Washington State
Department of Transportation

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending
December 31, 2004

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

Douglas B. MacDonald
Secretary of Transportation

What Gets Measured, Gets Managed

This periodic report is prepared by WSDOT staff to track a variety of performance and accountability measures for review by the Transportation Commission and others. The content and format of this report is expected to develop as time passes. Information is reported on a preliminary basis as appropriate and available for internal management use and is subject to correction and clarification.

The *Gray Notebook* is published quarterly in February, May, August, and November. For an online version of this or a previous edition of the *Gray Notebook*, visit www.wsdot.wa.gov/accountability.

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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

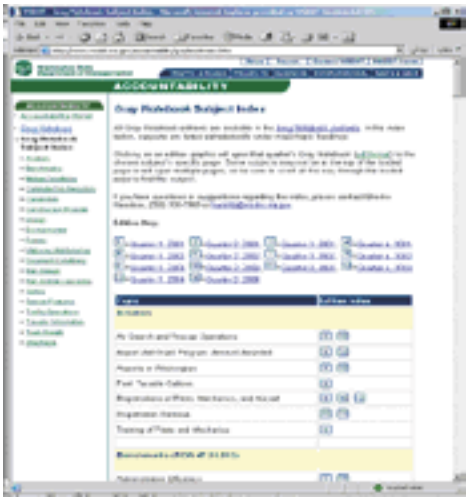
WSDOT's business plan, *Business Directions* outlines the agency's strategic initiatives and associated activities. It reflects WSDOT's program and project delivery responsibilities with the goal of demonstrating the best possible return for taxpayers' dollars. The *Gray Notebook* complements the plan 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 December 31, 2004
16th Edition, Published February 16, 2005

Table of Contents

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 (QPR). 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, the quality and apparent automation of these reports is the result of much manual input and effort behind the scenes).

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.

For more detail on this issue, please see Management Information System and Needs on page 24 or for the performance reviews page 83.

Project Reporting on the 2003 Transportation Funding Package

Project Reporting

Project Information Roadmap

Gray Notebook

Home Page

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, risk 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

Summary of Project Advertisements, Awards and Completions

This is WSDOT's report of quarterly developments in the delivery of the 2003 Transportation Funding Package for the quarter ending December 31, 2004. 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.

The following 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 and the Transportation Commission.

Biennium To Date

Projects Advertised and Completed
As of December 31, 2004, 31 highway projects in the 2003 Transportation Funding Package have been advertised.

Projects Completed
1) SR 9/SR 528 Intersection – Signal
2) I-90, Cle Elum River Bridge
3) I-90, Geiger Road to U.S. 2 Median Barrier
4) I-90, Highline Canal to Elk Heights – Climbing Lanes
5) I-90, Ryegrass Summit to Vantage – Climbing Lanes
6) I-90, Sullivan –State Line Median Barrier
7) SR 97A, Entiat Park Entrance – Turn Lanes
8) SR 124, East Jct SR 12 – Reconstruction
9) I-182/U.S. 395 Interchange – Roadside Safety
10) SR 203, NE 124th/Novelty Rd. Vic
11) U.S. 395, Kennewick Variable Message Sign
12) SR 500, NE 112th Ave. – Interchange

Projects Advertised and Awarded
13) I-5, 2nd Street Bridge – Replace Bridge
14) I-5, Salmon Creek to I-205
15) I-5, Roanoke Vicinity Noise Wall
16) I-5, NE 175th St to NE 205th St – NB Lane
17) U.S. 12/SR 124 to McNary Pool – Add Lanes
18) SR 16, 36th St. to Olympic NW - HOV
19) SR 18, Covington to Maple Valley Highway
20) SR 31, Metaline Fall to International Border
21) I-90, Argonne to Sullivan Road (includes I-90, Argonne to Pine Road)
22) I-90, Eastbound Ramps to SR 18 – Signal
23) SR 161, 204th to 176th Street
24) SR 161, 234th Street to 204th Street E
25) SR 161, Jovita Blvd to South 360th Street
26) U.S. 395, NSC-Francis Avenue to Farwell Road
27) SR 527, 132nd St. SE to 112th St. SE

Projects Advertised But Not Awarded
28) I-5, Pierce County Line to Tukwila
29 SR 16, HOV Improvements – Union to Jackson Ave
30) SR 240/I-182 to Richland Y – Add Lanes
31) SR 240, Richland Y to Columbia Center Interchange

Awarded Projects
The total amount for the 27 awarded projects is $170 million, $8 million below the engineer's estimate. The total amount of the pre-bid engineer's estimate for the awarded construction contracts is $178 million. Four projects have been advertised and are pending award. These projects are not included in the engineer's estimate total of $178 million.

Delayed/Deferred Projects
Seven projects scheduled to be advertised prior to December 31, 2004 have not been advertised. The circumstances of these seven projects are as follows:

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.

SR7/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 March 2005.

SR 9, Nooksack Rd. Vic. To Cherry Street
Because of right of way issues as described in the September 2003 *Gray Notebook* the project has been deferred to the 05-07 biennium.

Current Project Highlights and Accomplishments

Summary of Project Advertisements, Awards and Completions

Delayed/Deferred Projects (continued)

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 December 2003.

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 has been needed for re-design of stormwater treatment, wetland mitigation and floodplain investigations to meet new environmental requirements. This project now has a planned advertisement date of October 2005.

SR 522, Bothell – UW Campus Access
The funding needed from the WSDOT partners did not materialize during the 03-05 biennium. As a result, this project has been deferred to the 05-07 biennium.

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:

I-5, NE 175th to NE 205th – NB Auxilliary Lane
This project will widen northbound I-5 between northbound NE 175th Street and NE 205th Street by adding a 12-foot add/drop lane which will increase roadway capacity and improve traffic operations. The project will also construct a noise wall in the vicinity of North 180th Street. The contract was advertised in October 2004 and awarded in December 2004 for $7.4 million.

I-5, Pierce County Line to Tukwila
Stage four of this project will construct a southbound HOV lane from South 320th St. to the Pierce County line, and a Northbound HOV lane from the Pierce County line to South 272nd St. The project was advertised in November 2004 and awarded in January 2005 for $35.8 million. Construction is planned to start in March with a planned project completion in September 2007.

U.S. 12/SR 124 to McNary Pool – Add Lanes
The project was advertised as scheduled on October 4, 2004 and the bids for contract was awarded on December 6, 2004 for $5.6 million. Work is scheduled to begin in January 2005 to construct the two additional lanes on U.S. 12 from SR 124 to the McNary Pool.

SR 16, 36th St to Olympic Dr NW, Core HOV
This project will provide continuous HOV lanes on SR 16 from the new 36th Street Interchange to the Olympic Drive Interchange on the west side of the Tacoma Narrows Bridge. Bids were opened in December 2004 and awarded to the low bidder for $3.9 million. Minor changes to milepost limits were made to the contract that will now match the revised end milepost limits of the new Tacoma Narrows Bridge project.

SR 31, Metaline Falls to International Border
The first stage of this project was awarded for $11 million on October 15, 2004 and work began on November 29, 2004. The second stage of this project will include replacement of the Sullivan Creek Bridge and has a planned advertisement date in January 2006.

SR 161, 204th to 176th
This project was advertised in November 2004 and awarded in December 2004 for $5.1 million. Currently, utility relocation work is underway and construction will begin as weather permits in spring 2005. There remains one outstanding right of way parcel to be acquired. However, the owners have granted WSDOT possession and use of the parcel which will allow construction to proceed as scheduled prior to finalizing the purchase.

SR 161, Jovita Blvd to South 360th Street
The SR 161 widening project will improve traffic flow and reduce congestion and accidents. The project was advertised in September 2004 and awarded in December 2004 for $20.4 million. Work is expected to begin by April 2005.

SR 240/I-182 to Columbia Center Interchange - Add Lanes
This project was advertised for bid on December 20, 2004. This project constructs two additional lanes on SR 240 between Richland and Kennewick, linking Interstate 182 with the U.S. Department of Energy's Hanford site, the Columbia Center commercial areas, and east Kennewick's industrial zones. This project is the combination of two separate projects funded by the 2003 Transportation Funding Package: SR 240/I-182 to Richland Y-Add Lanes and SR 240, Richland Y to Columbia Center Interchange. WSDOT combined these projects to deliver them more efficiently and reduce impacts to the traveling public.

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. On the first contract, Farwell Road Lowering, the contractor completed placement of all girders for the four bridges in October 2004. Forming and placing rebar for the north and southbound bridges were completed in December 2004. The contractor continues to form the south to north ramp bridge deck. Forming of the wall footings began on November 2004 with an anticipated completion in January 2005. The Farwell Road Lowering project is within budget with a completion date planned in May 2005 depending on weather. The second contract, Gerlach to Wandermere Grading, was advertised in November 2004 with the bid opening in December 2004 and award is pending. 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.

Current Project Highlights and Accomplishments

Construction Highlights

Several of the highway projects funded by the Nickel Account are now under construction. More details can be found in the respective on-line Project Pages at www.wsdot.wa.gov/projects.

Highway Construction Program

I-90, Build Lanes from Argonne to Pines Road
This project constructs one additional lane in each direction on I-90. Work has now exceeded the fifty percent complete milestone. Work will continue through the winter on the construction of the noise walls south of I-90 near Argonne Road as weather permits. Eastbound traffic was routed to the new pavement in late October 2004. No additional impacts to traffic are expected until March 2005 when the westbound traffic will be routed onto the temporary configuration during construction of the new lane.

Project Completions

SR 9 – SR 528 Intersection
Heavy rains in September required extra erosion control work and replacement of soft roadway shoulder material which resulted in a minor construction cost increase of $73,000. The project was still below the original 2003 Transportation Funding Package amount of $710,000 even with the unanticipated expenditure. This project was operationally complete on October 14, 2004 with all on site work now finished.

I-90, Cle Elum River Bridge
This project increased the vertical clearance of the westbound Cle Elum River Bridge. The project was completed and opened to traffic on November 4, 2004. The project was designed and constructed within budget.

I-90, Geiger Road to U.S. 2 Median Barrier
This project installed 2.4 miles of concrete median barrier to prevent vehicles from crossing into the opposing lanes of traffic. Work began on September 13, 2004. The median barrier installation was completed and all lanes reopened to traffic on October 22, 2004.

I-90, Ryegrass Summit to Vantage – Truck Passing Lanes
This project constructed a new truck climbing/passing lane on westbound I-90, from Vantage to the Ryegrass summit. The project was completed nine months ahead of schedule and within the original budget amount in November 2004.

SR 203, NE 124th/Novelty Rd
The roundabout was opened to traffic in October 2004. Additionally, the flood plain mitigation work originally planned for the 05-07 biennium has been completed ahead of schedule under the current contract. This resulted in advancing $62,000 of Nickel funding planned for 05-07 biennium into the 03-05 biennium. Plant establishment and environmental monitoring activities are expected to continue through spring 2010.

U.S. 395, Kennewick Variable Message Sign
This project installed a Variable Message Sign (VMS) and camera near the north end of the Columbia River Bridge on U.S. 395 to warn drivers of congestion and accidents. Work started in July 2004 and was complete in November 2004. The system is fully operational and the VMS is connected to the WSDOT Traffic Management Center in Yakima. The VMS project was completed under budget.

SR 500, NE 112th Avenue – Interchange
The new interchange was officially opened to traffic at the ribbon-cutting ceremony on October 29, 2004. The project was completed on time and within budget. Although some minor items of work remain, such as revegetation and irrigation, they will not affect the traffic flow.

Other Highlights and Accomplishments

SR 270, Pullman to Idaho State Line – Additional Lanes
This project constructs a four-lane highway with a continuous turn lane along the existing SR 270 alignment, as reported in the September 2004 *Gray Notebook*. A public open house presenting the current plans was held on October 20, 2004 with favorable results. Design work is currently focused on contract plans and environmental documentation. Additional wetlands have been identified within stormwater treatment areas and roadway fills. The advertisement date will be delayed approximately ten months, from January 2005 to November 2005, to make necessary changes to the design plan. As reported last quarter, this resulted in shifting $2.4 million from 03-05 into 07-09 and delaying the open to traffic date one year to November 2007.

U.S. 395, NSC–U.S. 2 to Wandermere and U.S. 2 Lowering
This project completes four lanes between U.S. 2 and U.S. 395, constructs the U.S. 395 interchange at Wandermere, constructs

Current Project Highlights and Accomplishments

Construction Highlights

the U.S. 2 interchange, constructs a pedestrian/bike path, and builds a park and ride lot. This is a multi phased project with two contracts, U.S. 2 Lowering and U.S. 2 to Wandermere. As discussed in the last issue of the *Gray Notebook*, WSDOT was considering the installation of a trench system in order to drain perched water tables in the project area. The final cost analysis revealed the dewatering project cost, if completed separately from the existing contracts, would be higher than expected. There also remained the possibility of not adequately draining the material. Therefore, the benefits were not sufficient to advance the work as a stand-alone project. WSDOT concluded it would be better to address the dewatering work in the larger U.S. 2 Lowering contract. This decision will not affect the project schedule or budget.

Other Capital Programs - Rail:

Palouse River and Coulee City RR Acquisition

Right of way acquisition and operating lease negotiations with the previous owner, WATCO, were successfully concluded on November 1, 2004. This made WATCO the lease operator and State of Washington the official owner of the initial 194 miles of the planned 302 miles of track. The remaining 108 miles will be purchased during the first quarter of the 2005-2007 biennium.

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, rehabilitation of two key bridges is underway, and the trans-load facility in Morton has been completed. Completion is anticipated by the summer of 2005.

Other Capital Programs - Ferries:

Edmonds Multimodal Terminal

This is a partnership project between the City of Edmonds and WSDOT. The plan is to relocate and build a new expanded terminal that has multimodal facilities for both the City and WSDOT. Although the partners envision a multimodal terminal as the final product, this project is limited to what can be accomplished with currently available funding. The new terminal will have a single slip, passenger overhead loading, and provide grade separation between ferry and rail traffic. WSDOT will fund the acquisition of a new site and build a new ferry terminal of similar capacity to the existing terminal. When increased ridership warrants and additional funding is available, WSDOT will expand the terminal's capacity and add multimodal facilities. Negotiation with Unocal over the purchase and sale agreement for the property needed for the new ferry terminal is continuing. The Tribal Agreement has not been finalized, but a final agreement is expected to be reached in 2005.

Mukilteo Multimodal Terminal

This Nickel project is part of a companion project which is funded with Pre-Existing state revenues and federal grants. Work accomplished through June 2004 has been charged to the companion project rather than this Nickel project. The companion project is expected to receive $5.8 million in federal funds, which fully funds WSDOT's originally envisioned Mukilteo Multimodal project. Sound Transit, the Port, the City of Mukilteo, and WSF are working together in reviewing options for constructing a parking structure on the tank farm. WSF held two public meetings and an agency scoping meeting to begin the environmental process. The team will study the recommendations and refine the alternatives that will be provided during the Environmental Assessment. The companion project and Multimodal Terminal remains on track to finish as scheduled by July 2010.

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. The revised expenditure plan reflects the acceleration of work into the 2003-2005 biennium and the addition of funds newly allocated from the 2013-2015 biennium. Based on continuous assessment of preservation needs, the elements of this project have been revised to include dolphins at Anacortes, Bremerton, Kingston, Lopez, Orcas, Shaw, Tahlequah, and Vashon; aprons at Anacortes, Bremerton, Lopez, and Point Defiance; a trestle replacement at Lopez; transfer span retrofits at Tahlequah and Vashon; and upland preservation at Orcas and Point Defiance. WSF

Current Project Highlights and Accomplishments

Construction Highlights

identified two projects that accelerate ferry preservation work into the 2003-2005 biennium and which need to be performed immediately using catch-up preservation funds: the Lopez Dolphin Replacement Project and the Tahlequah Dolphin Replacement Project. Design work for both projects started in February 2004. The Lopez design is ongoing, with various alternatives under consideration, and will continue through the rest of this biennium. The Tahlequah design was completed in May 2004 and the project was advertised in June 2004. Construction at Tahlequah began in July 2004, and was substantially completed in November 2004; final project close-out will extend into 2005.

Other Capital Programs - Highways and Local Programs

Columbia Center Blvd Railroad Crossing
Work continues on the excavation of the railroad grade and construction of the bridge in Kennewick. The contractor has indicated work should be able to continue through the winter of 2004. If the contractor can continue working, the anticipated open to traffic for the bridge will be in April 2005.

Proposed Adjustments to Delivery Planning

Meeting schedule, budget and scope expectations is an important element in WSDOT's delivery of the projects in the 2003 Transportation Funding Package. Planning and design activities for specific projects sometimes identify the need to make adjustments to construction delivery spending schedules. Some of these adjustments will have no impact on critical start or completion dates. Others may require adjustments to critical dates. In the 2004 Supplemental Budget, the legislature recognized this and provided additional management flexibility to the Transportation Commission, allowing projects presenting special circumstances to be modified within the legislative guidelines.

Highway Construction Program:

SR 3/SR 303 Interchange (Waaga Way) – New Ramp
Project redesign and continuing issues with environmental permitting have delayed the advertisement of this project from December 2004 to May 2005. The Army Corps of Engineers determined the project will require an individual permit rather than the anticipated nationwide permit. The change in the permit status will add a water quality certification requirement from the Department of Ecology. However, this delay is not expected to interfere with the scheduled open to traffic date in May 2006 or increase the overall budget for this project. This delay will result in approximately $1.6 million shifting from the 03-05 biennium to the 05-07 biennium. Several elements of this project have been redesigned to improve levels of service and improve route continuity between SR 3 and SR 303.

I-5, Salmon Creek to I-205 – Widening
The 2003 Transportation Funding Package provided a $34 million budget for this project. This project was awarded in the spring of 2003 approximately $2 million under budget. This lower award amount was then adopted in the 2004 Supplemental budget and shown as $32 million in the LEAP list. During construction, this project encountered unforeseen site conditions which have increased construction costs for this project. WSDOT is requesting $2 million to cover the cost impacts that have resulted from these unforeseen site conditions. The project remains on schedule.

I-5/2nd Street Bridge - Replace Bridge
As reported in the September 2004 *Gray Notebook*, ground breaking for this bridge replacement project was held in August 2004. However, construction was delayed while a bridge pier design change proposed by the contractor was reviewed that would result in fewer bridge closures (225 days reduced to 210) and reduce traffic control costs. The change was accepted with the project cost savings of $104,000 split 50/50 between WSDOT and the contractor. The contractor began removing the existing bridge in October 2004. The design change delayed the work which began three months later than originally scheduled. As a result, expenditures for the 03-05 biennium will be $916,000 less than previously anticipated and will need to be deferred to 05-07. This deferral does not change the currently planned project cost or schedule.

I-5, S 48th to Pacific Avenue – Core HOV
The advertisement delay and shortened construction schedule require adjustments to the overall Nickel spending plan across the affected biennia. $10.6 million of Nickel funds from the current biennium and $16.7 million from the 07-09 biennium are moved to the 05-07 biennium. The preliminary engineering cost increased due to utility relocation costs, right of way acquisitions, and environmental permits. However, project work is on track for the planned advertisement date of February 2005.

I-5/SR 161 I/C & SR 18 I/C (SR 161/SR 18 Triangle Improvements)
This project will prepare a design analysis to develop a solution to the congestion and safety problems involving SR 18, SR 161 and I-5, commonly called the "triangle." Although the Nickel funds were authorized in July 2003, the agreement with the consultant was not set up until late January 2004. As a result of the process, approximately $1.1 million of Nickel funding will not be spent in the 03-05 biennium and will be shifted to 05-07. The funding shift will not impact project delivery or scope.

I-5/SR 532 Northbound Interchange Ramps
This project will construct improvements at the northbound I-5 off ramp and at the interchange where old SR 99 intersects SR 532. The project remains on schedule and within budget. However, right of way acquisitions are now anticipated to start in March 2005. This will delay some of the planned expenditures for the 03-05 biennium. As a result of this change, WSDOT will need to shift $1.5 million in expenditures from 03-05 to 05-07.

I-5, Boeing Access Rd to Northgate EIS
Current expenditures during the 03-05 biennium have been less than anticipated. As a result, the start of the project

Proposed Adjustments to Delivery Planning

was delayed until January 2005. WSDOT will need to shift $100,000 in expenditures from the 03-05 biennium to the 05-07 biennium. This will not impact the advertisement or the open to traffic date for future projects covered by the Environmental Impact Statement (EIS).

I-5, Roanoke Vicinity Noise Wall

The first stage of this project was awarded in August 2004. The second stage is being designed to accommodate the needs of the City of Seattle and to change the tieback anchor foundations for the noise walls. The noise wall panels, designed per agreement with the neighborhood, require a longer time for approval and procurement than anticipated by the design office. This will result in a carry forward of $1.8 million in construction funds into the 2005-2007 biennium.

SR 9/Nooksack Road Vicinity to Cherry St.

This project will construct a new highway alignment from Nooksack Road to Cherry Street to alleviate weather-related load restrictions, reduce the number and severity of accidents, and improve freight mobility to the Canadian Border. To assist in alleviating the forecasted shortfall in Pre-Existing Funds in the improvement program in the 03-05 biennium, WSDOT is proposing to spend $443,000 of Nickel funds in this project advancing the funds from the 07-09 biennium and delay drawing on spending the Pre-Existing Funds until the 07-09 biennium. These adjustments result in a net increase of Nickel funds of $90,000 in the 03-05 biennium and $353,000 in the 05-07 biennium. The proposed change in timing of expenditures in Pre-Existing and Nickel funds will have no impact on the overall project cost.

SR 9/SR 522 to 212th Street SE (Stages 1b and 2)

Projected available funds for the improvement program from Pre-Existing funds will fall short of what is needed for the 03-05 biennium. To resolve the shortfall, WSDOT will need to spend approximately $600,000 more of Nickel funds first in the current biennium and delay spending the Pre-Existing Funds until the 05-07 biennium. At the same time, an updated construction schedule shows that a six-month acceleration of the open to traffic date from winter 2008 to summer 2007 is possible. The accelerated schedule will require advancing $2.2 million construction funding from 07-09 to earlier biennia. The proposed change in timing of expenditures in Pre-Existing and Nickel funds will have no impact on the overall project cost.

SR 16, I-5 to Tacoma Narrows Bridge - HOV

Although the project was advertised in March 2004, bid opening has been delayed due to an appeal of the environmental permit involving property acquisition. With the appeal resolved, bid opening is scheduled for February 2005. Construction is now anticipated to begin in April 2005 and the 03-05 expenditures for construction have increased by $12 million. Previously it was assumed that the permitting issue would not be resolved in time to accomplish any construction in this biennium. Final projected completion date currently remains unchanged for the spring of 2007.

SR 20/Fredonia to I-5 – Widening

Design and right of way costs have increased on this project. However, these cost increases have been offset by anticipated savings in the construction phase. The design increase of $650,000 is the result of expenses incurred to update environmental reports. There is also an estimated $7 million right of way cost increase as the result of more parcel impacts than previously anticipated and increased property values. According to the current project schedule, most right of way acquisitions are scheduled to begin in January 2005. As a result, $3.0 million for right of way expenditures will be shifted to 05-07 instead of occurring in 03-05. The project remains on schedule for its October 2006 advertisement.

SR 24/I–82 to Keys Road

This project will construct one additional lane in each direction on SR 24 from I-82 to Riverside Road and includes several new structures. WSDOT has accelerated the project advertisement date two months, from April 2005 to February 2005, in order to coincide with the 2005 in-water work window to begin construction of the Yakima River Bridge. Advancing the project advertisement provides time to acquire materials and mobilize equipment prior to the start of the only environmentally permitted time frame when work is allowed in the Yakima River per environmental permits. Due to the advancement of the advertisement date, WSDOT expects the four-lane improvement to be open to traffic ahead of schedule in November 2006. As reported last quarter, there was uncertainty on how the final expenditure plan would develop. With the issues now resolved and to accommodate the accelerated time line and new construction schedule, based on the fourth quarter expenditure plan, WSDOT will need to shift

Proposed Adjustments to Delivery Planning

$7.5 million from the 07-09 biennium with $5.1 million into 03-05 and $2.4 million into the 05-07 biennium.

SR 99/S. 284th to S. 272nd St - HOV

This project will reduce congestion and enhance safety by adding HOV lanes in both directions, upgrading bus zones, improving pedestrian safety and accessibility, and giving signal preference capability to transit buses at traffic signals. Due to complex appraisal and negotiations on some parcels, right of way and design spending for the current biennium is lower than previously estimated. As a result, WSDOT will need to shift $1.2 million from the 03-05 biennium to the 05-07 biennium. This adjustment does not affect the overall project schedule or cost.

SR 99, Alaska Way Viaduct

Actual expenditures during the 03-05 biennium were less than estimated due to the delay in selecting the preferred alternative by nine months. As a result, WSDOT will need to shift $3.9 million in expenditures from the 03-05 biennium to the 05-07 biennium.

SR 106, Skobob Creek - Fish Passage

A Cost Risk Assessment (CRA) of the cost and delivery plan prepared by a consultant working for the Hood Canal Salmon Enhancement group has been completed by WSDOT. The original estimate developed by the consultant did not include a detour in the scope, but the CRA identified that a detour route would be needed during construction. Subsequently, a new schedule and cost estimate were developed for this project. The WSDOT CRA team found the addition of a detour route would add approximately $500,000 or more to the project cost. This change will also result in a construction schedule taking a year longer than originally planned by the Hood Canal Salmon Enhancement group consultant. With the project scheduled for advertisement in March 2005, WSDOT will need to increase the 2003 Transportation Package funding from $330,000 to $830,000 in 03-05 to cover the potential additional construction costs during the 2005 construction season.

SR 202/Preston-Fall City Road and SR 203

After an evaluation to determine the appropriate solution for intersections described in the September 2004 *Gray Notebook*, the result was a slightly lower design spending forecast for the current biennium. The current proposal is to move $37,000 to the 05-07 biennium. This adjustment will have no impact on the schedule or overall project cost.

SR 202, 244th Avenue NE Intersection

As reported last quarter, the local school district has requested an acceleration of this project because school buses have difficulty getting onto SR 202 from 244th Avenue. In response to this request, WSDOT proposes to install a temporary signal during the spring of 2005 to improve safety and access at this intersection. In order to install the temporary signal in the spring of 2005, $50,000 will need to be advanced from the 05-07 biennium to the 03-05 biennium. The permanent signal and right-turn pocket will be constructed in the summer of 2006 as originally scheduled. The overall project cost will not be affected by this adjustment in order to delay the need to use Nickel account funds.

I-405, Congestion Relief and BRT Projects

Actual expenditures during the 03-05 biennium have been less than originally estimated. Moreover, project work in the first quarter of the 03-05 biennium used Pre-Existing Funds, as a result, WSDOT will need to shift $5.7 million in planned Nickel fund expenditures from the 03-05 biennium to the 05-07 biennium.

SR 509, I-5 Freight and Congestion Relief Project

This project will complete SR 509 between I-5 and South 188th Street in SeaTac and will make related improvements on I-5 from South 200th to South 320th. Design was funded with the expectation of receiving additional funding from RTID. However, RTID funds did not become available and design work on the project was reduced. If additional funding is not provided by January 2007, the project work will be suspended no later than June 2007. Offers will be made this biennium for right of way acquisition with the available funding. Due to the negotiation and acquisition process of right of way, the project team estimates that approximately $14 million will not be spent this biennium and should be carried forward into the 05-07 biennium.

SR 520, Bridge Replacement and HOV

Actual expenditures during the 03-05 biennium were less than estimated due to the delay in selecting the preferred alternative by six months. As a result, WSDOT will need to shift $4.9 million in planned expenditures from the 03-05 biennium to the 05-07 biennium.

Proposed Adjustments to Delivery Planning

SR 520, W Lake Sammamish Pkwy to SR 202

This project will add a carpool lane and an add/drop lane in each direction of SR 520, complete the SR 202 interchange, construct a new ramp connecting westbound SR 202 to westbound SR 520, and complete improvements to the West Lake Sammamish Parkway interchange. The amount of design spending in the current biennium was lower than expected for the EIS review and will require the deferral of $875,000 from 03-05 to future bienniums. The project team has also identified an opportunity to advance construction of the westbound SR 202 to westbound SR 520 ramp by 22 months to December 2006. This will provide improvements to traffic flow along SR 202 at SR 520. Under this plan, the ramp would coincide with improvements on SR 202 between SR 520 and Sahalee Way. future analysis of advancing this ramp work is still being conducted by WSDOT. An update of this project will be provided in the March 2005 *Gray Notebook*.

SR 522/I-5 to SR 405 Multi-Modal Project

This project will provide improvements on SR 522 in conjunction with projects by the cities of Seattle, Lake Forest Park, Kenmore, and Bothell. Acquisition of several properties for right of way will be challenging to appraise and negotiate. As a result, WSDOT is expecting to spend $800,000 less in the current biennium than previously anticipated. At the same time, the project team is forecasting current biennium design expenditures that are $100,000 higher than planned. The net result is WSDOT's proposal to shift $702,000 from the 03-05 biennium to 05-07. This adjustment will not affect the project scope, schedule, or overall budget.

SR 527, 132nd St. SE to 112th St. SE

This is a partnership project with the City of Everett and provides improvements from 132nd SE to 112th SE for increased safety and improved traffic flow. The roadway improvement components of this project will be open to traffic by spring 2006. However, wetlands monitoring and other project activities will continue through December 2008. As a result, $219,000 in construction spending will occur in the 07-09 biennium instead of the 05-07 biennium as previously planned.

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

The turnkey consultant approach to parcel acquisition and business relocation has been a success on this project, with nearly all of the acquisitions and relocations complete. The last uncontested parcel acquisition is expected to be complete within the next two or three weeks, while the two remaining GSA parcels have encountered some difficulty in obtaining easements. There is only one remaining parcel that will have to be acquired through condemnation. Right of way costs remain within budget. The redesign of the retaining/noise wall continued through the fourth quarter and an updated cost is expected to be complete in January 2005. Review comments on the JARPA (Joint Aquatic Resource Permit Application) submitted last quarter to resource agencies were addressed and the final application was submitted in early December 2004. The Multi Agency Permitting Team has committed to expediting the JARPA review/approval process as much as possible. As a result, WSDOT will need to shift $62,000 from the 05-07 biennium to 03-05 biennium to support these activities in preparation for the advertisement in April 2005 .

SR 900/SE 78th St. Vicinity to I-90 Vicinity

This project provides improvements along SR 900 from SE 78th Street to I-90. Right of way acquisitions have been delayed from November 2004 to June 2005 pending a decision on the final alignment. In addition, design expenditures are lower than previously forecast. As a result, WSDOT will need to shift $191,000 from the 03-05 biennium to 05-07 biennium. This adjustment will have no affect to the project schedule or overall project cost.

Opportunities and Options for Legislative Consideration

The following projects were reported as requiring legislative guidance and offered for legislative consideration.

Highway Construction Program

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

The project remains on schedule with the planned advertisement date of September 2007. This project will affect commercial and agricultural activities in the area. In response to these concerns, a Design/Access hearing was held in November 2004 so that the public could understand and talk with WSDOT about the various alternatives. WSDOT is analyzing comments received during the hearing. An issue has been raised about economic vitality regarding the proposed reduction in direct and cross access to U.S. 2 and/or U.S. 97. In order to ensure the ability to efficiently continue to operate orchards with ownerships lying on both sides of the highway once the project is complete, the County Commissioners and landowners have requested that an equipment undercrossing be incorporated into the project to reconnect two county roads that are to be closed and terminated with a cul-de-sac. This and other issues raised have the potential of increasing the project cost by approximately $1 million. Additionally, there are proposals to have some property re-classified as commercial that may also impact final project cost.

