All features (such as soap dispensers or RV dump stations) are in working order. Landscaping is trimmed. A small amount of litter, weeds, or minor defects in sidewalks or parking areas may be present.

Toutle River Safety Rest Area

Rest Area Service Level Trends for Interstate Rest Areas on I-5, I-90 and I-82



Source: WSDOT Maintenance and Operations Division

Asset Management: Safety Rest Areas Annual Update

Safety Rest Area Preservation

Safety Rest Area Conditions for 2004

In 2004 WSDOT began rating safety rest area building and site condition. WSDOT currently has 11 safety rest areas in "good" condition, with minimal deficiencies. Four safety rest areas are rated "fair-high". Twenty are rated "fair-mid". Six are rated "fair-low", having average condition with minor deficiencies requiring component renovation/replacement. Two are rated "poor" having multiple deficiencies requiring major renovation or replacement. WSDOT's goal is to have no more than 5% of the facilities rated "poor". Currently, 5% are in poor condition.

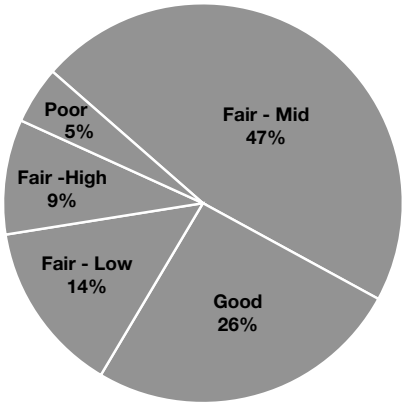
The 2004 condition assessment identified an estimated backlog of $11.5 million in building and site renovations. Each biennium, approximately $2.5 million is allocated to address site and building renovation needs. The renovation backlog is expected to grow, because of the age of safety rest area facilities and increasing traveler demand. Systems with the highest need for renovation are public drinking water, sewage treatment, and recreational vehicle dump station systems. The backlog is anticipated to increase to $25 million (in current costs) over the next 10 years. Water and sewer systems will account for $10 million, and building preservation for $15 million of the needed amount.

In the past six years, WSDOT has focused safety rest area funding resources on rehabilitating or replacing aging and undersized water, sewer, and electrical systems. These systems could affect the health and safety of visitors and also in some cases can threaten local environmental resources. Progress has been made with resource agencies, regional utilities and local utilities to create systems that provide adequate capacity.

Since 1999, 27 water and sewer systems have been rehabilitated or replaced at a cost of $6.3 million.

More details about all safety rest areas in Washington can be found at www.wsdot.wa.gov/planning/wtp/datalibrary/facilities+systems/SRAF.htm

2004 Overall Conditions of 43 Highway Safety Rest Areas



Safety Rest Area Usage Survey

WSDOT recently gathered safety rest area user information, examining the number of vehicles accessing the safety rest area, number of people per vehicle, vehicle type (e.g., commercial vehicle, passenger vehicle, etc.), length of stay, and number of people using restroom facilities. The surveys were conducted at 31 rest areas. Of the total number of vehicles surveyed, 85% were passenger vehicles, 7% were commercial vehicles, 7% were recreational vehicles, and 1% were buses. The average number of persons per vehicle during this study was approximately 2.0. The peak hours of use were between 11:00 a.m. and 1:00 p.m.

Customer Satisfaction Survey

A customer satisfaction survey was also conducted in summer 2004. The customer satisfaction survey gathered information including purpose of travel, main reason for stopping, length of stay, cleanliness of restroom facilities, and rating the traveler's overall experience. The surveys were conducted at eight randomly selected safety rest areas between 7:00 a.m. and 5:00 p.m. and are representative of all daily facility users.

Of the total number of people surveyed, 46% traveled for recreational and 39% for personal reasons, 73% used the restroom facilities with an estimated length of stay of ten minutes, 63% rated the cleanliness of the facilities to be good, and 78% rated their overall experience good. Only 5% questioned said they used the provided picnic tables.

In fall 2004, WSDOT installed comment card boxes at all safety rest areas to allow facility users to continue to provide information about their rest area experiences.

Asset Management: Safety Rest Areas Annual Update

Safety Rest Area Preservation - Capital Investment Program 2003-2005

Major Rehabilitation

Major rehabilitation projects involve major reconstruction or replacing systems or components that have reached the end of their useful lives.

I-5 Gee Creek Safety Rest Area – Sewer System Rehabilitation
This project was completed during winter 2004. It provided new septic tanks designed to handle 20-year projected sewage volume demands for the restroom buildings and pump stations.

I-90 Indian John Hill Safety Rest Area – RV Dump Station Winterization
This project, expected to be completed during summer 2005, will provide year-round use of the RV dump station. In addition to winterizing the dump station components, the project will install a heated concrete slab (to prevent winter ice) at the sewage dumping area.

New Safety Rest Areas and Other Facilities

New facilities are scheduled for construction at the following locations:

U.S. 2 - Iron Goat Interpretive Site – New Facility
A new interpretive site (with only primitive restroom facilities) will be constructed in 2006 in the vicinity of the City of Skykomish. This project is funded in partnership with National Scenic Byway Grant funds. The project is anticipated to be completed by fall 2006.

U.S. 101 - NE Peninsula Safety Rest Area – New Facility
The preliminary engineering phase of this project near the City of Sequim is expected to be completed by fall 2006. This project is funded in partnership with National Scenic Byway Grant funds. The project will be advertised the summer of 2007 and is anticipated to be completed by spring 2008.

SR 7 - Elbe Safety Rest Area – New Facility
The preliminary engineering phase of this project near the City of Elbe is expected to be completed by winter 2006. This project is funded with National Scenic Byway Grant funds and High Priority Discretionary funds. The project will be advertised the summer of 2007 and is anticipated to be completed by spring 2008.

Gee Creek Safety Rest Area Sewer Rehabilitation

Minor Capital and Emergent Needs

Below are examples of minor safety rest area projects completed or scheduled for construction in the 2003-2005 biennium. These projects are generally less than $50,000 in value, address emergent conditions not identified prior to the biennium, and are usually performed by WSDOT crews.

I-90 Sprague Lake Safety Rest Area – RV Dump Potable Water Connection
This project will reconnect potable water to the RV dump station, and is expected to be completed during spring 2005.

SR 401 Megler Safety Rest Area – Building and Sidewalk Repair
This project will renovate the building interior and correct sidewalks that do not meet Americans with Disabilities Act (ADA) requirements. It is expected to be complete in summer 2005.

Statewide Safety Rest Area ADA Compliance

Rehabilitation work mentioned above for the SRAs on SR 401 and SR 906 will correct ADA compliance items that were identified during the annual condition assessment process. The ADA corrections in both projects address minor sidewalk and building issues that have recently developed. These projects are expected to be completed during spring 2005.

Asset Management: Safety Rest Areas Annual Update

Closing a Safety Rest Area

Spokane River Safety Rest Area

In 2003, WSDOT evaluated the Spokane River Safety Rest Area for closure, based on significant decline in use, increasing traffic safety concerns, and site and building conditions requiring corrective action. Data from the last Safety Rest Area report in the *Gray Notebook* for March 31, 2004 showed usage of the Spokane River Safety Rest Area to be high (1.4 million visitors annually) based on average daily traffic for the segment of I-90 nearest the facility. However, WSDOT has re-evaluated its method for estimating the number of visitors and has developed a more accurate method based on water usage. This new method found that only 74,000 travelers used the Spokane River Safety Rest Area last year. By comparison, the nearby Sprague Lake Safety Rest Area had 561,500 visitors last year.

Since the Spokane River Safety Rest Area's construction in 1973, the area near the Washington/Idaho border has experienced rapid urban development, commercial development along I-90, and residential, commercial, and industrial development in the City of Post Falls Idaho to the east.

The closure report found that funding to preserve and maintain the Spokane River Safety Rest Area could be better used on other safety rest area priorities.

The Federal Highway Administration has approved permanent closure of the Spokane River Safety Rest Area, with the following conditions. WSDOT will:

- Retain ownership of the property for future interchange redevelopment.
- Remove interstate directional signage and web page information.
- Close facility entrance/exit from the I-90 westbound on-ramp.

The Spokane River Safety Rest Area will be permanently closed July 1, 2005.

I-90 Spokane River Safety Rest Area (MP 299.5, at the state line)

Key Findings of the Closure Report

The Sprague Lake eastbound/westbound (Washington, 57 miles west) and Huetter eastbound/westbound (Idaho, eight miles east) safety rest areas on I-90 are within the FHWA spacing guideline of 60 miles and/or one-hour driving time.

Commercial truck stop facilities and traveler services (food, gas, and lodging) are located within the vicinity.

Minimal use of the facility was identified through water data analysis (74,000 Spokane River visitors vs. 561,500 Sprague Lake Safety Rest Area visitors per year).

Traffic safety concerns arose at the Idaho Road interchange and the westbound I-90 on-ramp. The ramp provides access to the safety rest area and WSP port of entry scales, which blocks the safety rest area entrance/exit, impairs sight distance, and has resulted in car/truck collisions.

A condition assessment for the facility identified $500,000 in renovation backlog contributing to a benefit/cost ratio of 0.28. A benefit/cost ratio of 1 indicates a minimum break-even threshold.

The overall condition of the site and building is ranked 12th worst statewide (out of 43).

The WSDOT customer survey cited on page 40 supports the closure.

Spokane County and the Idaho Department of Transportation support the closure.

An FHWA preliminary review meeting supports the closure in concept.

Asset Management: Safety Rest Areas Annual Update

Truck Parking and Security

Commercial Truck Study

Simple observation shows that the demand for commercial truck parking at WSDOT safety rest areas has exceeded available capacity. These facilities were primarily constructed between 1966 and 1978. When designed, they were intended to meet 20-year projected demand.

The 2002 FHWA *Study of Adequacy of Commercial Truck Parking Facilities – Technical Report* states that there are varying levels of public and private commercial truck parking on the National Highway System. Washington State is identified as one of the 12 states that has a shortage of available truck parking.

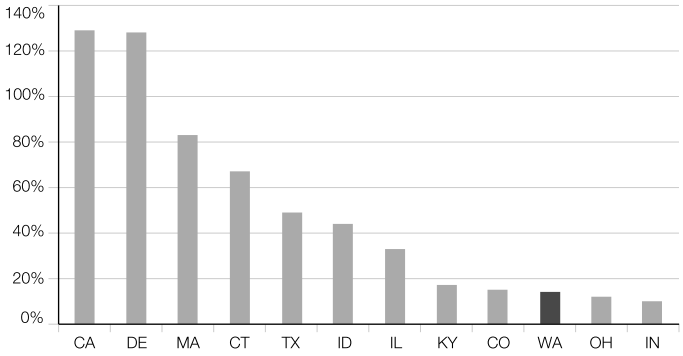
FHWA's recommendations for states with shortages fell into six categories:

- Expand or improve public rest areas
- Expand or improve commercial truck stops and travel plazas
- Encourage the formation of public-private partnerships
- Educate or inform drivers about available spaces
- Change parking enforcement rules
- Conduct additional studies

WSDOT will be conducting a study in spring and summer 2005 to identify the locations on the interstate highway system with inadequate commercial truck parking, future freight trends, and strategies to manage the shortage.

Twelve States Where Demand for Truck Parking Exceeds Current Capacity

Percent Exceeding Supply, Data from FHWA



Source: 2002 FHWA Report

Security

Crime Prevention Through Environmental Design (CPTED) utilizes the design of facilities and the surrounding landscape as a tool to reduce or prevent criminal activities. WSDOT staff will assess all Safety Rest Area facilities using the CPTED concept of crime prevention in an effort to improve safety for visitors at these facilities and WSDOT employees working at safety rest areas. Areas of concern that will be addressed include lighting, landscaping, defensive spacing, surveillance, and physical security. Below is an example of security-related safety rest area improvements recently completed in Texas.