U.S. 2, Dryden - Signal

The preliminary engineering is underway and the project is on schedule. Since the initial approval of the cost of the project, Advance Warning Beacons have been installed on all signals near the Dryden intersection. The Advance Warning Beacons needed to be incorporated into this project for route continuity and to alert drivers they are approaching a signal. The cost increase of $116,000 is needed to fund the addition of Advance Warning Beacons.

SR 18, Issaquah /Hobart Road to Tigergate
SR 18, Tigergate to I-90 - Widening

The current scope of this project is to complete the environmental documentation for widening SR 18 between Issaquah-Hobart Road and I-90 and make improvements to the I-90/SR 18 interchange. As design enhancements continued, it became apparent the I-90/SR 18 interchange should be the first section constructed in the remaining corridor. FHWA had granted WSDOT approval for the I-90 Sunset interchange project, conditioned on the completion of a Route Development Plan (RDP) for the I-90 corridor between Bellevue and North Bend. The RDP must be completed prior to approval of the Access Point Decision Report for the I-90/SR 18 interchange. WSDOT is seeking legislative approval for a scope change to utilize project funds to complete the RDP for the I-90 corridor between Bellevue and North Bend. In addition, as a result of the RDP and a delay in the approval of the consultant agreement, spending of approximately $1.3 million will be delayed and transferred to the 05-07 biennium.

SR 18, Covington Way to Maple Valley

Last quarter, following contract award, WSDOT checked the expenditure plan against the contractor's preliminary schedule to determine if adjustments were needed in expenditure timing. The project team determined that 03-05 biennium spending will be $2.2 million lower than expected because most of the roadside restoration work has been rescheduled for June 2005 when plant materials become available. With the project cost being lower than the $3 million budgeted amount in 03-05, WSDOT is proposing to transfer $1.6 million of engineering and construction funds to the SR 18, Maple Valley to Issaquah/Hobart Road project in the 03-05 biennia as described below. The remaining $600,000 will be divided and added to the next three bienniums and used to pay for higher than expected costs for monitoring the projects' compliance with environmental permits.

SR 18, Maple Valley to Issaquah/Hobart Rd

During development of WSDOT's 05-07 budget, a projected shortfall of Pre-Existing Funds was identified. The project team is forecasting the cost to complete the roadway contract at $9.3 million higher than the current budget. This increase resulted from additional earthwork, stormwater treatment, wetland mitigation, and the associated engineering costs of these activities. As part of the strategy to resolve this shortfall, $2.2 million Nickel funds were advanced from the 07-09 biennium to the 03-05 biennium on this project to maintain the schedule. WSDOT is also proposing to use the project cost savings from roadside restoration work on the SR 18 Covington to Maple Valley project as described above of $1.6 million of engineering and construction funds to cover a portion of the $9.3 million increase. The remainder of the project cost increase will be funded using Pre-Existing Funds.

SR 20, Quiet Cove Road to SR 20 Spur

WSDOT is requesting a scope change to resolve a funding shortfall on this project. WSDOT has determined that staging project construction will reduce the scope of work by focusing

Opportunities and Options for Legislative Consideration

available funds on the section of SR 20 with the highest safety need. Under this proposal, design and right of way acquisition for the entire project and construction of stage one would be funded with the original budget as a part of the 2003 Transportation Funding Package. This would include the 1.4 mile section from Quiet Cove Road to North Campbell Lake Road. The advertisement for stage one would occur in October 2006 as originally planned and would include roadway realignment, roadway widening, a new bridge, and roadside safety work. An additional $3.9 million would be needed in the 05-07 and 07-09 bienniums for stage two, which is the 1.8 mile section from the North Campbell Lake Road to the junction with the SR 20 Spur. WSDOT is seeking legislative approval to stage this project and move ahead with stage one construction as proposed. WSDOT will provide an update on the status of this project by June 2005.

I-90/Eastbound Ramps to SR 18 - Signal

In September 2003, during the first stage of this project, WSDOT installed a temporary signal at this location. On review of the design schedule the project team decided to try to advance stage two by one year, from January 2007 to February 2006. This schedule revision will require $2.2 million to be advanced from the 07-09 biennium to the 03-05 and 05-07 bienniums. Using the proposed design schedule, the traffic signal and roadway improvements would be open to traffic in spring 2007, sixteen months earlier than originally planned. These changes will not affect total project cost.

SR 520, Bridge Replacement and HOV

The 2003 legislature baseline schedule assumed there would be funding from RTID sources by July 2005. RTID funds have not become available so the project faces a major slow down for the 05-07 biennium and in subsequent biennia. The proposed advancement of $13 million from the 09-11 biennium to the 05-07 biennium will avert that slow down for two years. It is important to note that in order to meet the start of construction in 2010, contingent on voter approval of RTID, a significant investment above the Nickel funding would be necessary in the 07-09 biennium ($100 million) with more to follow in later years.

SR 522, Snohomish River Bridge to U.S. 2

The 2003 Transportation Funding Package provided funding to widen SR 522 from the Snohomish River to Monroe. The remaining section between the Paradise Lake Road Interchange and the Snohomish River Bridge including the construction of an interchange at Paradise Lake Road was anticipated to be funded by RTID. With the uncertainty of RTID funding, WSDOT is requesting to shift funds to construct the interchange and widen SR 522 from Paradise Lake Road to the Snohomish River bridge. As part of this proposal, the interchange at SR 522/U.S. 2 will also be improved to provide better access for westbound U.S. 2 to westbound SR 522 traffic. The remaining improvements, widening SR 522 from Snohomish River bridge to Monroe, will be constructed by RTID. This proposal will provide a continuous four-lane divided roadway from I-405 to the Snohomish River Bridge and address the greatest safety needs. In addition to proposing a scope change, WSDOT is also proposing to advance the scheduled completion of construction from 2015 to 2012. This proposal will require $21.6 million from the 09-11 and 11-13 biennia to be advanced forward to the 05-07 and 07-09 biennia.

Other Capital Programs: Rail

Bellingham – GP Area Upgrades

The Port of Bellingham, is working with the City of Bellingham, and negotiating with Georgia Pacific Corp. to purchase the plant area and redevelop it. When the redevelopment occurs, the Port is interested in relocating the BNSF Mainline that now runs through the middle of the plant site. So far this plan has not been completed, but its result could be higher train speeds and elimination of at least one grade crossing. Therefore, WSDOT is requesting putting the project on hold and not expending the remaining $148,000 in the current biennium. WSDOT recommends these funds be transferred to the 07-09 biennium when the Port's redevelopment plans will be completed.

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. BNSF began earthwork construction in November 2004. The track and signal system construction will begin in February 2005, after completion of the earthwork. It is anticipated that all work will be complete by July 2005. Some trains may be slowed during construction, depending on construction activities.

NE 39th Street Railroad Crossing

WSDOT began design work on the 39th Street bridge in Vancouver during March 2004 and railroad engineering began in May 2004. WSDOT has completed negotiations for

Opportunities and Options for Legislative Consideration

the purchase of two properties adjacent to West 39th Street necessary for the new bridge and approaches. By January 2005, the project design will reach the point where WSDOT and BNSF can determine the remaining properties that need to be purchased for the project. The budgeted amount in the 2003-2005 biennium for property acquisition is $500,000. However, based on preliminary estimates, this will only cover part of the cost of required properties. WSDOT has requested that $1 million be brought forward into the 2005-2007 biennium from the 2007-2009 biennium for the purchase of property. These funds will also be used for the relocation of houses and businesses.

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. The project completes the contractual commitments with BNSF and guarantees the continued operation of the second train on this route, currently operating between Seattle and Bellingham. Engineering began in November 2004. Phase one of the project will upgrade of the existing rail siding, and phase two will construct storage tracks in the Mt. Vernon/Burlington area. Due to the longer than anticipated negotiations of the contract between BNSF and its consultant, engineering of this project started later than planned. As a result, the department is concerned that as much as $500,000 of the $1.8 million appropriated in 03-05 will need to be delayed until the 05-07 biennium. Phase one may not be completed by the end of 03-05. However, the overall project completion date of June 2007 remains unchanged. The project's total appropriation for the entire project would remain at $3.8 million.

Project	03-05			05-07			07-09			09-11			11-13			Total by Project
	Budget*	Adj. Budget**	Net Change	Budget*	Adj. Budget**	Net Change	Budget*	Adj. Budget**	Net Change	Budget*	Adj. Budget**	Net Change	Budget*	Adj. Budget**	Net Change	Budget*	Adj. Budget**	Net Change
SR 3, SR 303 Waaga Way	3,179	1,540	(1,639)	12,000	13,639	1,639	-	-	0	-	-	0	-	-	0	15,179	15,179	0
I-5/SR 161 Interchange & SR 18 I/C	2,602	1,459	(1,143)	398	1,541	1,143	-	-	0	-	-	0	-	-	0	3,000	3,000	0
I-5, 2nd Street Bridge	9,379	8,463	(916)	153	1,069	916	-	-	0	-	-	0	-	-	0	9,532	9,532	0
I-5,SR 532 Northbound Interchange Ramps	1,907	453	(1,454)	4,553	6,007	1,454	1,243	1,243	0	-	-	0	-	-	0	7,703	7,703	0
I-5, S. 48th to Pacific Core HOV	15,641	5,000	(10,641)	47,690	75,021	27,331	28,704	12,014	(16,690)	-	-	0	-	-	0	92,035	92,035	0
I-5, Salmon Creek to I-205 Widening	25,475	27,360	1,885	6,414	6,500	86	-	-	0	-	-	0	-	-	0	31,889	33,860	1,971
I-5, Boeing Access Road to Northgate EIS	2,000	1,900	(100)	8,300	8,400	100	-	-	0	-	-	0	-	-	0	10,300	10,300	0
I-5, Roanoke Vicinity Noise Wall	3,300	1,550	(1,750)	200	1,950	1,750	-	-	0	-	-	0	-	-	0	3,500	3,500	0
SR 9, SR 522 to 212th Street SE (Stages 1b & 2)	7,084	7,662	578	20,251	21,838	1,587	2,166	-	(2,166)	-	-	0	-	-	0	29,501	29,500	(1)
SR 9/Nooksack Road Vicinity to Cherry Street	1,548	1,638	(90)	12,730	13,083	353	927	484	(443)	-	-	0	-	-	0	15,205	15,205	0
SR 16, I-5 to Tacoma Narrows Bridge- HOV	22,660	34,983	12,323	47,500	47,795	295	12,620	1	(12,619)	-	-	0	-	-	0	82,780	82,779	(1)
SR 20, Fredoniato I-5	7,385	5,346	(2,039)	9,869	20,265	10,396	50,512	48,133	(2,379)	8,463	2,527	(5,936)	42	0	(42)	76,271	76,271	0
SR 24, I-82 to Keys Road	1,058	6,221	5,163)	23,610	25,980	2,370	8,534	1,000	(7,534)	-	-	0	-	-	0	33,202	33,201	(1)
SR 99, So. 284th to S. 272nd-HOV	3,656	2,480	(1,176)	8,544	9,720	1,176	2,596	2,596	0	-	-	0	-	-	0	14,796	14,796	0
SR 99, Alaskan Way Viaduct (3 PIN Rollup)	45,000	41,083	(3,917)	12,000	15,917	3,917	40,000	40,000	0	40,000	40,000	0	40,000	40,000	0	177,000	177,000	0
SR 106, Skobob Creek	330	830	500	947	947	0	-	-	0	-	-	0	-	-	0	1,277	1,777	500
SR 202, 244th Ave.NE Intersection	-	50	50	404	354	(50)	-	-	0	-	-	0	-	-	0	404	404	0
SR 202, Preston-Fall City Road	120	83	(37)	1,477	1,514	37	902	902	0	-	-	0	-	-	0	2,499	2,499	0
I-405,Congestion Relief and BRT Projects (3PINRollup)	46,000	40,294	(5,706)	99,840	105,546	5,706	139,020	139,020	0	160,195	160,195	0	40,000	40,000	0	485,055	485,055	0
SR 509/I-5 Freight and Congestion Relief Project	29,206	15,206	(14,000)	5,794	19,794	14,000	-	-	0	-	-	0	-	-	0	35,000	35,000	0
SR 520, West Lake Sammamish Parkway to SR 202	3,369	2,494	(875)	6,699	7,032	333	16,224	16,766	542	60,515	60,515	0	15,493	15,493	0	102,300	102,300	0
SR 520, Bridge Replacement and HOV (3 PIN Rollup)	17,450	12,513	(4,937)	7,800	12,737	4,937	14,000	14,000	0	13,000	13,000	0	-	-	0	52,250	52,250	0
SR 522, I-5 to I-405 Multimodal	1,497	795	(702)	3,568	4,270	702	-	-	0	-	-	0	-	-	0	5,065	5,065	0
SR 527, 132nd St. SE to 112th St SE	12,112	12,112	0	7,058	6,839	(219)	-	219	219	-	-	0	-	-	0	19,170	19,170	0
SR 543, I-5 to Canadian Border–Additional Lanes	607	669	62	13,305	13,243	(62)	5,221	5,221	0	-	-	0	-	-	0	19,133	19,133	0
SR 900, SE 78th St Vic to I-90 Vic	1,418	1,227	(191)	2,497	2,688	191	10,836	10,836	0	-	-	0	-	-	0	14,751	14,751	0
Proposed Adjustments for Quarter 6			(30,572)			80,088			(41,070)			(5,936)			(42)			2,469
Approved Adjustments to Thru Q5			535,787			910,505			844,445			607,009			425,274			3,323,019
Proposed and Approved Adjustments Thru Q6			505,215			990,593			803,375			601,073			425,232			3,325,488

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

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
	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	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)	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)	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)	0
SR 410, 214th Avenue East to 234th - Widening	-	-	0	1,700	1,700	0	4,300	4,300	0	-	-	0	-	-	0	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	1,000
U.S. 2, Dryden - Signal	-	-	0	-	188	188	260	188	(72)	-	-	0	-	-	0	116
I-90, Eastbound Ramp to SR 18	348	457	109	585	2,655	2,070	2,279	100	(2,179)	-	-	0	-	-	0	--
SR 20, Quiet Cove RoadVicinity to SR 20 Spur	-	-	0	1,314	1,366	52	5,746	9,546	3,800	-	-	0	-	-	0	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	(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	1,561
SR 18, Issaquah/Hobart Road to Tigergate	1,886	1,321	(565)	1,114	1,679	565			0			0			0	0
SR 18, Tigergate to I-90 - Widening	1,885	1,152	(733)	1,115	1,848	733			0			0			0	0
SR 520, Bridge Replacement and HOV	-	-	0	8,000	21,000	13,000	14,000	14,000	0	13,000	-	(13,000)	-	-	0	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)	0
Total Opportunities and Options (Q4, Q5, Q6)			(1,734)			52,202			22,538			(20,403)			(47,446)	5,157
Proposed and Approved Adjustments Thru Q6			505,215			990,593			803,375			601,073			425,232	3,325,488
Proposed and Approved Adjustments and O&O			503,481			1,042,795			825,913			580,670			377,786	3,330,645

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

WSDOT is watching some projects closely for warning that changes in cost, schedule or scope may be at risk due to developments and discoveries during the project delivery process. In some cases, these changes are outside the control of WSDOT. Currently, the information regarding the changes for these projects are in the early stages and making a conclusion based on this information may be premature.

There are three categories of Watch List items presented in the *Gray Notebook*: Items removed from the Watch List, Updated Watch List Projects and New Items Added. Since information provided regarding the possible changes on these projects are in the early stages, WSDOT evaluates a variety of information beyond the project information provided in the *Gray Notebook* before reaching a decision or recommendation on adjusting the cost, scope or schedule to address the need.

Items removed from the "Watch List" since September 30, 2004

SR 3/SR 303 Interchange (Waaga Way) – New Ramp
Removed from the "Watch List". See "Proposed Adjustments to Delivery Planning"

I-5, S 48th to Pacific Avenue – Core HOV
Removed from the "Watch List". See "Proposed Adjustments to Delivery Planning"

SR 9/SR 522 to 212th Street SE (Stages 1b & 2)
Removed from the "Watch List". See "Proposed Adjustments to Delivery Planning"

SR 20, Quiet Cove Road to SR 20 Spur
Removed from the "Watch List". See "Opportunities and Options"

SR 106, Skobob Creek - Fish Passage
Removed from the "Watch List". See "Proposed Adjustments to Delivery Planning"

SR 543/I-5 to Canadian Border – Additional Lanes for Freight
Removed from the "Watch List". See "Proposed Adjustments to Delivery Planning"

Bellingham – GP Area Upgrades
Removed from the "Watch List". See "Opportunities and Options – Other Capital Programs - Rail"

Palouse River & Coulee City RR Acquisition
Removed from the "Watch List". See "Opportunities and Options – Other Capital Programs - Rail"

Updated Projects from the "Watch List" since September 30, 2004

Highway Construction Program:

I-5, Chehalis River Flood Control
Rather than raise the roadway elevation, the 2003 Transportation Funding Package sought to alleviate chronic flooding problems on I-5 in Lewis County using the less expensive approach of increasing the capacity of the Skookumchuck River Dam and building a levee system that would protect I-5 and residential areas in Centralia and Chehalis. WSDOT expected to participate in the dam portion of this project as a partner with Lewis County and the US Army Corps of Engineers (USACE). In September 2004, USACE advised WSDOT that it had no funding for the project and believed that dam acquisition for use as a flood control structure and modifications to increase the dam capacity would have no net benefit to flood control for I-5 as a stand-alone project. USACE, Lewis County, and WSDOT are preparing agreements to allow WSDOT to fund critical USACE levee work in order to keep the project moving forward. The USACE's Chief's Report has been signed, which is the first step toward obtaining funding for levee construction.

SR 7/SR 507 to SR 512 – Safety
The Pierce County Chamber of Commerce and the Pierce County Council have succeeded in securing more than $3 million through a Transportation Improvement Board grant to add county-funded improvements to the project (including curb, gutters, pedestrian lighting, irrigation, and street trees). WSDOT design engineers are currently adding these amenities to the construction contract. While WSDOT will provide the engineering and will see to the construction of this added work, all facets of additional improvements will be paid for through Pierce County and will not affect the Nickel funding budgeted for the original scope of work.

Two business owners have filed a lawsuit in Pierce County Superior Court over business access issues. WSDOT is working with the Attorney General's Office to determine the merits of the claims alleged in the legal action. These lawsuits on project cost and delivery have yet to be determined. Relocation of water, power, gas, phone, cable, and fiber will be completed in the north half of the corridor by June 2005 and utility relocation work for the south half will be completed

"Watch List" Projects - Cost and Schedule Concerns

by November 2005. WSDOT has sequenced project construction to focus construction on the north half of the corridor while utility work in the south half is being completed. The project is otherwise expected to be ready for advertisement in March 2005.

New Items Added to the "Watch List" since September 30, 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, which may result in WSDOT not being able to fund this project. At this time WSDOT is proposing to transfer $125,000 from right of way to preliminary engineering. This will not change the biennial expenditure plan or total project cost. Additional funding may be requested for the project when final decisions are made regarding right of way acquisition.

SR 539/Tenmile Road to SR 546

This project was put on hold in 1998 because of the lack of funding. Currently, property information has been updated and indicates that commercial development along the corridor has been significant, causing land values to increase above the forecast on which the proposed project cost was built because land values have increased at a higher rate than the inflation value applied to the old estimate to arrive at the new. Design work continues on this project and right of way information has been updated.The final right of way plans are under development for this project. When complete they will provide a more accurate estimate and identify any opportunities to reduce right of way cost by avoiding high value parcels.

Financial Information

2003 Transportation Funding Package - Paying for the Projects

The first *Beige Pages* (June 2003) displayed the revenue assumption underlying the 2003 Transportation Funding Package. The revenue forecast has now undergone numerous updates. Change has also resulted from a law passed in the 2004 legislative session that affected the distribution of revenue from vehicle title fees. The following information incorporates the November 2004 forecast change. 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

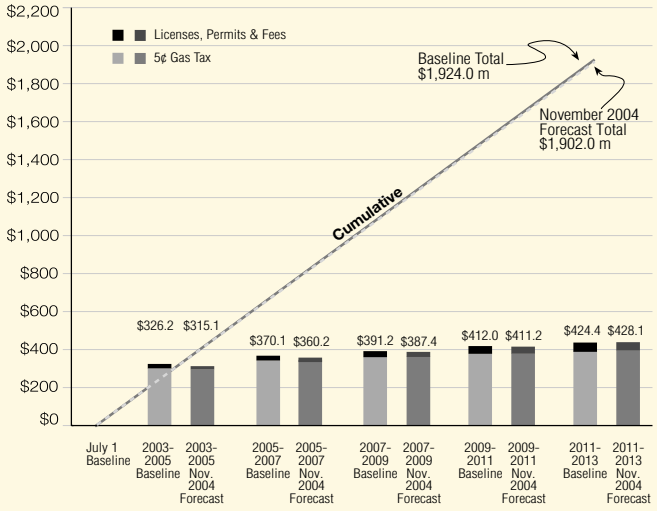
The accompanying charts show the current projected revenues over the next ten years (for the new funding sources) as forecasted in November 2004 by the Transportation Revenue Forecast Council. This forecast is compared to the legislature's assumed 'baseline' projections used in the budget-making process 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 November 2004 forecast includes 15 months worth of actual revenue receipt information for both gas tax and licenses, permits and fee receipts. Gas tax receipts for the Transportation 2003 (Nickel) Account, over the ten-year period, are projected to be up slightly over the September 2004 forecast (0.4%) though the forecast for licenses, permits and fees dropped slightly (-1.9%). 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 lower than the September forecast resulting in a slight decrease in the ten-year look (-1.1%).

Transportation 2003 (Nickel) Account Revenue Forecast

March 2003 Legislative Baseline Compared to November 2004 Transportation Revenue Forecast Council with 2004 Legislative Session Impacts

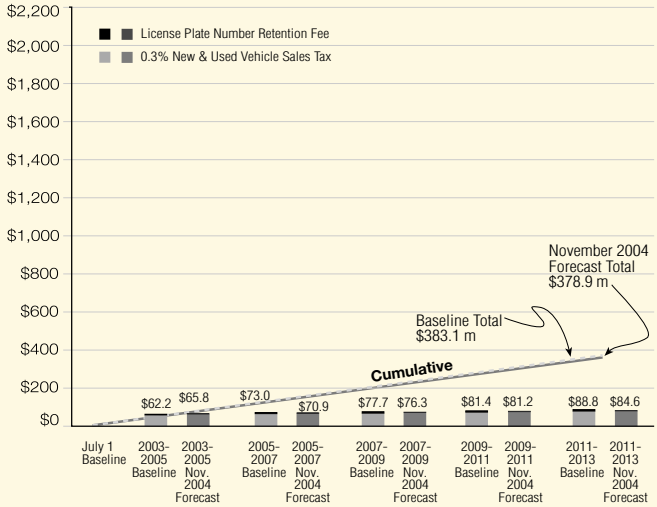
Millions of Dollars



Multimodal Account (New Sources) Revenue Forecast

March 2003 Legislative Baseline Compared to November 2004 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 for $349.5 million

The proceeds from the new gas tax bonds will be used to fund highway projects. The debt service will be paid by the nickel increase in the gas tax. The proceeds from the new state GO bonds will be used to fund rail and ferry projects. Debt service for these bonds will be paid from the Multimodal Account. Receipts from the new 0.3% sales tax on new and used vehicles will be deposited to the Multimodal Account and will 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 new gas tax bonds and $47.7 million from the state GO bonds. The table at the right shows the bond sales to date.

The final bond sale for the biennium is scheduled for March 2005. In light of recent adjustments to the cash flow requirement needs for projects funded by the Transportation 2003 (Nickel) Account, a revision to the 10-year plan will likely be needed. The financial plans displayed in the next section give an indication of what the bond sales are likely to be.

Date of Sale	2003 Transportation Project Bonds (Nickel Account) RCW 47.10.861	Multimodal Bonds (GO Bonds) RCW 47.10.867
August 2003	$80,000,000	$0
February 2004	$25,000,000	$20,000,000
July 2004	$70,000,000	$0
Total Bonds Sold to Date	**$175,000,000**	**$20,000,000**

Transportation 2003 (Nickel) Account

A new account was established in the state treasury to be the repository of the nickel gas tax increase and the increases in various vehicle licenses, permits and fees. This account is called the Transportation 2003 (Nickel) Account. Proceeds of bonds issued under the $2.6 billion gas tax bond authorization will also be deposited to this account. Uses of the account include cash funding of highway and ferry projects identified by the legislature, and for 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 new account, the uses of the account 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, and debt service) of the new account.

The gas tax receipts forecast for the ten-year period increased slightly from the September 2004 forecast ($6.4 million) and the forecast for licenses, permits and fees also increased slightly ($2.94 million). Changes to projected sources and uses of funds have been updated to reflect this most current forecast as well as the current projection of adjustments to project expenditures. 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 $18.4 million by the end of the 2011-2013 biennium. The September 2004 *pro forma* predicted a negative $22.5 million ending balance. This change is due, in part, to the adjustments to project expenditures.

Key economic variables, 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 again undoubtedly continue to affect and change the projected final ending balance.

Transportation 2003 (Nickel) Account Pro Forma
2003-2005 Budget and Ten-Year Financial Plan
November 2004 Forecast
(dollars in millions)

	03-05	05-07	07-09	09-11	11-13	Ten-Year Total
Balance Forward from Previous Biennium	$0.0	$36.9	$1.6	$4.0	$6.8	
Miniumum Balance	($5.0)					
Sources:						
Gas Tax Revenues (new 5¢)	294.4	335.8	355.8	372.5	388.3	1,746.9
Licenses, Permits and Fees Revenues	20.7	24.4	31.5	38.7	39.8	155.1
Interest Earnings	2.8	3.0	3.0	3.0	3.0	14.8
Bond Proceeds	260.0	732.0	733.0	525.0	350.0	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	**$577.9**	**$1,095.2**	**$1,123.4**	**$939.2**	**$781.1**	**$4,516.7**
Uses:						
Cost of Bond Issuance	0.7	1.8	1.8	1.3	0.9	6.6
Bond Sale Underwriters Discount	2.1	5.5	5.5	3.9	2.6	19.7
Debt Service Withholding	22.2	98.1	211.9	302.7	373.6	1,008.5
Highway Improvements	503.2	980.3	798.4	580.8	318.2	3,180.9
Highway Preservation	2.0	10.3	5.0	20.3	107.0	144.6
Washington State Ferry Construction	5.8	34.5	98.3	27.4	3.9	169.9
Total Uses of Funds	**$535.0**	**$1,130.7**	**$1,120.3**	**$937.4**	**$806.3**	**$4,529.7**
Biennium Ending Balance	**$36.9**	**$1.6**	**$4.0**	**$6.8**	**($18.4)**	**($18.4)**

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 bond authorization to this account.

The Multimodal Account includes changes to projected sources of funds, based on eleven months of actual receipts and current forecast data. Forecasted increases to projected revenues for the new revenue sources and increased projections for licenses, permits and fees over the ten-year period have resulted in an increased ending balance. Previously, the projected ending balance for the 2011-2013 biennium was $21.0 million. Now it is projected to be $15.3 million. The table below displays the 2003-2005 current appropriations and potential supplemental adjustments. The outer-biennia displays the department's 2005-2007 submittal and ten-year plan as approved by the Transportation Commission.

Multimodal Account Pro Forma
2003-2005 Budget and Ten-Year Financial Plan*
November 2004 Forecast
(dollars in millions)

	03-05	05-07	07-09	09-11	11-13	Ten-Year Total
Balance Forward from Previous Biennium	$14.1	$4.9	-$0.9	$14.0	$18.1	
Sources:						
Licenses, Permits Fee Distributions	18.6	16.1	16.7	17.2	17.7	86.3
Rental car tax	41.2	46.6	52.4	57.0	61.2	258.4
Sales Tax on New & Used Car Sales	65.2	70.1	75.6	80.5	83.9	375.3
Miscellaneous Income	1.3	1.0	1.0	1.0	1.0	5.3
Bond Proceeds	44.2	47.9	134.2	84.5	38.7	349.5
Federal Revenue	15.4	8.1	6.2	6.3	6.3	42.3
Local Revenue	10.2	0.3	0.2	0.2	0.2	10.9
Total Sources of Funds	**$196.2**	**$190.1**	**$286.2**	**$246.6**	**$209.0**	**$1,128.0**
Operating Uses:						
Cost of Bond Issuance	0.1	0.1	0.3	0.2	0.1	0.9
Bond Sale Underwriters Discount	0.4	0.4	1.0	0.6	0.3	2.7
Debt service	1.4	8.7	20.3	38.7	49.5	118.6
Transfers to Other Accounts & Agencies	9.9	4.5	4.5	4.5	4.5	27.9
WSDOT Program Support & Planning	5.9	5.5	5.5	5.5	5.6	28.0
Public Transportation	49.8	51.6	56.0	60.3	63.7	281.4
WSF Maintenance and Operations	17.1	4.2	4.4	4.6	4.8	35.2
Rail	34.1	38.9	39.5	40.3	41.0	193.8
Total Operating Uses of Funds	**$118.7**	**$113.9**	**$131.5**	**$154.7**	**$169.5**	**$688.3**
Capital Uses:						
Hwy Preservation P0C	1.7	16.8	2.5	0.0	0.0	21.0
WSF Construction W0C	13.4	8.2	60.7	47.3	0.0	129.6
Rail Y0C	51.7	38.9	76.6	40.4	42.3	249.9
Local Programs Z0C	19.9	18.1	0.0	0.0	0.0	38.0
Total Capital Uses of Funds	**$86.7**	**$82.0**	**$139.9**	**$87.7**	**$42.3**	**$438.5**
Biennium Ending Balance	**$4.9**	**-$0.9**	**$14.0**	**$18.1**	**$15.3**	**$15.3**

Funding source from the 2003 Legislative Package

Bond Authorization from the 2003 Legislative Package

Projects funded primarily from bonding authority provided in the 2003 Funding Package

Program Management Information

Management Information System and Needs

WSDOT management and staff have evaluated its information system support programs and identified deficiencies in how these systems work together to meet the needs of efficient project delivery and program management as well as meeting increasing performance measurement expectations.

Short term fixes focusing on the procedural issues (how the support systems will be used), interface issues (how the business support systems "talked" to each other), and data management issues (what, how, and were information being created and used) were identified and prioritized. Some examples of these fixes include developed system usage instructions for application users to improve data consistency integrity, facilitated ad hoc reporting with the use of Brio Query software, added data to existing databases and data marts, and ensured coordination between managers of critical systems.

In addition to the short-term fixes, the need was also identified for a comprehensive assessment of WSDOT's business support systems to develop a long-term plan to replace archaic systems.

These issues and concerns have been identified in the past by WSDOT and the legislature.

In the 2003 legislative session legislators supported WSDOT's budget request and directed the Department to work with the Legislative Transportation Committee (LTC) and an independent consultant to develop detailed information technology investment alternatives. The selected alternative would serve as the foundation for WSDOT's long-term plan to replace its current hodge-podge of technology deficient and inefficient business support systems. Approval of the consultant's statement of work carried over to the 2004 session. This project is currently not funded.

Performance Reviews Indicate Need for System Enhancements

This year WSDOT has been the subject of three performance reviews. Two of those reviews highlighted the inefficient and cumbersome process needed to extract data.

The recent performance review developed for the Transportation Performance Audit Board (TPAB) recommends,

> "*WSDOT's Critical Systems Assessment study be funded. As part of this study, WSDOT should define a plan that will make the recording and reporting of performance data timely and efficient.*"

A second study, commissioned by TPAB, is an overview of WSDOT Capital Project Management conducted by the Joint Legislative Audit and Review Committee (JLARC) states,

> *"These systems operate in silo environments. Having been developed individually, over the years, and wth different technologies, they are not integrated and cannot easily transfer data from one system to the other."*
>
> *"WSDOT should conduct an assessment of the effectiveness of current information systems options addressing any deficiencies. The assessment should be focused on identifying key capital business and analytical processes and demonstrating to what extent they are supported by automated systems."*

WSDOT agrees with these independent recommendations for a plan to develop comprehensive and integrated business support systems to address system deficiencies in support of capital and analytical processes as well as recording and reporting of timely performance data. See page 83 for more detail on these reviews.

Program Management Information

Utilities Relocation

WSDOT utilities offices have been focusing efforts toward early coordination and communication with utility companies. For example, the Southwest Region schedules meetings with area project managers and the utility companies (within the respective area) to discuss upcoming projects. These meetings allow the companies to ask questions if they anticipate the project described will impact their facilities in the next six years. This approach helps WSDOT to minimize project delay.

Four elements, with project examples, used to manage or avoid impacts are as follows:

Utility Work prior to WSDOT Contract
In the South Central Region, South Columbia Basin Irrigation District had three irrigation structures within the project limits that needed to be relocated/reconstructed to allow for the new lanes on the U.S. 12/SR 124 to McNary Pool project. To ensure the relocation work was completed prior to the main construction, the irrigation improvements were placed under a separate, earlier contract. Work was accomplished during the irrigation off-season to minimize impacts to irrigation customers.

Avoiding Utilities
The North Central Region created a utility plan early in the design process for the U.S. 2/Dryden Signal Project that enabled it to design signal bases in locations that did not impact buried fiber optic telecommunication lines.

Utility Work included in WSDOT Contract
The Olympic Region will include a sanitary sewer line in its SR 3 Waaga Way project. This will allow the contractor to schedule work with its own forces to eliminate possible delay.

Coordination of Utility Crews and Contractor
Since the type of work varies with each project, it is important to work closely with utility companies on how projects will be built. The South Central Region is affecting a telecommunications line with its SR 24, I-82 to Keys Road project. The utility company will relocate a portion of their facility prior to the contract work and then, along with the WSDOT contractor, will complete the remainder of the work during the course of the project.

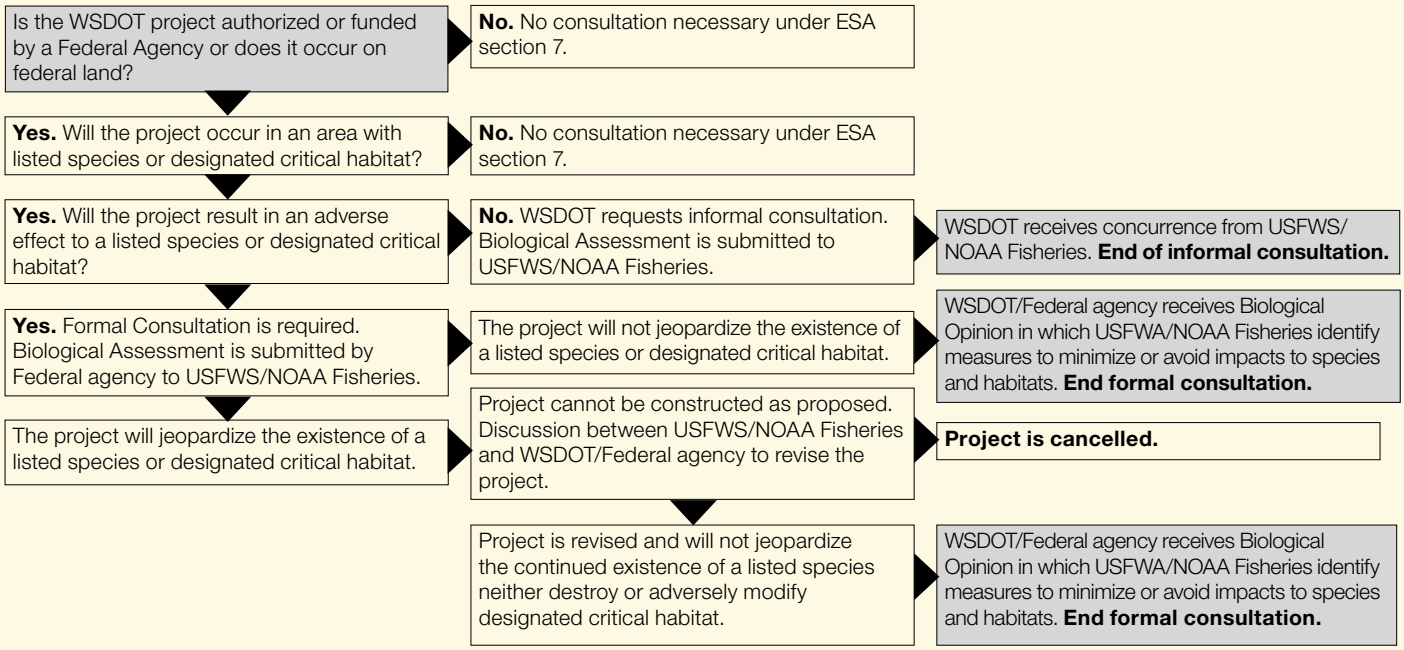
Utilities Relocation Projects for Quarter Four
U.S. 12, SR 124 to McNary Pool
SR 24, I-82 to Keys Road
SR 240, I-182 to Richland Wye
SR 240, Richland Wye to Columbia Center I/C
I-5 Salmon Creek To I-205
I-205/Mill Plain Exit to NE 112th Connector
I-5/SR 502 Interchange
NE 39th Street R/R Over crossing
SR 4/Svenson Curve.
I- Rush Road to 13th Street
I-90 (Argonne to Sullivan)
SR 270 (Pullman to Idaho State Line)
SR 31 (Metalline Falls to the International Border)
U.S. 395 (North Spokane Corridor)
Francis to U.S. 2 Grading and Paving section
Gerlach to Wandermere section
U.S. 2 Lowering section
I-90/Moses Lake Area
U.S. 2/97 Peshastin East Interchange
U.S. 2/Dryden Signal
SR 3 Waaga Way
I-5 48th to Pacific
SR 7 SR 512 to 112th Street
SR 7 512 to Roy Wye
SR 16 Union to Jackson
SR 106 Skobob Creek
SR 161 234th to 204th
SR 161 204th to 176th
SR 410 Bonney Lake

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

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

Compliance with the Endangered Species Act: Status for 11 Projects 2003-2005 Biennium	Number of Projects
Local project – ESA processing by local government	2
Endangered Species Act consultation complete	9

03-05 Projects with Completed Consultation Process:

SR 240/I-182 to Richland Y -Additional Lines (Tri-Cities)
I- 90/Seattle to Mercer Island
SR7/SR 507 to SR 512 – Safety
SR 3/SR 303 Interchange (Waaga Way) - New Ramp
I-5, S 48th to Pacific Avenue - Core HOV
SR 9/SR 522 to 212th St SE
SR 9/228th St SE to 212 St SE
SR 24/I-82 to Keys Road Additional Lanes
SR 543/I-5 to International Boundary

Program Management Information

Environmental Documentation, Review, Permitting, and Compliance

2005-2007 Biennium Construction Season

WSDOT has started the consultation process on six of the 37 Nickel projects for the 05-07 construction season. Twelve projects have completed the consultation process. Two projects (*U.S. 12 Attalia Vicinity- Add Lanes, and I-5/SR 502 Interchange*) will undergo formal consultation.

ESA Compliance Status for 37 Projects 2005-2007 Biennium	Number of Projects
Biological Assessment underway	6
Local Project- ESA processing by local government	1
Projects lack sufficient information to start the consultation process	18
Endangered Species Act consultation complete	12

05-07 Projects with Consultation Completed

SR 167, 15th St SW to 15th St NW – HOV
SR 9, Nooksack Rd Vicinity to Cherry St
SR 270, Pullman to Idaho State Line
SR 516, 208th and 209th Ave SE
SR 9 Schloman Rod. Vic-256th St. E Vic
SR 9, 108th Street NE (Lauck Road)
I-90 Moses Lake Area – Bridge Clearance
SR 4 Svensen's Curve – Realignment
SR 522/I-5 to SR 405 Multimodal Project
I-405/SR520 to SR 522
SR 522, UWBCC Campus Access
I- 90 Eastbound Ramps to SR-18, Signal

Ferry and Rail Projects

Ferry and Rail projects follow the same ESA consultation process as highway construction projects. This biennium the *Tahlequah Dolphin Replacemen*t ferry project has not yet started consultation. One rail project, the *High-Speed Crossovers-Titlow*, has completed the consultation process. Three ferry projects (*Tahlequah Transfer Span Retrofit, Anacortes Dolphin Replacement Phase 2, and the Lopez Dolphin Replacement*) and three rail projects (*Mt. Vernon Siding Upgrade, Bellingham - Georgia Pacific Area upgrades and the PA Junction Curve Realignment and Delta Yard Storage Tracks*) scheduled for ad in the 05-07 biennium are not far enough along in the design phases of the projects for the consultation process to begin.

Additional Listings to the Endangered Species Act

In July 2004, critical habitat for bull trout was designated for the Lower Columbia River Distinct Population Segment (DPS) and proposed for the Puget Sound DPS. Critical habitat for 12 species of salmon that live in Washington State waters were also designated (see below for a complete list). In December 2004, the Southern Resident Killer Whale population was proposed for listing as threatened. Additional critical habitat for Snowy Plovers was proposed, too.

There is no "grandfathering" of projects under the Endangered Species Act. All projects with federal funding which will not complete construction prior to the finalization of these listings must address these proposed listing through a process similar to Endangered Species Act consultation. This will result in an increased workload for WSDOT, US Fish and Wildlife Service and National Office of Atmospheric Administration – Fisheries.

Salmon Species Added to ESA Listing
Puget Sound Chinook
Lower Columbia River Chinook
Upper Willamette River Chinook
Upper Columbia River (spring-run) Chinook
Hood Canal (summer-run) Chum
Columbia River Chum
Ozette Lake Sockeye
Upper Columbia River Steelhead
Snake River Basin Steelhead
Middle Columbia River Steelhead
Lower Columbia River Steelhead
Upper Willamette River Steelhead

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 as well as 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 result in death, loss of consciousness, days away from work, days of restricted work or medical treatment beyond first aid.

Douglas Roemar of Tapani Construction puts on his safety hat and vest before going to work.

Number of Recordable Injuries

Project and Project Team: Contractor and WSDOT Project Engineer	July-Sept. 2004	Oct.-Dec. 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.)	0	1
I- 90/Highline Canal to Elk Heights (Scarsella Bros. Inc. and Paul Gonseth, P.E.)	0	Completed
I-90/Ryegrass Summit to Vantage (Superior Paving Co. and Will Smith, P.E.)	0	0
I-182/U.S. 395 I/C - Roadside Safety	Completed	Completed
SR 124/East Jct. SR 12-Reconstruction/Curve	Completed	Completed
SR 9/SR 528 Intersection- Signal (Signal Electric Inc. and Marlin Lennssen, P.E.)	Data Not Available	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.)	0	Completed
SR 527, 132nd St. SE to 112th St. SE (KLB Construction Inc. and Marlin Lennsen, P.E.)	1	2
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	0
SR 16/6th Ave to Jackson Ave - HOV (Tri-State Construction, Inc. and Dave Zeigler, P.E.)	0	Data Not Available
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.)	Data Not Available	0
SR 14, West Camas Slough Bridge (Peterson Brothers Inc. and Donald Owings, P.E.)	0	Completed
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	0
SR 543, I-5 to International (Condon- Johnson and Associates and Mark Russell, P.E.)	0	Completed
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.)	0	1
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	0
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.)	Prior to Start Date	0
SR 31, Metaline Falls to the International Border (M.A. Deatley Construction and Robert Hines, P.E.)	Prior to Start Date	0

Program Management Information

Construction Employment Information

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

WSDOT has asked contractors on the 2003 Transportation Funding Package projects in construction to provide WSDOT with a "snapshot" estimate of the "average" direct job site employment on each 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. Of course, direct employment is only the first of the economic benefits from construction activity. Labor economists have examined the direct and indirect benefits of construction employment. A useful guide is the Associated General Contractors of Washington's Economic Impact of the Construction Industry on the State of Washington, 2003 Update, prepared by the University of Washington, at www.agcwa.com/public/industry/Impact_2003.pdf.

"Faces of the Nickel": Ed Uskoski of Millplain Construction

Average Number of Workers Employeed by Prime and Subcontractors

Project/Contractor	July- Sept. 2004	Oct. - Dec. 2004
I-5/Salmon Creek to I-205 (Hamilton Construction and its 53 Subcontractors)	59	38
SR 500/NE 112th St Gher Rd Interchange (Tapani UnderGround and its 14 Subcontractors)	29	32
I-90/Argonne Rd to Sullivan Rd (Scarsella Bros. and its 26 Subcontractors)	39	26
I- 90/Highline Canal to Elk Heights (Scarsella Bros. and its 15 Subcontractors)	5	Completed
I-90/Ryegrass Summit to Vantage (Superior Paving and its 16 Subcontractors)	29	16
I-182/U.S. 395 I/C - Roadside Safety	Completed	Completed
SR 124/East Jct. U.S. 12-Reconstruction/Curve	Completed	Completed
SR 9/SR 528 Intersection - Signal (Signal Electric and its 9 Subcontractors)	1	1
U.S. 97A, Wenatchee North-Paving (Basin Paving and its 9 Subcontractors)	No Work	1
U.S. 395/Kennewick Variable Message Sign (Colivico and its 4 Subcontractors)	23	Completed
SR 527, 132nd St. SE to 112th St. SE (KLB Construction and its 32 Subcontractors)	18	22
U.S. 395, NSC - Farwell Road Lowering (Max J. Kuney and its 15 Subcontractor)	3	19
SR 161/234th St to 204th St E (Scarsella Bros. and its 19 Subcontractors)	33	20
SR 16/6th Ave to Jackson Ave - HOV (Tri-State Construction and its 19 Subcontractors)	13	12
SR 203, NE 124th/Novelty Rd. Vic Roundabout (Wilder Construction and its 25 Subcontractors)	8	4
I-90/Cle Elum River Bridge 90/134 N (Diamaco and its 8 Subcontractor)	2	2
I-5/Federal Way-S 317th St. HOV (Icon Materials and its 35 Subcontractors)	26	27
SR 14, West Camas Slough Bridge (Peterson Brothers and its 2 Subcontractors)	10	Completed
I-90, Sullivan Rd to Idaho State Line - phase two (Inland Asphalt and its 9 Subcontractors)	11	1
I-5, 2nd St. Bridge Replacement (Mowat Construction and its 19 Subcontractors)	3	20
SR 543, I-5 to International (Condon- Johnson and Associates and its 2 Subcontractors)	2	Completed
SR 21, SR 25/31 Guardrail (Peterson Brothers)	18	35
SR 18, Covington Way to Maple Valley (Terra Dynamics)	Data Not Available	1
I-90, Geiger Rd to U.S. 2 Median Barrier (N.A. Degerstrom and its 4 Subcontractors)	2	2
SR 240, SR 240/Yakma River Bridge (Wildish Standard Paving and its 35 Subcontractors)	27	22
SR 900/Newport Way to I-90- Widening (Mowat Construction and its 56 Subcontractors)	42	27
SR 18/Maple Valley to Issaquah/Hobart Rd (Guy F. Atkinson and its 38 Subcontractors)	76	60
SR 528/SR529 Paving/Columbia Ave to 55th (Wilder Construction and its 14 Subcontractors)	8	1
U.S. 12, SR 124 to McNary Pool - Irrigation Work (Ray Poland and Sons and its 4 Subcontractors)	Prior to Start	5
SR 31, Metaline Falls to International Border (M.A. Deatley Construction and its 9 Subcontractors)	Prior to Start	3

Program Management Information

Consultant Utilization

Consultant utilization is at an all time high for WSDOT. For the Urban Corridors Office alone, over 80 different consultant firms have received expenditure authorizations since July 1, 2003. Over 100 consultant firms have received expenditure authorization for the 2003 Transportation Funding Package. During the third and fourth quarter (July 1, 2004 to December 31, 2004) major authorizations were increased for:

- *SR 520, Bridge Replacement and HOV*
- *SR 99, Alaska Way Viaduct*
- *I-405, Congestion Relief & Bus Rapid Transit (BRT)*
- *SR 520, West Lake Sammamish Pkwy to SR 202*

The net total of new authorizations during the third and fourth quarter for work not previously authorized was $16,356,000. Total consultant agreement work authorized to date for the 2003 Transportation Funding Package is $98.5 million.

WSDOT has utilized various consultant disciplines during this biennium. Beside the usual areas of transportation engineering and environmental documentation, a number of recognized international experts in highly specialized fields are providing panel and board type oversight and consultation in preparation for design–build contracting, an area that WSDOT seeks additional expertise. WSDOT contracts with consultant firms as the need occurs within the schedule of each of the projects.

Worker Safety: Quarterly Update

Recordable Injuries for WSDOT Workers

Maintenance Workers

In the fourth quarter of 2004, the recordable injury rate per 100 maintenance workers increased from 7.05 in the previous quarter to 9.6. There were 32 recordable injuries for October through December 2004. Twenty-four of these 32 accounted for 663 lost workdays. This increase is higher than the same quarters of the two previous years and is due to a large number of injuries that were reported late. Thirty-four percent of the accidents occurred in highway work zones, 31% were associated with roadway operations and 13% were due to bridge operations and general job duties. Overexertion and bodily reaction (lifting) were the leading cause of injury and 47% of all injuries were back injuries.

Thirty-five percent of the injuries and 63% of the lost time days occurred in the Olympic Region.

Highway Engineer Workers

The highway engineer workers recordable injury rate for the fourth quarter of 2004 increased significantly from 0.9 in the previous quarter to 2.8. There were 14 recordable injuries of which nine accounted for 123 lost workdays. Forty-two percent of the engineer injuries occurred in highway work zones but none resulted from being struck by vehicular traffic. Overexertion accounted for 36% of the injuries. Twenty-nine percent of the injuries resulted during survey operations from either overexertion or, in one case, a fall from the same level.

Ferry Vessel Workers

The ferry vessel workers recordable injury rate for quarter four of 2004 was down 30% from the previous quarter from 16.14 to 12.0. Although there were 28 recordable injuries of which all 28 accounted for lost workdays, there was a reduction of 37% in lost workdays from the previous quarter. The most frequent type of injury was a sprain or strain at 64%. The most injured part of the body was the back at 18%. Thirty-nine percent of the injuries occurred while handling lines and safety nets and from loading and unloading vehicles.

"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.

WSDOT Highway Maintenance Workers

Recordable Injuries* per 100 Workers per Calendar Year

	2002	2003	2004
Qtr 1	4.5	7.2	10.5
Qtr 2	7.5	6.5	7.4
Qtr 3	8.1	8.4	7.05
Qtr 4	7	6.2	9.6
Total	27.1	28.3	34.55
Average	**6.8**	**7.1**	**8.6**

Benchmark = 8.2

WSDOT Highway Engineering Workers

Recordable Injuries* per 100 Workers per Calendar Year

	2002	2003	2004
Qtr 1	1.7	1.4	1.3
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
Average	**2.7**	**1.5**	**1.6**

Benchmark = 1.7

WSDOT Ferry Vessel Workers

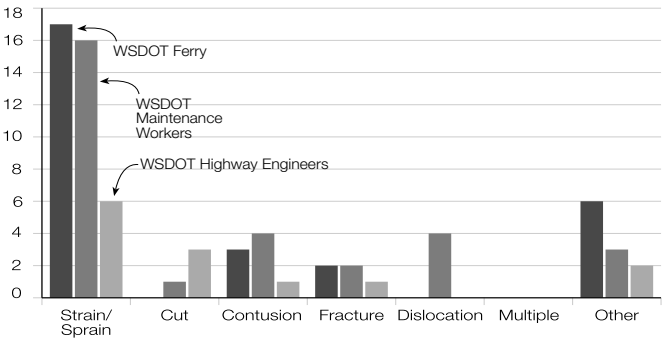
Recordable Injuries* per 100 Workers per Calendar Year

	2002	2003	2004
Qtr 1	12.0	14.2	7.9
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
Average	**9.2**	**11.2**	**12.0**

Benchmark = 7

Number of Work Injuries by Type

October through December 2004



Worker Safety: Quarterly Update

Prevention Activities

Hearing Conservation

With hearing loss claims increasing due to an aging workforce, WSDOT's employee hearing conservation program continues to be a significant safety-related priority. As a proactive measure, WSDOT contracts with audiology experts to provide statewide annual hearing testing and training. In 2004, a total of 2,570 WSDOT employees (including 550 Washington State Ferries employees) were tested and trained.

To better define work activities where elevated noise is prevalent, WSDOT also performs routine noise exposure monitoring. Noise monitoring is typically performed on "representative" maintenance and construction projects. By monitoring noise on projects, WSDOT can provide recommendations, action items, training, and support for minimizing and preventing occupational hearing loss.

As part of the action items, WSDOT has begun to place placards on equipment that has elevated noise levels. This will help employees determine the appropiate type of hearing equipment to use while the equipment is in operation.

New Hearing Conservation Software

New hearing conservation software will ease access to critical employee hearing testing data and information across the state. This will assist with hearing loss trend analysis, and identification of potential problem areas. In addition, having employee hearing information readily available will save time in processing claims, and reporting hearing loss injuries.

The photos to the right are examples of work functions that create high noise levels encountered during routine maintenance operations. Without the use of hearing protection devices, exposure to the noise levels associated with this type of work can cause hearing impairment.

Sand blasting operation on the Tacoma Narrows Bridge

Pneumatic work being performed on bridge structure.

Making repairs using a jack hammer

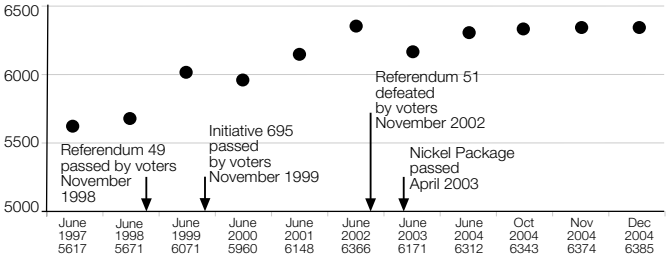
Asphalt paving operations

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 increased slightly last quarter from 6,343 permanent full-time employees in October 2004, to 6,385 in December 2004. This is due to hiring additional maintenance staff to meet the winter months workload needs.

Number of Permanent Full-Time Employees at WSDOT



Source: WSDOT Office of Human Resources

Training for WSDOT Highway Maintenance Employees

The tracking format for Statutorily Required training for Maintenance Workers has been revised this quarter to include refresher training. About half of the courses require periodic refresher training after completion of the basic course.

Statutorily Required Training for Maintenance Workers

Safety Courses	Workers Requiring Training	Last Qtr Basic Completions	Completed Basic Training	Last Qtr Refresher Completions	Workers Needing Basic Training		Workers Needing Refresher Training		Overall Compliance (Basic and Refresher)
Blood Bourne Pathogens	918	4	784	28	132	14.4%	546	69.6%	26%
First Aid	1483	17	1402	131	79	5.3%	235	16.8%	79%
Hearing Conservation	1358	0	1228	0	129	9.5%	908	73.9%	24%
Personal Protective Equipment	1372	61	960	0	411	30.0%	N/A	-	70%
Fall Protection	786	201	588	0	197	25.3%	N/A	-	75%
Flagging & Traffic Control	1146	10	1115	30	30	2.6%	76	6.8%	91%
Maintenance Courses									
Drug Free Workplace	329	19	280	0	48	14.6%	N/A	-	85%
Forklift	1148	2	1011	1	136	11.8%	309	30.6%	61%
Hazardous Materials Awareness	994	3	745	4	248	24.9%	497	66.7%	25%
Aerial Lift*	209	4	99	0	109	52.2%	N/A	-	47%
Bucket Truck*	304	39	222	0	82	27.0%	N/A	-	73%
Excavation, Trenching & Shoring	423	0	296	0	127	30.0%	N/A	-	70%

* Aerial Lift and Bucket Truck were previously reported as one course, Manlift Operations.

Required Training for All WSDOT Employees

Training Courses	Number Requiring Training	Number Trained to Date	Number Trained Last Qtr	Number Trained this Qtr	Percent Trained to Date (Target = 90%)	Percent Change Since Last Qtr
Disability Awareness	7469	1478	76	104	20%	1%
Ethical Standards	7469	7129	115	647	95%	1%
Security Awareness - all employees	7469	5496	0	0	74%	1%
Security Awareness - supervisors	3127	2322	0	0	74%	-2%
Sexual Harassment/Discrimination	7469	3931	199	161	53%	1%
Valuing Diversity	7469	2397	218	155	32%	2%
Violence that Affects the Workplace	7469	5696	0	4	76%	-2%

Source: WSDOT, Office of Human Resources, Staff Development

These courses are for all permanent full-time, part-time, and temporary employees. The goal is to have 90% of our workforce trained as resources and time allow.

Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

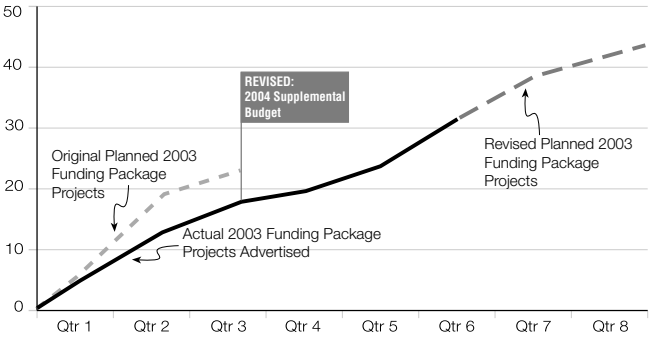
Project Advertisements - Biennium to Date

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 3, "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 6 ending December 31, 2004
Project Count



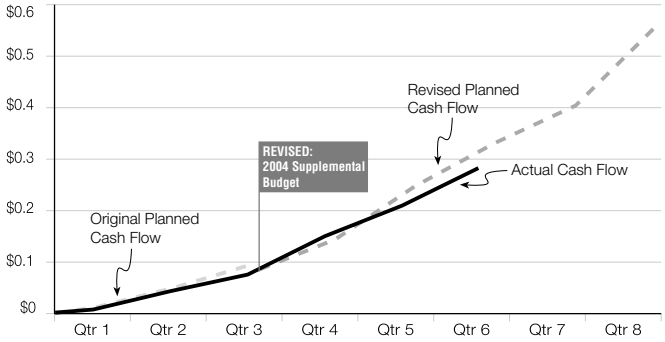
On the adoption of the 2004 Supplemental Transportation Budget Highway in April 2004, the number of projects for the biennium were adjusted. The revised line on the chart represents the change in the number of planned advertised projects for the highway construction program from the original 2003 Transportation Funding Package. Also, two Nickel projects scheduled for advertisement in the 2003-2005 biennium have been deferred to the 05-07 biennium. As a result, the original plan and revised plan show a delivery gap in the eighth quarter of the biennium.

Note: Current plan reduced by two projects because they were turned over to local agencies.

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

Expenditures for highway projects through the quarter ending December 31, 2004 were $280 million of the planned $315 million. Currently, expenditures using the 2003 Transportation Funding Package vary from planned expenditures by 11 percent. WSDOT anticipates an accelerated cashflow of Nickel Funds 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 6 ending December 31, 2004
Dollars in Billions



Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

Pre-Existing Funds Projects

The table below summarizes the status to date (including progress in this quarter) of projects advertised this biennium that are funded with Pre-Existing Funds (as opposed to the Nickel Fund projects stipulated by the 2003 Transportation Funding Package; for those projects see the previous page and special reports in the *Beige Pages)*.

Out of the 299 projects scheduled to be advertised this biennium, 180 projects have been advertised to date (which includes four contracts initiated during this biennium in response to emergencies), three projects have been deleted and 25 projects have been delayed for various reasons described in the table below.

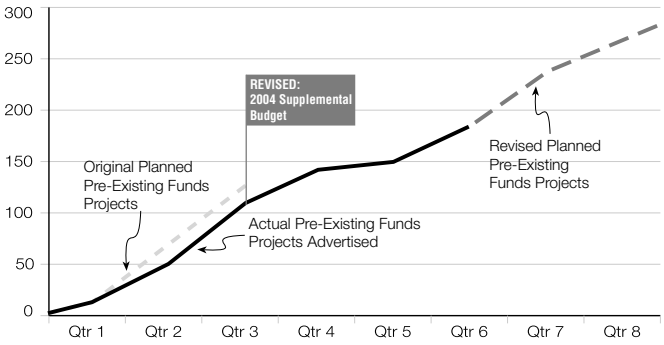
There are eight projects in the 2003 Transportation Funding Package where the contracting agency is not WSDOT and the advertisement is the responsibility of other governmental agencies. These are not counted in the total or included in the chart. An example of this type of project is one where a local government receives WSDOT funds, but WSDOT does not design or construct the project. These projects are monitored, but not shown on the table because their schedules are not in WSDOT's control.

Highway Construction Program Advertisements

Pre-Existing Funds Projects

Planned vs. Actual Number of Projects Advertised
2003 - 2005 Biennium, Quarter 6 ending December 31, 2004

Project Count

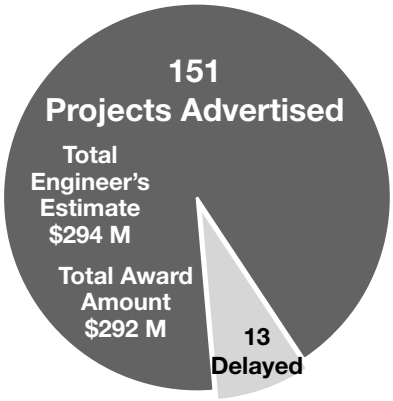


Highway projects starting the fourth quarter were revised based on the adoption of the 2004 Supplemental Transportation Budget. The revised line on the chart represents the change in the number of planned projects for the highway construction program using pre-existing funds.

Note: Current plan reduced by eight projects because they were turned over to local agencies.

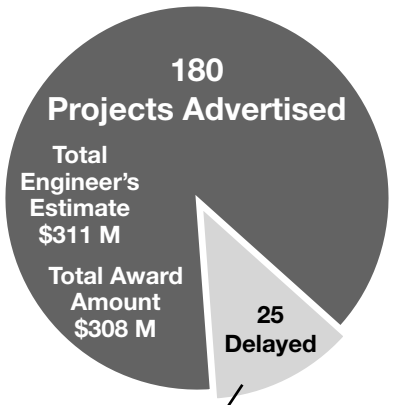
Pre-Existing Funds Projects: A Snapshot of Quarterly Progress and Total Progress to Date

End of Last Quarter
September 30, 2004



Projects Advertised	Projects Through Last Quarter	This Quarter's Progress	Biennium to Date Total
As Scheduled	100	24	124
Project Ads Early	14	0	14
Project Ads Late	33	5	38
Emergency Projects	4	0	4
Total Advertised	**151**	**29**	**180**
Projects Delayed			
To 2005 (Still within the biennium)	11	6	17
Out of the biennium	2	6	8
Total Delayed	**13**	**12**	**25**

End of This Quarter
December 31, 2004



These projects have been delayed due to challenges with:

- **Environmental Permitting**
- **Right of Way Acquisition**
- **Stormwater Mitigation**
- **Consolidating Projects for Efficiency**

Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

Pre-Existing Funds projects scheduled and advertised for the sixth quarter:

The 21 projects listed below do not include the three safety projects discussed on page 38.
SR 11, Cook Rd to Colony Rd Vic - Paving
SR 11, Iris Lane Vicinity to I-5 - Paving
SR 20, Swinomish Slough Br. to SR 536
SR 20, SR 20 Spur to Swinomish Slough Br.
SR 169, Green River Br. Vic. to SR 516
SR 204/U.S.2 to SR 9 - Paving
SR 516/I-5 to N. Central Ave. - Paving
NC Region Sign Update 2003 - 2005
NC Region Guardrail Update - Year 2005
U.S. 2, Orondo to Moses Coulee - 2005 Seal
I-90, George Vic. East - Paving
U.S.97, Brewster North - Paving
SR 155, Omak East - 2005 Seal
SR 172, Withrow Vic. - 2005 Seal
SR 262, Potholes Reservoir Area - 2005 Seal
SR 283, George Vic. North - 2005 Seal
SR 410, 214th to Mundy Loss Rd. - Paving
I-90, Lincoln County Line to Salnave Road
SW Region Permanent Signing 2003 - 2005
SR 225, Benton City Vicinity - Paving
U.S.395, Colville to Columbia River - Paving

Five Pre-Existing Funds projects that were delayed, but advertised or completed in the sixth quarter:

I-5, James St. Vic. to Union St. Vic.
SR 14, Cape Horn Br. Vic. MP 25.4 - Rockfall
SR 14, Cape Horn Br. Vic. MP 25.5 - Rockfall
SR 14, Cape Horn Br. Vic. MP 25.6 - Rockfall
I-90, Argonne Rd. I/C Electrical Systems

Three Pre-Existing Funds projects for the sixth quarter with delayed advertisements:

SR 530, Skaglund Hill Vicinity to Hazel Vicinity
To gain efficiencies, additional repair work on a nearby 2.4 mile section of SR 530 was added to this project. The additional work will extend the construction schedule from 2005 to 2006. In order to fully incorporate the new work into project plans, the advertisement was moved from October 2004 to March 2005.