Before improvements

The same Texas DOT safety rest area after improvements

Highway Maintenance: Annual Update

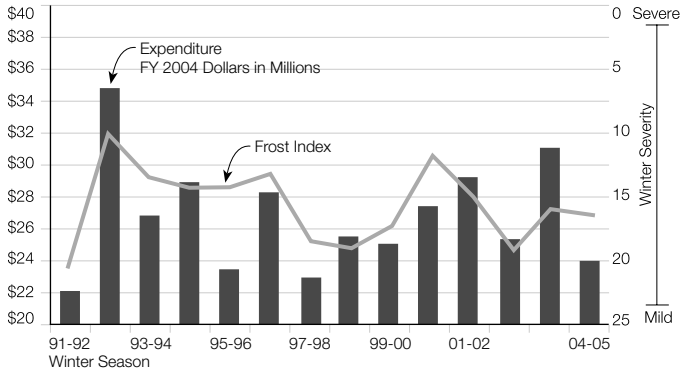
2004 - 2005 Post Winter Report

The weather this past winter was milder than average. In November and December 2004, temperatures were relatively warm with low amounts of snowfall around the state. The first months of 2005 brought colder temperatures, snowfall, and freezing rain in many Washington locations. While there were a few cold spells in February and March, the weather overall was dryer and warmer than normal. Some of the famed "Pineapple Express" rainstorms hit in mid-January and washed away most of the mountain snowpack. Record low snowpack levels in the mountains in mid-March prompted Governor Gregoire to declare a drought emergency so planning could get underway for anticipated water shortages in the summer and fall. Although late March and early April saw the return of some snowfall to the mountains, winter still ended with below normal snowpack. WSDOT's response to the state's drought emergency can be found on page 64.

Snow and ice control expenditures in the maintenance program are obviously related to the severity of the winter. More snow and more below freezing temperatures means more work for WSDOT crews. Even in low snowfall years such as this past winter, maintenance continues working on frosty mornings to make sure that icy road surfaces are either treated with chemicals or sanded to provide safe travel. Although frost and ice control activities were similar to an average winter, this past winter's low snow and ice control expenditures were related to low snow removal activities. (See chart below.) This has actually allowed maintenance workers the opportunity to catch up with some spring and summer maintenance activities that were deferred in 2004. These activities were deferred in response to budgetary pressures after higher-than-normal winter work expenditures in the 2003-04 winter.

Winter Severity and Snow and Ice Expenditures

Dollars in Millions



Source: WSDOT Maintenance

Minimizing Mountain Pass Closures

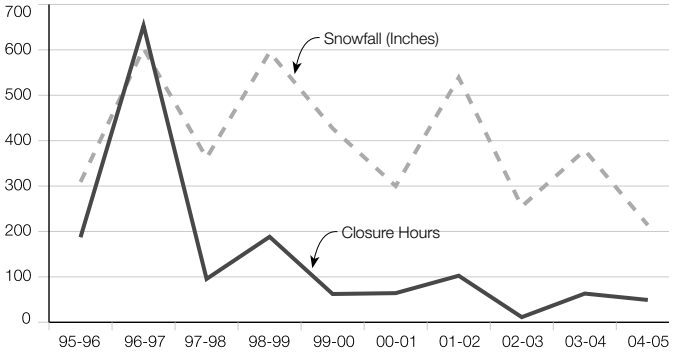
Mountain pass highways receive more snowfall and are subject to more avalanches than anywhere else in the highway system. The impacts of pass closures are significant because these highways are, in many cases, the only practical way to travel from one side of the state to the other. The intensity or duration of snowstorms cannot be controlled. So by applying efficient personnel management practices, improving methods of communications, and using advanced technologies, traffic flow can be maintained or restored under even the harshest winter conditions. A record of closures and snowfall affecting Snoqualmie Pass over the last decade is presented below.

There were two extraordinary closures at Snoqualmie Pass this past winter. They happened on January 17 and 18 when a warm rainstorm melted so much snow that flooding occurred, with standing water on I-90. In two days, there was 9.5 inches of rainfall. These were the two longest closures of the winter. One closure lasted 12 hours and 45 minutes and the other lasted 9 hours and 46 minutes.

Snoqualmie Pass Winter Closure Hours

Interstate 90 Winter Seasons, 1995 to 2005

Accumulated Annual Hours and Inches of Snowfall



Source: WSDOT Maintenance

Highway Maintenance: Annual Update

2004 - 2005 Post Winter Report

Improving Winter Road Conditions

One of the best strategies to keep roadways clear of snow and ice is to prevent snow and ice from accumulating and bonding to the pavement. WSDOT does this by applying anti-icing agents. Liquid or solid anti-icer chemicals stop ice crystals from bonding with the road surface, thereby preventing frost, black ice, and compact snow. While anti-icing agents are not a cure-all for hazardous winter road conditions, they are an increasingly important complement to plow-and-sand techniques traditionally used by highway maintenance crews.

WSDOT continues to study how best to use anti-icers. One problem is that anti-icing chemicals (formulations containing magnesium chloride, for example) can cause corrosion of aluminum vehicle components like expensive wheels. WSDOT has recommended for the past several years that people regularly wash their vehicles during winter to avoid this problem.

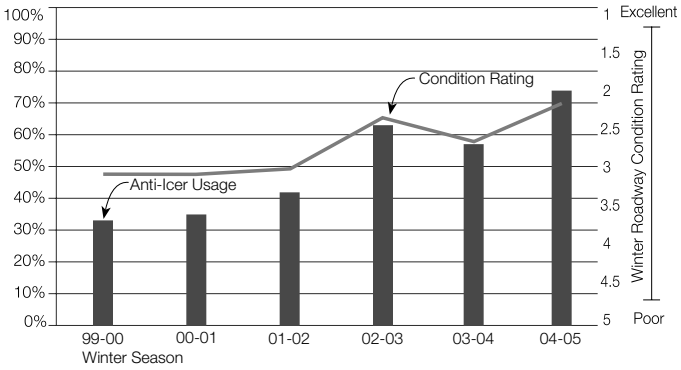
The industry has tried to help by adding "corrosion inhibitors" to the anti-icer products sold to highway crews. But some of the corrosion inhibitors mixed with the anti-icer show up on the road like a thin coat of molasses and as the product dries on the road surface, a slippery section of road can result under certain weather conditions. Accidents have occurred. Anticipating the weather conditions that bring these risks requires educated judgement by the WSDOT maintenance crews. Those skills are being gained with experience. Reported incidents of "chemical slipperiness" have decreased over the last two years, even though WSDOT's use of anti-icers has increased.

Evaluating Alternatives

For the past three winters, WSDOT has been conducting a field evaluation of anti-icing chemicals including plain salt (sodium chloride). (See the *Gray Notebook* for June 30,2003.) Data is still being analyzed from this past winter. The results of the first two winters show that costs, performance, and impacts to the environment were generally similar between highways where salt was used and where corrosion-inhibited anti-icers were used. WSDOT has also been studying the corrosive properties of anti-icers in relation to aluminum and steel. This past winter a corrosion-inhibited salt brine was evaluated as was the use of rock salt treated with corrosion-inhibitors via maintenance truck pre-wetting systems. Results will be available in summer 2005.

Statewide Anti-Icer Use and Winter Roadway Conditions

Percentage of Anti-Icer Use



Source: WSDOT Maintenance

Evaluating Roadway Conditions

WSDOT measures its snow and ice control performance by assessing the travel conditions at random locations throughout the state highway system during winter. Through weekly field surveys at these locations, road conditions are evaluated and rated on a scale of 1 (road conditions with best traction) to 5 (road conditions with least traction). Over the last few years, increased anti-icer use and improved techniques have correlated to a higher level of service for snow and ice control. Better winter road conditions lead to improved safety, fewer road closures, and reduced need for studded tires.

Other Approaches to Improving Winter Roadways

Winter Snow and Ice Planning

In 2003, WSDOT developed its first statewide snow and ice plan that included priorities for snowplow routes, road condition goals, and technical information about a variety of resources used for snow and ice control. This planning effort is designed to focus winter maintenance work on creating a safer roadway for winter travelers and using consistent snow and ice control measures. An updated statewide plan was developed in 2004 and WSDOT will update the plan before each winter season.

Calibrating Equipment and Using GIS

Knowing the exact amounts of chemicals being applied, and where chemical applications were made, is a statewide winter maintenance effort. A system is being developed to capture

2004 - 2005 Post Winter Report

data about what anti-icers are being applied, where and when they are applied. This system will be able to record the work done, and help maintenance workers learn what methods result in the best winter roadway conditions.

More Tools for Winter Driving

The Incident Response Xtreme (IRX) Truck
With lots of traffic and unpredictable winter weather, keeping I-90 over Snoqualmie Pass open and safe for traffic can be challenging. In a partnership between the Washington Trucking Association (WTA), the Washington State Patrol, and WSDOT, the WTA donated a large truck that WSDOT maintenance personnel uses as an IRX truck at Snoqualmie Pass. When winter road conditions sometimes make it tough for big trucks to get over the hill at Snoqualmie, the IRX truck gives enough of a push so that a truck that is slipping on the roadway can regain traction and continue on. Keeping big trucks moving over Snoqualmie Pass keeps the rest of the traffic moving too.

When on patrol, the Incident Response Xtreme truck at Snoqualmie Pass helps big trucks keep moving.

Highway Alert Service for Travelers
WSDOT Traffic Management Centers across the state offer a fax service, which sends highway condition updates to the media, Washington State Patrol and other law enforcement, AAA, the Washington Trucking Association, Northwest Cable News, private sector truck stops, and some trucking companies.

Monster of the Midway
In the heart of the Columbia River Basin on I-90, some people have seen a snowplow at work that is larger than what is typically on the road. It's the latest in WSDOT's snow-fighting arsenal called the double-winged snowplow. In recent years, WSDOT maintenance trucks have donned a plow on one side to add snow removal capacity to the traditional front plow. The Moses Lake crew is taking the next step with wing plows on both sides of a truck. This can clear a swath of snow 21 feet wide in a single pass. Other states have used similar plow configurations with success. While the mild winter didn't provide many opportunities to use the double-wing, it's ready for what may come next winter.

When followed in tandem by a smaller snowplow, this double-winged snowplow truck can clear two lanes of roadway in one pass.

Environmental Program: Annual Update

Improving Regulatory Efficiency - Programmatic Permits

WSDOT continues to develop programmatic permits with resource agencies to help simplify and hasten the regulatory process. Programmatic permits provide regulatory coverage for routine activities that have minimal impacts, like some aspects of highway maintenance and preservation work.

Current Programmtic Permits in Use

The following table displays the types of programmatic permits that have been issued for WSDOT activities by resource agencies such as the Washington Department of Fish and Wildlife (WDFW) and the Department of Ecology (DOE).

Permit Name	Activity Description	Permit Agency	Date Issued	Date Expires	Number of Activities Covered
Overwater Structure Maintenance and Repair	Covers all bridge and ferry terminal maintenance and repair including washing and painting and deck replacement	WDFW	7/16/03	7/15/08	270
Beaver Dam Removal Statewide General Hydraulic Project Approval (GHPA)	Allows the removal of beaver dams within WSDOT right of way	WDFW	7/06/04	8/25/08	94
Large Woody Debris Removal Statewide GHPA	Allows the removal of woody debris and up to 50 cubic yards of bed load material at WSDOT water crossing structures	WDFW	6/29/04	6/01/09	47
Sediment Test Boring in Marine Waters Statewide GHPA	Allows test boring and sediment sampling for WSDOT projects in all state marine waters	WDFW	3/10/04	2/15/09	5
Sediment Test Boring in Fresh Waters Statewide GHPA	Allows test boring and sediment sampling for WSDOT projects in all state fresh waters	WDFW	7/16/03	7/15/08	1
Channelized Stream Maintenance	Allows 50 cubic yards sediment removal per project per year	WDFW	6/28/04	6/01/09	3
Maintenance of Fishway Facilities	Allows 50 cubic yards sediment removal per project per year	WDFW	6/28/04	6/01/09	1
Culvert Maintenance	Allows structural repair and allows 50 cubic yards sediment removal per project per year	WDFW	6/10/04	6/01/09	29
Culvert Replacement in Non-Fish Bearing Waters	Allows replacement of culvert in same location	WDFW	6/10/04	6/01/09	0
Marine Pile Removal and Replacement	Allows the replacement and removal of up to 40 piles per project in marine waters	WDFW	3/07/05	3/05/10	New Permit
Aquatic Mosquito Control	Allows the application of pesticide to control mosquito species within WSDOT right of way	DOE	5/10/02	5/10/07	24
Nuisance Aquatic Plant and Algae Control	Allows the application of herbicide to control non-noxious invasive plant species within right of way	DOE	7/05/02	7/05/07	7
Aquatic Herbicide Application	Allows the application of herbicide to control noxious plant species within WSDOT right of way	DOE	6/14/02	6/14/07	5
Bridge Washing and Painting	Allows the routine maintenance washing and painting of bridges over water and ferry terminals	DOE	4/03/04	4/03/09	25

Environmental Program: Annual Update

Improving Fish Passage

Correcting fish passage barriers like roadway culverts is one of the most cost effective ways to improve streams for fish habitat conditions. Fish passage improvement projects often place WSDOT in cooperative funding and delivery arrangements with local governments, Tribes and non-governmental organizations interested in stream quality and habitat conservation. Often these projects also grow from legal, regulatory, or mitigation responsibilities affecting WSDOT.

Inventory of Fish Passage Barriers

WSDOT and the Washington Department of Fish and Wildlife (WDFW) have worked together since 1991 on a program to correct fish passage barriers where streams flow under state highways. Part of this program entails taking an inventory of WSDOT's 7,045 mile highway system and identifying barrier locations throughout the state. To date, the inventory has been completed on 3,405 miles of state routes or 48% of the total highway system. WSDOT has met its goal of identifying fish barriers on 700 miles for the 2003-2005 biennium and exceeded it by 500 additional miles. As of April 2005, WDFW has inspected 5,050 highway crossings and has identified 882 WSDOT-owned fish passage barriers where modification to the culvert or other water crossing would result in significant habitat gain. These barriers are blocking more than 1,164 linear miles of potential salmon breeding streams. WSDOT has removed 142 of those barriers and over 391 miles of stream habitat has been reclaimed. To achieve the full environmental value from this work, other non-WSDOT barriers will also need to be corrected in the future.

Fish Passage Barrier Removal Projects

Since the last report in the March 31, 2004 *Gray Notebook*, seven fish passage barrier projects (listed below) were completed, which brings the number of projects completed for the 2003-05 biennium to fourteen.

Completed Projects

The *Jim Creek culvert on SR 112 near Clallam Bay* (originally 16 feet wide) was replaced with a much larger 28-foot-wide bottomless concrete culvert. This project will allow salmon and steelhead to access habitat areas above the new culvert for refuge and spawning.

Two bridges on Interstate 90 at milepost 15.48 near Issaquah were built this summer to replace four undersized culverts at Tibbets Creek. This project will improve fish habitat for chinook, coho, and sockeye salmon. Several weeks after construction coho salmon were spotted spawning in the creek channel below the new bridges.

Clallam County and WSDOT completed a 100-foot bridge over the *Jimmycomelately Creek on SR 101 near Sequim*. The bridge replaced an undersized double box culvert that was a barrier to threatened summer chum salmon. This effort is part of a larger, multi-agency project with the Jamestown S'Kallam Tribe, the Clallam Conservation District, the U.S. Fish and Wildlife Service, the Salmon Recovery Funding Board and others. The goal is to realign the creek to its original location, restore the upstream habitat and rehabilitate the downstream estuary that feeds into Sequim Bay.

A steel arched culvert located on *SR 509 at milepost 10.71* at Lacota Creek was modified by the city of Federal Way. Baffles were removed and large rocks were positioned strategically throughout the culvert to help retain streambed material. Natural streambed material aids fish passage by increasing roughness and lowering water velocity inside a culvert.

WSDOT replaced a single box culvert at *Edison Slough at milepost 6.84 on SR 11* addressing road maintenance and fish passage issues. The new bottomless box culvert is twice the size of the original and has streambed material throughout its length.

WSDOT contracted with WDFW to provide improvements to the *Ennis Creek fishway at milepost 250 on U.S. 101*. The project raised the center wall of the fishway, removed a few baffles and made other adjustments to force more flow through the fishway. This system is considered temporary pending a more permanent solution.

On *SR 106 at milepost 7.06* a private developer constructed a 12-foot wide bottomless culvert with assistance from the Hood Canal Salmon Enhancement Group. The new culvert replaced an undersized, round concrete culvert on Alderbrook Creek, providing a better fish passage.

Jimmycomelately Creek: A new bridge replaced a double box culvert.

Environmental Program: Annual Update

Diesel and Particulate Matter ($PM_{2.5}$)

Air quality for regulated pollutants has improved in the state over the past few decades, even as population and vehicle miles traveled have increased. One of today's most prominent air quality issues in Washington is associated with diesel and the very small particulates, smaller than 2.5 microns in size, resulting from diesel combustion. $PM_{2.5}$ can be inhaled deeply into the lungs. Its long term and short term health effects are matters of widespread concern in the public health community. Even as research and evaluation continues on the health effects of diesel exhaust, there is broad consensus on the desirability of reducing diesel emissions, especially $PM_{2.5}$ exposure. Steps taken in the regulatory arena have had good effects here in Washington State.

Diesel is not the only culprit in $PM_{2.5}$ generation. Other sources include agricultural burning, forest fires, construction activities, and factory and utility smokestacks. But diesel is big.

How WSDOT is Reducing Pollutants

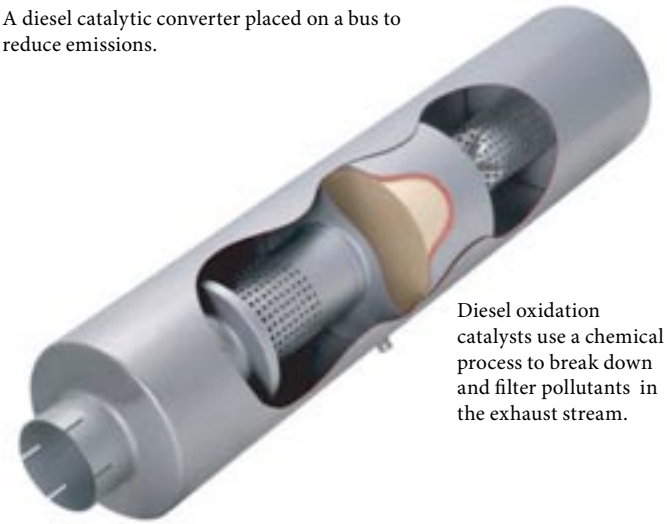
WSDOT has taken several steps to reduce pollutants from diesel emissions by:

- Using alternative fuels for the ferry fleet. All ferries were converted to low-sulfur diesel fuel in May 2004 reducing small particulates by 30% and sulfur dioxide by 90%. A pilot program funded by EPA and the Puget Sound Clean Air agency is testing usage of "ultra" low sulfur diesel fuel in the MV Elwah ferry (reducing another 5-10%).
- Placing "Turn off your engine" signs at ferry terminals.
- Retrofitting diesel maintenance fleet equipment with small particulate reducing catalysts (like catalytic converters) that will reduce small particulates between 20-40%. A pilot program in Yakima (through an EPA/Ecology grant) will be complete by the end of 2005.
- Using ultra low sulfur diesel for all diesel maintenance fleet equipment as the fuel becomes available in many parts of the state in 2006. This fuel is expected to reduce small particulate emissions by 5-10%.

What Can We All Do To Help?

You can help reduce harmful emissions by finding an alternative way to get to work by participating in rideshare programs, using transit, bicycling and walking. If driving is your only option, increase efficiency with a well maintained car and properly inflated tires. To find out more about what's happening in your area, check out the Commute Trip Reduction program at:
www.wsdot.wa.gov/tdm/program_summaries/ctr_summ.cfm

A diesel catalytic converter placed on a bus to reduce emissions.



Diesel oxidation catalysts use a chemical process to break down and filter pollutants in the exhaust stream.

Incident Response: Quarterly Update

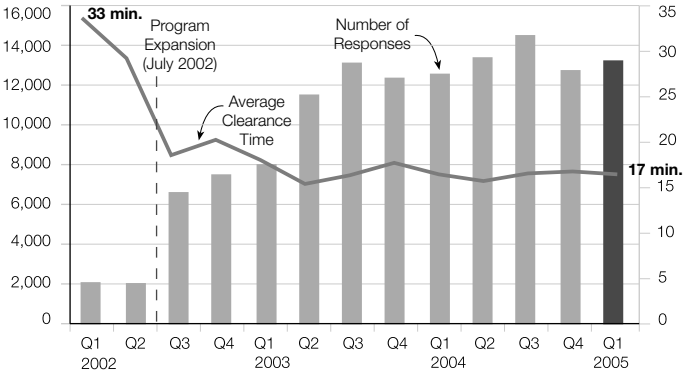
Incident Response Program Trends

The number of incident responses depends on multiple factors. These factors range from system conditions such as changes in travel volume or patterns, to program activities such as the strategic deployment of roving units and responder training. The Incident Response (IR) program expansion in July 2002 almost doubled the number of IR units resulting in a 219% increase in the number of responses recorded. At the end of the first quarter of 2005, there were 54 IR units that responded to 13,209 incidents during the quarter.

Incident clearance times seem to be inversely related to the number of IR units. When there were fewer roving units, it took longer to get to and clear incidents. As the program capacity increased over time, the average clearance time, at first, declined significantly. During the same period, travel volumes and response totals increased. More recently, clearance times are at a steady level.

Number of Responses and Overall Average Clearance Time

January 2002 - March 2005



Source: WSDOT Incident Tracking System
Note: Program-wide data is available since January 2002. Prior to Q3 of 2003, number of responses by IR are shown. From Q3-2003, responses by Registered Tow Truck Operators and WSP Cadets have been reported in the total.

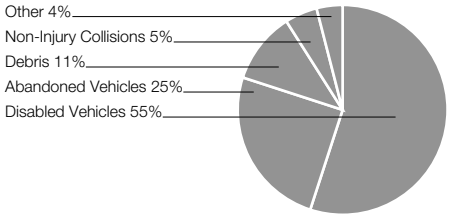
Response Types

January to March 2005
Total Incident Responses = 13,209
• 1,652 Collisions (13%) • 11,557 Non-Collisions (87%)[1]

	January	February	March
Fatality Collisions	8	7	16
Injury Collisions	125	121	140
Non-injury Collisions	455	376	404
Disabled Vehicles	2,569	2,230	2,774
Abandoned Vehicles	719	729	864
Debris	335	338	528
Fire	19	11	24
Hazardous Materials	4	5	8
Other	156	157	219

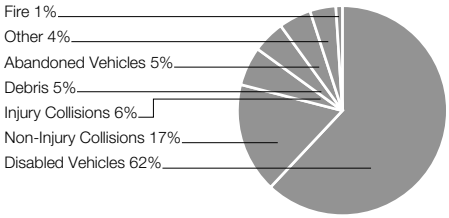
[1]Some non-collisions fall into more than one of the above categories.

Incidents Lasting Less Than 15 Minutes (8,313)



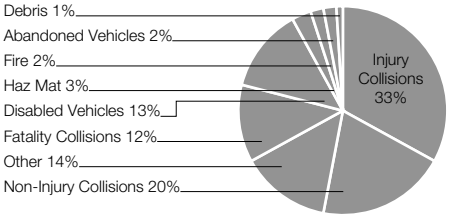
Fire, Injury Collisions, and Hazardous Material Incidents were less than 1% and are not shown in the above pie chart.

Incidents Lasting 15 to 90 Minutes (4,687)



Hazardous Material was less than 1% and is not shown in the above pie chart.

Incidents Lasting 90 Minutes and Longer (209)



Type of Incidents and Service Actions

The majority of incidents are non-collisions. By far the largest number of non-collisions involve disabled vehicles. In the first quarter of 2005, there were 7,573 responses to disabled vehicles. When disabled vehicles are involved, mechanical problems or flat tires are often the reason, as implied by "Minor Repair", "Towed Vehicle", or "Changed Flat Tire" in the Service Actions Taken table, below; however, "Provided Fuel" (running out of gas) also appears to account for a large proportion of disabled vehicles.

Service Actions Taken for Non-Collision Responses[2]

January - March 2005

	January	February	March
Traffic Control	515	460	531
Provided Fuel	321	294	393
Changed Flat Tire	297	242	288
Minor Repair	166	143	181
Pushed Vehicle	217	181	214
Towed Vehicle	102	73	114
Cleared Debris	242	249	390

[2]Most common service actions only – exclude various miscellaneous actions taken. Multiple actions may be taken for each response.

Incident Response: Quarterly Update

Washington's Joint Operations Policy Statement and Traffic Incident Management Self Assessments

Joint Operations Policy Statement (JOPS)

In 1999 WSDOT and Washington State Patrol (WSP) joined together and formalized the first edition of the Joint Operations Policy Statement (JOPS). JOPS is a formal agreement that helps both agencies identify mutual policy positions on the operations of Washington State highways. The 2005 JOPS, signed by WSDOT Secretary Doug MacDonald and WSP Chief Lowell Porter on January 18, 2005, is the third edition since 1999.