SR 544, SR 539 to SR 9 - Paving
The advertisement is being delayed three months from December 2004 to March 2005. The project was reassigned to another project delivery team and additional time is needed for transition. This delay will not affect the actual construction schedule or completion of the project.

SR 9, Lake Stevens Weigh Station
The advertisement is being delayed five months from October 2004 to March 2005. WSDOT had previously negotiated the purchase of an adjacent privately-owned parcel of land. However, before WSDOT could finalize the purchase, the owner unexpectedly died. Negotiations are currently underway with the heir of the estate to complete the purchase. Federal funding for this project requires state certification of the right of way and the purchase must be completed to obtain certification.

Four Pre-Existing Funds projects deferred during the sixth quarter:

There were three Pre-Existing Funds paving projects scheduled for advertisement that were deferred twenty-four months from December 2004 to December 2006 in order to balance the paving program with available revenue. Additionally, deferring these projects to 2006 will bring them in closer alignment with their predicted lowest life-cycle-cost due year for pavement rehabilitation.
SR 202, Tokul Creek Vicinity to Snoqualmie River Bridge - Paving
SR 539/SR 546, Badger Road to International Boundary - Paving
SR 542, Marshall Hill Road to Coal Creek Bridge - Paving

U.S. 2, Woods Creek Bridge Vicinity
The advertisement is being deferred twenty-five months from November 2004 to December 2006. During initial design development for this unstable slope repair project, the need for wetland mitigation was overlooked. As a result, no right of way cost or schedule phase was identified to acquire the wetland mitigation site. Additional time is needed to acquire the mitigation site and obtain environmental permits.

Highway Construction Program

Meeting WSDOT's Scheduled Advertisement Dates

Three Pre-Existing Funds projects were deleted from the program during the sixth quarter:

Two Pre-Existing Funds unstable slope repair projects were deleted after further geotechnical evaluation revealed the amount of slope movement was too small and inconclusive to warrant major repairs. WSDOT will continue to monitor both sites annually to determine if slide movement conditions worsen or remain stable.
U.S. 2, Fern Bluff Road Vicinity
SR 302, Victor Slide

SR 544/SR 539 to SR 9 – Improve Drainage
During initial project evaluation, the existing drainage system within WSDOT right of way was thought to be dysfunctional causing standing water on the driving lanes in vicinity of the SR 544 and Washington Street intersection. However, further evaluation revealed that undersized drainage pipe outside of the WSDOT right of way was the primary cause for street flooding during heavy rainfall. As a result, no drainage improvements within WSDOT right of way are required and these improvements were deleted after consulting with the City of Everson Public Works department.

Highway Construction Program

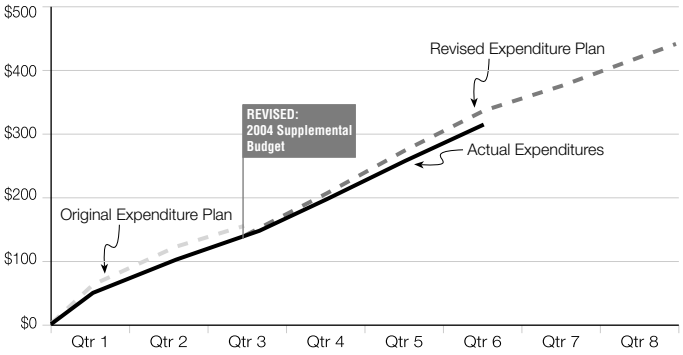
Improvement and Preservation Programs

Cash Flow on Pre-Existing Funds Projects

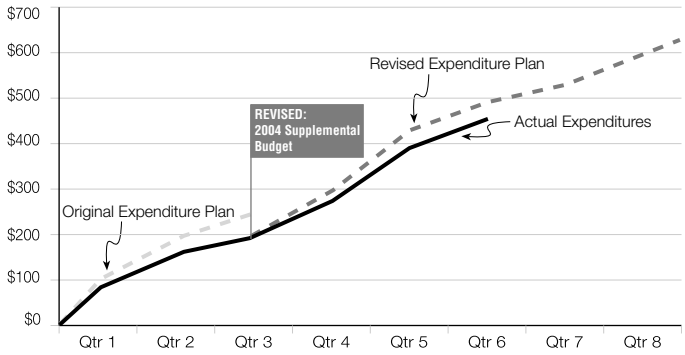
WSDOT submitted an expenditure plan to the legislature for the first six quarters of the biennium totaling approximately $838 million. As of December 31, 2004, actual expenditures totaled $779 million, leaving a variance of approximately $59 million or 7 percent from the plan. The chart shows a revision of the planned expenditures as a result of the adoption of the 2004 Supplemental Transportation Budget.

The seven percent variance as of the end of the sixth quarter for the Highway Construction Program is divided between the Improvement and Preservation programs. The Preservation program is under plan by $34 million or contributes to 58 percent of the current cash flow variance. The Improvement program is also under plan by approximately $25 million contributing 42 percent of the variance. The under spending in the Preservation program is principally due to the lag in planned expenditure for the Hood Canal Bridge brought about by the archeological activity at the Port Angeles Graving Dock site.

Improvement Program Cash Flow
Pre-Existing Funds
Planned vs. Actual Expenditures
2003 - 2005 Biennium through December 31, 2004
Dollars in Millions



Preservation Program Cash Flow
Pre-Existing Funds
Planned vs. Actual Expenditures
2003 - 2005 Biennium through December 31, 2004
Dollars in Millions



Sub-report on 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 eight safety projects scheduled for advertisement in the sixth quarter, three were advertised on time and three were delayed until later in the 03-05 biennium. Two projects were deferred to the 05-07 biennium.

Three safety projects were advertised in the sixth quarter:

I-90, George Vicinity East - Safety
I-90/SR 26 Interchange Ramp Improvements
U.S. 395, Columbia River Br. 395/545 - Thrie Beam

Three safety projects were delayed to quarter seven:

SR 531/33rd Avenue Vicinity to 43rd Avenue NE
The advertisement data was moved six months from October 2004 to April 2005 due to longer than anticipated right of way negotiations with the 7-11 Corporation over one parcel. The construction schedule was extended six months as a result of the delay.

SR 164, 196th Avenue SE Vicinity to 244th Avenue SE
The advertisement date was moved five months from October 2004 to March 2005 due to design changes. To improve traffic alignment at the intersection of SR 164 and 228th Street, WSDOT removed the eastbound turn lane and added an eastbound left turn pocket to the design. Additionally, the purchase of additional right of way is required for wetland mitigation due to the design changes. The construction schedule was extended from February 2006 to June 2007.

Highway Construction Program

Improvement and Preservation Programs

SR 164, 388th and SR 164/392nd Intersections
The advertisement was moved four months from November 2004 to March 2005 to allow for wetland mitigation site design and acquisition. The original project development plans overlooked the need for temporary erosion control during construction, wetland mitigation, and permanent signing for the intersections. This advertisement delay will not affect the construction schedule.

Two safety projects were deferred to a future biennium:

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

SR 512, Vicinity SR 7 to SR 167 – Safety
Deferred to 2006.

SR 169, SE 288th Street Vicinity – Safety
Deferred to 2008.

Highway Construction Program

End-of-2004 Season Highway Construction Project Evaluations: Annual Update

The Construction Highlights Report provides a snapshot of projects that were completed or nearly completed during the previous construction season. It is a self-assessment by each of WSDOT's region project offices of their on-time, on-budget performance.

This year's report looked at 25 of the 114 projects statewide that were under way this past construction season. Projects were selected for evaluation in April 2004, prior to the start of construction for most. They represent the diversity in size ($145,500 to $24 million), geographic location, environments, type of work, and management styles that are typical of WSDOT's construction program. Each project is rated in four elements of construction – design, construction management, schedule and cost – understanding that all of these elements are connected. In other words, even the best construction team may not be able to deliver a project on time and on budget if they are handed a poorly designed project. Conversely, a well-designed project may suffer if the project office and contractor are unable to work as a team.

Using standard criteria, each element is assigned a one-to-five star rating (one being the lowest and five the highest). This year results show that 11 of 25 projects received the highest, five-star ratings in all four categories. Three projects had scores of less than 50% (3 stars). **The complete report, which provides details of how and why the project received its rating, can be found at www.wsdot.wa.gov/Projects/2004Highlights.**

Project	Design	Construction Management	Schedule	Cost	Contractor
I-405, Bellevue Direct Access	★★★★★	★★★★★	★★★★★	★★★★★	Atkinson Const.
I-5, Lynnwood Park & Ride	★★★★★	★★★★★	★★★★★	★★★★★	Mowat Const.
I-90, Moses Lake West	★★★★★	★★★★★	★★★★★	★★★★★	Central WA Asphalt
SR 124, East Jct. U.S. 12	★★★★★	★★★★★	★★★★★	★★★★★	Transtate Paving
SR 127, Central Ferry to Church	★★★★★	★★★★★	★★★★★	★★★★★	Transtate Paving
SR 129, Clarkston Vic. Paving	★★★★★	★★★★★	★★★★★	★★★★★	Poe Asphalt Paving
SR 28, Harrington to Davenport	★★★★★	★★★★★	★★★★★	★★★★★	Poe Asphalt Paving
SR 502, I-5 to Battle Ground	★★★★★	★★★★★	★★★★★	★★★★★	Morse Brothers
SR 970, Cle Elum Vicinity Paving	★★★★★	★★★★★	★★★★★	★★★★★	Col. Asphalt & Gravel
U.S. 12, Lake Creek to Wild Cat	★★★★★	★★★★★	★★★★★	★★★★★	Central WA Asphalt
Wenatchee North Paving	★★★★★	★★★★★	★★★★★	★★★★★	Basin Asphalt Co.
SR 167, North Sumner I/C	★★★★	★★★★★	★★★★★	★★★★★	Scarsella Bros.
I-90, Adams Co Line to Spokane	★★★★	★★★★★	★★★★	★★★★★	Inland Asphalt Co.
I-90 Tibbetts Creek Vic. Culvert	★★★★	★★★★★	★★★★★	★★★★	Pacific Road & Brd.
SR 16, 6th Ave to Jackson Ave. HOV	★★★★	★★★★	★★★★★	★★★★★	Tri-State Const.
U.S. 101, Sitkum-Sol Duc Rd	★★★★	★★★★★	★★★★	★★★★★	Lakeside Industries
SR 203, NE 124th Novelty Rd	★★★	★★★★★	★★★★★	★★★	Wilder Constr.
I-5, Nisqually River Bridge	★★★★★	★★★★	★★	★★★★	Woodworth & Co.
I-90, Highline Canal to Elk Heights	★★★	★★★★	★★★★★	★★★	Scarsella Bros.
SR 20, Oak Harbor N. City Limits	★★★★	★★★★	★★★	★★★★	Thomco Const.
SR 433, Lewis & Clark Bridge	★★★	★★★★★	★★★★	★★★	Max J. Kuney
I-5, Ramps at Michigan	★★★	★★★★	★★	★★★	Mowat Const.
SR 525, SR 99 to SR 526, Phase 2	★★	★★★★	★★	★★	KLB Constr.
SR 527, 164th St SE to 132nd St SE	★★	★★★	★★★	★★	Tri-State Const.
I-5, Ash Way Park & Ride	★★★	★★★	★	★★	Tri-State Const.

Tacoma Narrows Bridge Project Update

As of December 31, 2004 design-builder Tacoma Narrows Constructors (TNC) has completed 56.3 percent of construction on the SR 16 Tacoma Narrows Bridge project.

TNC crews have steadily built up the towers with 17-foot concrete lifts and have placed the first concrete pour for the lower tower strut across the west tower.

On the east anchorage, crews have completed the chamber and end walls. These walls form a large room that will protect the main suspension cable as it splays into 19 bundles and attaches to the anchor rods. On the west anchorage, crews completed the last of ten mass concrete pours, amounting to roughly 16,000 cubic yards of concrete. They have also completed the chamber wall pours.

On the roadway side, crews have been working hard in preparation for the winter season by laying down ground covers and other erosion control measures for potential storm water runoff. East of the bridge, crews started constructing a retaining wall under the Jackson St. overpass, and continued work on the new bridge maintenance facility. West of the bridge, work has steadily progressed with the toll facility. Crews completed several large retaining walls along the toll plaza, placed the concrete pads for tollbooths, paved the approaching toll lanes, and erected steel columns that will support the 112-foot canopy above six manual toll lanes. Crews finished the CMU block walls, placed the roof trusses, decking and panel for the toll operations building. With the building structure nearly complete, the building interior work has started.

Seismic upgrade of bents 1 and 2 on the existing bridge is finished. Crews started upgrading the lateral bracing beneath the existing bridge deck. Overseas, work continues on fabricating bridge decking and components.

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

Progress to Date

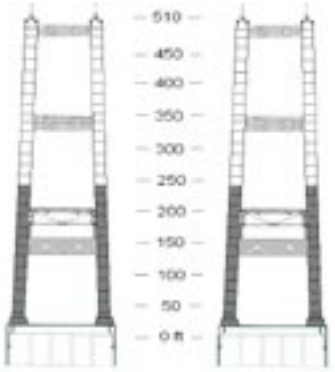
Percent Complete

Design	99.9%
Construction	53.0%
Total	**56.3%**

Overview of east roadway, anchorage and tower construction

East tower construction.

Toll plaza lanes paved. Columns in place for toll canopy.



To date, tower construction is progressing as planned. With completion of lift 12, the east and west towers currently stand at 240 feet.

Hood Canal Bridge


West end view of proposed bridge span

Current Developments at the Graving Dock

WSDOT is pursuing new options for building pontoons and anchors for the aging SR 104 Hood Canal Bridge that include: finding a new location to build a graving dock; using existing regional facilities; or asking a contractor to deliver completed bridge sections.

WSDOT began construction on the Port Angeles waterfront in August 2003 on a graving dock facility where new concrete components for the 34-year-old floating bridge's east half were to be built.

WSDOT announced December 21, 2004 that it was terminating work at the Port Angeles graving dock site. The decision to leave the site came after the Lower Elwha Klallam Tribe delivered a letter to WSDOT on December 10th asking the project to leave the Port Angeles site rather than proceed with pontoon and anchor construction.

WSDOT chose to pursue additional pontoon and anchor construction options after consulting with the Tribe, Senator Cantwell, Washington State Congressional delegation, the Governor and members of the Legislature, all of whom have expressed interest in the future of this site.

Three principle reasons guided WSDOT's decision to stop work at the Port Angeles site.

- The site, believed to be part of a pre-historic native village known as "Tse-whit-zen," is important as a resting place for Lower Elwha Klallam Tribe ancestors. The location also holds considerable significance for learning about Native American culture on the Northwest Coast.
- There is still so much unknown about the site that WSDOT cannot determine how much more money or time would be required to build the pontoons and anchors at this location.
- The longer uncertainty over archaeology at the site continued, the more the project costs would increase. Pursuing a new location will protect taxpayers from additional risk associated with remaining at the site.

WSDOT will assemble a panel of national contracting experts to help advise WSDOT on contract options. Property owners and developers throughout the state were notified in late December of WSDOT's interest in identifying new locations for building bridge pontoons and anchors. Letters of interest from potential developers were due January 10, 2005.

Meanwhile, work at the bridge site continued with contractor crews using nighttime lane closures in early January to construct temporary platforms at both bridge ends that will be used in the construction of new bridge approach spans. Bridge widening work will re-start in late spring when Hood Canal weather conditions improve.

Background Information

Port Angeles graving dock construction began in August 2003. Just ten days into construction, crews identified possible archaeology and contacted both the WSDOT's on-call archaeologist and the Lower Elwha Klallam Tribe. The find resulted in several months of suspended work while officials from WSDOT, the Tribe and state and federal agencies consulted on the archaeology recovery plan.

In March 2004 a memorandum of agreement was signed by all the agencies involved. The agreement led to the start of archaeological excavation and some construction work. Throughout the summer of 2004, artifacts and human burials were removed from the site according to the protocols outlined in the memorandum of agreement's site treatment plan. In August 2004, WSDOT and the Lower Elwha Klallam Tribe began discussions regarding additional excavation not covered in the memorandum of agreement. Eventually after several weeks of discussions, the Tribe on December 10, 2004 asked WSDOT to find a new graving dock location.

Highway Safety Improvement Projects: Annual Update

Safety Enhancements - Are They Reducing Collisions?

Twenty-One Safety Projects Revisited

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

To determine their effect on reducing the number and severity of traffic collisions, a second before-and-after study has been conducted to confirm the results of the 21 projects analyzed one year ago in the December 2003, *Gray Notebook* (GNB) edition. Projects were chosen that permitted at least 18 months of collision data to be analyzed in the Before period, and at least 12 months in the After period. The data was then normalized (12 month average) to make a valid comparison.

Combined Average for 21 Safety Projects

Collisions per Year

	All Types	Property Damage Only	Injury/ Fatal
Before Totals	15.2	8.6	6.6
After Totals	8.7	5.2	3.5
Percent Reduction	43%	40%	47%

Source: WSDOT Transportation Data Office

The preliminary results indicated that for the original 21 projects, the average number of collisions per year for all projects combined was reduced by 37 percent. With the additional data now available, the reduction is even greater at 43 percent. Similarly, the average number of fatal and injury collisions per year has been reduced even further, from 37 percent to 47 percent.

The current study helps confirm the results of the preliminary efforts, which was based on statistically limited collision data. In order to solidify the information further, WSDOT will review the data in another year, so that a full three years can be used for the "After" portion of the study.

I-82 in the vicinity of milepost 116.

Follow-up Analysis - I-82/Union Gap to Oregon State Line

In last year's Highway Safety Improvement Projects: Before and After Results, 22 safety projects were originally identified for analysis. One project, I-82/Union Gap to Oregon State Line (see GNB December 2003 edition), was identified for further analysis due to concerns that the long length of the project (approximately 100 miles), the weather variations, and increased traffic volumes in different locations throughout the project were skewing the data.

WSDOT recently completed the analysis which shows that the addition of durable lane striping did not have a significant effect on reducing collisions. Collision rates declined slightly from 9.9 to 9.1.

Although durable lane striping resulted in limited collision reduction, increased striping visibility is still believed to have significant benefits, and provides an element of driver comfort. Continued tracking to monitor and control for variances in weather patterns is necessary to ensure statistical validity of the impacts of the safety improvement over time.

Highway Safety Improvement Projects: Annual Update

Five New Safety Projects

In addition to the original 21 projects, another five projects have been identified for review for this GNB edition. The additional projects were required to meet the same criteria as the original 21 projects. These five projects (below) will help determine the effectiveness of various safety enhancements applied to different locations and circumstances.

SR 20 Vicinity Best Road, Skagit County

This portion of SR 20 from milepost 54 to 55 was identified as a High Accident Corridor in 1998. The project involved the installation of a traffic signal at the intersection of SR 20 and Best Road, along with flattening of side slopes and installing beam guardrail within the corridor. Prior to the start of this project, there was an average of 8.8 total collisions per year in this section of highway. Serious injury or fatalities accounted for more than half of these collisions. For the one year of data available since the completion of the project, there were 17 total collisions, only three of which involved serious injury, with no fatalities. This represents a decline of 65 percent in the rate of serious injury or fatal collisions. This is further reflected in the pattern of collision types. In the before period, an average of 4.9 entering at angle collisions per year were occurring at the SR 20 and Best Road intersection. Two collisions in the after period were reported.

SR 99 Porter Way to King County Line, Milton

A two-way left-turn lane was constructed from milepost 5.27 to 6.15 on this section of SR 99 that had been identified in 1998 as a High Accident Corridor. In the Before period, an average of 14.5 total collisions per year had occurred. This number decreased to 10.7 collisions per year in the After period, a drop of more than 25 percent. The additional capacity afforded by the two-way left-turn lane is illustrated in the dramatic decline in rear-end and driveway related collisions: 7.4 per year Before and 2.7 After, or a 63 percent reduction.

SR 290 Vicinity Fancher Rd to Sullivan Rd, Spokane Valley

From milepost 4.31 to 10.30, a two-way left-turn lane was constructed for this section of SR 290 that had been designated as a High Accident Corridor in 1998. Before the project began, there had been an average of 114.7 total collisions and 58.7 injury collisions per year. These figures declined to 68.5 and 24.9 per year, respectively, in the After period. This represents a 40 percent decrease in total collisions and a 57 percent drop in injury collisions. A reduction was also attained for rear-end and driveway related collisions, from 68.3 per year in the Before period to 34.3 in the After, or a 48 percent decrease.

Combined Average for 5 Safety Projects

Collisions per Year

	All Types	Property Damage Only	Injury/Fatal
Before Totals	37.1	19.1	18.1
After Totals	22.8	13.8	9.1
Percent Reduction	39%	28%	50%

Source: WSDOT Transportation Data Office

SR 20 in the vicinity of Best Road in Skagit County.
Photo from WSDOT's SRview.

SR 99 near Porter Way in Pierce County.
Photo from WSDOT's SRview.

SR 290 in the vicinity of Fancher Rd.
Photo from WSDOT's SRview.

Highway Safety Improvement Projects: Annual Update

SR 500 Vicinity 124th Avenue, Vancouver

This intersection at mp 6.32 on SR 500 was included on the 2002 list of High Accident Locations. The project consisted of modifications to existing left-turn channelization to reduce conflicting traffic movements within the intersection. Prior to this project, there was an average of 22.4 total collisions and 10.1 injury collisions per year. In the 16 months following the completion of the modifications, there were only 3 total collisions and 1.5 injury collisions per year. This amounts to a reduction of 86 and 85 percent, respectively. Rear-end and driveway related collisions experienced a similar reduction, going from 15.1 per year to 3.1 per year, or a 79 percent decline.

SR 500 at the intersection of 124th Ave. in Vancouver Photo from WSDOT's SRview.

SR 516 Vicinity 128th Place SE to Wax Road, Kent and Covington

This project included sections of SR 516 (milepost 9.15 to 9.63 and 11.86 to 12.18) that were included on the 1996 High Accident Location list. Access points were consolidated to control left turns, and a two-way left-turn lane was converted into separate left-turn lanes for eastbound and westbound traffic. In comparing the 27 months of data Before the project started with the 22 months After, the average total collisions per year on this section of SR 516 dropped from 25.3 to 15.3, and injury collisions fell from 8 per year to 4.4, reductions of 40 and 45 percent, respectively. The decrease in driveway related and rear-end collisions was even larger, dropping from 23.6 to 9.8 per year, a decline of 58 percent.

SR 516 at 128th Place SE near Kent. Photo from WSDOT's SRview.

Highway Safety Improvement Projects: Annual Update

Highway Safety Projects - Before and After Study Update Adding 2003 Data

Collision Data Comparison

Project Title and Location	Description of Work	Available Data (in Months)		Collisions Per Year: All Types	Property Damage Only	Injury / Fatal
U.S. 2 SULTAN-STARTUP ROAD STARTUP VIC	Widened SR 2 to provide an eastbound left turn lane and a westbound left turn pocket.	18	Before	0.7	0.0	0.7
		26	After	0.5	0.0	0.5
SR 99 BATTERY STREET TUNNEL - SAFETY SEATTLE	Constructed roadway surface improvements - pavement grinding	26	Before	77.5	48.0	29.5
		25	After	30.7	18.2	12.5
SR 522 NE 145TH ST VIC. TO NE 155TH ST SHORELINE	Constructed a raised median island in place of the existing two way left turn lane. Improved visibility.	18	Before	63.3	38.0	25.3
		28	After	37.3	22.3	15.0
U.S. 2 APPLETS WAY TO VIC RED APPLE ROAD CAHSMERE	Installed median barrier to reduce crossover collisions	23	Before	2.1	0.5	1.6
		24	After	0.0	0.0	0.0
SR 17/26 OTHELLO - GRADE SEPARATION OTHELLO	New interchange and illumination	21	Before	7.4	2.9	4.6
		24	After	1.5	0.5	1.0
SR 24 HATTON ROAD LTL OTHELLO	Widened and provide left turn channelization and improve turning radius.	20	Before	1.2	0.6	0.6
		25	After	1.0	1.0	0.0
SR 26 ROYAL CITY VIC	Constructed left turn lanes.	23	Before	1.6	0.5	1.0
		24	After	0.5	0.0	0.5
SR 28/282 EPHRATA - SIGNAL EPHRATA	Widened roadway, constructed left turn lanes and installed signal.	23	Before	5.7	5.7	0.0
		25	After	2.4	1.9	0.5
U.S. 97 ORONDO NORTH ORONDO VIC	Realingment and construction of left turn lane.	25	Before	0.5	0.0	0.5
		24	After	0.0	0.0	0.0
SR 97 ALT LAKESIDE VICINITY CHELAN	Constructed two-way left turn lane.	21	Before	5.1	4.0	1.1
		28	After	0.4	0.4	0.0
SR 150 CHELAN WEST - TURN LANES MANSON	Widened and constructed left turn channelization.	22	Before	1.1	0.5	0.5
		29	After	0.8	0.8	0.0
SR 105/SR 105 SPUR WESTPORT	Constructed channelization for right and left turns. Upgraded illumination.	29	Before	3.3	1.2	2.1
		24	After	2.5	2.0	0.5
SR 162 BOWMAN HILTON RD E. TO VIC 149TH ALDERTON	Upgraded signal and illumination, realignments, installed signal, guardrail and flattened slopes.	19	Before	49.9	21.5	28.4
		30	After	39.6	20.0	19.6
I-5/SR6 SB. RAMP - SIGNAL CHEHALIS	Signal and illumination installation.	25	Before	2.9	1.4	1.4
		27	After	0.0	0.0	0.0
I-5 CHAMBER WAY - SIGNAL CHEHALIS	Installed signal at northbound off-ramp, realignments, resurfacing and illumination.	25	Before	3.8	2.9	1.0
		27	After	2.7	2.7	0.0
U.S. 101 FOWLER STREET- SIGNAL RAYMOND	Installed signal, reconfigured with curbs and raised islands.	25	Before	2.4	1.9	0.5
		27	After	3.6	2.7	0.9
SR 24 BIRCHFIELD ROAD INTERSECTION YAKIMA VIC	Installed signalization, upgraded illumination, signing and pavement markings.	24	Before	5.5	2.0	3.5
		24	After	2.5	1.5	1.0
I-90 WEST E'BURG I/C TO SOUTH E'BURG I/C ELLENSBURG VIC	Lengthen acceleration lane and tapers. Updated illumination and guardrail. Roadway rehab and overlay.	25	Before	14.9	11.5	3.4
		24	After	11.0	8.5	2.5
I-90 GOLD CREEK TO EASTON HILL SNOQUALMIE PASS VIC	Installed glare screen along median barrier.	26	Before	19.4	15.2	4.2
		26	After	11.1	6.0	5.1
SR 241 ALEXANDER ROAD TO FACTORY RD SUNNYSIDE VIC	Constructed two-way left turn lane. Channelization, upgraded signals, widened shoulders, added 4-way stop.	25	Before	12.0	3.4	8.6
		33	After	10.5	7.3	3.3
I-90 RITZVILLE TO TOKIO-SAFETY MATRIX RITZVILLE VIC	Flattened slopes, installed rumble strips, illumination upgrades, and asphalt concrete pavement overlay.	28	Before	39.0	19.3	19.7
		24	After	24.5	13.0	11.5
SR 99 PORTER WAY TO KING COUNTY LINE MILTON VIC	Installed Two Way Left Turn Lane	29	Before	14.5	6.6	7.9
		18	After	10.7	4.0	6.7
SR 20 BEST ROAD AND SR 536 VICINITY SKAGIT COUNTY	Installed Signal at Best Road, Slope flattening and installed gaurdrail	34	Before	8.8	3.2	5.6
		12	After	17.0	9.0	8.0
SR 290 E SPOKANE TO PROGRESS ROAD VIC SPOKANE VALLEY	Installed Two Way Left Turn Lane	27	Before	114.7	56.0	58.7
		13	After	68.3	43.4	24.9
SR 516 128TH ST SE TO WAX ROAD VICINITY KENT AND COVINGTON VIC	Install C-curb at left turn pockets and consolidate access points	27	Before	25.3	17.3	8.0
		22	After	15.3	10.9	4.4
SR 500 NE 124TH AVENUE VICINITY VANCOUVER	Channelization for access management	38	Before	22.4	12.3	10.1
		16	After	3.0	1.5	1.5

Source: WSDOT Transportation Data Office (TDO)

Highway Safety - Pedestrians: Annual Update

Pedestrian Safety in Washington

In Washington, pedestrian fatalities are 14 percent of all transportation related fatalities. This is much too high.

Most pedestrian fatalities in Washington occured on arterial roads (principal or minor arterials). From 1994 to 2004 over 60 percent of pedestrian fatalities occurred on arterials.

The combination of driver action and pedestrian risk taking behavior continue to influence pedestrian fatality rates. In almost 50 percent of pedestrian fatalities, crosswalks were not available. Another 8 percent of pedestrian fatalities occurred in the roadway shoulder where sidewalks were not available.

Seattle Metro Area

The Seattle-Tacoma-Bremerton metropolitan area ranked tenth highest in the nation for the percent of traffic deaths that involved pedestrians.

Additionally, it is one of the metro areas in the country where pedestrian safety seems to be worsening since 1994.

Large National Metro Areas with Highest Pedestrian Deaths

Metro Area	Number of Pedestrian Fatalities (2002)	Number of Pedestrian Fatalities (2003)	Percent of Traffic Deaths that were Pedestrians
New York-Northern New Jersey-Long Island, NY-NJ-CT-PA	395	377	28%
Miami-Fort Lauderdale, FL	119	119	22%
San Diego, CA	74	62	22%
San Francisco-Oakland-San Jose, CA	118	110	21%
Los Angeles-Riverside-Orange County, CA	118	110	21%
Tampa-St Petersburg-Clearwater, FL	97	88	21%
Detroit-Ann Arbor-Flint, MI	119	105	20%
Buffalo-Niagra Falls, NY	17	18	19%
Chicago-Gary-Kenosha, IL-IN-WI	155	157	19%
Seattle-Tacoma-Bremerton, WA	45	55	18%

Source: Mean Streets 2004, Surface Transportation Planning Project

Location of Pedestrian Fatalities

Number of Fatalities	
In Crosswalk	121
Not In Crosswalk	167
Crosswalk Not Available	408
Shoulder	67
Other - Off Roadway	34
Unknown	35

Source: Mean Streets 2004, Surface Transportation Planning Project

Traffic Fatalities in Washington State

Total fatalities on Washington's public roads (highways, and city and county roads) decreased from 659 in 2002 to 600 in 2003. This was a significant improvement. Preliminary 2004 data indicates that this downward trend continues with a current count of 558 fatalities (as many as 20 fatalities could be added once the 2004 data is finalized). The fatality information for 2003 and 2004 strongly suggests that WSDOT initiatives to reduce high severity crashes and the enactment of the Primary Seatbelt Law (effective June 2002), has helped lower the number of fatalities in Washington State. The law's effectiveness and the various safety programs combined with strong enforcement appear to drive a continued reduction in fatalities.