The latest edition of JOPS contains updated policies, roles, references and actions within the document and recertifies each agency's commitment to the policies. JOPS also helps both agencies set standards regarding issues of mutual interest in the operation of Washington State highways. For example, a policy in the Incident Response section states that the Washington State Association of Fire Chiefs (WSAFC) will collaborate with the WSP and WSDOT to safely clear highway incidents within the mutual goal of 90 minutes. They will "effectively and efficiently manage resources responding to, mitigating, investigating, and clearing highway lanes and ferry routes in order to minimize traffic disruption>"

Each of the thirteen sections in JOPS has an action segment that describes what each agency will do to enact each policy. JOPS provides the guidelines for the multi-agency operations of Washington State Highways and also lays the groundwork for "Traffic Incident Management (TIM)" training. (See next column.) To view a copy of JOPS go to www.wsdot.wa.gov/incidentresponse/JOPS.pdf

This latest edition of JOPS contains updated policies, roles, references and actions that WSDOT and WSP are jointly committed to.

Traffic Incident Management Self-Assessment

The Traffic Incident Management (TIM) Self-Assessment was designed by the Federal Highway Administration to:

- allow local practitioners to assess how well they manage traffic incidents and identify areas for improvement;
- allow FHWA to assess, at a national level, the needs identified by the practitioners and develop program initiatives to address those needs; and
- give FHWA a national program metric to gauge overall progress in traffic incident management.

In 2003, a Puget Sound regional team went through the first TIM Self-Assessment. The overall self-assessment score was 63.2%. In March 2005, another group of Puget Sound regional participants, including the Washington State Patrol, local public agencies, local law enforcement, local fire departments, the towing industry, the Department of Ecology, and members of WSDOT's Incident Response Program, completed the TIM Self-Assessment again. The overall score was 71.1%. Although the score is an improvement over the 2003 score, the participants acknowledged various areas and activities which can improve the multi-agency management of traffic incidents. One planned action is TIM training.

Comments Received About Washington's Traffic Incident Management Program

Mike Brower of the Federal Highway Administration, Washington Division, says "WSDOT's efforts in TIM activities are exemplary – both at the local level and as recognized at a national level – from the Joint Operations Policy Statement, to training, to execution of the program in the field."

David Schrank of the Texas Transportation Institute (TTI) was quoted in USA Today on May 10, 2005, saying "Seattle has recently really invested in the traffic-incident-management program. They have seen really big improvements in recent years."

In the May 10, 2005 Seattle Post-Intelligencer, an article stated that TTI attributed the fact that Seattle's congestion isn't worse "to the fact that the state Department of Transportation has been a leader nationally in 'operations' measures, such as clearing the roadway quickly in response to highway incidents, metering highway ramps, synchronizing traffic signals and providing congestion and other roadway information to travelers."

WSDOT Aviation: Annual Update

Overview

Aviation is vital to Washington State's transportation system. With its 129 public use airports, the state's aviation system plays a crucial role in connecting people to goods and services. It also serves as a critical lifeline to and from rural communities, especially for medical and emergency needs. What follows is an update on key components of WSDOT's aviation programs.

WSDOT Increases Aid to Washington Airports Over the Last Two Biennia

During the 2003 – 2005 biennium WSDOT awarded more than $2.8 million in Local Airport Aid Grants to fund over 100 projects at general aviation airports across the state. WSDOT also leveraged state funds to obtain about $10 million in federal money.

During the biennium, WSDOT awarded an unprecedented three rounds of Local Airport Aid Grants. Typically, only two rounds have been issued. However, a $7 increase in pilot and aircraft registration from $8 to $15, and a three-cent increase in aviation fuel from $.07 to $.10 enabled the additional round to take place so that these new revenues could be directly applied to airport improvements.

Over the past five years, WSDOT has significantly increased funding to Washington airports for crucial pavement and maintenance projects. During the 99-01 biennium no federal funds were received to leverage aid to airports. During the 03-05 biennium, WSDOT received $10 million in federal funding to match state funds to preserve airports in Washington State.

Airport Grant Program

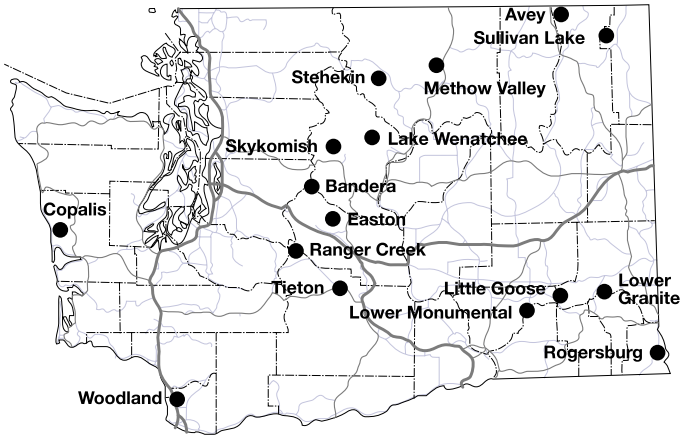
Amount Awarded in $ Millions

Source: WSDOT Aviation

Local Airport Aid Grants

2003-2005 Biennium Total

Airports Awarded Grants	74
Projects	104
Pavement Projects	$1,849,459
Safety Projects	$615,655
Maintenance, Security & Planning Projects	$341,085
Total Airport Aid Grants	**$2,806,199**



WSDOT maintains and operates 16 airports statewide.

Stehekin State Airport received a new irrigation system thanks to the diligence and dedication of many Adopt an Airport volunteers.

State-Operated Airports Used for Emergency Services

Of the 129 public use airports in the state, 16 are maintained and operated by WSDOT. Of these 16 airports, WSDOT owns seven and the remaining nine are leased or have conditional use permits. Located in areas rich in recreational activities such as hiking, camping and fishing, these backcountry airports not only attract thousands of people every year, they also support critical emergency services as illustrated below.

Emergency Services at State-Operated Airports

Fire Bases	Fire Patrol and Training	Medical Airlift Support
Methow Lake Wenatchee Tieton Stehekin	Avey, Easton, Lake Wenatchee, Methow, Ranger Creek, Skykomish, Stehekin, Sullivan Lake, Tieton	Bandera, Easton, Methow, Ranger Creek, Skykomish, Stehekin, Sullivan Lake, Woodland

WSDOT also improved maintenance at state airports with much-needed weeding, tree trimming/removal, and other upkeep services. Others received picnic tables and improved campgrounds. All state-owned airports received new signs to improve safety and usability.

WSDOT Aviation: Annual Update

More Aircraft Registered

Aviation registration fees help to support air search and rescue, aviation safety and education, and airport maintenance in Washington State. In July 2003 state law changed to include civil penalties for late pilot and aircraft registrations to increase compliance with registration requirements. WSDOT informed customers of the new enforcement by sending repeated notices giving people the opportunity to register or apply for an exemption. Over 11,000 pilots and 7,000 aircraft were registered. The number of aircraft registered in 2004 was up 12% from 2003. As a result, revenues collected in 2004 were 34% over 2003 (see table below). WSDOT also waived registration fees and civil penalties for approximately 4,000 people who submitted valid exemption forms. Exemptions are given mainly to pilots who declare that they will not be flying. Many pilots informed WSDOT of their status and submitted signed exemption forms and were entered into the system for the first time. Through this effort, WSDOT was able both to update its database of exempt and non-exempt aviators, and broaden its communication with the aviation community in Washington State.

Number of Pilot and Aircraft Registrations and Revenue 2003 - 2004

	2002	2003	% Change 02-03	2004	% Change 03-04
Aircraft	4,029	6,351	57.6%	7,096	12.0%
Pilot	8,395	12,325	46.8%	11,262	-9.0%
Revenue	$296,446	$455,157	53.5%	$610,818	34.0%

Approximately 4,000 pilots exempted in 2004.

Improved Communication

In 2004, the Aviation News Service continued to grow with over 1,500 new subscribers, bringing the 2004 total to 8,000 subscribers (6,500 subscribers in 2003). WSDOT uses the Aviation News Service to email pilots with relevant, up-to-the-minute agency and general aviation news. People who use WSDOT Aviation's online pilot and aircraft registration system are automatically provided subscriptions to the Aviation News Service.

In 2004, WSDOT began broadcasting images from Easton State Airport on its Web site. This new camera joined six other Washington State airport web cameras providing pilots with a real-time look at weather conditions. www.wsdot.wa.gov/aviation/webcam/Easton.htm.

Aviation System Planning

WSDOT began updating the Washington Aviation System Plan by forming a System Plan Working Group, comprised of regional/metropolitan transportation planning organizations, aviation interests, and local elected officials. Meeting twice in 2004, the group was charged with identifying gaps in the aviation system, as well as existing and potential roles of airports throughout the state. This information will be used not only for next year's Aviation System Plan update, but also for the Washington Transportation Plan (WTP), which determines aviation needs. More information about the WTP is available at:
www.wsdot.wa.gov/planning/wtp/default.htm
For additional information about the aviation system plan, please visit: www.wsdot.wa.gov/aviation/AvSys/default.htm

Requests for technical assistance and research materials were on the rise in 2004 from city and county jurisdictions wanting information on the Aviation Land Use Compatibility Program. WSDOT worked with Clallam, Pierce, Snohomish, San Juan, Stevens, Thurston, and Whatcom counties to update comprehensive plans and development regulations to protect airports from adjacent incompatible development.

Search and Rescue Saves Lives

In 2004, WSDOT Emergency Aviation Services provided air support to six different counties during emergency operations and received credit for saving eight lives. These missions were successfully accomplished by making better use of resources and providing greater preparedness through training. Delivery of a new mobile Incident Command Post (ICP) in 2005 is expected to result in even shorter response time gains in responding to critical emergencies. The ICP is a 40-foot long fifth wheel trailer equipped with a radio and satellite voice/data communication system. It will enable WSDOT to be in contact with the Federal Emergency Management Agency (FEMA), the Washington Emergency Management Division and other WSDOT Emergency Operations Centers from virtually any location for quicker, more efficient response to emergencies.

Search and Rescue volunteers are pilots and non-pilots who are trained and certified by WSDOT Aviation. Funding for the program comes from annual pilot registration fees.

WSDOT Aviation: Annual Update

Airport Pavement Management

In 2004, WSDOT overlayed, reconstructed or repaired seven runways or taxiways at Washington State airports. These pavements were targeted because of their low Pavement Condition Index (PCI) number, which identifies when pavements need repairing. One hundred is the highest PCI number for pavements. All of the airport pavements that received maintenance from WSDOT were brought up to a perfect PCI number of 100.

2004 Washington State Airports

Airports	Airport Sponsor	Average PCI Prior to Improvement	Project Description	✓Completed
Sunnyside Municipal Airport	City of Sunnyside	82	Runway Overlay	✓
Goldendale Municipal Airport	City of Goldendale	80	Runway Overlay	✓
Ilwaco Airport	Port of Ilwaco	33	Runway Overlay	June 2005
Willapa Harbor Airport	Port of Willapa Harbor	63	Runway Overlay	August 2005
Anderson Field	City of Brewster	77	Runway Reconstruction	Summer 2005
Ephrata Municipal Airport	Grant County Port District No. 9	50	Runway Reconstruction	✓
South Lewis County Airport	Lewis County	46	Runway Reconstruction	✓
Grand Coulee Dam Airport	Grant County Port District No. 7	69	Runway Reconstruction	Summer 2005
Quincy Municipal Airport	Port of Quincy	21	Runway Reconstruction 3660' x 50'	✓
Auburn Municipal Airport	City of Auburn	81	Runway Reconstruct and Overlay	✓
Anderson Field	City of Brewster	77	Taxiway and Apron	Summer 2005
Willapa Harbor Airport	Port of Willapa Harbor	63	Taxiway and Apron	August 2005
Tonasket Municipal Airport	City of Tonasket	40	Taxiway and Apron	✓
Quincy Municipal Airport	Port of Quincy	21	Taxiway Reconstruction 1300' x 30'	June 2005
Lind Municipal Airport	Town of Lind	14	Taxiway, Apron & Tie Downs	June 2005

Source: WSDOT Aviation

Runway Safety Grant Program

In February 2005, WSDOT introduced its Runway Safety Grant Program in partnership with the Federal Aviation Administration (FAA). Through this program, WSDOT and the FAA are promoting runway safety throughout Washington airports by offering grants to interested airport sponsors. The maximum $2,500 grant is intended to provide local agencies with funds to invest in projects directly related to improving runway safety. Sponsors must contribute a minimum 5% match of the entire project cost. They must also host a runway safety training and educational event for local pilots. This event is coordinated with the FAA's Runway Safety Team.

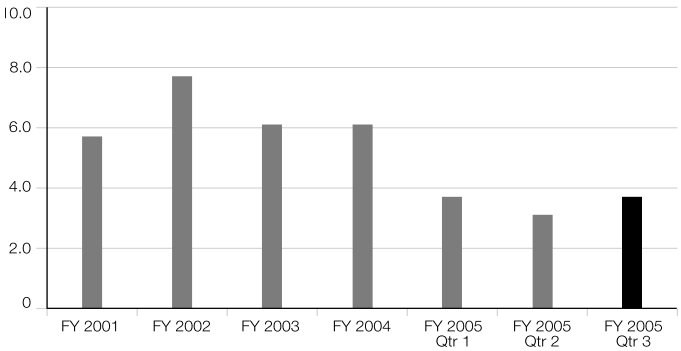
The program has already attracted interest from 18 airports across the state. Nationally, the program has received accolades and interest from numerous state aviation officials and top FAA personnel.

Washington State Ferries: Quarterly Update

Customer Feedback

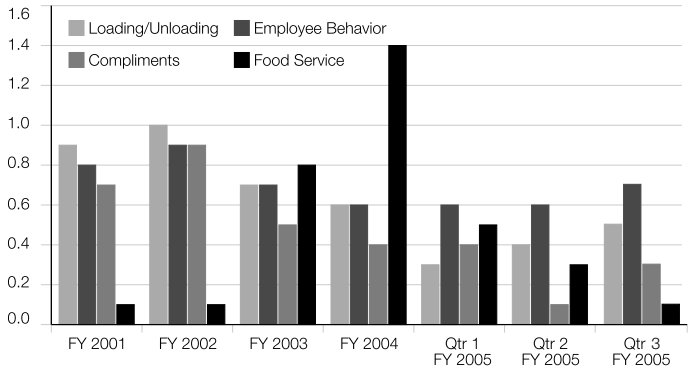
The WSDOT Ferry System delivered approximately 39,000 trips and carried 5.1 million riders this quarter and received 171 complaints. The ferry system reports complaints per 100,000 customers carried. This quarter experienced 3.7 complaints per 100,000 customers. Although this represents a 7% setback in performance from the preceding quarter, it is a 60% improvement from the same period last year. In fact, this is the best performance for third quarter (January through March 2005) since the ferry system has been reporting in the *Gray Notebook*.

Total Number of Complaints Per 100,000 Customers



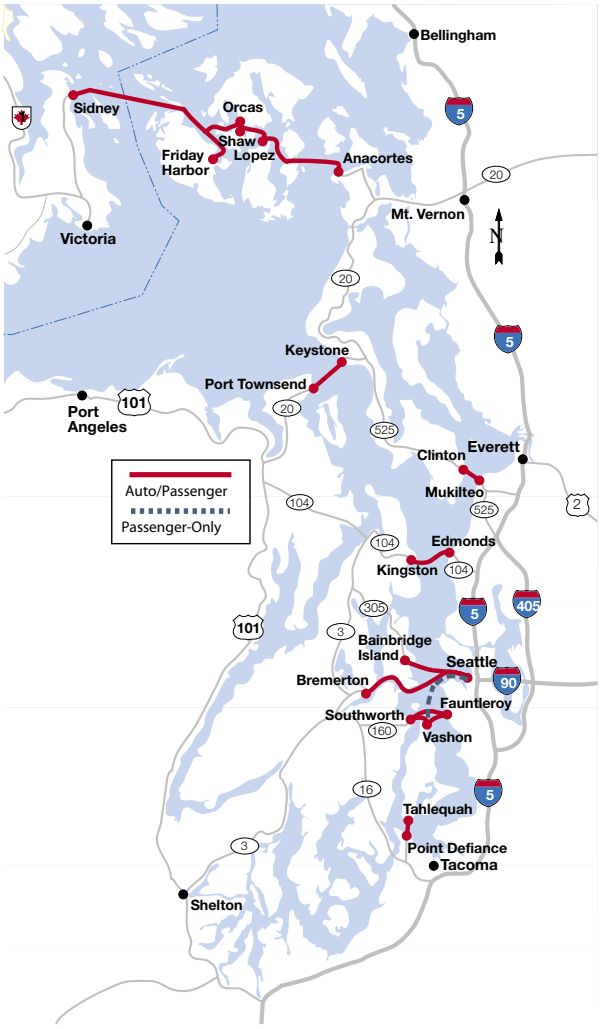
Employee Behavior complaints were up 11% over the preceding quarter and 6% as compared to the same period last year. A total of 36 complaints were received in this category. Complaints about facilities were the second highest category of complaints this quarter. Complaints about vessel loading and unloading were up 30% over the preceding quarter but were down by 14% when compared to the same period last year. A total of nine complaints or roughly 40% of all complaints in the vessel-loading category were on the Fauntleroy – Vashon – Southworth triangular route. Approximately 10,000 trips were made on this busy route this quarter, which accounts for one quarter of all ferry system sailings.

Common Complaints Rate Per 100,000 Customers



Selected Comment Types per 100,000 Customers
Source: WSDOT Ferries

A Metro Vanpool disembarks from Fauntleroy Terminal after riding on the *MV Issaquah*.



Washington State Ferries: Quarterly Update

Trip Reliability

WSDOT Ferry System scheduled 39,586 trips during the third quarter of fiscal year 2005. Of these trips, 160 were cancelled but 29 make-up trips were made. Total completed trips were 39,455.[1] The chart at the right shows a system-wide average reliability index. Using this index, 1.3 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 3.25 trips cancelled per thousand. This measure indicates a 28% improvement from the preceding quarter, although a slight drop (10%) from the preceding year's third quarter. On the whole, trip reliability is consistently improving (18%) over the historical period shown. Timely and effective safety, maintenance and operating practices on vessels and terminals are contributing factors to this level of performance.

A more compelling picture of trip reliability for the system emerges when the Keystone-Port Townsend route is not averaged in as part of the system-wide totals. That particular route is exceptional in that a vessel must sail in weather and tide conditions that are adverse when compared to others in the system. The trip reliability index for the ferry system less this route is 0.6. This is an increase in the reliability index of 52% when compared with the system-wide figure of 1.3 average missed trips per commuter.

[1] 39,586 scheduled trips - 160 cancelled trips + 29 make-up trips = 39,455 total completed trips

Average Missed Trips per Commuter

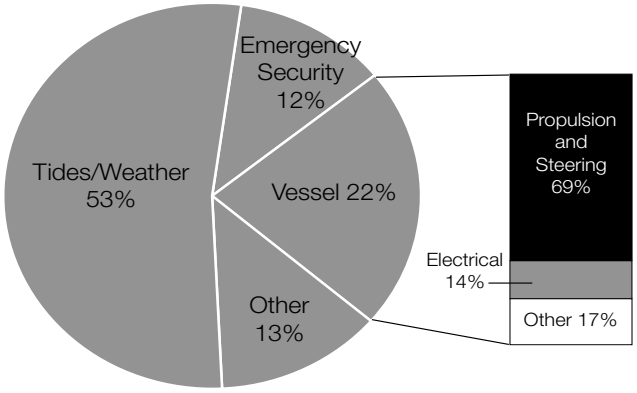
FY 2001	1.6
FY 2002	2.3
FY 2003	1.7
FY 2004	2.2
FY 2005 Qtr 1	1.6
FY 2005 Qtr 2	1.9
FY 2005 Qtr 3	1.3
FY 2005 Qtr 3[2]	**0.6**

[2] without Keystone-Pt. Townsend

A total of 66 trips were cancelled on the Port Townsend – Keystone route due to weather/tides. The Keystone terminal configuration is the cause of the tide-related cancellations and per Legislative direction, The ferry system is reviewing in-harbor options to improve reliability.

Most Common Trip Cancellations

Third Quarter, Fiscal Year 2005



On-Time Performance

The table below compares on-time performance across the system for the third quarters of fiscal year 2004 and 2005. Comparing this quarter with the previous year's, the average delay time increased by 25%, or from 2.4 minutes to 3.0 minutes of average delay. Compared to last quarter's 2.9 minutes of average delay, performance slowed slightly this quarter to 3.0 minutes. The percentage of trips sailing on time, i.e., within 10 minutes of the published sailing schedule, also declined slightly (2%).

On-Time Performance

	3rd Quarter FY 2004			3rd Quarter FY 2005		
Ferries	**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	5,886	88%	3.2 Minutes	6,011	84%	4.1 Minutes
International Route	19	95%	2.3 Minutes	24	96%	3.0 Minutes
Edmonds - Kingston	4,518	98%	2.5 Minutes	4,493	96%	3.0 Minutes
Pass-Only Seattle - Vashon	922	99%	1.6 Minutes	988	99%	1.7 Minutes
Fauntleroy - Vashon - Southworth	9,688	95%	2.4 Minutes	9,526	94%	3.2 Minutes
Keystone - Port Townsend	1,747	92%	3.1 Minutes	1,720	89%	3.9 Minutes
Mukilteo - Clinton	6,372	99%	1.7 Minutes	6,421	99%	1.9 Minutes
Pt. Defiance - Tahlequah	3,038	98%	2.4 Minutes	3,040	97%	2.7 Minutes
Seattle - Bainbridge Island	3,911	98%	2.4 Minutes	4,046	96%	3.2 Minutes
Seattle - Bremerton	2,511	98%	2.5 Minutes	2,475	98%	2.4 Minutes
Total	**38,612**	**96%**	**2.4 Minutes**	**38,744***	**94%**	**3.0 Minutes**

*The number of trips counted for On-Time Performance is different from the number of Actual Trips. Missed trips are not reported in this measure but are reported in the Trip Reliability measure.

Washington State Ferries: Quarterly Update

Life Cycle Preservation Performance

Washington State Ferry System terminals and vessels consist of several thousand district service elements, each labelled as a "system." Each of these systems should be refurbished or replaced prior to the end of its life cycle. This assures that the ferry system has the overall systems capability to provide reliable and cost-effective service.

The original plan for the 2003-2005 biennium was to replace or refurbish 133 Category One systems and 54 Category Two systems. Those targets have been revised by WSDOT during a formal update in support of the 2005-2007 budget request. The targets now are 120 Category One systems and 43 Category Two systems. Through the seventh quarter of the biennium, 90 Category One systems and 39 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 investment originally approved by the 2003 legislature, the life cycle rating for Category one terminal and vessel systems is projected to increase from 77% at the beginning of the biennium to 81% at the end of the biennium. The life cycle rating for Category Two systems is projected to decline from 58% to 54% .

Explanation of Key Terms

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

Life Cycle Rating - A life cycle rating is a percentage calculated by dividing the number of systems 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.

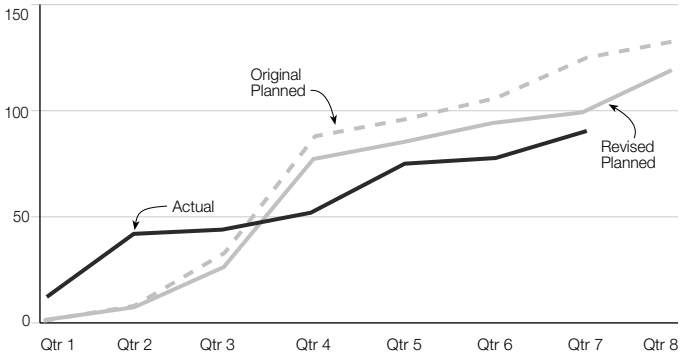
In January 2001, the Legislature's Joint Task Force on Ferries recommended that WSDOT work toward the objective of achieving a life cycle rating for Category One systems of between 90% and 100% and for Category Two systems of between 60% and 80%. The Task Force set FY 2011 as the target year for achieving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

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

Category Two systems are all other terminal and vessel systems.