Traffic Fatalities

2000 - 631	2003 - 600
2001 - 649	2004 - 558 (preliminary data)
2002 - 659	

Source: Fatal Accident Reporting System (FARS)

Comparing Fatal and Disabling Crashes and VMT

Since 1990, fatality rates on Washington's highways have declined by 56 percent (2,491 crashes in 1990 compared to 1,105 crashes in 2003). In comparison, vehicle miles traveled (VMT) have increased by 30 percent since data was first collected in 1994.

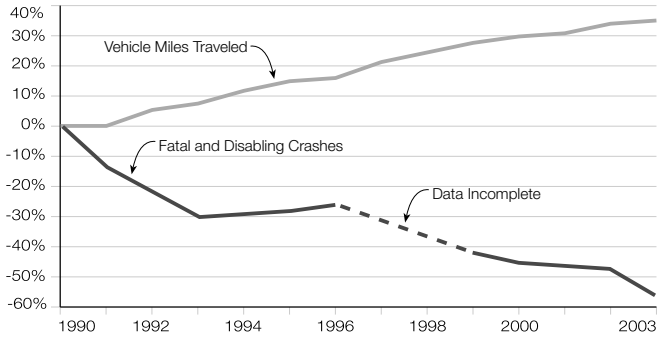
Fatality Rates per Capita

In 2003, Washington ranked sixth in the nation for fewest traffic fatalities in relation to population. Washington's average is about 10 traffic fatalities out of every 100,000 people. The national average is about 15 traffic fatalities out of 100,000 people. Washington is well below the national average in rate of fatalities per capita.

Fatality Rates Compared to National Average

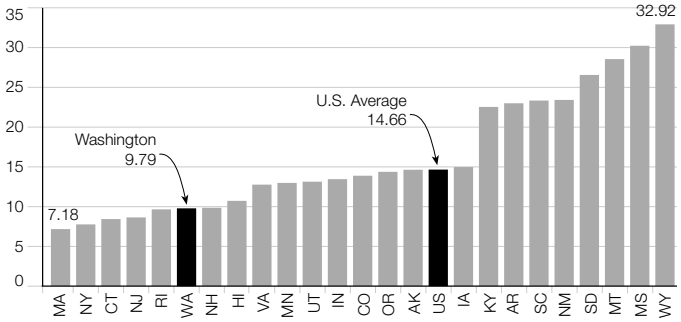
Traffic fatality rates are commonly expressed as deaths per 100 million vehicle miles traveled. Because the amount of driving has grown so much, the fatality rate per 100 million vehicle miles traveled (VMT) has tended to steadily decline. Since 1980, motor vehicle fatality rates for all public roads in Washington compared to the national average have closely tracked a downward national trend, and 2003 was no exception. Fatality rates on Washington highways decreased in 2003 from 1.09 to 0.92, and remained low compared to other public roads in Washington (1.09) and to the United States as a whole (1.48).

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



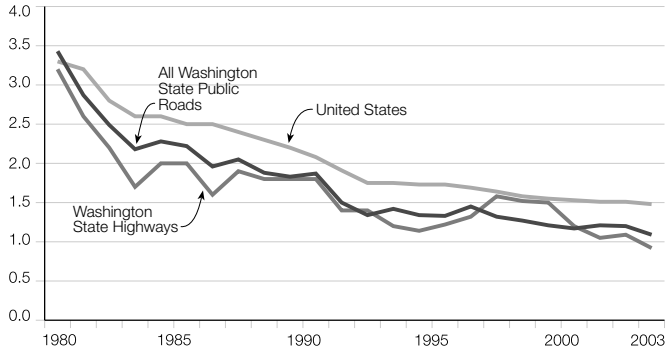
Source: Research Note DOTHS 809 644.

Rate of Fatalities Per Capita in the U.S.
Sampling of States
(Public Roads: Highways, City and County Roads)
Traffic Death per 100,000 Population in 2003



Source: WSDOT Traffic Safety Facts 2003, Table 108 (Publication Date Jan 2005)

Motor Vehicle Fatality Rates in Washington Compared to National Average
Fatalities per 100 Million VMT: 1980-2003



Source:
US death rate: Traffic Safety Facts, Overview, 2003
WA Fatalities: TDO
WA VMT: TDO on Web site

Seatbelt Use in 2004

Washington Ranks Third

The September 30, 2003 *Gray Notebook* reported that Washington's seatbelt use rate was the highest in the United States at 94.8 percent. Since that time, the U.S. Department of Transportation reports that two other states, Arizona and Hawaii, have achieved slightly higher use rates. Arizona's use rates can be attributed in great part to efforts on a Click-It-Or-Ticket campaign, and intensive law enforcement efforts. Hawaii's higher use rates are primarily the result of a media campaign, and an intensive law enforcement effort. The results are from probability-based observational surveys conducted by 51 states and territories in accordance with criteria established by the National Highway Traffic Safety Administration.

A recent study conducted at the Harborview Injury Prevention Center found that, when used correctly, lap and shoulder belts were 70 percent effective in preventing deaths and 50 percent effective at preventing injuries.

Enforcement and the seatbelt law may also have a positive effect on reducing the number of drinking driver-involved collisions. For the years 2000-2002, the average number of fatalities for drinking driver-involved collisions was 251 compared to 221 in 2003.

Percent of Seatbelt Use

Top Six Ranking States in 2003 and 2004

Rank	State	2003 Percent	2004 Percent
1	Arizona	86.2	95.3
2	Hawaii	91.8	95.1
3	Washington	94.8	94.2
4	Oregon	90.4	92.6
5	Michigan	84.8	90.5
6	California	91.0	90.4

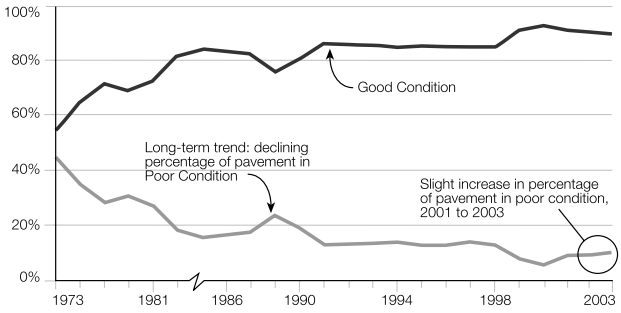
Asset Management: Pavement Assessment Annual Update

Pavement Conditions for 2003

WSDOT maintains approximately 19,970 lane miles of highway, including ramps, collectors and special use lanes. The inclusion of special use lanes and lanes under construction in the total lane miles of highway is new this year. Special use lane miles include slow vehicle, two way turn, chain up, turn/accelerate, transit and HOV lanes. They account for 714 highway lane miles. The three major pavement types are described below and in more detail on page 52. Each pavement type has an associated pavement life, rehabilitation treatment, and rehabilitation cost. This report updates information from the December 31, 2003 *Gray Notebook*.

Pavement Condition Trends

Percent of Pavements



Source: WSDOT Materials Lab.

2003 Pavement Condition Rating

According to the 2003 pavement condition survey rating, the percent of all pavements in "poor" condition increased in 2003 to 10.0 percent, up from 9.3 percent as reported in the 2002 pavement survey. In 2000, there were 1,068 lane miles (6.1 percent) of pavements in "poor" condition, while in 2003 the total was 1,774 lane miles. Over the last four years, WSDOT has seen an increase of 706 lane miles in "poor" condition.

The slight increase in "poor" condition pavements in the graph (above right) is attributable to chip seal and asphalt deterioration. Seventy-nine additional chip seal lane miles (or three percent of total) fell into "poor" condition. WSDOT is examining the causes for this increase. Factors may include the annual rating survey being done before the chip seals were completed during the season, or the way small roadway sections are combined to create more cost-effective regional contracts, as described on page 52. The increase in "poor" condition of Hot Mix Asphalt (HMA) was 49 lane miles (or 0.4 percent of total). Fifteen lane miles of Portland Cement Concrete (PCC) (or 0.6 percent) improved out of "poor" condition. For details in PCC pavement, see the next page.

Since the time between necessary rehabilitation is much longer on PCC pavements than HMA or chip seals, all chip seals and HMA pavements are repaired and rehabilitated before PCC pavement rehabilitation or replacement is done. Chip seal and HMA pavements are being rehabilitated following the lowest life cycle cost approach.

Pavement Type	Lane Miles ***	Annual VMT* 2003 (billions)	Pavement Rating	2003	2002	**03-05 Dollars Programmed (millions)		**05-07 Dollars Programmed (millions)	
Chip Seal Pavements A chip seal is a durable surface that provides six to eight years of performance life at approximately $12,000 per lane mile.	4,358	1.2	Good	86%	89%	$ 21.0	9.5%	$ 26.5	12.6%
	21.8%	3.8%	Poor	14%	11%				
Hot Mix Asphalt Pavements Hot mix asphalt pavement surface life, between rehabilitation treatments, ranges from 6 to 18 years (based on actual pavement performance) at approximately $123 thousand per lane mile for due miles, and $156 thousand for past due miles.	13,158	21.8	Good	91%	91%	$ 181.4	83.1%	$ 174.2	83.1%
	65.9%	68.8%	Poor	9%	9%				
Portland Cement Concrete (PCC) Pavements WSDOT has experienced PCC pavement life ranging from 25 to 45 years with an approximate cost of $330 thousand per lane mile for dowel bar retrofit and $1 million per lane mile for full replacement.	2,439	8.7	Good	93%	92%	$ 16.3	7.4%	$ 8.9	4.3%
	12.2%	27.4%	Poor	7%	8%				

*Vehicle Miles Traveled (VMT) is calculated for travel on mainline, spurs, couplets, alternate routes, and reversible lanes and does not include other lanes such as ramps.

**Does not include dollars for project support, e.g., project scoping and pavement management.

*** Total miles include 714 lane miles more than reported last year. This table does not include 16 lane miles of gravel that are part of the state system.

Asset Management: Pavement Assessment Annual Update

Concrete Pavement

Concrete pavements on Washington's interstate system were constructed in the 1960s and 1970s. At the time, the standard PCC pavement design life recommended by the Federal Highway Administration (life to complete removal or major repair) was only 20 years. PCC pavement constructed before the 1990s requires dowel bar retrofit due to lack of reinforcing steel at the transverse joints, and diamond grinding to smooth pavement surface and remove ruts caused by studded tires. In 1990, WSDOT made significant changes to PCC pavement design and now estimates PCC pavement life to be 50 years or more, with only minor maintenance or rehabilitation, such as diamond grinding, around year 25.

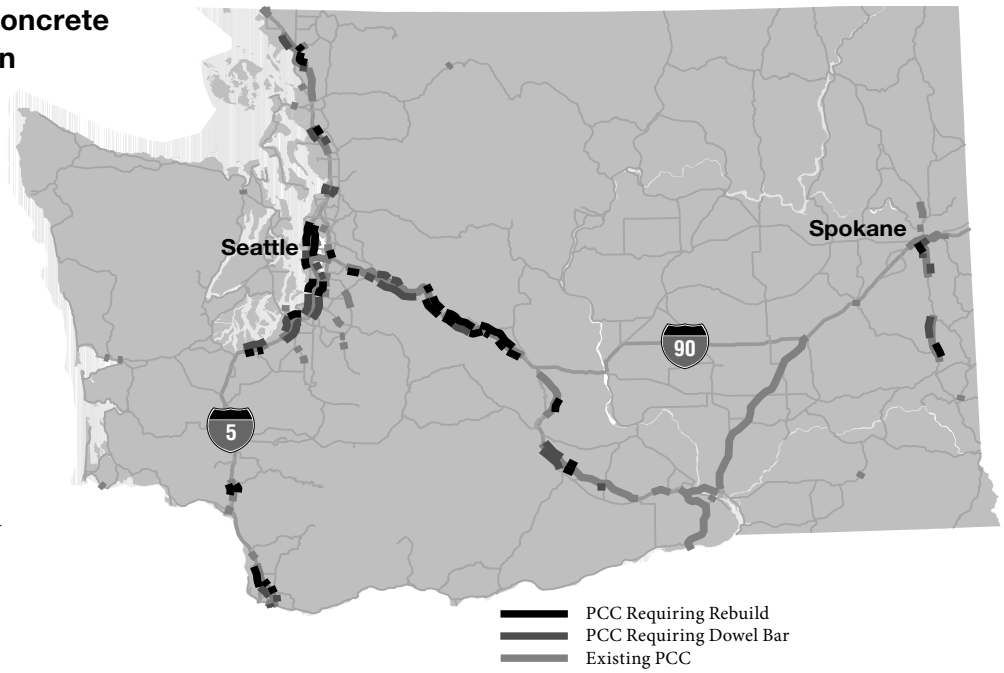
Last year's report (December 31, 2003 *Gray Notebook*) discussed the emerging need for the rehabilitation and replacement of WSDOT's concrete roadways. Many of these roadways have exceeded their twenty year design life and need dowel bar rehabilitation to obtain another 15 years of useable life. Despite that, this update shows a slight improvement in concrete pavement condition. Does this mean our previous estimates were incorrect? Not exactly. Ultimately, the pavement will need replacement. The difficult question to answer is when. The slight improvement is partially due to eight recently completed projects for a total of ninety lane miles of pavement rehabilitation and due to a new evaluation method.

In next year's report, a new evaluation method may cause changes in reported PCC pavement condition. Until recently, the department evaluated the need for pavement rehabilitation based on the condition of the right hand lane only with the assumption that all lanes would be rehabilitated. Starting with the 2004 assessment of concrete pavement rehabilitation need, the department evaluates each lane of concrete pavement that has a potential need, to determine its condition and appropriate rehabilitation strategy. There may be a temporary reduction in concrete miles due for rehabilitation because of this more accurate method. WSDOT has been rehabilitating concrete pavement for about ten years and the point for replacement of these pavements is approaching.

WSDOT is working with the University of Washington on a model to predict PCC pavement performance and determine the best timing for rehabilitation. WSDOT expects to have a prediction method in place by fall 2005 to help refine the ten-year concrete pavement plan and identify the pavement sections to be included in the 2007-2009 budget. This will likely lead to changes on the map below.

The map shows PCC locations and proposed rehabilitation options. When the pavement is beyond repair, rebuilding (complete removal and replacement of existing PCC pavement) costs an estimated cost of $1 million per lane mile. Pavements that require rehabilitation (selected panel replacements, dowel bar retrofit, and diamond grinding to restore a smooth riding surface) cost an estimated cost of $330,000 per lane mile.

Portland Cement Concrete Pavement Condition



This map is a summary representation of detailed GIS data, based on preliminary PCC data collected in 2004. This data is incomplete and does not yet include data on SR 395. More data collection and analysis is required on some highway segments.

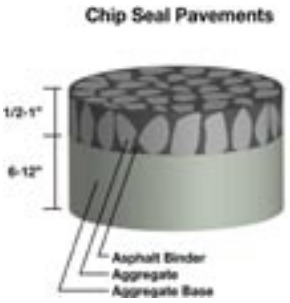
Asset Management: Pavement Assessment Annual Update

Basic Pavement Types and Ratings Summary

Pavement Types

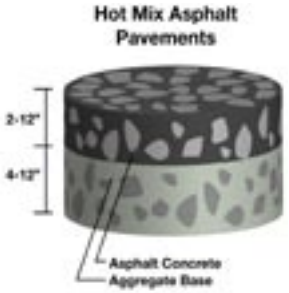
Chip Seals

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



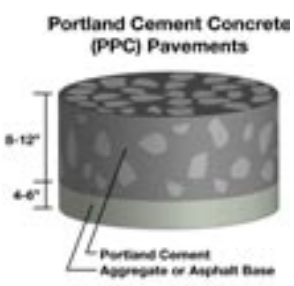
Hot Mix Asphalt (HMA)

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



Portland Concrete Cement (PCC)

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



Pavement Ratings

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

Pavement Structural Condition (PSC)

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


Pavement Structural Condition example

Rutting

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


Rutting example

Roughness

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


Roughness example

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

Asset Management: Pavement Assessment Annual Update

Selecting Pavement Types

Each pavement type has an associated pavement life, rehabilitation treatment, and rehabilitation cost. To make the best use of taxpayer dollars, WSDOT has developed a selection protocol and uses a three-part selection process, described below. This systematic approach allows WSDOT to select the most cost effective pavement for each situation.

Selection decisions affect maintenance repair cycles, frequency of roadway rehabilitation, and the number of days needed for roadway closure during repair and rehabilitation.

Step One: Pavement design

The pavement design analysis is performed first, except for very low traffic volume projects, which do not require this analysis. Some pavements respond better to different foundations; for example, with poor quality subgrades, hot mix asphalt responds better than concrete, which is why I-5 north of Tacoma through the Fife area has a hot mix asphalt surface.

Step Two: Life cycle cost analysis

Some pavement types are less expensive to construct, but have shorter service lives. WSDOT does a life cycle cost analysis to put pavements on an equal footing, and equalize initial costs, rehabilitation, and maintenance costs. To account for risk and unknowns, WSDOT analyzes various scenarios and associated risk factors, including climatic considerations, using statistical probabilities.

Step Three: Engineering analysis

If the life cycle cost analysis shows the various alternatives are approximately equivalent, an engineering analysis is done. The analysis may consider safety, noise during construction, air pollution impacts, etc. In the end, these factors may be the overriding reason(s) for the final pavement type selection.

Efficient Use of Tax Dollars

Because chip seal surfaces cost less per mile, WSDOT has evaluated roadways across the state to identify routes currently paved with HMA that could be chip sealed. There are 1,295 lane miles of HMA surfaces that can be converted to less expensive chip seal. Beginning in 2005 and during the coming years, WSDOT will use chip seal to resurface these identified lane miles.

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

FHWA annual Highway Statistics report includes information on pavement condition reported by each of the 50 states and the District of Columbia (based on roughness only). Below is a snapshot of the ranking table of 2003 results that shows the number of miles, by state, in poor condition according to smoothness. The total miles reported includes the interstate system and principal arterials owned by the state, cities, and counties, and a sampling of other functional classes. Washington state is ranked 19th in smooth roads. Washington was ranked 16th in 2002 and 17th in 2001.

The FHWA publication can be viewed at www.fhwa.dot.gov/policy/ohim/hs03/.

2003 National Pavement Smoothness Ranking

Rank	State	Centerline Miles Reported	Miles Poor Condition	Percent in Poor Condition
1	Alabama	7,631	19	0.2%
2	Georgia	11,294	29	0.3%
3	Wyoming	4,413	23	0.5%
4	Nevada	2,958	21	0.7%
5	North Dakota	6,183	53	0.9%
6	Florida	10,861	127	1.2%
7	Kansas	8,729	111	1.3%
8	Kentucky	5,654	74	1.3%
9	Utah	3,733	55	1.5%
10	Arizona	4,104	80	1.9%
11	Idaho	3,882	91	2.3%
12	Minnesota	11,635	307	2.6%
13	South Carolina	6,789	180	2.7%
14	Alaska	2,171	62	2.9%
15	Mississippi	7,249	225	3.1%
16	Tennessee	7,830	260	3.3%
17	West Virginia	3,310	135	4.1%
18	Montana	6,980	294	4.2%
19	**Washington**	**5,417**	**259**	**4.8%**
20	Virginia	7,416	383	5.2%
49	California	20,707	5,713	27.6%
50	Massachusetts	3,278	1,077	32.9%

Source: Highway Statistics 2003, U.S. Department of Transportation

Trucks, Goods and Freight: Annual Update

Freight Indicators and Measurements

Viable truck, goods, and freight related performance data is very limited. WSDOT is continually working to gather and report freight industry performance data. The following is a sample of freight movement indicators.

Revenue From Trucks

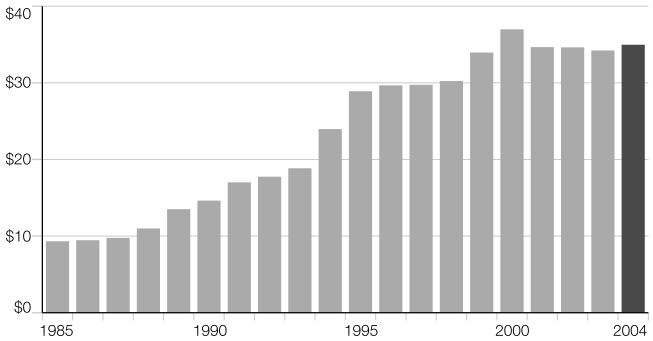
Trucks in interstate commerce register and pay state taxes based on weight and travel mileage. Receipts are prorated among the states in which the trucks register to travel. Washington's revenue settlements with other states involve distributing and collecting money from individual registrations. Available data includes total revenues from the interstate registration system but does not provide data about the exact number of types of trucks. The upward trend in registration revenues, seen in the chart below, mirrors an overall general trend in trucking activity.

As a result of the 2003 Transportation Funding Package, gross vehicle weight fees increased .5 percent for vehicles over 12,000 pounds and will generate an estimated $118 million in additional transportation revenues over the next ten years.

Revenue Prorated to Washington State for Trucks in Interstate Use

All Weight Classes, Fiscal Years 1985 to 2003 and 2004 Estimate

Dollars in Millions



New Highway Studies Show Demand is up

The Strategic Freight Transportation Analysis (SFTA), completed for WSDOT in 2003 by Washington State University, was released in 2004. The analysis showed that truck trips increased by 94 percent on the Interstate 5 corridor, and by 72 percent on the Interstate 90 corridor, in the ten years between 1993 and 2003. The table (above right) shows this upward trend on the most heavily utilized freight corridors in Washington State.

Daily Truck Trips in Washington

	1993/ 1994	2002
I-5	7,909	15,314
I-90	2,954	5,070
Hwy 395	1,207	3,283
US 97	700	2,300

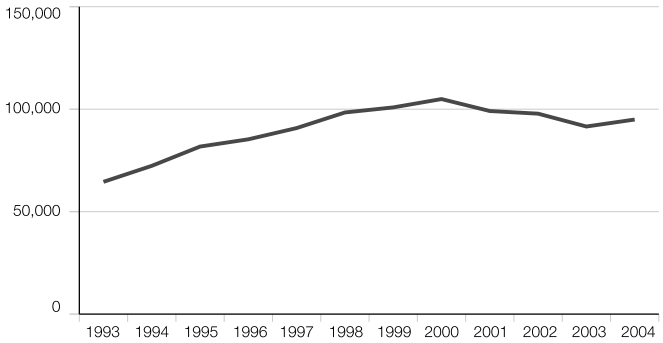
Washington Freight At Border Crossings

Southbound truck crossing at Washington- Canadian border crossings increased 30 percent from 1994 to 2003 (from 500,263 in 1994 to 652,205 in 2003). Western Washington border crossings experienced an increase of 3.7 percent in 2004 over 2003 (from 91, 539 to 94, 938).

Average Monthly Cross-Border Truck Volumes

Pacific Highway, Lynden, and Sumas

Number of Border Crossings



Trucks, Goods and Freight: Annual Update

Freight and Goods Transportation System (FGTS)

Road Segment Ranking

In WSDOT's Freight and Goods Transportation System (FGTS) road segments are ranked by the gross annual truck tonnage they carry. The 2003 road segment update was released in the summer of 2004.

Segment Ranking
By Gross Annual Truck Tons Per Year
T-1 segments carry more than 10 million tons
T-2 segments carry between 4 million and 10 million tons
T-3 segments carry between 300,000 and 4 million tons

The percent of state routes classified as T-1 or T-2, increased from 22 percent in 1994 to 34 percent in 2003. In 2003, 2,430 state route miles were designated either T-1 or T-2 (T-1 roads accounted for 1,084 miles and T-2 roads accounted for 1,346 miles). In the 2003 update, 13.5 miles rose in tonnage classification from T-2 to T-1 and 79 miles rose from T-3 to T-2.

The table below shows the top 10 T-1 road segments, in Washington State.

Top Ten Road Segments

Ranked by Truck Tonnage

Gross Annual Truck Tons	SR	Location	Length in miles
72,373,600	I-5	Thurston/Pierce Co. line to Pierce/King Co. line	24.56
57,605,700	I-5	Oregon State line to Clark/Cowlitz Co. line	20.78
54,085,000	I-5	Clark/Cowlitz Co. line to Cowlitz/Lewis Co. line	36.42
54,085,000	I-5	Cowlitz/Lewis Co. line to Lewis/Thurston Co. line	28.38
53,547,300	I-5	Lewis/Thurston Co. line to Thurston/Pierce Co. line	29.42
48,446,100	I-5	King/Snohomish Co. line to Snohomish/Skagit Co. line	39.89
44,656,000	205	Oregon State line to I-5	10.57
42,273,700	167	Pierce/King Co. line to Renton	16.15
36,771,140	I-5	Pierce/King Co. line to King/Snohomish Co. line	38.26
35,145,800	I-5	Snohomish/Skagit Co. line to Skagit/Whatcom Co. line	24.98

The 2004 Marine Cargo Forecast Predicts Growth

Since 1985, the Washington Public Ports Association (WPPA) and WSDOT have conducted periodic cargo forecasts and assessments of the state's port transportation system in five-year intervals. The 2004 Marine Cargo Forecast is the most recent, and was released in May 2004.

This forecast predicts cargo volumes will continue to grow in the next 20 years. Total tonnage through Washington ports is expected to increase 66 percent over current levels. Containers moving through the Puget Sound (up 241 percent since 1982), will continue to be the fastest growing cargo segment.

Port traffic on the Lower Columbia River produced an estimated 161,800 truck trips in 2002, and is projected to increase to 196,800 trucks by the year 2025. Puget Sound ports, and port-related truck traffic is projected to grow from 970,000 trucks in 2002 to 1.75 million truck in 2025.

Rail Capacity Study

The fastest growing segments of marine cargo (containers and Midwest grains), move primarily by rail. The Washington Public Ports Association (WPPA) Freight Rail Capacity Study, analyzed the freight rail system in Washington State. The forecast is shown in the tables below:

Mainline Rail Capacity
Current and Projected Operations

Trains per Day

Current operations

Mainline Segment	Sustainable Capacity*	Average Trains/Day	Peak Trains/Day
Stevens Pass	28	23	25
Stampede Pass	20	6	7
Blaine to Everett	18	14	15
Everett to Seattle	50	45	50
Seattle to Tacoma	100	85	94
Tacoma to Kalama	60	45	50
Kalama to Longview	80	52	57

Projected 2025 Operation

Mainline Segment	Sustainable Capacity*	Average Trains/Day	Peak Trains/Day
Stevens Pass	28	46	51
Stampede Pass	20	16	18
Blaine to Everett	30	21	23
Everett to Seattle	100	84	92
Seattle to Tacoma	200	189	208
Tacoma to Kalama	120	80	88
Kalama to Longview	160	94	103

***Estimated**

Trucks, Goods and Freight: Annual Update

Working Together to Keep Freight Moving

Much of the information WSDOT collects is important to many divisions within WSDOT, and interested parties outside of the agency. Sharing this information, or making it readily available is key to working together effectively.

Severe Weather Closures on I-90 at Snoqualmie Pass

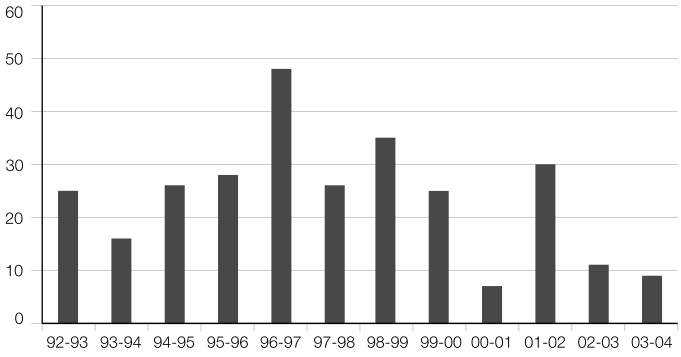
The I-90 corridor is Eastern Washington's lifeline to the marine ports and the Central Puget Sound market. Forty-three percent (16,676 per year) of all truck trips originating in Southeastern Washington deliver goods to Central Puget Sound using I-90. Sixteen percent (84,596 per year) of all trucks originating in Spokane are headed to Central Puget Sound on I-90.

Severe weather closures at Snoqualmie Pass remain a major concern in the freight community. In the past ten years, closures have ranged from a high of 494.33 hours during a 48-day period in 1996 to 1997 to a low of 52.51 hours over a seven-day period in 2000 to 2001. In 2003, eastbound lanes were closed for nearly 44 hours, and the westbound lanes were closed for 24 hours during the winter months.

WSDOT recognizes that these closures have an impact on freight movements and will continue to look for inovative ways to minimize pass closures.

I-90 at Snoqualmie Pass

Number of Days Impacted by Closures



Automatic De-icers Help Keep Truckers Safe

Closures at Snoqualmie Pass during the winter months is just one of the challenges faced by truckers. Sections of highways with steep grades that are subject to severe winter conditions can spell trouble for large trucks. These conditions combined with a sharp bend on I-90 at the Columbia River near Vantage, create an ideal location for an automatic anti-icing system. Automatic de-icers detect dangerous winter road conditions and spray anti-icing chemicals on the roadway using built-in sprinklers.

The basic elements of this system are:

- A Remote Weather Information System (RWIS) that automatically and continuously monitors and reports local meteorological and pavement conditions.
- A liquid chemical storage tank and a computerized control unit connected to the RWIS.
- Supply lines between the storage tank, pumps, and the highway.
- Flush-mounted nozzle systems in the road that apply the chemicals.

WSDOT currently has two automatic de-icers - one is located on Interstate 90 near Vantage at the SR 17 interchange, and the other is located on State Route 26 near Othello.

Automatic anti-icing equipment at the I-90 / SR 17 intersection near Vantage. Supply lines (attached to the side of the bridge) need to be installed between the storage tank, pumps, and the highway in order to deliver the liquid anti-icing chemicals to the roadway when the RWIS indicates that icing conditions are present.

Trucks, Goods and Freight: Annual Update

WSDOT Freight Industry Survey

In 2004, WSDOT consulted with Herbert Research to conduct a freight customer study (completed in 2004). Based on more than 150 one-on-one interviews and follow-up customer surveys, the question was asked, "How do producers and carriers rate Washington's current performance?"

Southeast Washington
Only 50 percent of wheat growers are highly satisfied with current performance of the state freight system. Fifty-three percent of growers say that price of freight service matters most to them; 20 percent say adequate storage at the right location is what matters most.

Columbia Basin and North Central Washington
Sixty percent of Columbia Basin and North Central Washington growers and processors are highly satisfied with the state's freight system, and 50 percent say additional refrigerated capacity is the most important freight service needed.

Central Puget Sound
Only 50 percent of Central Puget Sound trucking companies are highly satisfied with the current performance of the freight system. 65 percent of South Sound manufacturers, and 63 percent of East Side manufacturers are very satisfied with current freight system performance.

Spokane Region
Seventy-nine percent of Spokane manufacturers and 62 percent of Spokane trucking companies are very satisfied with current freight system performance.

Vancouver
Seventy-two percent of SW Washington manufacturers and 54 percent of trucking firms are highly satisfied with the state's current freight system performance.