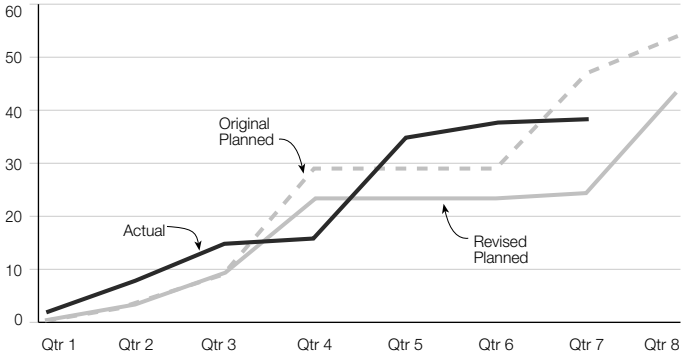
Category One Terminal and Vessel Preservation Performance

Cumulative Original and Current Plan vs. Actual Systems Preserved
7th Quarter, 2003-2005 Biennium



Category Two Terminal and Vessel Performance Measures

Cumulative Original and Current Plan vs. Actual Systems Preserved
7th Quarter, 2003-2005 Biennium



Washington State Ferries: Quarterly Update

Capital Expenditure Performance

WSDOT makes capital investments in the ferry system through the Washington State Ferries (WSF) construction program. The program preserves existing ferry terminals and vessels, and builds new ones. This infrastructure gives the Ferry System the physical capability to deliver responsible and reliable marine transportation services to customers.

At the end of March 2005 (seventh quarter) of the 2003-2005 biennium the program spent $141.7 million compared to its biennium-to-date spending plan of $166.8 million. Expenditures are currently $25.1 million under plan. Due to project slippage throughout the 2003-2005 biennium, the construction program has moved work on several projects to the next biennium. The Legislature has reappropriated $20 million of the program's 2003-2005 biennium funding to the 2005-2007 biennium to match the time period in which the work will be completed. The money from the reappropriation, however, is still reflected in the 2003-2005 budget, resulting in the apparent underexpenditure.

The locations where the underspending occurred are detailed in this section under the three spending activity categories of the construction program. These three spending categories are terminal construction, vessel construction and emergency repairs of terminals and vessels.

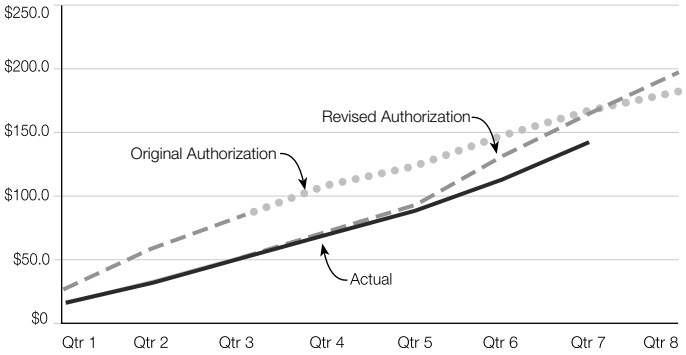
Terminals: Biennium-to-date Terminal Construction activities are under-spending the plan by $18.3 million or 21%. Variances in excess of $750,000 include: Anacortes ($6.1 million under plan due to schedule slippage and delayed billings), System Wide Point of Sale Replacement/Regional Fare ($1.2 million under plan because delays in the RFCS & RCS projects moved many of the payment milestones to the next biennium), System Wide Catch-Up Preservation ($0.8 million under plan due to under-spending on the Tahlequah Dolphin Project and delay in progress of Lopez Dolphins due to longer than expected process to determine preferred alternative), Mukilteo ($2.7 million under plan due to late start of the project, the Environmental Assessment work has been accelerated in response to the under-run), Friday Harbor ($2.3 million under plan because the project is behind schedule), Kingston ($1.2 million under plan due to delay in the Transfer Span Retrofit project while a decision was made regarding the hydraulic transfer span), Bainbridge ($1.1 million under plan due to delay in H-span design forcing a change in the ad date from February 2005 to May 2005).

Vessels: Biennium-to-date Vessel Construction activities are under-spending the plan by $4.6 million or 6%. Variances from plan by location in excess of $750,000 are: Walla Walla ($4.7 million under plan due to delays in delivery of equipment and late delivery of the vessel to the shipyard), System Wide Communication/Lifesaving Equipment ($0.9 million under plan due to late billing from vendors), System Wide Vessel Security Infrastructure ($0.9 million under plan due to delays in shipyard schedules and some lower than anticipated costs. Expenditures should accelerate with multiple vessels currently in shipyards for security system installations), and the *MV Spokane* ($1.4 million over plan due to late re-delivery from the shipyard and contract growth).

Emergency Repair: under-spending the biennium to-date plan by $2.2 million or 50%.

WSF Construction Program Expenditures

7th Quarter, 2003-2005 Biennium
Cumulative Dollars in Millions
Authorized vs. Actual



Washington State Ferries: Quarterly Update

Ridership and Revenues

Ridership on Washington State Ferries for the nine months ending March, 31 2005 is lower than planned by 120,000 one-way trips (0.7%). The greater than anticipated decline in ridership is a result of many economic factors including competition from private passenger-only service providers. Ridership is also lower when compared to the same period last year by 380,000 one-way trips (2.1%); much of this decrease was expected under the 5% fare increase in May 2004. For comparison purposes, the decline in ridership experienced during the same period in fiscal year 2004 relative to fiscal year 2003 following a similar fare increase was 158,000 one-way trips (0.9%).

Interestingly, passenger ridership through March 2005 is 520,000 (5%) below plan while vehicular traffic is up 390,000 one-way trips (5.1%). When compared to the same nine-month period last year, passenger ridership is down 313,000 one-way trips (3.2%) and vehicular traffic is down only 40,000 one-way trips (0.5%). Vehicle traffic on the Mukilteo-Clinton and Port Townsend-Keystone routes posted a small (0.2%) gain compared to 2004 traffic.

As a result of higher than planned vehicular traffic, which pays higher fares at the approximate rate of 3.5 times passenger fares, tariff revenues are actually $1.5 million (1.6%) greater than projected in the plan and $3.3 million (3.6%) higher than the same period last year. Oversized vehicle traffic including commercial and recreational vehicles posted a slight increase over the same period in fiscal year 2004 and contributed to the higher than anticipated vehicle tariff revenues. For comparison purposes, WSF realized a $6 million (6.9%) increase in revenues for the same nine-month period in fiscal year 2004 relative to fiscal year 2003, following a similar fare increase.

Transportation Commission Decides on 2005-07 Tariff

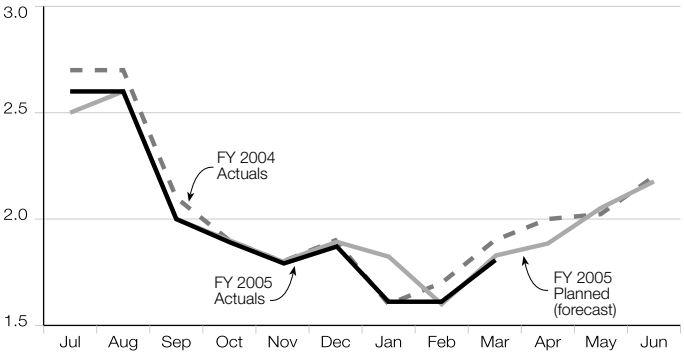
WSDOT has implemented 5% tariff increases each May over the last two years and sought Commission approval for 5% increases for 2005 and 2006. The Tariff Policy Committee recommended that the Commission grant a May 2005 tariff increase of 5%. On February 8, 2005, Washington State Ferries embarked on a public outreach program for the 2005-2007 tariff proposal. Based on comments from customers, WSDOT and the Tariff Policy Committee presented a revised tariff proposal on March 23, 2005, to the Washington State Transportation Commission.

As a result of keeping the existing discount policies, revenues lost would have to be made up. On April 26, 2005 the Commission adopted a 6% tariff increase to take effect on June 1, 2005. WSDOT expects to generate roughly $4.8 million per year from this tariff increase. Even with this increase, WSDOT is expected to remain below the 80% farebox recovery rate set by the Legislature.

The revenues generated by this tariff increase will help WSDOT offset increasing operating costs primarily associated with higher fuel prices for the next two years. However, the Department's long-range plan for the ferry system depends on increased operating revenues, either from tariff increases or dedicated taxes. These revenues are necessary to sustain existing service levels and make the necessary operating transfers to capitalize the ferry system's aging infrastructure over the next six to ten years.

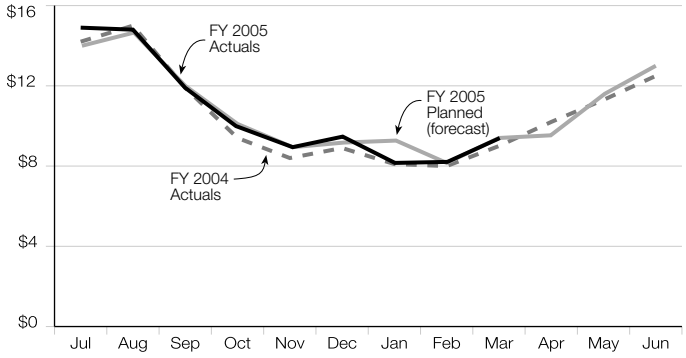
Ridership Numbers by Month

Numbers in Millions



Farebox Revenues by Month

Dollars in Millions



Source for all charts: WSDOT Ferries

Washington State Ferries: Quarterly Update

Electronic Fare System and Smart Card Project Update

Electronic Fare System: The current computer system used by Washington State Ferries (WSF) to collect fares at the ferry terminals was installed in the early 1990's. This outdated system is being replaced with a new electronic fare collection system (EFS). Key reasons for replacement of the fare collection system include: the implementation of the Smart Card (see below); internal procedure needs for fare collection; the existing hardware and software becoming too old and unserviceable; the old system's inability to provide electronic payment services to customers; and inability to integrate the regional smart card or tolling methods such as transponders for fare payment.

Smart Card: The Regional Fare Coordination System (RFCS, but better known as Smart Card) enables customers to purchase a single regional fare card for seven public transportation agencies. The system makes use of an advanced electronic card that replaces paper passes and tickets, and is linked to a single regional financial clearinghouse. The RFCS has been in planning and development phases since the late 1990s. WSDOT is a partner with six other regional transit agencies for development of a regional smart card that can be used to pay fares throughout the Puget Sound region with a single fare card. The project is authorized at $15.7 million for the combined EFS and Smart Card projects. Federal funds are paying for about 50% of the combined projects and the project is within budget.

Next quarter's key activities include:

- Substantially complete terminal facility improvements (July/August 05).
- Continued work on EFS software design specifications, employee training, and customer outreach.

WSF Now Included in Trip Planner

Puget Sound commuters and travelers who journey by land and by sea have an easy online way to figure out all their connections thanks to the online Regional Trip Planner. Washington State Ferries' information debuted on the Regional Trip Planner on February 1, making trip planning easier using public transportation across county lines. The ferry system expects the expanded Trip Planner to help foot passengers link up with ground transportation near ferry terminals.

The Regional Trip Planner answers the question: "How can I get from here to there?" Using addresses, intersections or landmarks for starting and ending points of a trip, the Trip Planner provides departure and arrival times, routes, boarding locations, and fares for buses, commuter rail, and light rail, in addition to the ferry system.

Metro Transit launched the first online Trip Planner in December 2001. The Trip Planner became a regional tool in early 2003, expanding service by adding transit information for the three-county metropolitan area: King, Pierce and Snohomish Counties. In 2004 there were 2.4 million visits to the website, and nearly double that number of trips were planned. The addition of the ferry system in February did not immediately generate an increase in traffic—the information base was already very large—but Metro's first-quarter figures show that the Regional Trip Planner is experiencing continued steady growth.

Number of Visits and Itineraries in Quarter 1

	Visits to the site	Itineraries
2005	675,113	1,488,031
2004	544,500	1,249,698V
2003	356,420	725,111

Source: King County Metro Transit

The ferry system is tracking impacts on customer service. The automated information services answers most of the easiest questions, leaving the harder ones for Customer Center staff. At King County Metro, Call Center staff handled a slight increase in calls over the last three years with no degradation in service, as measured by percentage of calls answered within a minimum time.

For more information about the Trip Planner and the ferry system's service, please contact Nicole Patrick at PatricN@wsdot.wa.gov <mailto:PatricN@wsdot.wa.gov>

State-Supported Amtrak *Cascades* Service: Quarterly Update

Ridership

Ridership on state-supported Amtrak *Cascades* was 86,167 in the first quarter of 2005. This represents a two percent increase over the same period in 2004. Factors driving this ridership increase include higher fuel prices for automobile travel and the ongoing economic recovery in the Pacific Northwest.

On-Time Performance

On-time performance of state-supported Amtrak *Cascades* trains was 74.4% in the first three months of 2005. This compares to 67.2% for first quarter of 2004. The slight improvement was caused by a reduction in freight interference along the shared rail corridor. Trains with the highest on-time performance during the quarter include the evening trains between Seattle and Bellingham (97.7% on-time) and Seattle and Portland (84.4% on-time). The train with the poorest performance (48.7% on-time) was the morning train between Seattle and Vancouver, BC, which continues to experience delays in the cross-border region.