Northwest Washington
Seventy one percent of NW Washington manufacturers are very satisfied with freight system performance. Some highway projects specifically improve conditions for freight, but most often, improved freight mobility is just one part of a project's overall benefits.

Nickel Projects With Freight Benefits

The projects listed below are funded by the 2003 Transportation Funding Package and considered to have freight benefits because they are located where there is a high volume of truck traffic, near a port or international border, or make it easier for large or heavy trucks to maneuver more safely and efficiently.

For details on these projects, see WSDOT's on-line Project Pages at: www.wsdot.wa.gov/projects/

- **I-5/ 2nd Street Bridge Replacement**
  Construction began in August 2004.
- **I-5/ Salmon Creek to I-205 General Purpose Lanes**
  Construction began in August 2003.
- **I-90/ Argonne Road to Pines Road Widen and I-90 Pines Road to Sullivan Road Widen**
  Construction began in August 2003.
- **I-90 Cle Elm River Bridge**
  The project was completed in November 2004.
- **I-90 Highline Canal to Elk Heights**
  The project was completed in August 2004.
- **I-90 Ryegrass Summit to Vantage**
  The project was completed in October 2004.
- **US 395/ North Spokane Corridor-- Francis Avenue to Farwell Road**
  Construction is currently underway.
- **SR 3/ SR 303 Interchange (Waaga Way)- New Ramp**
  This project is currently in the design phase.
- **SR 9/ Nooksack Road Vicinity to Cherry Street**
  Construction is scheduled to start in spring 2006.
- **I-5 NE 175th Street to NE 205th Street Northbound Lane**
  Construction is scheduled to begin in March 2005.
- **SR 24/ I-82 to Keys Road**
  Construction is scheduled to begin by the summer of 2005.
- **SR 31/ Metaline Falls to International Border**
  Construction is scheduled to begin in the spring of 2005.
- **SR 522/ I-5 to SR 405 Multimodal Project**
  Construction is scheduled to start in 2006.

Freight and the WTP

The update of the Washington Transportation Plan (WTP) which covers 2007-2026, is currently in progress and will include a 10-year investment proposal for statewide program and state projects, as well as proposals for policies that deal with all aspects of transportation. The WTP addresses nine strategic issues, including the issue of freight movement.

To access the draft WTP Update Freight White Paper, see the WSDOT Freight Office web page: www.wsdot.wa.gov/freight/default.htm

Highway Maintenance: Annual Update

Biennial Maintenance Targets

The Maintenance Accountability Process (MAP) targets, measures, and communicates the outcomes of 34 distinct highway maintenance activities. Maintenance results are measured using field condition surveys, and are reported as Level of Service (LOS) ratings. LOS targets are defined in terms of the condition of various highway features (for example, the percent of guardrail on a highway system segment that is damaged). LOS targets are also keyed to the level of funding provided by the legislature. During 2004, 33 of the 34 targets were achieved.

WSDOT Maintenance Targets Achieved for 2004

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

Maintenance Activity Priorities

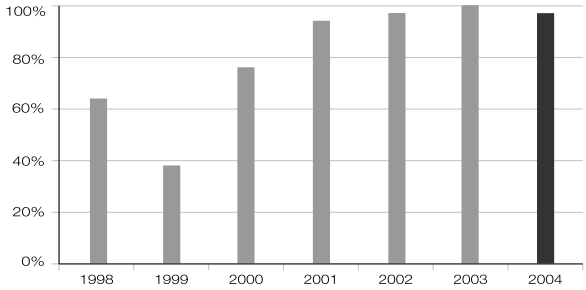
Priorities were last evaluated in 1999. To keep consistent with WSDOT's current direction of focusing on mobility and movement, maintenance managers re-evaluated maintenance priorities in the summer of 2004. Many activities that focus on the operation of the highway system and movement of traffic rose towards the top of the list. The prioritization of highway maintenance activities is accomplished by evaluating the impact that each activity has on meeting broad program objectives such as safety, environmental protection, and meeting legal mandates. The table to the left lists maintenance activities in their order of priority.

Analysis of "Failed" Maintenance Activity Target for 2004

Movable and Floating Bridge Operations did not achieve the target of service level B in 2004. The LOS measure for bridge operations is determined by calculating the percentage of bridge openings or closings that are delayed due to a system malfunction. LOS B means that approximately 3% of bridge openings are going to experience malfunctions. During 2004 there was approximately 4.5% of openings that experienced malfunctions resulting in the B - LOS rating.

- The SR 12 Bridge over the Snake River at Clarkston was opened 13 times (11 of which were test openings for preventive maintenance purposes) during 2004. Of these openings, two delays occurred due to malfunction. The openings on the Snake River Bridge represent 0.2% of all openings in the state. Without the Snake River Bridge calculation for LOS, the 2004 statewide LOS rating would be a "B+" (based on the other 99.8% of statewide bridge openings), and would exceed the LOS target.

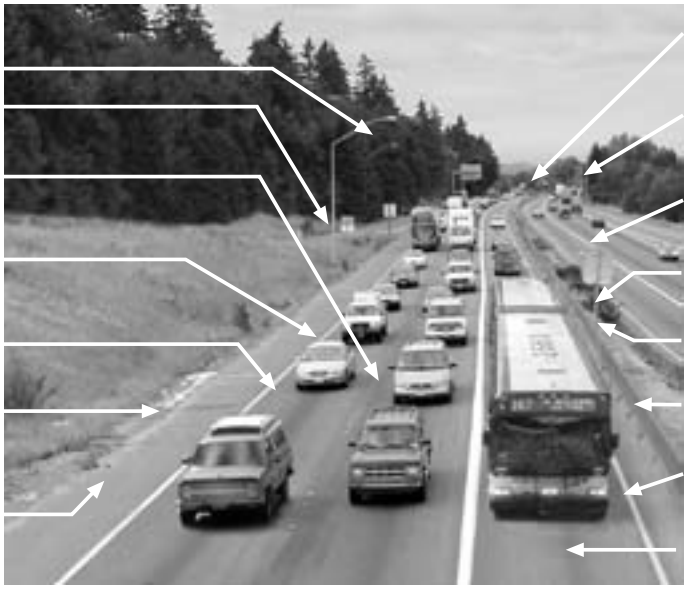
Percentage of Legislatively Funded Targets Achieved for 1998-2003



Source: WSDOT Maintenance Office.

Highway Maintenance: Annual Update

Typical Costs of State Highway Maintenance: Per Year, Per Car, FY 2004



Maintenance Activity/Highway Feature	Expenditures for FY 2004 (in millions)	Annual Cost per Every Registered Vehicle in Washington 2004*
Snow and Ice Control	$34.6	$5.48
Vegetation Management	$13.7	$2.16
Pavement Maintenance (Travel Lane)	$12.5	$1.97
Bridge Maintenance and Operations	$11.2	$1.77
Stormwater Management	$9.1	$1.44
Pavement Striping, Marking, and Guidepost Maintenance	$7.3	$1.15
Highway Lighting	$7.2	$1.14
Rest Area Maintenance & Operations	$5.7	$0.90
Guardrail Maintenance	$5.1	$0.81
Sign Maintenance	$4.7	$0.74
Roadway Hazard Patrol/Removal	$4.5	$0.71
Traffic Signal Maintenance	$4.2	$0.67
Litter Control	$4.2	$0.66
Sweeping & Cleaning	$4.1	$0.64
Intelligent Transportation System Maintenance	$2.9	$0.46
Slope Repair	$2.9	$0.45
Permitting Over-legal Loads	$2.5	$0.40
Shoulder Maintenance	$2.3	$0.37
Urban Tunnel Maintenance And Operations	$2.2	$0.34
Raised/Depressed Pavement Markers	$1.4	$0.22
Keller Ferry Operations	$1.0	$0.16
Total	**$143.1**	**$22.64**

Costs include approximately 7% for training, administration and field supervision
Assumptions Used: 6,316,955 registered vehicles in Washington (projected for 2004)
* 2004 costs per car are lower than 2001 due to including more vehicles under the definition of registered vehicles.

Highway Maintenance: Annual Update

Integrated Vegetation Management

Integrated Vegetation Management (IVM) involves creating and supporting roadside plant communities that minimize long-term maintenance needs. Ongoing roadside maintenance requirements often depend on how well roadsides are designed and constructed. If roadsides are not well restored at the time of construction, the expense of roadside maintenance over time is greater because noxious and nuisance weeds tend to establish themselves and thrive in poor soils with sparse vegetation. Such soils can be characteristic of roadsides.

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

2004 Herbicide Use

WSDOT tracks herbicide use in pounds of active ingredient. In 2004 the agency's statewide annual use of herbicide for roadside maintenance decreased by 30 percent. Most of this reduction comes from limiting two of WSDOT's major use herbicides: 2,4-D and diuron. Other reductions come from areas where IVM plans have been implemented.

Use of the herbicides 2,4-D and diuron was temporarily restricted within 60' of salmon bearing waters in 2003 due to a lawsuit filed in the US District Court by environmental groups. As a result, WSDOT cut back on the use of these chemicals.

Statewide Herbicide Use Trends
(pounds of active ingredients)

Year	Total	% Change
2002	121,105	N/A
2003	124,426	2.7%
2004	87,111	30.0%

IVM Plan Development and Implementation

The use of IVM by WSDOT maintenance crews is being facilitated through the development of local area Integrated Roadside Vegetation Management Plans. These plans contain an inventory of roadside management aspects and detailed guidance on how the roadside vegetation will be effectively managed mile by mile along each highway. Plans have been developed and implemented for all highways in Clallam, Jefferson and Island Counties and for SR 305 on Bainbridge Island. WSDOT is working to develop and implement area IVM plans statewide by 2007. Plans currently under development will be implemented this year for eight maintenance areas that cover approximately 2,500 additional centerline miles. The areas include Okanogan, Walla Walla, Wenatchee, Ephrata, Tacoma, Everett, Mount Vernon, and Port Orchard

Public Participation

In 2004, public meetings were held in areas where IVM plans were being developed and implemented, and public comment was incorporated into the final versions of these plans. In areas where public communication has been improved, herbicide use has decreased.

Local volunteers assisted in planting native vegetation to restore cut slopes along SR 112 in Clallam County and along SR 525 on Whidbey Island.

In Clallam and Jefferson Counties, herbicide use decreased by 50 percent in 2004 compared to 2003. In Island County, herbicide use decreased by 60 percent in 2004 compared to the average from the three previous years.

Nearly 30 local volunteers turned out in October to help plant over 2,000 shrubs and trees along SR525 on Whidbey Island.

Highway Maintenance: Annual Update

Integrated Vegetation Management

Alternatives for Managing Vegetation at the Pavement Edge

Historically, WSDOT has maintained a vegetation free band at the edge of pavement on practically all highway sections statewide. The most cost effective way of accomplishing this is through the routine annual application of soil residual, pre-emergent herbicides. The maintenance of this area has accounted for approximately 60 percent of the total herbicide used by the agency in recent years.

To help determine the best course for future agency policy and practice, WSDOT has contracted with the University of Washington (UW) to research this aspect of highway design and maintenance. A working group made up of public and private interests, and local, state and federal agency experts is assisting in adapting the research findings into a recommended decision framework for WSDOT. These recommendations will be used to help determine how to best maintain the roadside where it meets the edge of pavement. It is anticipated that there will be some aspects of this topic where additional field study may be necessary to fill gaps in current available data. A report on this research and resulting recommendations will be available in June 2005.

The pictured product is a mat that is installed underneath runs of guardrail and fits tightly around the base of guardrail posts. The mat prevents vegetation growth without the use of herbicides or labor-intensive trimming.

Reducing Roadside Maintenance Through Design and Construction

In September 2004, a Value Engineering study (see June 2003 *Gray Notebook*) was conducted for five upcoming contracts on SR 20 - Whidbey Island that focused on roadside maintenance. The study looked at changes in design and construction practices that would improve the resulting condition of vegetation on roadsides following construction, thereby reducing maintenance requirements and necessity of herbicide use. Recommendations resulting from the study will also be considered for application throughout the state.

Recommendations were developed around the areas of: pavement edge, soils, weed control, and establishing desirable vegetation. An important recommendation that will be implemented in the Whidbey Island projects is the elimination of the need for annual applications of herbicides. Because the projects on the island are being designed with eight foot wide paved shoulders, grass can be established to the edge of pavement and mowed without significantly impacting traffic or safety.

On sections with guardrail, a weed prevention fabric will be installed, eliminating the need for spraying or mowing in these areas. Several products are available for installation around the base of the guardrail to prevent all vegetation growth. WSDOT will be testing and evaluating these products over the coming years in relation to recommendations from the UW research findings and the Whidbey Island Value Engineering study.

Highway Maintenance: Annual Update

West Nile Virus Update

Washington is the only state in the continental United States that did not detect West Nile Virus activity in 2004.

During the 2004 mosquito season, the West Nile Virus moved into previously unaffected areas of the west including California, Oregon, and Idaho. More than 2,300 human cases were reported in the United States between January and November 2004; one case was reported in a Washington traveler who contracted the virus while visiting Colorado. West Nile activity in 2004 has been centered in California, with 812 cases as of November 30th representing 34 percent of the cases reported to date. Arizona, last year's "hot spot", continued to have a significant caseload and Oregon had its first human case.

In 2004, WSDOT spent approximately $77,000 on larvicide and spent 2,550 hours on WNV training, surveillance and control. This is an increase of approximately 600 hours over 2003 (1,650 hours). Spending decreased by approximately $21,000 this year ($98,000 in 2003), but 2004 expenditures do not include the cost of larvicides. Larvicides applied this year were purchased in 2003.

In 2004 WSDOT applied 306 pounds of Vectolex CG larvicide (Bacillus sphaericus) and 858 Bti briquettes (Bacillus thuringiensis). Currently, there are 72 maintenance personnel who are endorsed aquatic applicators that can apply larvicide. This figure is substantially higher then the 31 individuals that had the endorsement when the WNV program started last year. A different group of 82 individuals were trained for mosquito surveillance (dipping for water samples). Added to this group were an additional 23 technicians that were trained in the summer of 2003 for mosquito surveillance. WSDOT now has a total of 105 maintenance personnel trained to dip for mosquito larvae.

Mosquito Sampling

Identifying mosquito species found in WSDOT's stormwater facilities is part of the Integrated Pest Management (IPM) process. WSDOT biologists received thirty-four larvae samples in 2004. In eight of the samples the adults did not emerge, or the samples were damaged during shipment. From the twenty-six samples where adults did emerge, 61 percent of those samples contained adult mosquitoes of the Culex species. The mosquitoes of Culex species are the type that is most likely to transmit WNV.

Maintenance personnel are trained for mosquito surveillance.

Results of Larvae Samples

Total Number of Larvae Samples	34
Adults Did Not Emerge	8
Adults Emerged	26
Number / Percent of Culex Species	14 or 61%

Environmental Programs: Annual Update

Stormwater Treatment Facilities

In accordance with the Clean Water Act, WSDOT constructs ponds, swales, vaults and other facilities to remove pollutants from stormwater as well as reduce stormwater flows that can cause flooding and harm fish habitat. To confirm pollutant removal effectiveness, WSDOT collected 87 samples of runoff before treatment and 123 samples after treatment along Interstates 5 and 405, during the 2003-2004 rainy season. WSDOT facilities exceeded treatment effectiveness goals set by the Department of Ecology (DOE) for solids and phosphorus. Stormwater facilities also remove most of the particulate metals present in stormwater. Effectively removing dissolved metals from runoff, however, remains a challenge.

Washington Removes Pollutants

Solid Particles - Most stormwater pollutants like phosphorus and particulate metals are attached to solid particles that settle out over time or get filtered out by constructed ditches, bio-swales, grass slopes, etc. designed to capture pollutants. WSDOT's treatment facilities are very effective in reducing these stormwater pollutants as seen in the table at right.

Dissolved Metals - Dissolved metals are of concern because Washington state's water quality standards are set at very low concentrations, roughly 0.040 mg/L for dissolved zinc and 0.0047 mg/L for dissolved copper. The effectiveness of available, affordable treatment options are limited and highly variable when it comes to removing trace amounts of dissolved metals. While the average concentrations of dissolved zinc and copper met standards, 22% of samples exceeded standards for zinc and 48% of samples exceeded standards for copper.

To provide some perspective, the average weight of dissolved copper that washed off of monitored highway sites before treatment is comparable to five pennies per acre each year. To meet water quality standards, dissolved copper leaving those sites needs to be reduced to 3.5 pennies a year. Treatment reduces dissolved copper leaving those sites to 2 - 4.3 pennies each year.

Oil/grease - Data collected for 2003/2004 consistently meets state water quality standards for oil/grease. All analyzed samples were at least 30 times cleaner than the state standard of 10 mg/L.

WSDOT built 192 stormwater treatment facilities in Western Washington between July 2003 and July 2004. One hundred sixty-six of those were in four counties that WSDOT tracks in response to municipal stormwater permit requirements.

Stormwater Pollutant Removal Before and After Treatment Comparison

Pollutant	Before	After	Effectiveness vs. Goal set by DOE (%)	Pounds captured per year / per acre
Solids	187.0*	3.8	95-98/80	820.0-850.0
Phosphorus	0.26	0.04	73-92/50	0.89-1.13
Total Zinc	0.215	0.039	63-86/N/A	0.67-1.03
Total Copper	0.042	0.007	72-91/N/A	0.13-0.17
Dissolved Zinc	0.63	0.027	14-80/N/A	0.07-0.37
Dissolved Copper	0.0067	0.0047	14-60/N/A	0.004-0.02

* all pollutant concentrations in milligrams/liter

Copper in the Water

Washington's surface water quality standards are 325 times more stringent than its drinking water standards for dissolved copper. Some laboratory studies suggest that small concentrations of dissolved copper can cause nerve damage in the noses of fish and can reduce their ability to navigate.

This pond near Tumwater (monitoring equipment in foreground) removes most solids and phosphorus from runoff.

The grassy swale near Canyon Park on I-405 was most effective at removing dissolved zinc and requires little space.

A dry pond along I-5 near Everett (it only fills during storms) was the most effective at removing copper.

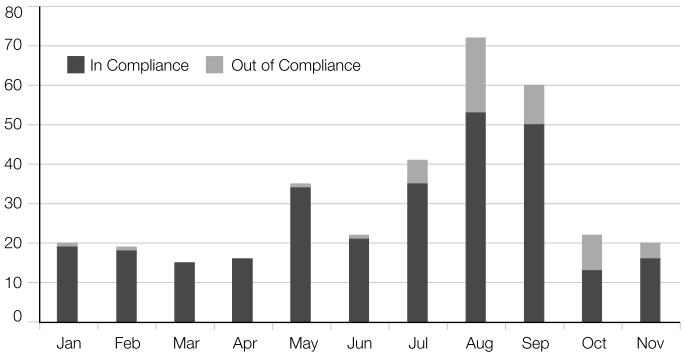
Environmental Programs: Annual Update

Monitoring Water Quality Impacts for Construction Sites

In 2004, the second year of construction site water quality monitoring was conducted. WSDOT's statewide policy requires monitoring on at least 20 percent of all projects with substantial potential for water quality impacts. Sampling is conducted when compliance with state standards is the most challenging. The graph on the right, summarizes sampling results that compare water quality upstream and downstream from 13 highway projects.

Results show that in 2004, 85 percent (290 out of 342) of the samples collected met water quality standards for clarity. Of the 52 non-complying events, 37 were associated with permitted in–water activities. The remaining violations were associated with storms (8), muddy run-on from neighboring properties (5), and construction team mishaps (2) like an improper placement of a stream diversion. In 2003, WSDOT had a 95 percent compliance rate. This decrease is a reflection of more consistent data reporting, plus the projects monitored in 2004 posed more water quality-related challanges than last year.

State Water Clarity Standards Compliance
Number of Samples for 2004



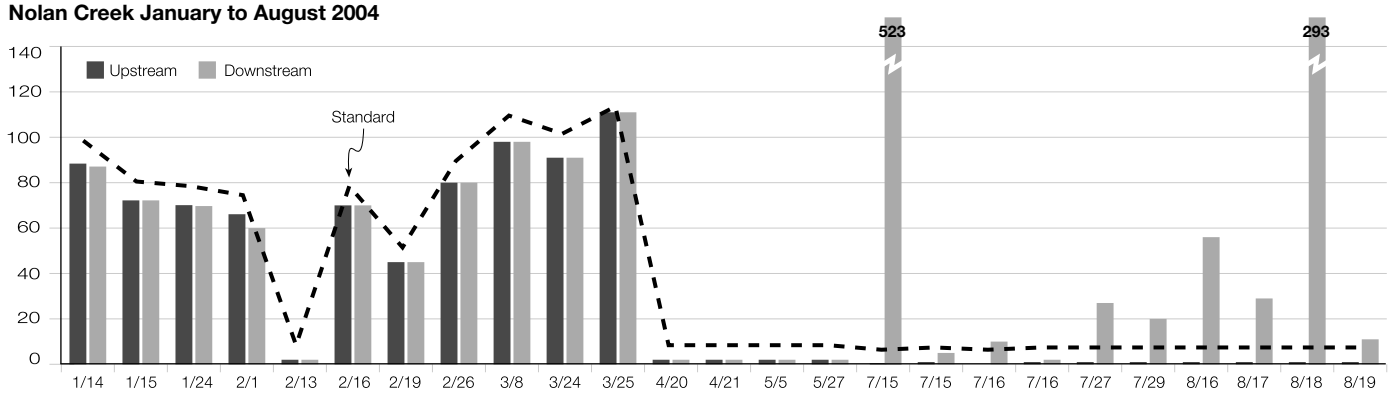
Source: WSDOT Environmental Services Office.

Case Study - Nolan Creek, SR 101

This project experienced eight of the 37 non-complying events described above. It involved a realignment of SR 101, improved at-grade intersections, plus the construction of a new bridge over Nolan Creek. An average of 45 inches of precipitation falls during the first three months of the year in this area. Earthwork was still ongoing during this time and despite the large rainfall events, the events did not trigger a violation. However, permitted in-water work activities such as stream diversions, Best Management Practices installations, and bridge demolition during the summer months exceeded state water quality standards.

A silt fence separates drilling activites at Nolan Creek.

Water Clarity Monitoring
Nolan Creek January to August 2004



Source: WSDOT Environmental Services Office.

*The state standard changes as the upstream conditions fluctuate.

Environmental Programs: Annual Update

Erosion Control Preparedness

Erosion control is a major component of WSDOT's program to help protect Washington's water quality. The program includes training, inspection and monitoring. Twelve projects (currently under construction) with moderate and high potential for erosion problems were inspected prior to the rainy season in the fall of 2004. The inspections determine how effective Best Management Practices (BMPs), like planting grass and building ponds, are at preventing erosion and keeping water clean. The following table compares the results to the previous two years and shows an improvement in nearly every category of the assessment. Compared to the December 31, 2003 *Gray Notebook*, four fewer measures are being reported. This is due to Department of Ecology modifying the categories, which necessitated WSDOT to either condense or eliminate existing ones. Also, two new categories have been added since the 2003 report.

Results

Performance for 11 of the 14 temporary erosion and sediment control measures improved an average of 17 percent or remained stable at a high level. Performance decreased an average of 24 percent for two measures. A low level of performance (67%) was achieved for one of the new measures. Last year, WSDOT set out to improve performance through increased technical assistance, improved contract enforcement, and targeted training. WSDOT has found this approach successful and will continue efforts with all components in the "Poor" and "Fair" categories.

Erosion and Sediment Control Assessment Results

	Assessment Measure	2002	2003	2004	Status
Excellent	Delineate clearing limits	100%	100%	100%	stable
	Sediment control BMPs installed on time	90%	90%	100%	improved
	Control other pollutants from impacting water quality			100%	new measure
	Control flow rates	87%	84%	100%	improved
	Removal of water	100%	71%	100%	improved
Good	Access routes prevent tracking of mud onto streets	98%	69%	91%	improved
	Protect cut & fill slopes	67%	50%	89%	improved
	Storm drain inlet protection	74%	82%	83%	stable
Fair	Manage project erosion/sediment control BMPs proactively	56%	75%	80%	improved
	Channels for temporary stormwater conveyance are stabilized	90%	64%	73%	improved
Poor	Erosion control BMPs installed on time			67%	new measure
	Amount of disturbed soil covered with erosion control BMPs	65%	45%	65%	improved
	Site preparedness to resist erosion	86%	80%	48%	decreased*
	Maintain BMPs	70%	70%	50%	decreased

* In previous years, only the potential to discharge sediment to receiving water bodies was considered during assessments, which suggested a high level of performance. In 2004, the scope of site vulnerability was broadened to include site damage, resulting in a perceived decrease in performance.

Environmental Programs: Annual Update

Monitoring Replacement Wetlands

WSDOT has been mitigating for unavoidable wetlands loss with replacement wetlands for over 15 years to address the state's Executive Order 89-10, which mandates that the actions of state agencies result in no net loss of wetlands.

Types of Mitigation

When transportation projects create unavoidable wetland impacts, wetlands are enhanced, restored, created or preserved to achieve the no net loss policy. WSDOT has a total of 120 (708 acres) replacement wetland sites. Monitoring was initiated on four new sites in 2004. Two of these sites were created wetlands, one involved both creation and enhancement of wetlands, and one solely involved wetland enhancement. These sites add more than 25 acres to WSDOT's inventory of replaced wetland acreage (see pie graph at right).

New Replacement Wetland Sites

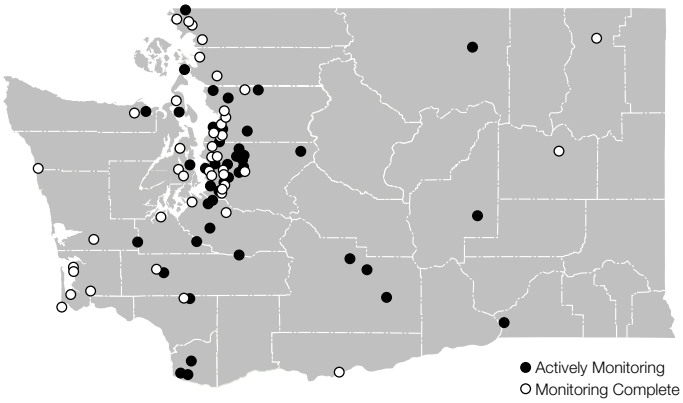
- *SR 202 Evans Creek Drainage Slough Bridge* (Enhancement)
- *I-5, Pierce County line to Tukwilla Stage 3* (Creation/Buffer)
- *SR 527, 164th to 132nd Street* (Enhancement/Buffer/Creation)
- *U.S. 12, SR 124 to Wallula Junction* (Creation)

Meeting Standards in 2004

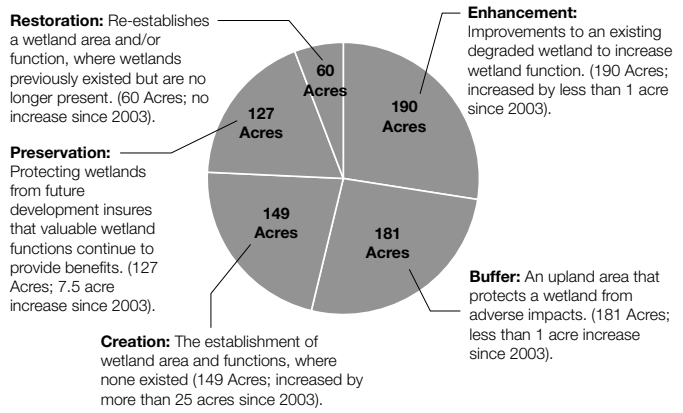
Biologists evaluated 19 wetland replacement sites with targets (success standards) to measure for 2004. This is a sub-set of 51 active replacement wetlands ranging from one to nine years in age. Monitoring was conducted for 60 individual standards ranging from the percent cover by woody species to the placement of habitat structures on the mitigation site.

Five sites achieved all of their success standards in 2004. Twelve sites achieved some of their success standards in 2004. Two sites did not meet any of their standards in 2004. One of these sites missed its two standards by less than 10% due to beaver activities. The region is considering transferring management of this site to the Department of Fish and Wildlife because of its interest in beaver activity. Management activities have been implemented on the other site to effectively establish native vegetation and control weeds in order to bring it into full compliance.

WSDOT Replacement Wetlands
1988 - 2004



WSDOT Replacement Wetlands, 1988-2004
Total Acreage of Wetland Projects
120 Sites, 708 Acres



2004 Success: Targeted Wetland Replacement Sites Meeting Standards (19 total)

Percentage of Standards Met	# of Sites	Acres
100 %	5	4
76-99 %	2	11
51-75 %	4	5
26-50 %	6	23
1-25 %	0	0
0	2	2

Monitoring Replacement Wetlands cont.

Completed Replacement Wetlands

Successful sites have achieved reasonable ecological success, and no longer need monitoring. Unsuccessful sites have not met requirements or achieved reasonable success.

Reasonable ecological success was achieved on six more sites in 2004, bringing the total number of completed sites since 1988 to 59. Fifty-five of these sites (275 acres) are considered successful. The four unsuccessful sites failed due to unpredictable or changed hydrology, the most important parameter of wetland success.

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

Improving Wetland Replacement

In 2004, WSDOT biologists completed a study addressing how well WSDOT is replacing wetlands. The study indicates that road projects often successfully minimize impacts to higher quality wetlands and replace lower quality wetland areas. It also outlines the following opportunities (listed below) for improvement to the wetland replacement process. A copy of the complete report will be available on-line soon.

- Improve the planning process by providing better guidance to staff. Statewide guidelines are being developed that address wetland impact assessment, site selection, design, construction, monitoring, and management.
- Improve the way WSDOT maintains replacement wetlands. WSDOT has established a stable funding source for routine work on replacement sites. A statewide work crew is available to site managers to improve site conditions (see sidebar).
- Continue on-going discussions with regulatory agencies to mutually establish realistic performance measures that better predict success in replacing wetlands.

Replacement Wetlands Completed since 1988 (59 sites)

Year	Percent Successful
1988-2001	88%
1988-2002	91%
1988-2003	92%
1988-2004	93%

Management Activities

Work crews are improving response time and site management procedures including:

Routine site-management: The normal activities that need to occur on most sites to keep them in compliance.

- Weed control
- Minor replanting of vegetation
- Fence repair

On-site remediation: These activities are initiated when projects have fallen out of compliance

- Re-grading
- Major replanting of vegetation
- Installation of temporary irrigation system
- Installation of fencing
- Weed control

Major remediation: This category is established for the rare instances when a mitigation site is a failure and it needs to be completely redesigned and reconstructed to meet requirements.

- Site reconnaissance & negotiation with agencies
- Property acquisition
- Construction

The WSDOT work crew adds clay and compost to soil so that it will hold water long enough to grow wetland plants at the *I-5 Main St to Vicinity I-205* project in Vancouver.

Environmental Programs: Annual Update

Environmental Management Systems (EMS)

WSDOT continues to develop its Environmental Management System (EMS) to help support the department's environmental efforts and integrate those efforts into everyday operations, training programs and regular performance reporting. WSDOT is currently concentrating on developing and implementing programs for construction compliance, hazardous material handling at the Materials Laboratory, roadside maintenance activities and commitment tracking. The prime goal of these programs are to ensure fullfilment of WSDOT's environmental obligations.

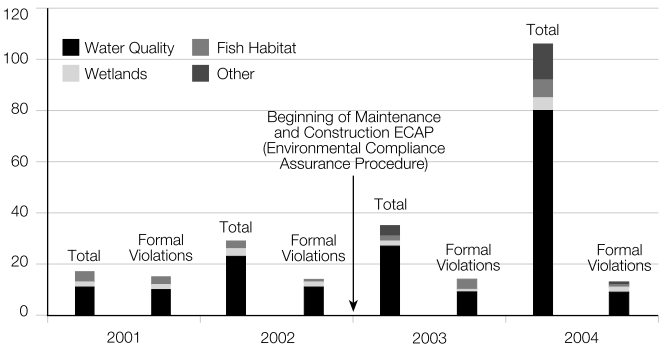
How Are We Doing?