The Bush Administration's Proposal for Amtrak

In February, the Bush Administration announced its 2006 budget proposal, which included elimination of funding for Amtrak as early as October 2005. The stark announcement was intended to serve as a starting point for discussions with Congress on the future of Amtrak and intercity passenger rail in the United States.

Key elements of the proposal include: a transfer of operating support for passenger trains from the federal government to the states; greater competition for operating contracts among passenger service providers; and a capital funding program for intercity passenger rail service expansion that would require a 50% state match.

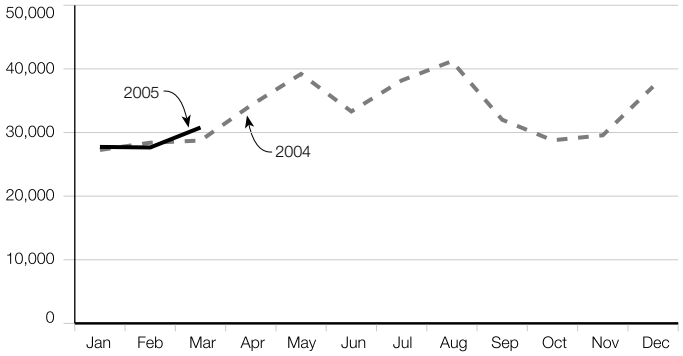
In the same February announcement, the state of Washington's intercity passenger rail program was singled out for being a national model of reform. Washington State is one of several states that provide a significant level of operating support for regional passenger trains (see the Farebox Recovery discussion in the the December 31, 2004 *Gray Notebook*), as well as capital funds for rail line improvements.

While it is unlikely that Congress will allow Amtrak to fall into bankruptcy later this year, it is likely that Congress will be taking a much closer look at the role of intercity passenger rail service later this spring and summer. An update on these discussions will be included in the next *Gray Notebook*.

An Amtak *Cascades* train, as seen from the top of the Tacoma Narrows Bridge

State-Supported Amtrak *Cascades* Monthly Ridership

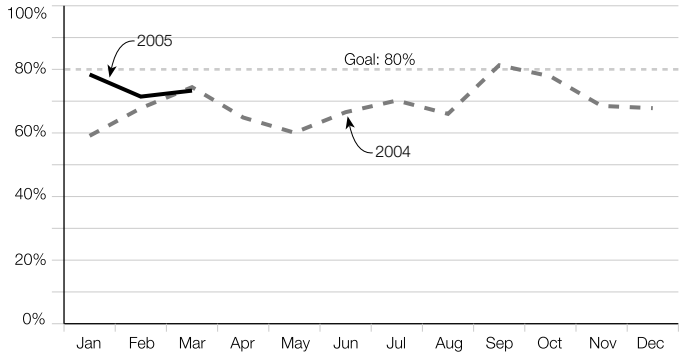
Number of Passengers



Source: Amtrak and WSDOT Rail Office.

State-Supported Amtrak *Cascades* On-Time Performance

2005 vs. 2004 Percent On-Time



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.

Source: Amtrak and WSDOT Rail Office.

State-Supported Amtrak *Cascades* Service: Quarterly Update

King Street Station Update

Renovations to Seattle's historic King Street Station continued in the first quarter of 2005.

Activities included restoration work on the Compass Room entrance hall, the main waiting room, and the west façade of the historic building. Long boarded-up windows in the waiting room were reopened and new wood windows and doors were installed. Replacement of rusted exterior canopies with new steel commenced, and exterior surfaces were cleaned and repaired at the main entrance to the station on King Street. This work is the second step in a $16.8 million rehabilitation of the station that is planned for completion in 2006.

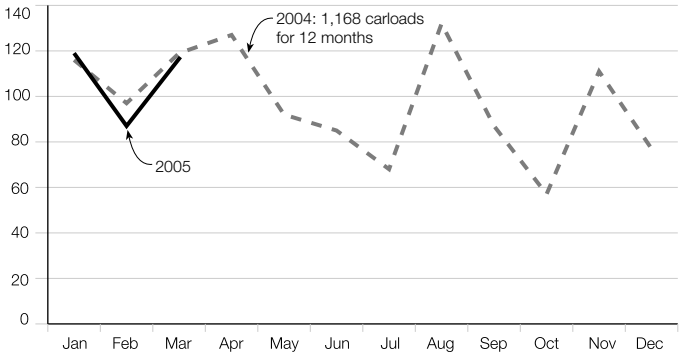
The ceiling of King Street Station's entryway Compass Room is being restored to its original grandeur.
Photo courtesy of Amtrak

Washington Grain Train Quarterly Update

The Washington Grain Train carried 324 cars of grain to Columbia River ports in the first three months of 2005. This compares to 332 carloads carried in the first quarter of 2004. The slight decline was the result of lower grain prices on the international market. However, car loadings remained strong due to more frequent use of grain train shuttles between farmer cooperatives in southeast Washington and the Columbia River barge terminal at Wallula.

Washington Grain Train Carloads

Carloads per month 2005 vs. 2004



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.

Source: WSDOT Rail Office.

Special Features

WSDOT Completes Traffic Signal Operations

National Traffic Signal Operations Assessment

WSDOT manages traffic signal timing to improve roadway safety and traffic flow. According to the National Transportation Operations Coalition (NTOC), the benefits of investing in signal timing have an extraordinarily high forty-to-one ratio to costs. Managing traffic signals supports shorter trip times, improved air quality, better fuel efficiency, and decreased driver frustration.

In February 2005, the Traffic Signal Operations Self-Assessment survey was sent to any agency in the United States that is responsible for the operation and maintenance of traffic signals. NTOC, in partnership with the Federal Highway Administration, sponsored the survey. The self-assessment helps agencies identify opportunities to improve their own policies and procedures. In addition, the information is combined into a national report card on traffic signal operations.

NTOC received 378 responses from 49 states, 242 cities, and 62 counties. Bearing in mind that the rankings are derived from self-assessments of the organizations returning results, WSDOT's score was 68 compared to the national average of 60.

WSDOT's Signal Re-Timing Efforts

WSDOT owns and operates just over 1000 traffic signals on state roadways. Virtually all are fully actuated traffic systems, meaning they use loop detectors to determine when the signal light changes to green. Actuated signals take into account fluctuations in traffic volumes.

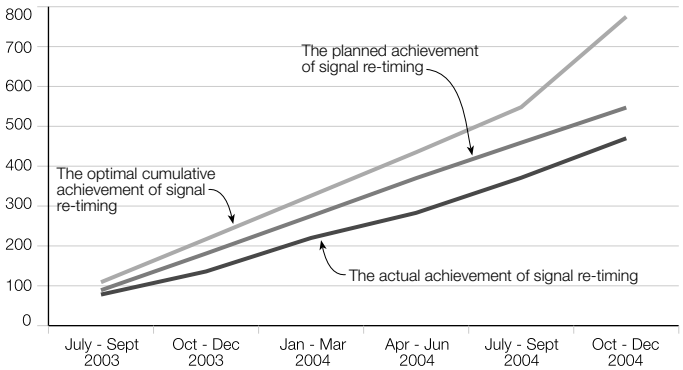
Every two years, WSDOT develops a signal re-timing and coordination plan. The plan is based on the number of signals in an area, where each signal is located (i.e. suburban and rural), the volume of vehicles that travel through each signal, and the available staffing resources. Signals are re-timed every two to three years in rural locations, about every two years in suburban locations, and more frequently in urban areas.

The graph at the top shows WSDOT's signal re-timing performance results from July 2003 through December 2004. WSDOT signal re-timing activities were planned at about 75% of optimal based on available funding. Current re-timing delivery is about 85% of planned. This is in part due to difficulties in retaining skilled staff and in part due to re-allocation of signal re-timing resources to other operational activities. WSDOT is currently evaluating its management practices and needed efforts to meet the re-timing plan.

Cumulative Performance in Signal Re-Timing

Eighteen Months from July 1, 2003 to December 31, 2004

Number of Signals Timed



Source: WSDOT Traffic Office

Signal Synchronization: Before and After Results

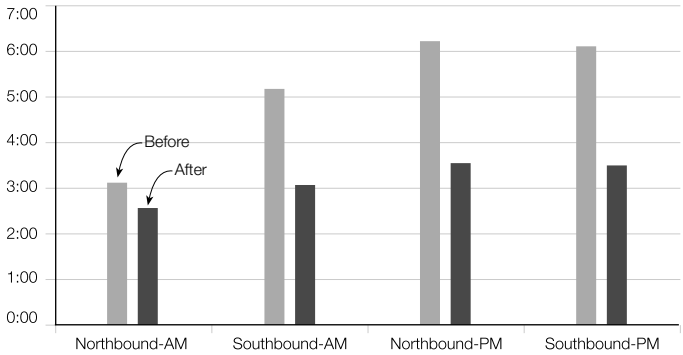
Case Study: SR 527 Signal Optimization Project

In a study conducted by the City of Bothell, noticeable reductions in average vehicle travel times were recorded as a result of re-timing traffic signals on SR 527 between 228th Street SE and SR 524. Reductions going northbound ranged from 16 seconds during the morning peak period to two minutes and 27 seconds during the evening peak period. Signal synchronization accounted for a 41% reduction in travel times during the morning southbound commute, and a 38% reduction during the evening northbound commute.

Time Savings for Motorists Resulting from Traffic Signal Resynchronization of SR 527 in Bothell

Before and After Average Travel Times from 228th St. to SR 524

Minutes and Seconds



Source: City of Bothell

2005 Water Conservation Activities

Washington's warm winter of 2004-05 resulted in low snowfalls and low snow pack levels in the mountains. On March 10th, Governor Gregoire issued a statewide drought emergency, asking all state agencies to reduce water consumption. WSDOT can work to conserve water throughout the state on construction projects and in the maintenance and operation of its facilities. Planned water conservation measures include:

- Reducing watering of lawn/turf areas at WSDOT rest areas and other facilities
- Using the minimum amount of water needed to preserve trees and plants at rest areas, landscaped roadside areas, environmental mitigation sites, and other facilities
- Minimizing truck, car, and equipment washing
- Using water conservation Best Management Practices at highway construction sites

Implementing these and several other water conservation methods during 2005 will lead to a projected water savings of 94 million gallons of water. This would represent a reduction of 28% compared to water use in 2004. To make the agency water-wise well into the future, WSDOT will evaluate ways to conserve water and incorporate them into standard operating procedures.

Another byproduct of the mild winter may be an active wildfire season. WSDOT is already working with other agencies to plan activities like deploying equipment, providing staff for traffic control, and using tank trucks to transport water.

Innovative Water Conservation

Long before this year's drought, Cecil Rench at WSDOT's Monroe Maintenance Facility began thinking about innovative ways to conserve water. Cecil decided to capture rain runoff from the shop and sand shed roofs. The average annual rainfall at the facility is 55 inches. About 300,000 gallons of water per year are generated by the roofs. The motivation to conserve water came from media coverage encouraging citizens to help returning salmon in late summer by conserving water.

The rainwater is used for a number of purposes: to wash equipment, mix with de-icer chemicals during winter months, and supply water-intensive equipment such as sweepers, vactor trucks, flusher trucks, asphalt rollers, and portable tanks for sign washing.

The first year, the system used 137,000 gallons of rainwater, which saved the local water system that many gallons. By mixing rainwater with de-icers, WSDOT now saves approximately 200,000 gallons each year.

Not Satisfied Yet

Another opportunity arose in 2005, when the Monroe Maintenance Facility agreed to host the annual erosion and sediment control training. This training demonstrates installation and effectiveness of best management practices, using ditching and mulching. Seven days of training would use about 84,000 gallons. A water conservation plan emerged. The crew installed impermeable bentonite clay mats beneath the ditches and captured water in plastic-lined retention ponds at ditch outfalls. At the end of each day, the water was pumped back to the top of the ditches for use in the next day's training. In this way, only 12,000 gallons of water were used, saving an estimated 72,000 gallons.

WSDOT will use the minimum amount of water needed in landscaped areas

At the Monroe Maintenance Facility, rainwater is collected off the roofs of the buildings

Then, the rainwater is filtered and pumped to two additional storage tanks

Using Plain English at WSDOT

Recently Governor Gregoire issued Executive Order 05-03, requiring state agencies to use "Plain Talk" in letters, announcements, publications, and other documents. Plain Talk means writing with everyday language, presenting information logically, composing short sentences, developing easy-to-read layout and design, and using active voice sentences that clearly show who is responsible for what. WSDOT's ongoing effort to use "Plain English" is receiving national attention through its *Gray Notebook,* and reader-friendly environmental impact statements. WSDOT employees also apply easy-to-read writing throughout the agency as part of its everyday way of doing business. Using Plain English is WSDOT's way of staying accountable to its citizens.

Measures Your Neighbor Can Understand

This edition of WSDOT's *Gray Notebook - Measures, Markers, and Mileposts* marks its four-year anniversary. From its beginning, this quarterly performance measures report has been written in a style called "Performance Journalism." Performance Journalism consists of nine principles that make the presentation of technical information clearer, easier to understand and even engaging to the reader. Quantitative reporting with its tables, charts, and measurements combines with narrative text. The result is a form of special feature article with text, pictures and charts. The motto of the *Gray Notebook* expresses these principles to read: "Explain it so your neighbor can understand." For more information about Performance Journalism, please check out the gray text box on this page. The *Gray Notebook* is available at www.wsdot.wa.gov/accountability/default.htm.

Reader-Friendly Environmental Impact Statements

WSDOT's Environmental Impact Statements (EISs) are developed using guidelines from a 60-plus page publication known as the *Reader-Friendly Document Tool Kit* for environmental documents. Using the principles in the tool kit, WSDOT created the *SR 99 Alaskan Way Viaduct and Seawall Replacement Draft EIS*, which recently received The National Association of Environmental Professionals' (NAEP's) 2005 President's National Environmental Excellence Award. NAEP called the Alaskan Way Viaduct Draft EIS the "best of the best" of entries received in all categories. They added: "The environmental decisions to be made were clearly and distinctively communicated for the public and decision makers, a feat which makes this project an obvious choice for this award."

Around the country, transportation departments are changing the way they do business, working to become more accountable to the public through clear, understandable environmental writing. WSDOT's environmental writing guidelines are being taken up with interest around the country and have become models for other states' DOTs. WSDOT has also been helping to lead a national taskforce organized by the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration, and the American Consulting Engineers Council to develop clear guidelines on writing about environmental impacts.

To learn more about the *Reader-Friendly Document Tool Kit*, please visit: www.wsdot.wa.gov/environment/compliance/ReaderFriendly.htm.

Making WACs Readable for Non-Lawyers

WSDOT made Washington's Administrative Code or WAC rules for overweight and oversize vehicle permits easier to read. WSDOT revised chapter 468-38 WAC, "Vehicle Size & Weight - Highway Restrictions - Equipment." The revision created a more understandable document by turning the chapter into a "question and answer" format.

Performance Journalism Principles

Good Writing: use plain English and avoid jargon

Good Stories: adopt narrative reporting to make it real

Good Data: source data is your credibility

Good Format: design should not distract from content

Good Graphics: every chart should tell a story, every chart should prompt a question

Quality Assurance/Quality Control: it is part of every step of the analysis and report production

Good Timing: (as in "real-time") provide frequent and timely information

Good Presentation: share information in a conversational style

Good Software: use software capable of generating both good formats and good graphics

Highlights of Program Activities

Project Starts, Completions, or Updates

• Hylebos Creek Restoration Project

WSDOT acquired the Spring Valley Ranch near Federal Way as mitigation for the I-5 HOV lane construction project from Port of Tacoma Road to the King-Pierce County Line. The 27-acre property, purchased for $1.75 million, includes a 1,400 foot reach of Hylebos Creek. The Friends of the Hylebos Wetland describe the creek as an excellent spawning habitat for endangered Chinook, Chum and Coho salmon. Restoration work will realign the stream into a more natural state and add shading with trees and plants. WSDOT is working closely with The Friends of the Hylebos and the City of Federal Way on the restoration. More information is available at: www.wsdot.wa.gov/projects/Pierce-countyHOV/I5_PortTacoma_KingPierce.

• Guardrail Upgrade on SR 14 in Klickitat County

The 2005 construction season got off to an early start in WSDOT's Southwest Region with one of the first projects of the year beginning construction on January 18. This project upgrades 6.5 miles of guardrail on State Route (SR) 14 between U.S. 97 and the Benton County line in Klickitat County. The guardrail in this area does not meet WSDOT's current standards and work will help increase safety in this corridor. WSDOT awarded the project contract to Petersen Brothers, Inc. of Sumner for their low bid of $747,723.

• Chuckanut Drive Slide

The ridge above Chuckanut Drive (SR 11) slipped on January 10, spilling nearly 200 tons of rock, mud, and trees on the highway. The rockslide, which was 50 feet long and 15 feet deep, completely closed the highway for two days. Crews removed 16 dump truck loads of debris and reopened Chuckanut Drive at the expense of roughly $20,000. Rockslides are a common occurrence and risk on Chuckanut Drive because the hillside is primarily sandstone.

The SR 11 Chuckanut Drive landslide before clean-up.

• Ross Point Slide Repair

WSDOT re-opened a project completed last fall at a notorious slide area above SR 166 north of Port Orchard. In January, Wilder Construction excavated a small area of the slope above the highway, which runs adjacent to Sinclair Inlet between Port Orchard and Gorst. WSDOT ordered the additional work following a small slide near the city limits (milepost 1.6). The slide was caused by the saturation and weakening of pre-existing slide debris that was not discovered – and therefore, not removed – during last summer's $3.2 million project. Under that project, 180,000 cubic yards of material was removed from Ross Point during a five-week-long SR 166 closure in July and August 2004.

• Sound Transit's Ash Way Bridge

Mowat Construction crews working for WSDOT began construction of Sound Transit's Ash Way Bridge. The ramp from the Park and Ride to the freeway is already built, as is the ramp between the north and southbound lanes of I-5. Now crews will build the box girder bridge connecting the two ramps across southbound I-5. The bridge is scheduled to open in October 2005. At that time, an estimated 180 Community Transit and Sound Transit buses will use the bridge connecting Ash Way Park and Ride lot with carpool lanes to and from I-5. For more information on this project, visit www.wsdot.wa.gov/projects/I5AshWayPR/

• U.S. 101 Station Camp Realignment

The start of construction for WSDOT's planned realignment of U.S. 101 in the vicinity of the Lewis and Clark "Station Camp" site west of the Astoria-Megler Bridge in Pacific County was delayed in January. The reason for delay was to provide additional time for cultural resources assessment of the site under Section 106 of the National Historic Preservation Act. The realignment is intended to allow for expansion of Station Camp Park on the south side of the new alignment and will also achieve a safety benefit for the roadway. The National Park Service is conducting the archaeological investigation of the site. The Washington State Historical Society has been instrumental in leading the project. Other participants included the Federal Highway Administration, the Washington State Parks and Recreation Commission and WSDOT. Archaeological finds recently made as part of the Park Service's investigation are now being reviewed with representatives of the Chinook Tribe as part of an extended Section 106 review. A new date for the start of construction has not been set.

Highlights of Program Activities

• ***Bogachiel Slide Repair***
In March, crews completed repair work at the Bogachiel slide area along U.S. 101 eight miles south of Forks on the Olympic Peninsula. Portions of the northbound lane began sliding into the Bogachiel River last fall, reducing U.S. 101 to a single lane of traffic through the 600-foot slide area. Bruch and Bruch Construction of Port Angeles began a $512,000 project on January 3 to build a 230-foot-long "soldier pile" retaining wall. Work included rebuilding the roadway on lightweight wood fiber placed between the soldier pile wall and a "soil nail" wall built in the first phase of emergency repairs.

• ***SR 26***
A project to build new SR 26 ramps at Interstate 90 on the east end of the Vantage Bridge in Grant County began in March. The on- and off-ramps will be realigned and lengthened to provide standard-length acceleration and deceleration lanes, allowing cars and large trucks more time and space to merge. Moving the westbound on-ramp to a straight section of I-90 will make it easier for vehicles to get up to speed and safely merge with traffic on the freeway. In addition, electronic variable message signs will be installed on I-90 to warn westbound vehicles of high winds and other road conditions. WSDOT awarded a contract for the project to Steelman-Duff, Inc. for $4,176,465.

• ***SR 16 Tyler Street Off-Ramp***
Crews from Tri-State, Inc. are building a new interchange on SR 16 in Tacoma, began construction in March by closing the off-ramp at Tyler Street. The on- and off-ramps at Center Street ramps will be closed later this year. This work is part of a $90.5 million highway improvement project that was included in the 2003 Transportation Funding package. The new interchange will improve traffic flow by allowing drivers more space to enter and exit the freeway. It is scheduled to open to traffic in 2007 to coincide with completion and opening of the new Tacoma Narrows Bridge.

• ***I-5 Between 175th and 205th Streets***
New construction started on northbound I-5 between 175th and 205th Streets in Shoreline. Crews from Pacific Road and Bridge are widening the freeway for a new lane in the northbound direction, starting at the 175th Street on-ramp and continuing for three miles to the ramp at 205th/SR 104/Ballenger Way. The new lane will allow drivers a smoother transition on and off the freeway in this high accident corridor. The $10 million project is scheduled for completion by the end of 2006.

Ferries

A preliminary agreement was reached in mid-March between Cascade Concessions and the Inland Boatman's Union that could be the basis for restoring ferry food service on the Seattle-Bainbridge, Seattle-Bremerton, Edmonds-Kingston and Anacortes-San Juan Islands-Sydney, B.C. routes. In order to finalize an agreement several key issues need to be addressed, including union ratification, agreements with union members on shift schedules and restoring galley equipment for use.

W. Michael Anderson is the new Executive Director of the Washington State Ferries. He has been serving as the acting director since November 2004. The appointment culminates Anderson's 32-year career at WSF. He began work at WSF as a traffic attendant and worked his way through the ranks in various line and management positions including ticket seller, terminals manager and operations director.

Improved Motorist Information

In February, WSDOT activated new travel time signs on I-5, I-405 and I-90 that allow commuters to glance up at the electronic overhead signs and see about how long it will take to get from Lynnwood to Seattle or Bellevue via I-5 or I-405, or I-90 at Eastgate to Seattle. Under this pilot program, four signs were activated in the greater Seattle area and one sign at the U.S./Canada Peace Arch border crossing. Currently they will be on during the morning and evening commute. Drivers will be able to make better choices about which roads to take or call their work or daycare and let them know if they'll be late or early. More detailed information on these signs and an e-mail address for comments is available at: http://www.wsdot.wa.gov/Regions/NorthWest/News/2005/Feb16_TravelTimes.htm.

Real-time travel information at the I-90 Interchange aids commuters on I-5.

Highlights of Program Activities

Events

March 13 marked the 100th Anniversary of the establishment of the State Highway Board, the early predecessor of WSDOT. The state Capitol Building was the site of an event kicking off a yearlong celebration that began on March 15. Governor Christine Gregoire proclaimed 2005 as the year Washington citizens look back at the state's progress in transportation and at the same time anticipate the innovations in transportation that will serve its citizens in the future.

WSDOT maintenance crews reopened SR 20, the North Cascades Highway on March 10, the earliest opening ever. Work to clear the highway started at Star Gate, 14 miles west of Mazama on February 28. When work began, most of the highway was covered with snow and ice measuring one foot or less. Normally, the snow depth is between 7 to 9-feet. The highway was closed again on March 26 due to late-season snowstorms and high avalanche danger.

Grants and Awards

WSDOT has received $19.4 million in Federal Emergency Relief Funds as reimbursement for costs associated with damage to highways during floods and slides over the past two years. These funds are part of a total of $740 million distributed to 34 states through the Federal Highway Administration's emergency relief program. The most notable of Washington's emergency repair projects being reimbursed are:

- Jefferson County, US 101 Hoh River Engineered Log
- Whatcom County, SR 20, West of Newhalem Rock
- Clallam County, SR 112 Neah Bay Slide

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Ferry Vessel Workers Recordable Injuries	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Highway Engineer Workers Recordable Injuries	2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14
Highway Maintenance Workers Recordable Injuries	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Highway Maintenance Workers Safety Training	5, 6, 7, 8, 9, 10, 11, 12, 13
Human Resources Training for all WSDOT Employees	7, 8, 9, 10, 11, 12, 13
North American Association of Transportation Safety and Health Officials Meeting	3
Workforce Levels	5, 6, 7, 8, 9, 10, 11, 12, 13, 14

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-HIWY [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

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