WSDOT self-monitors for "non-compliance events" whether or not such events are taken up as formal "violations" by regulatory agencies or officials. In 2004 WSDOT recorded 106 non-compliance events, with 13 leading to issuance by a regulatory agency of a formal Notice of Violation (NOV). This is over two times the number of non-compliance events (41) recorded last year. However, the number of formal NOVs remained the same. WSDOT believes this is an indicator that the program for searching out and quickly fixing non-compliance events is working.

In 2004, 80 of the 106 non-compliance events involved water quality regulations, as shown in the chart. The "other" category includes eight events involving hazardous materials and five involving air quality or noise. Many of the non-compliance events were small blips that were fixed immediately upon discovery (such as turbidity spikes during installation or removal of water quality Best Management Practices). A few were systemic failures for which WSDOT received large penalties and had a significant impact on the project's schedule and budget (see the March 2004 *Gray Notebook* for a discussion of SR 18's wetland violation).

Non-Compliance Events

2001-2004



Source: WSDOT Environmental Services Office.

To put these numbers in context, WSDOT had over 11,000 construction contract work days and conducted 134,048 maintenance activities in 2004.

Integrated Vegetation Management Results

WSDOT also tracks compliance with the laws that apply to herbicide and pesticide application for roadside and wetland mitigation sites. The number of applications in 2004 is up 2 percent from 2003, but the total pounds of active ingredient applied went down by 29 percent from the year before. The Washington State Department of Agriculture (WSDA) conducted one investigation of WSDOT spraying last year. No findings of faults were issued. (See page 60 for a full discussion of WSDOT's vegetation management efforts.)

Non-Compliance Events (Spraying)

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

Focusing on Construction Compliance

Over the last year the Construction Compliance Program has evolved from a pilot program to full implementation. The program is built on WSDOT's seven core EMS elements (see *Gray Notebook* December 31, 2003 for a description of WSDOT's EMS development efforts). The major emphases of the program are to prevent environmental compliance problems, and catch those that do occur early so they can be remedied before becoming major issues. The chart to the left shows two things. One, WSDOT is identifying more non-compliance events then before. Two, most of the non-compliance events are being fixed when they are relatively minor, before they become formal violations.

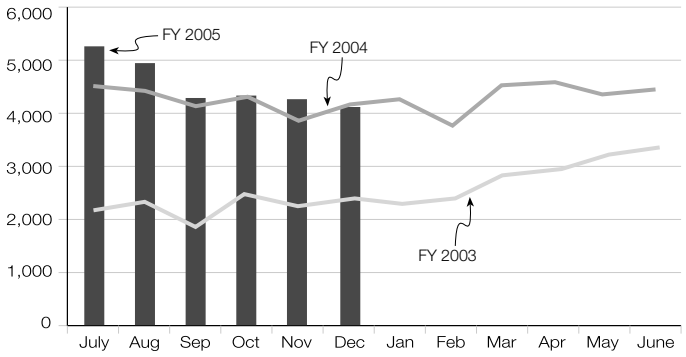
Incident Response: Quarterly Update

Program Trends

During the 4th quarter of 2004, WSDOT recorded 12,746 incidents. The majority of these (8,020, or 63%) were cleared within 15 minutes. Most were non-collision and merely required service actions. Approximately 35% (4,509) lasted between 15 and 90 minutes with 25 percent of this group being collisions. Major incidents (clearance times 90 minutes or longer) accounted for 1.7 percent (217) of all incidents. The majority of this group were collisions (63%).

Total Number of Responses by Month

July 2002 to December 2004*



Source: WSDOT Traffic Office
**FY 2003 numbers do not include non-IRT responses in the earlier program.*

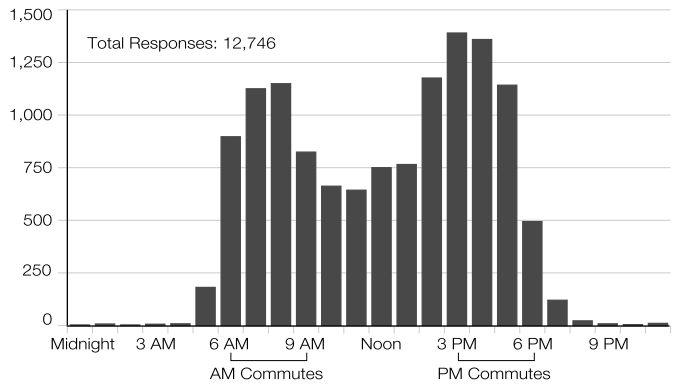
Roving Units Combat Congestion

The Incident Response (IR) units rove from 5:30 am to 7:30 pm (depending on local needs), with emphasis on the peak morning and evening commutes. More incidents occur during these congested periods causing additional delays to already slowing traffic (see graph below). The Incident Response program is one of WSDOT's incident management strategies for combating non-recurring congestion.

Number of Responses to All Incidents

By Time of Day

October - December 2004



Source: WITS

A WSDOT incident responder assists a motorist with a flat tire blocking a lane on southbound I-5 at Exit 7 (NE 134th Street).

The total number of incidents responded to by WSDOT's IR team for 2004 was 53,197 - an average of 4,433 per month, or 1,108 per week.

The percent of over 90 minute incidents for 2004 (1.8 percent) compared to 2003 (1.6 percent) shows a slight decrease even though the total number of incidents increased in 2004.

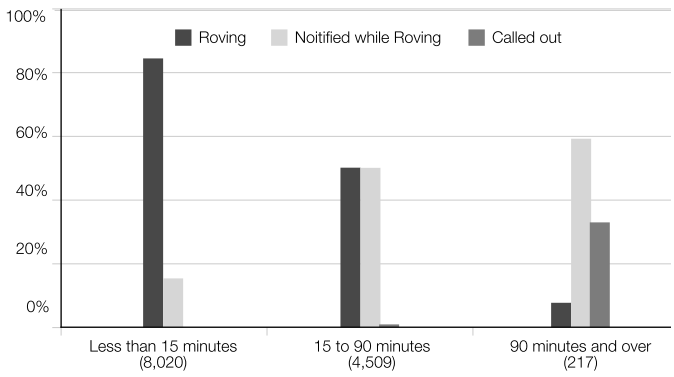
Incident Detection and Response Modes

The bar graph below shows the relationship between the way incidents are detected and how WSDOT responds. Of the 8,020 minor incidents (cleared less than 15 minutes), 85 percent were responded by roving units. As the clearance time increases to 15-90 minutes, the number of notified response units increases to 50 percent. For major incidents (over 90 minute clearance times), 33 percent were responded to by called out units. Most of the major incidents requiring called out units either occurred outside roving zones and/or the peak commute periods.

Clearance Time by Response Mode

Percentages of Callouts, Notified, and Roving Responses

October - December 2004



Incident Response: Quarterly Update

Incident Response - Then and Now

As early as 1963, WSDOT began operating tow and push trucks on Seattle's I-90 and Evergreen Point floating bridges to clear disabled vehicles to a safe location off the bridges. Also during the 1960's, WSDOT started operating pick-up truck patrols on the Seattle express lanes to ensure disabled vehicles were removed prior to reversing the lane direction.

For almost thirty years, these were the first and only formal form of incident management for WSDOT until Washington State hosted the Goodwill games in 1990. During the games, through the use of federal funding, WSDOT had the opportunity to try-out roving service patrols using WSDOT vehicles. contracted tows services, and agreements with the Washington State Patrol (WSP).

Early 1990's

From early to mid 1990, WSDOT's Northwest and Olympic Regions provided 24 hour, 7 days a week call-out Incident Response. During that period, the tows and pusher truck on the floating bridges became formally a part of Incident Response.

1997

WSDOT proposed a roving program of contract tow service to the legislature. The legislature directed WSDOT to conduct a study, involving the WSP and the tow industry, to determine how best to increase tow service on our heavily traveled highways. The study recommended a pilot program to demonstrate and evaluate a variety of modes of service, including roving patrols, private tow companies, WSP Cadets, and privately sponsored motorist assistance vans.

1998

WSDOT had increased its fleet to 18 IRT units. Seven of the units were operating in a "roving" mode during peak traffic periods, and the remaining were in 24/7 "call-out" status only.

2000

WSDOT implemented the 12-month pilot program in July which included contracts with WSP and private towing companies.

2002

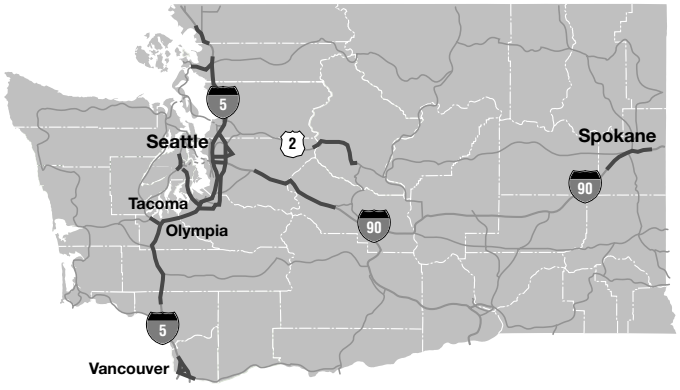
In February, a Joint Operations Policy Statement was signed between the Washington State patrol and WSDOT. The legislature provided additional funding for the expansion of the IRT program to help reduce the delay caused by non-recurring congestion. This was accomplished by mobilizing existing IR units from a "call-out" mode, to "roving" mode during peak commute periods, and by adding 19 new "roving" units, while maintaining the 24/7 "call-out" capability. A new database/ tracking system was also created to capture and report incident data.

WSDOT's Program Now

"Clearing Roads and Helping Drivers" - Today's Incident Response is composed of a specially trained group of WSDOT personnel, WSP Cadets, Registered Tow Truck Operators (RTTO) and a Motorist Assistance Van (MAV) operator. The IR responds to blocking and disabled vehicles, debris, collisions, and major incidents on our state's freeways and highways in a "roving" mode and to major incidents in a 24/7 "call-out" mode.

The team is made up of 47 WSDOT owned vehicles, plus 3 RTTO vehicles, 3 WSP Cadet vehicles, and 1 Motorist Assistance Van. These vehicles are used to respond to over 4,000 incidents per month on average. The 31 IR "roving" zones cover the State's areas of heaviest highway congestion from 5:30 AM to 7:30 PM (depending on the area).

Incident Response Program Roving Zones



Incident Response: Quarterly Update

Training Incident Responders

Training Puts Safety First

WSDOT IRT personnel and supervisors receive formalized, comprehensive training that centers on safety and performing essential job functions. IRT members attend numerous incident response training courses, a number of which require refresher training.

Even though their job is to clear roads to help minimize delays to the traveling public, the primary focus of their training is to protect the traveling public, themselves, and their response team members.

IRT Member Training Elements

Safety

First Aid and CPR
Awareness at Collision Scenes
Approaching Disabled and Abandoned Vehicles
Traffic Control
Hazardous Materials Identification and Containment

Equipment Operations

Driving (classroom)
Response Driving (field)
Clearance Techniques
Vehicle Recovery
Minor Vehicle Repairs

Procedures and Communications

Standard Operating Guidelines
Radio Communications
Incident Command System
Washington Incident Tracking System
Media/Public Relations

New IR members ride along with seasoned WSDOT responders to gain first hand experience. They also ride with WSP troopers and spend valuable time in WSP communication centers and Traffic Management Centers.

Future Training

In the near future, WSDOT, WSP, and local Fire Departments will begin a coordinated training effort for handling traffic incidents more effectively. The training is known as Traffic Incident Management (TIM).

TIM

Fulfilling an "action item" within the new edition of the Joint Operation Policy Statement (JOPS), the Washington State Department of Transportation, the Washington State Patrol, and the Washington State Fire Chiefs Association will be jointly presenting TIM quarterly training at the local level.

TIM goals

- Enhance responder and motorist safety
- Improve operational efficiency and communications
- Conduct after-action debriefings
- Implement ongoing local T. I. M. planning and coordination

WSDOT is working to improve its capability to report initial and refresher training. Once this data is available, WSDOT will present an update on IRT training requirements and compliance.

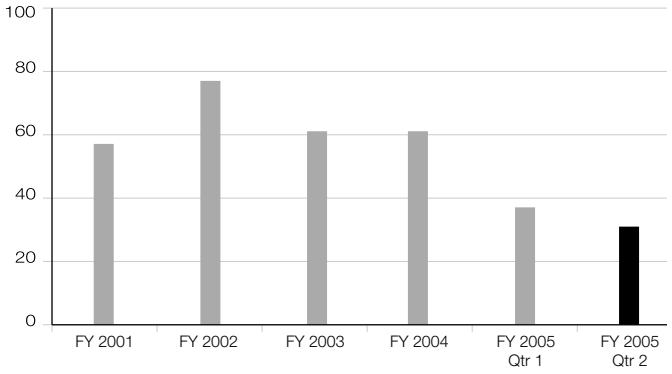
Washington State Ferries: Quarterly Update

Customer Feedback

The WSDOT Ferry System collects customer complaints, compliments, comments, and suggestions. This information is recorded in the Automated Operating Support System (AOSS) database for measurement and action, based on date base cross tabulation and analysis.

The charts show trends in the data for the last four fiscal years and the first two quarters of fiscal year 2005.

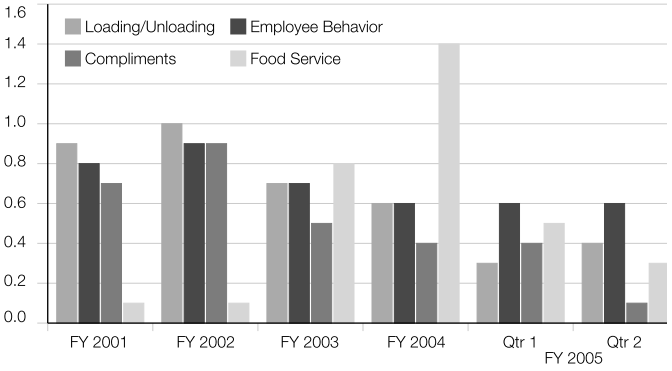
Total Number of Complaints Per 100,000 Customers



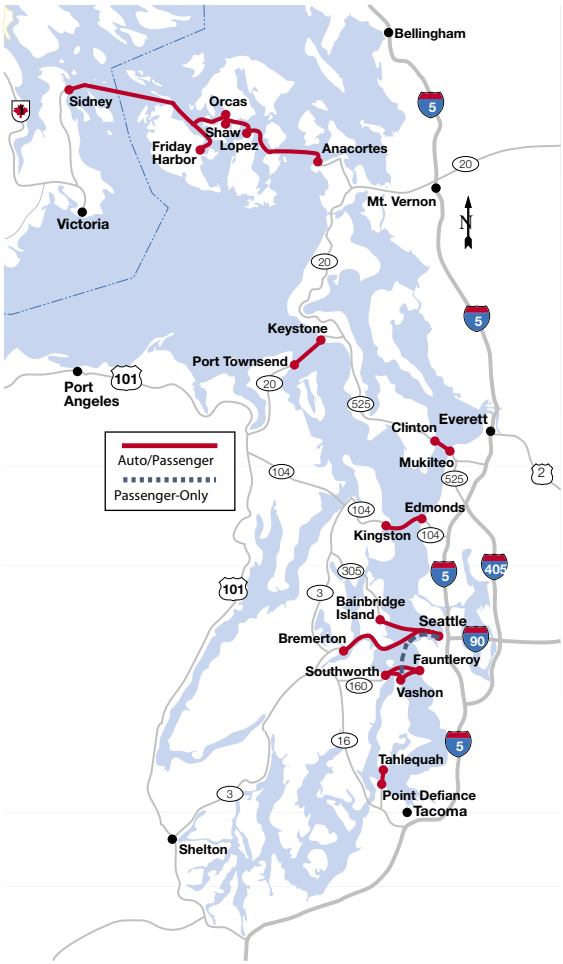
Source: WSDOT Ferries

Customer complaint ratings were down 16 percent from the preceding quarter. There were 35 employee related complaints received during this quarter.

Common Complaints Rate Per 100,000 Customers



Top Four Comment Types per 100,000 Customers
Source: WSDOT Ferries



Washington State Ferries: Quarterly Update

Trip Reliability

The WSDOT Ferry System scheduled 41,709 trips during the 2nd quarter of fiscal year 2005. Of these trips, 193 were cancelled. The chart at the right shows a system-wide average reliability index. Assuming that a commuter worked 200 days per year and made 400 trips on the ferry system, the statistical likelihood is that 1.9 ferry trips per year would be cancelled. This represents a 17 percent decline in performance from the preceding quarter.

A total of 60 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. WSDOT is currently engaged in a study requested by the legislature to examine options for the Keystone location that will improve trip reliability.

On-Time Performance

On-time performance data have been collected since June, 2001. The table below compares on-time performance across the system for the second quarters of fiscal year 2004 and 2005. Overall, performance was mixed. The average delay per trip improved eight percent while the percentage of trips sailing within 10 minutes of chedule declined slightly by one percent. A trip is considered to be on time if it departs within ten minutes of the published scheduled sailing time. Missed trips are not reported in this measure. They are included in the Trip Reliability measure.

Trip Reliability Index

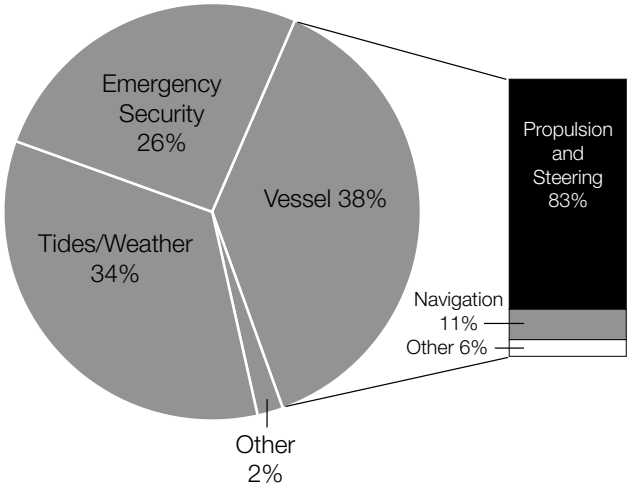
Missed Trips per 400 Sailings

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

On December 24th at 8:15 pm the MV Sealth went aground on Reid Rock about 15 minutes out of Friday harbor. The vessel was returned to Friday harbor, unloaded the passengers and ultimately the vessel was sent to Dakota Creek Shipyard in Anacortes for emergency repairs. A total of 26 missed trips were attributed to this incident.

Most Common Trip Cancellations

Second Quarter, Fiscal Year 2005



On-time Performance

Ferries	2nd Quarter FY 2004 Number of Trips	Percent of Trips Within 10 minutes of Schedule	All Trips Average Delay From Scheduled Sailing Time	2nd Quarter FY 2005 Number of Trips	Percent of Trips Within 10 minutes of Schedule	All Trips Average Delay From Scheduled Sailing Time
San Juan Domestic	5,591	85%	4.6 Minutes	6,609	85%	3.3 Minutes
International Route	152	85%	4.8 Minutes	166	87%	3.6 Minutes
Edmonds - Kingston	4,499	93%	3.5 Minutes	4,503	95%	3.2 Minutes
Pass-Only Seattle - Vashon	1,003	98%	2.2 Minutes	980	98%	1.8 Minutes
Fauntleroy - Vashon - Southworth	9,602	93%	3.2 Minutes	9,581	89%	3.1 Minutes
Keystone - Port Townsend	1,826	93%	3.2 Minutes	1,868	92%	3.4 Minutes
Mukilteo - Clinton	6,335	99%	2.0 Minutes	5,866	98%	2.1 Minutes
Pt. Defiance - Tahlequah	2,782	95%	3.1 Minutes	3,000	97%	2.6 Minutes
Seattle - Bainbridge Island	3,901	98%	2.6 Minutes	4,045	96%	3.0 Minutes
Seattle - Bremerton	2,451	97%	3.1 Minutes	2,506	98%	2.3 Minutes
Total	**38,142**	**94%**	**3.1 Minutes**	**39,124**	**93%**	**2.9 Minutes**

Washington State Ferries: Quarterly Update

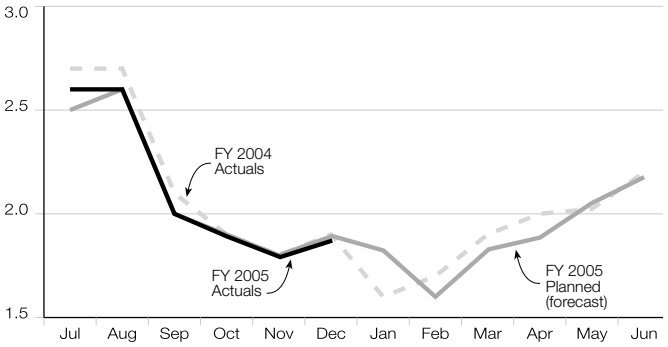
Ridership and Revenues

The Legislature's Joint Task Force on Ferries (JTFF), comprised of legislators, citizens, ferry management, and ferry workers was formed in 2000. The Task Force reviewed the workings of the WSF system and made recommendations including tariff increases designed to raise the farebox recovery rate to 80% of operating costs over six years. The Transportation Commission instituted this recommendation and approved tariff increases of 20% in June 2001 and 12.5% in May 2002.

In the fall of 2003, WSDOT management developed a new strategic plan aimed at balancing revenue generation necessary to capitalize the aging fleet. The new plan reduced the size of the tariff increases for fiscal years 2003-2004. In the spring of 2003, the Transportation Commission adopted fare increases of five percent in May, 2003 and an additional five percent in May, 2004.

Ridership by Month

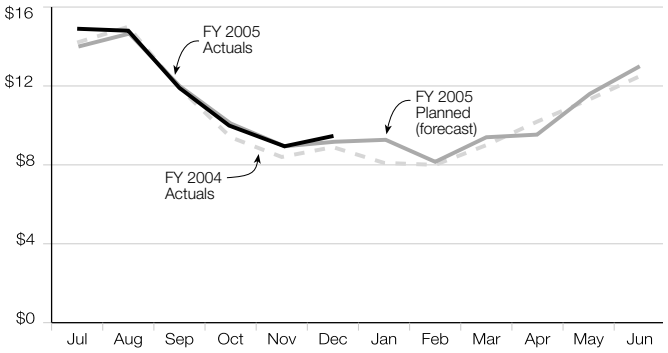
In Millions



Ridership is slightly ahead of plan (19,000 riders or 0.1%). Revenues are exceeding the plan by $1.3 million or 1.8%.

Farebox Revenues by Month

Dollars in Millions



Source for all charts: WSDOT Ferries

Farebox Recovery

"Farebox recovery" is defined as the percent of annual operating and maintenance costs recovered by collected farebox revenues and other non-tax revenues.

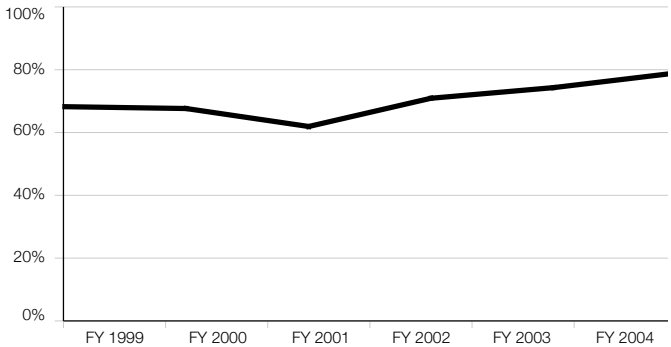
Farebox recovery rates for fiscal year 2004 were up 7.1 percent from fiscal year 2003. This increase in farebox recovery rate is due to a tariff increase enacted in May, 2003 and cost saving initiatives introduced in the WSF strategic plan.

Total operating, maintenance and suppport costs decreased $1.5 million from fiscal year 2003. Fuel costs increased $1.6 million and insurance costs were up $900,000. Vessel maintenance costs were $1.7 million higher than fiscal year 2003 as WSF front-loaded the 2003-05 shipyard layup and maintenance schedule. Costs were down in most other categories as a result of cuts enacted by the 2003 Legislature. Tariff revenues increased $7.1 million over the same period to $126.9 million. Miscellaneous revenues increased 19 percent to $1.9 million.

Top performers for fiscal year 2004 were Edmonds – Kingston (121 percent), Bainbridge – Seattle (120 percent), and Mukilteo – Clinton (99 percent). Auto routes recovered 80% of operating costs through the farebox, passenger only routes recovered 29 percent.

WSF Annual Farebox Recovery Rates

Percent of Operating and Maintenance Cost



Washington State Ferries: Quarterly Update

Lifecycle Preservation Performance

Washington State Ferry System terminals and vessels consist of several thousand components, i.e. systems. Each of these components should be refurbished or replaced at the end of its life cycle. This assures that the ferry system has the infrastructure needed to provide responsible and reliable service.

The original plan to replace or refurbish 133 category 1 systems and 54 category 2 systems during the 2003-2005 Biennium. Those targets have been revised to 120 category 1 systems and 43 category 2 systems. Through the sixth quarter of the biennium 76 category 1 systems and 37 category 2 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 1 terminal and vessel systems is projected to increase from 77 percent at the beginning of the biennium to 81 percent at the end of the biennium. The life cycle rating for category 2 systems is projected to decline from 58 percent to 54 percent.

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 percent 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 plan offset by the unfavorable impacts of deferred preservation backlogs and on-going deterioration of the infrastructure.

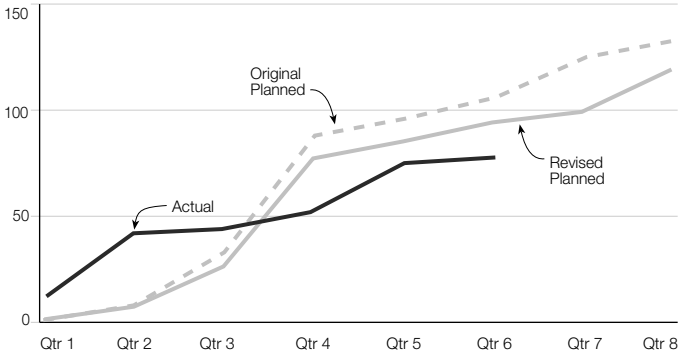
In January 2001, the Legislature's Joint Task Force on Ferries recommended that WSF work toward the objective of achieving a life cycle rating for Category 1 systems of between 90 percent and 100 percent and for Category 2 systems of between 60 percent and 80 percent. The Task Force set FY 2011 as the target year for achieving this objective.

Category 1 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 2 systems are all other terminal and vessel systems.

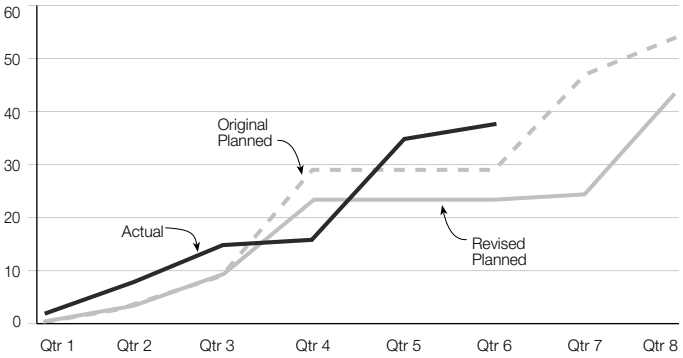
Category 1 Terminal and Vessel Preservation Performance

Cumulative Original and Current Plan Projects vs. Actual Systems/Structures Preserved
Change in Life Cycle Cost Rating
6th Quarter, 2003-2005 Biennium



Category 2 Terminal and Vessel Performance Measures

Cumulative Original and Current Plan Projects vs. Actual Systems/Structures Preserved
Change in Life Cycle Cost Rating
6th 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 and builds new ferry terminals and vessels. This infrastructure gives the Ferry System the physical capability to deliver responsible and reliable marine transportation services to customers.

At the end of December 2004 (6th quarter) of the 2003-2005 Biennium the program spent $112.3 million compared to its biennium-to-date spending plan of $131.5 million. Expenditures are currently $19.1 million under plan.

Program expenditures are categorized into three spending activities: terminal construction, vessel construction and emergency repairs of terminals and vessels.

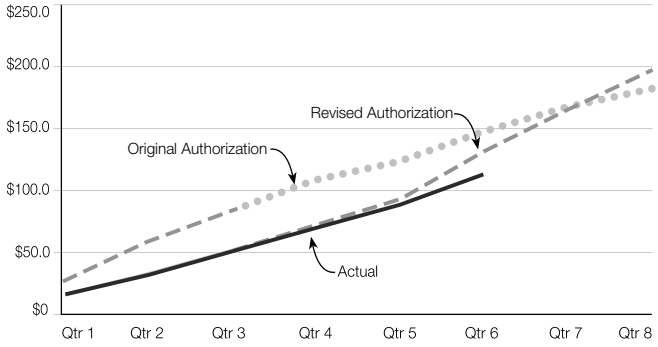
Terminals: Biennium-to-date Terminal Construction activities are under-spending the plan by $17.7 million. Major variances include: Edmonds ($8.0 million under plan due to delayed property acquisition, now scheduled for February); Mukilteo ($2.5 million under plan; due to a late start); Friday Harbor ($1.8 million under plan due to a variety of construction contract issues); Bainbridge ($0.9 million under - on hold pending a possible change to a hydraulic transfer span design); and Anacortes ($0.8 under plan due to schedule slippage and delayed invoice processing).

Vessels: Biennium-to-date Vessel Construction activities are over-spending the plan by $0.9 million

Emergency Repair activities are under-spending the biennium-to-date plan by $2.3 million.

WSF Construction Program Expenditures

6th Quarter, 2003-2005 Biennium
Cumulative Dollars in Millions
Authorized vs. Actual



State-Supported Amtrak *Cascades* Service: Quarterly Update

Ridership

Ridership on state-supported Amtrak *Cascades* trains was 95,549 in the fourth quarter of 2004. This represents a 5.4 percent increase over the same period in 2003. For the year, ridership on the eight state-supported routes was 398,121. This was a 3.3 percent increase over 2003.

For all Amtrak *Cascades* trains, including the four routes financially supported by Amtrak and the state of Oregon, ridership was 603,059, up 2.3 percent from 2003. This marks the tenth consecutive year of ridership increases and the first time ridership has surpassed 600,000. Factors contributing to this increase include higher fuel prices for automobile travel and the continuing economic recovery in the Pacific Northwest.

Rail Plus

On October 1, a new pilot program designed to provide rail travelers with more weekday travel times and options was instituted. The Rail Plus program allows cross-ticketing between Amtrak *Cascades* and Sounder trains traveling between Everett, Edmonds, and Seattle. In the program's first three months, 458 commuters used Amtrak *Cascades* trains. As anticipated, 86 percent of these riders took the northbound train from Seattle at 5:30 p.m.

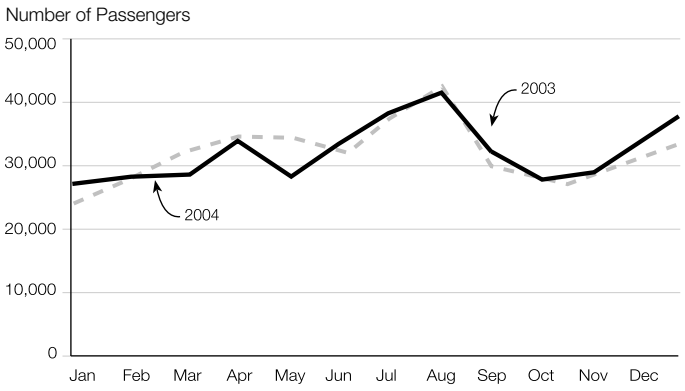
Customer Satisfaction

Amtrak's Customer Satisfaction Index (CSI) is based on surveys of riders using the service. The scores represent 3-month rolling averages. The CSI goal for Amtrak *Cascades* is 91 (out of 100) or better. In the most recent survey period, the overall score for Amtrak *Cascades* was 89. This is one point lower than the score from the same period in 2003, but up four points from a low of 85 recorded in June and July 2004. While the most recent score is below the goal of 91, it is eight points higher than the average for Amtrak's short-distance routes and continues to keep Amtrak *Cascades* in the top five of all short-distance routes in the country.

Service characteristics with the highest ratings were the availability of trip information prior to boarding, the friendliness and helpfulness of station personnel, and the smooth and comfortable ride. The service characteristic that continues to inhibit the overall score is on-time performance.

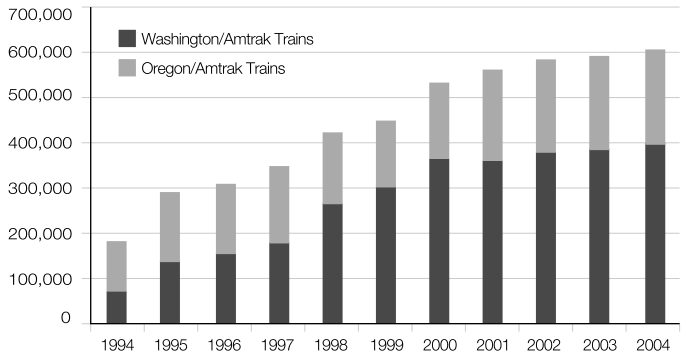
Photo courtesy Steven J. Brown

State-Supported Amtrak *Cascades* Monthly Ridership



Source: Amtrak and WSDOT Rail Office.

Amtrak *Cascades* Annual Ridership
1994-2003



Source: Amtrak and WSDOT Rail Office.

State-Supported Amtrak *Cascades* Service: Quarterly Update

On-Time Performance

On-time performance for state-supported Amtrak *Cascades* trains averaged 71.4 percent in the final quarter of 2004. This represents a four point improvement over the same period in 2003. For the year, on-time performance averaged 68.7 percent, which is three points lower than 2003 and well below WSDOT's goal of 80 percent or better. The drop is attributable to increased delays caused by the growth in freight rail traffic throughout the region in 2004, and the increasing delays for international trains 510 and 517, which are being negatively impacted by freight train inspections of U.S. and Canadian border personnel.

Farebox Recovery

The farebox recovery per train measures the percentage of total annual operating costs generated through ticket fares. The average farebox recovery for the eight Amtrak *Cascades* trains financially supported by WSDOT was 49.7 percent in federal fiscal year (FFY) 2004. This is 12.5 points higher than FFY 2003. Factors contributing to this performance improvement include a slight increase in ridership, more aggressive revenue management, and a reduction in some cost items that Amtrak had assigned to state-supported routes in previous years.

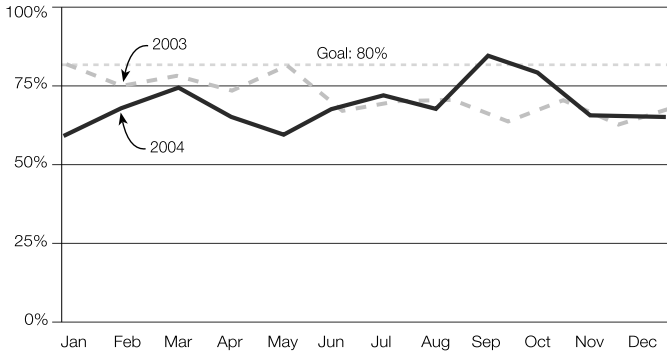
Station Updates

King Street Station Update

The Phase one rehabilitation of King Street Station continued in the fourth quarter of 2004. Activities undertaken during the quarter were the start of work on the Compass Room entryway, renovation of the waiting room's northwest wall, and sand blasting of the exterior marquee. Despite this work, thousands of passengers using King Street Station during the holiday season were able to move about without major inconvenience.

State-Supported Amtrak *Cascades* On-time Performance

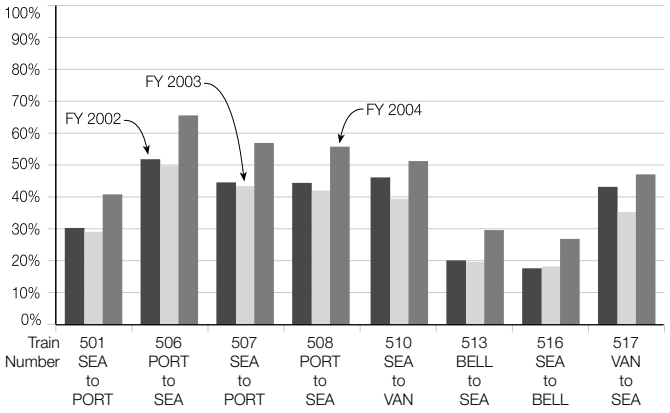
2004 vs. 2003 Percent On-Time



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* Farebox Recovery
FFY 2002-2004



These figures include all equipment maintenance costs, some of which were not included in the farebox calculation used in Gray Notebook 12. In that edition, maintenance costs for state-owned equipment were treated as capital preservation costs. Like the farebox calculation used by the Washington State Ferries, these costs have been rolled into operating costs and will be in all future Amtrak *Cascades* farebox calculations.

Source: Amtrak and WSDOT Rail Office.

State-Supported Amtrak *Cascades* Service: Quarterly Update

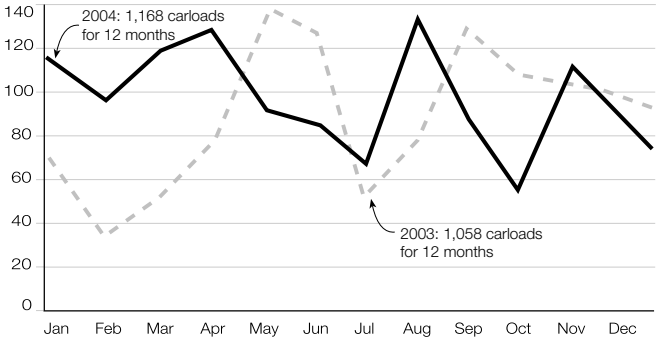
Washington Grain Train Update

The Washington Grain Train carried 245 carloads of grain to Columbia River ports in the last quarter of 2004. While this is slightly less than total car loadings for the same period in 2003, the overall total for the year was 1,168, a 10.4 percent increase over the preceding year and the highest total in the history of the Washington Grain Train program. Growing demand for Washington grain in Pacific Rim markets drove this increase in car loadings in 2004.

The 94-car fleet is jointly owned by WSDOT (76 cars) and the Port of Walla Walla (18 cars). The ports of Walla Walla, Moses Lake, and Whitman County share fleet management responsibilities.

Washington Grain Train Carloads

Carloads per month 2004 vs. 2003



The Washington Grain 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

Overweight and Oversize Permits

Highway Permits for Freight

WSDOT's Motor Carrier Services Office and its agents issue Special Motor Vehicle permits for highway freight goods movement when the movement involves non-divisible vehicles or loads exceeding legal size and/or weight.

When the State Patrol started phasing out its participation as a WSDOT permit sales agent in 2003, WSDOT developed and launched a new web-based System Network for Oversize Overweight Permit Information (E-SNOOPI). This enabled the department to manage the increased workload and greatly increased convenience and timesavings for customers.

Reduced Permit Processing Times

While WSDOT launched a new electronic permit process, it also expanded the number of agents selling permits with the addition of seven new outside agents. The new sites included three locations in Washington, two locations in Oregon, one in California, and one in Tennessee. WSDOT now has twelve authorized businesses as agents selling permits to facilitate truckers' ability to move their vehicles. These businesses include Washington Trucking Associations, JUBITZ truck stop in Oregon, and Cross Road truck stop in Umatilla. Since May 2004, WSDOT began authorizing approved trucking companies to self-issue limited types of permits for their specific truck fleets (currently exceeding 100 companies). The permits that these companies self-issue, are immediately processed and printed at their place of business. For all electronically processed permits, the turn around time is less than ten minutes.

Permits that customers request by fax or in-person have a processing goal of two hours or less. If a request is received after 4:00 p.m., it will be processed by 8:00 a.m. on the following business day.

Results

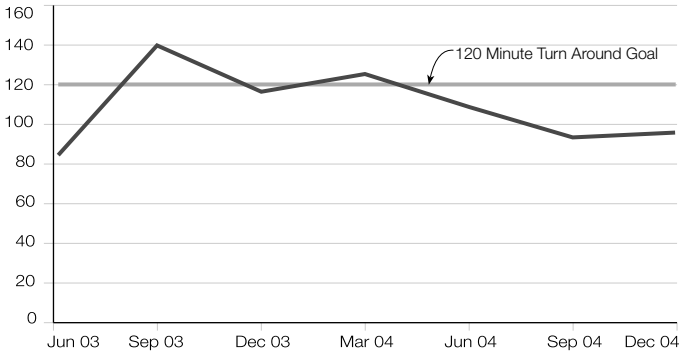
The demand for permits continues to rise at a brisk pace. For example, in 2003 the revenue from permits sold increased by six percent compared to 2000. By the year 2004 the revenue increased by 13 percent. In 2004, E-SNOOPI processed about 143,000 permits ($6.7 million in revenue). In 2003, approximately 135,000 permits were processed ($6.3 million in revenue). E-SNOOPI's e-commerce component also allows the state to deposit revenues faster, thereby earning interest on funds that had previously been in limbo for two to three days.

Overweight Vehicle Permits for Ferries

WSDOT's Ferry System also issues overweight vehicle permits for commercial vehicles, such as freight and fuel trucks, logging trucks, heavy equipment haulers and mobile home movers. Oversize vehicles do not require a formal permit but are checked by WSF's Operations staff. Overweight vehicles with a Gross Vehicular Weight (GVW) in excess of 80,000 pounds are checked by WSF's Terminal Engineering staff who receive about 600 to 700 permit requests and 30 annual permit renewals per year. About 90% of these are approved.

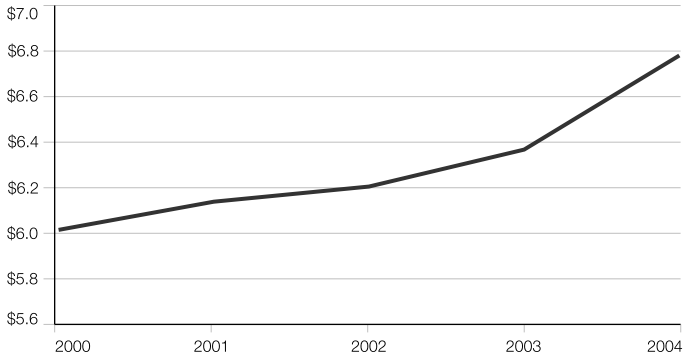
The goal is to respond within 24 hours with either approval to travel or denial, along with general information on the reason for denial if applicable. In practice, engineers are usually able to reply to a request within two to three hours. Priority requests (e.g., the truck is at the dock waiting for permission) can typically be handled within 10 to 15 minutes. An estimated 70 percent of permit requests are processed within two to three hours. WSDOT is examining options to formally track processing times for these permits.

Non Electronic Overweight/Oversize Permit
Turn-around Times
(In Minutes)



Source: WSDOT Motor Carrier Services

Overweight/Oversize Motor Vehicle Permit Revenues
Dollars in Millions



Source: WSDOT Motor Carrier Services

Overweight and Oversize Permits

E-SNOOPI allows for One-Stop-Shopping for Western State Permits

Currently, twelve western states, including Washington, are members of a compact that allow each member state to issue an oversize/overweight permit for travel within other member jurisdictions. This has allowed the customer one-stop-shopping for multiple states. E-SNOOPI incorporates the fee structures and parameters of these jurisdictions into its program. Access is secure and creates no additional costs to the State of Washington. With the new web-based application, any member jurisdiction has the means to access E-SNOOPI to create a regional permit for their customer.

Expanded Application Planned Across Washington

Closer to home the same multi-jurisdictional approach to permitting is being explored for use in conjunction with county jurisdictions. This would create a one-stop-shop scenario for our intrastate customers. It will also assure that each jurisdiction is taking into account the effects of the move on each other's infrastructure. This proposal requires a change in statute (to be drafted later this year) to allow WSDOT to collect local fees and distribute permit revenues to the respective jurisdictions. Eventually, city jurisdictions could be added, creating a seamless service for oversize/overweight permit applicants within the state.

WSDOT and WSP Get Rave Reviews for Customer Service

This note was sent to Jim Wright, Manager, WSDOT Motor Carrier Services on January 12, 2005.

My name is John Hanson and I am one of the two owners of Whitewood Transportation in Billings, MT. I wanted to take a moment and rave about the State of Washington's employees.

Whitewood Transportation recently transported 60 loads from the Port of Tacoma to Montana. These loads ranged from legal dimensions, all the way to 19'3" wide and 16' high. Needless to say we had many "superload" applications, police escorts, regular permits, etc.

In my approximate 20 years being involved in the trucking industry, I have worked with just about every state in the union on permits and other related issues. I have to say, while working with the State of Washington I have never been treated with more professionalism, kindness, cheerfulness, caring and a willingness to go the extra mile and work with me kind of attitude, from a government employee ever in my life!

The Washington State Patrol (Shawn Eckart and Sergeant Tom Hickman) were very gracious and accommodating and were always where I needed them every time. Sue Dinneen and some of her co-workers from your Pasco office did most of our normal dimension permits and were very prompt and a joy to work with. However, even with all of those people doing such a standout job, Sonja Cox [Lead Transportation Planning Tech, MCS]was by far more cordial and courteous than ever could have been imagined. You could tell that she truly cared and it made my job that much easier. She even called me once when she had a day off to make sure everything was going ok! It is with utter amazement that I tell you, Sonja is by far the nicest government employee I have ever worked with. By the way, when Carla [Channell, Transportation Planning Tech, MCS] filled in for Sonja at times, I only have high praise for her also.

You should be proud of the state you represent and the quality of work that the employees put out. I just wanted to personally thank you and anyone from your state that I worked with in the last month. You evidently are a good supervisor and you should be proud of what you have accomplished. Once again, thank you!

Sincerely,
John Hanson
Whitewood Transportation

Is Photo Enforcement a Safety Tool?

The use of cameras to capture red light violations is beginning to catch on around the United States as an effective means of deterring illegal and dangerous driver behavior at signaled intersections. Performance results are starting to accumulate, supporting years of data that has been available from Europe and Australia. Camera enforcement has been used in New York City since 1993. As the safety payoffs from camera enforcement are documented, use of the cameras should grow.

In 2000 the Washington State Legislature directed the Washington Traffic Safety Commission to select, monitor and evaluate automated enforcement sites within Washington State and set out guidelines. In the 2001 - 2002 session, the Legislature approved the use of photo enforcement at signalized intersections and work zones by WSDOT and four municipalities (sixteen other states and the District of Columbia have also passed such legislation). So far only the City of Lakewood has actually installed the cameras, in a program participated in by public works and police staff and supported by the municipal court. Lakewood's system was installed July 2001.

City of Lakewood Results: Fewer Violations / Fewer Collisions

After red light cameras were installed and operating for three months, red light running violations decreased 36 percent. Red light violations dropped by 61 percent in less than a year. No collisions occurred in the first six months after the installation.

Protecting Lakewood School Zones

Lakewood has also used photo enforcement at school zones to help enforce 20 mph speed limits while school children arrive and depart from school. At the sites where the systems were installed and operating for three months, speeds dropped between 3 and 10 mph.

Red Light Violations, City of Lakewood

	July 2001	May 2002
Violations	1585	614

Number of Angle Collisions - Before and After Results, City of Lakewood

	6 months before:	Immediate 6 months after:	2.5 years after
Angle Collisions	2	0	3

According to the National Highway Traffic Safety Administrtion (NHTSA), approximately 1,000 individual fatalities occur each year in red-light running incidents. Advocates of the cameras (including NHTSA) have championed them as effective tools in reducing accidents and deaths.

Virginia Gets Results

A recently completed study in Fairfax County, VA looked at 13 intersections that were equipped with photo enforcement to deter red light running behavior. Results indicate that the number of violators dropped between 63 and 72 percent after the cameras had been in service for two years.

More information on photo enforcement can be found at: www.iihs.org/safety_facts/qanda/rlc.htm

Transportation Performance Audit Board Publishes Three Reports on WSDOT

Three reports were published in December 2004 by the Transportation Performance Audit Board (TPAB). Final reports can be accessed at www1.leg.wa.gov/LTC/TPAB/Audits/

Highways and Ferries Programs - A Review of Performance Measurements

The findings of this first-ever review of WSDOT's highway and ferry performance measures were favorable. TPAB noted,

"WSDOT uses performance measurement to provide leadership, set direction, establish a performance-oriented culture, and ensure manager accountability in a highly effective way."

There are several recommendations, including improving the agency's information technology infrastructure and equipment and facilities program performance measures.

WSDOT is already beginning improvement of performance measures in the equipment and facilities area. A study of WSDOT's information technology infrastructure needs is pending legislative approval of an agency request for $715,000 in the 2005 budget. And WSDOT will address possible improvements of transportation benchmarks in conjunction with the current update of the Washington Transportation Plan (WTP).

Capital Project Management - A Pre-Audit

TPAB carried out a pre-audit review of the agency's capital management practices for the "Nickel" package. The report includes suggestions for further strengthening project delivery and endorses the direction the agency has taken. TPAB concludes that,

"... exemplary capital project management methods and tools have been developed by WSDOT and are in use in some places in the organization, ... "

TPAB plans a complete review of WSDOT's capital management results at the end of the 2003-2005 biennium.

Recommendations include extending WSDOT's Managing Project Delivery project approach; implementing exemplary practices such as improving communication and confirming consistency and currency of reporting information; assessing effectiveness of current information systems and options to address deficiencies (also identified in the highways and ferries review); and developing criteria for extending Cost Risk Estimating and Management analyses to more projects.

What is the Transportation Performance Audit Board?

In 2003, the Washington State Legislature established the Transportation Performance Audit Board (TPAB) to help better understand how the State's transportation agencies are performing. TPAB has eleven members: five citizen members appointed by the Governor with private sector expertise in transportation-related disciplines; one at-large member appointed by the Governor; four members of the Washington State Legislature, two each from the House Transportation Committee and the Senate Transportation Committee; and the Legislative Auditor, who serves in an ex-officio capacity. TPAB conducts performance measure reviews of transportation-related agencies in Washington State government. Where appropriate, they recommend to the Legislative Transportation Committee performance audits of transportation agencies or programs.

From the TPAB Website: http://www1.leg.wa.gov/LTC/TPAB/

WSDOT is implementing recommendations, such as creating a Managing Project Delivery web site at www.wsdot.wa.gov/Projects/Projectmgmt/ and drafting a policy to implement the Cost Estimate Validation Process (CEVP). WSDOT will also present a work plan for implementing overall recommendations at TPAB's March 2005 meeting.

Environmental Permitting for Transportation Projects - A Pre-Audit

The report is a detailed review of current activities to streamline the permitting process for Washington's transportation projects. It identifies Washington as a leader in such efforts and includes a survey of 24 other states. Echoing the other two TPAB reports, the survey identified the value of information technology to create efficiencies through integrated databases and geographic information systems.

TPAB commented,
"One of the most tangible of the permitting improvements made to date has been the development of programmatic permits for whole categories of activities which previously required a permitting process for each project."

An additional study of the environmental permitting process is planned.

WSDOT is working on several recommended improvements. Recommendations include investigating redesigned project delivery approaches being implemented in Florida and Minnesota, working with resource agencies to standardize electronic data, and defining a regulatory improvement work plan.

Highlights of Program Activities

Project Starts, Completions, or Updates

In December, WSDOT, the Federal Highway Administration, and City of Seattle selected the Tunnel Alternative to replace the **Alaskan Way Viaduct.** The viaduct and its support structure, the Seattle seawall, are at risk of failure from earthquakes or irreversible loss of use from age and deterioration. The extreme congestion on I-5 and in the downtown city grid during the 2001 Nisqually Earthquake viaduct closures made it clear this critical route needed to be replaced. WSDOT will continue to analyze the Rebuild Alternative through the final stages of environmental review as a contingency to the Tunnel Alternative. More information about the viaduct is available on WSDOT's web site at www.wsdot.wa.gov/projects/viaduct

A safety project in the Spokane area to install concrete barriers in the **I-90 median,** from the Sullivan Interchange to teh Idaho state line, is complete. This $500,000 project was funded through the 2003 "Nickel" legislative package. Originally planned for 2005, the job was moved up to this year to take advantage of staff availability and get the safety enhancement in place before the winter weather set in.

Crews wrapped up a culvert replacement project that had closed **SR 112 west of Port Angeles**. This reopened the most direct route, also known as the Strait of Juan de Fuca National Scenic Byway, to the Olympia Peninsula town of Joyce. During the six-week closure, crews replaced a steel-plated arched pipe with a 10-foot high three-sided concrete structure that is 28 feet wide and 144 feet long. The Jim Creek culvert was identified by The Department of Fish and Wildlife as a top regional fish culvert replacement priority.

The **I-90, Tibbetts Creek Culvert Replacement** finished almost two months ahead of schedule. Two bridges were built over I-90 to replace a system of small culverts. The new bridges opened up the creek bed helping to prevent flooding and improving fish habitat. Removing the culvert also reduces maintenance costs to unplug the culverts during heavy rain.

Crews reopened the southbound **I-5 Lakeway Drive exit** in Bellingham on September 23, nearly four days early. Crews widened and repaved the exit during the closure. WSDOT is working on the shoulder to build the new merge lane and noise wall between Ohio Street and Lakeway Drive. More detailed information about this project can be found at www.wsdot.wa.gov/projects/i5_bellingham/lakeway_ohiost/.

A design-visualization of how the new Alaskan Way Tunnel Alternative might look along the Seattle waterfront.

A fast-track project was completed on the **I-90 from the Grant County line to State Route 21.** Workers ground out and resurfaced a number of rough pavement sections in a 16-mile stretch of freeway over a three-week period. They repaired the surface at several locations where the underlying asphalt layer had deteriorated over the last few years. The roadway was rough and potholes were a problem for drivers last winter.

Crews began work during October on a major landslide that threatens **U.S. 101** about eight miles south of Forks. A $400,000 emergency contract will provide for horizontal drains and a "soil nail" wall where a portion of US 101 has slid into the nearby Bogachiel River. These initial repairs first are intended to stabilize the slide area; a second project will restore the roadway to two lanes of traffic.

Work began in November to install a 32-foot-high screen along a portion of **SR 16,** to reduce light impacts from an adjacent golf driving range. The screen and light shields were installed in response to commuters' concerns that glare from the driving range lights could create a driving hazard for eastbound SR 16 motorists west of the Tacoma Narrows Bridge. WSDOT negotiated an agreement with range owners in which they agreed to oversee permitting, construction and maintenance of the screen and light shields. WSDOT also plans to plant fast-growing trees on state property near the driving range to provide a natural light barrier over time. The $247,500 screen and light shield installation will be paid out of Tacoma Narrows Bridge project contingency funds.

The **I-5 Lynnwood Direct Access project** opened in November, six months ahead of schedule and more than $1 million under budget. WSDOT built this Sound Transit project in partnership with more than a half-dozen other agencies. The new ramps, built in the median on I-5 in Lynnwood at 44th Avenue West, allow transit, vanpools and carpools to exit the freeway directly from the carpool lanes and proceed directly to Sound Transit's new Lynnwood Transit center. Drivers no longer have to weave across three lanes of traffic to get in and

out of the carpool lane. According to Sound Transit, the easy on-and-off access will save those commuters an average of 20 minutes each day.

Public Transportation and Commute Trip Reduction

The semi-annual **Wheel Options Campaign** was held in mid-October. The non-profit Washington State Ridesharing Organization sponsors the campaign, which offers various prizes to state residents who commute to work without driving alone at least twice during the two-week campaign. The Wheel Options campaign teams employers up with transit systems, private sponsors, and local agencies to remind the public of the increasing availability of good options for commuting in our communities. WSDOT participates in the campaign as one of the 800 employers in the state that offer commute benefits to their employees as part of the state's Commute Trip Reduction Program.

Ferries

In October, WSF received final approval from both the U.S. Coast Guard and Transport Canada for its **security plans**. The Coast Guard Headquarters office oversees maritime security nationwide. WSF also gained approval of the marine facility security plan for its terminal at Sidney, B.C., Canada, from the Regional Director for Security and Emergency Preparedness with Transport Canada. The plans are reflective of the current policies and procedures embedded in WSF's Safety Management System. WSF is fully compliant with both the domestic Maritime Transportation Security Act implementing regulations and the International Ship and Port Facility Security Code.

Food service was restored for ferry commuters on the Fauntleroy/Vashon/Southworth. Sound Food, Bakery and Wine Bar, a local Vashon Island restaurant, is the first to provide on-board food service since Sodexho terminated its concessions contract in Dec. 2003. The food service is a pilot project, scheduled to continue through June 15, 2005.

Mike Anderson, a 30-year veteran of Washington State Ferries, became its Acting Director in November. Anderson started at WSF as a ticket seller while attending the University of Washington. Secretary of Transportation Doug MacDonald had been the interim director since Mike Thorne's departure on October 1, 2004.

WSF began demonstrations and training for a new **Electronic Fare System (EFS)** that will be implemented next year to replace the existing outdated and aging Point of Sale (POS) system used at ferry terminals.

The full EFS program will:

- *Replace the existing POS system and its equipment*
- *Improve the revenue collection system's financial controls*
- *Provide customers with the added convenience of e-ticketing*
- *Use technology to increase the accuracy of financial processing*
- *Increase efficiencies and reduce the operational costs of the current system*
- *Build in the capacity for WSF to participate in the upcoming regional fare technology such as Smart Card and the Tacoma Narrows Bridge transponders*

The ferry system received approval to carry out its marine facility security plan.

The **M/V Spokane** was returned to service on Nov. 20 following major renovation to the Jumbo Class vessel. The "Spokane" was stripped down to the hull, and nearly every system was replaced, including the propulsion control system, the main propulsion diesel generators, vital diesel generator, emergency diesel generator, control systems and steering gear. The vessel's pilothouse and crew dayroom also were refurbished, and ADA upgrades were made, including adding an elevator.

Washington State Ferries (WSF) launched an ambitious program to retrofit its last five ferries with **elevators** as quickly as possible. In the past, as WSF refurbished its older vessels, elevators were added, when feasible. Some vessels, however, were not as easily adaptable to fitting with an elevator and the cost to do so was prohibitive. New advancements in technology, trends toward an aging population, and concern for customers caused WSF to look at this issue again and develop a plan to add elevators to the remaining large vessels in the fleet.

Highlights of Program Activities

Ferry system's new Electronic Fare System will replace the old point of sale system.

Rail

WSDOT purchased the **Palouse River and Coulee City (PCC) Railroad** right-of-way in eastern Washington. The $8 million purchase was completed in accordance with legislative direction. The PCC rail system provides local rail service to over 70 businesses in Whitman, Lincoln, Grant, Spokane, Columbia, and Walla Walla counties. The purchase opens the door for WSDOT to make up to $22 million in track improvements over the next eight years, as stipulated by the legislature in the 2003 Funding Package. WATCO, Inc., which has owned and operated the railroad since 1992 will continue to operate the line under the terms of a 15-year lease agreement.

Aviation

WSDOT's Aviation Division in December announced grants for the 2003 – 2005 biennium are being offered through the **Local Airport Aid Grant Program**. Approximately $500,000 is available for eligible projects. Applications submitted to WSDOT Aviation will be reviewed and prioritized during January 2005 and grant awards will be announced no later than February 1, 2005.

Improved Motorist Information

The **511-travel information** line became more user-friendly with the addition of an alternative to the voice-activated system. Callers can now press the "pound" sign (#) to get information using the number pad on their telephone. WSDOT implemented the new option to help ease caller frustration when the system couldn't recognize callers voice commands. The voice activation system is so sensitive that it often picked up background noises that interfered with its recognition ability. More information about the 511 system is available at www.wsdot.wa.gov/traffic/511.

A new traffic camera has been added near the **U.S. 395 Blue Bridge**, one of the busiest bridges in the Tri-Cities area. Internet access allows viewers to get a snapshot of what traffic looks like when they click on the link http://www.wsdot.wa.gov/traffic/secam.aspx?cam=9031 This camera is part of the US 395: Kennewick Variable Message Sign project that was approved in the 2003 Legislative Funding Package. This Intelligent Transportation System includes a variable message sign, traffic sensors, a snapshot camera, and a communication link to the WSDOT Central Washington Transportation Management Center. This improvement will allow quick activation of the new variable message sign to alert motorists for traffic accidents, slowdowns and may be used as a tool for Homeland Security measures and Amber alerts.

Events

The third annual **Tribal/State Transportation Conference** was held in Spokane. The conference brings together tribal leaders and state and federal transportation officials to focus on improving government-to-government relationships. Participants focused on transportation planning, environmental streamlining and permitting, and workforce development. As a result of last year's conference, the Tribal Transportation Planning Organization was formed – the only one of its kind in the nation.

Use of **studded tires** became legal in Washington on Nov. 1, 2004. This year WSDOT launched a public education campaign to raise awareness about tire alternatives. Because of the different road and weather conditions throughout the state, WSDOT wants motorists to know when it comes to choosing winter tires, it's not "one size fits all." Some winter tires provide varied performance under different road conditions so motorists are encouraged to visit their tire dealers for assistance about the best tire option for the conditions they'll face.

Heavy snowfall in the Cascades and increased avalanche danger closed **Chinook Pass (SR 410) and Cayuse Pass (SR 123)** for the season on December 7. Chinook Pass is an entrance to Mt. Rainier National Park. The summit elevation is 5,430. Cayuse Pass is at the junction of SR 410 and SR 123. Cayuse Pass has an elevation of 4,675 feet and connects Chinook Pass and White Pass at the east end of Mount Rainier National Park.

The **North Cascades Highway** was officially closed for the season on December 13. Forty-one miles of SR 20 are closed from seven miles east of Diablo Dam on the west side of Rainy Pass to nine miles west of Mazama on the east side of

Highlights of Program Activities

Washington Pass. The North Cascades Highway is usually closed by avalanches between Thanksgiving and the second week of December, re-opening in late April or early May.

The Washington Traffic Safety Commission, Washington State Patrol and WSDOT in December kicked-off a **U.S. 101 Safety Corridor campaign** near Port Angeles. More than 100 community leaders, emergency responders, family members and concerned citizens attended the campaign launch and paid respect to the victims of U.S. 101 automobile crashes. Since 2000, 63 people were killed in automobile crashes on U.S. 101 between Sequim and Port Angeles. The safety campaign – titled "U.S. 101: It's Basic Safety" – is supported by a host of local community organizations, businesses, local governments, and state agencies and focuses on the three "E's: Enforcement, Engineering and Education" to improve corridor safety.

Awards

WSDOT approved 33 city and county bridge projects statewide for repair, replacement, or improvement, using nearly $35 million in Federal Highway Bridge Replacement and Rehabilitation Program funds. WSDOT's Highways and Local Programs Division is Washington State's administrator for these federal funds.

The Federal Highway Administration selected WSDOT to receive a $1.2 million grant to begin developing a pilot project to convert the SR 167 High Occupancy Vehicle lanes to High Occupancy Toll (HOT) lanes between Renton and Auburn. HOT lanes are open to vanpools, transit and toll-paying solo drivers. The federal funds will not cover the cost of the project, but allows WSDOT to begin designing roadway improvements for the nine-mile project and initiate public outreach activities. WSDOT is seeking legislative approval to implement the pilot project.

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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