



Washington State
Department of Transportation

The Gray Notebook

Lite

Excerpts from WSDOT's quarterly performance report on transportation systems, programs and department management

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Secretary of Transportation



GNB 33 Excerpts

Quarter ending
March 31, 2009

Published
May 21, 2009

This *Gray Notebook Lite* provides highlights and performance topics selected from the *Gray Notebook*, WSDOT's quarterly performance report. This edition includes highlights from articles covering safety rest areas, freight, CVISN, incident response, wetlands protection, commute options, and the second 2008 six-month travel conditions update.

An insert provides updated figures for the 2003 Nickel, 2005 Transportation Partnership Account, and Pre-Existing Funds project delivery programs. A second insert provides information on the projects funded and supported by the 2009 Recovery Act.

The electronic copy of the *Gray Notebook Lite* as well as the complete edition of the *Gray Notebook* can be found at <http://www.wsdot.wa.gov/Accountability/GrayNotebook/default.htm>

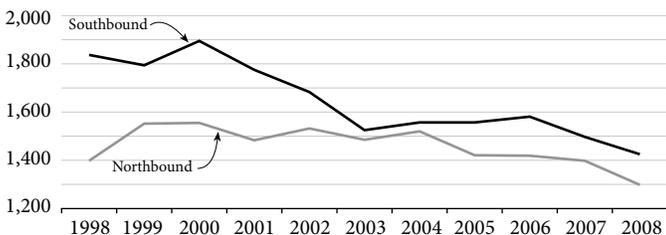
Freight Annual Report / CVISN

Truck volumes decrease, but registrations increase for 2008

Truck volumes in Washington state show steady, long-term increases, although 2008 saw the first annual decrease. Interstates experienced a 3%-10% decrease in select locations. Commercial truck registrations are up 2.4% in Washington for 2008, but registrations may decline in 2009 due to the recession. On the Washington/Canadian border, truck freight is down 17% on average across the 10 largest border crossings. For western Washington crossings, which handle 80% of cross-border traffic, freight shipments are down only 6% for 2008.

Western Washington truck border traffic (Blaine, Lynden and Sumas Crossings)

Average daily number of trucks



Data Source: U.S. Customs and Border Protection and Statistics Canada. Data compiled by Whatcom Council of Governments (2008).

Research project launched to study truck freight movement

In 2008, the Washington Legislature, with the support of the Washington Trucking Associations, funded a \$448,000 pilot project to study the usefulness of commercially available

GPS truck-tracking data to the public sector. The TransNow Regional Center at the University of Washington, which contributed \$190,000 to the project, will serve as the principal investigator, including building the systems needed to present the data in a usable format, such as GIS maps. They will also help WSDOT analyze the data to assess how investments in freight highway projects affect system performance.

Marine and air freight shipments are down and rail freight is up in 2008

Other freight modes are reporting mixed performance. Marine freight through the Ports of Seattle and Tacoma is down 8.5% for 2008, but the long-term trend shows a 2.9% growth rate from 1999-2008. Rail freight continues to show promising growth, with a near 1% increase in rail-tonnage in 2007 over 2006. Increased fuel prices have made freight-rail an attractive option over commercial trucking. Air freight remains down at Washington's three largest international airports. The largest freight airport, Seattle/Tacoma International, reported a 9% decrease in tonnage in 2008 compared with 2007.

CVISN saves truck freight time and money

The Commercial Vehicle Information Systems and Network (CVISN) is an intelligent transportation system that allows licensed trucks to bypass weight stations when equipped with transponders. The CVISN system saves the freight industry annually 700,000 hours of travel time and an estimated \$5 million dollars. The number of trucks equipped with transponders fell 2.4% to 18.3% overall, but the overall percentage of trucks able to bypass the weigh stations remained steady at 81%.

Post Winter Maintenance Annual Report

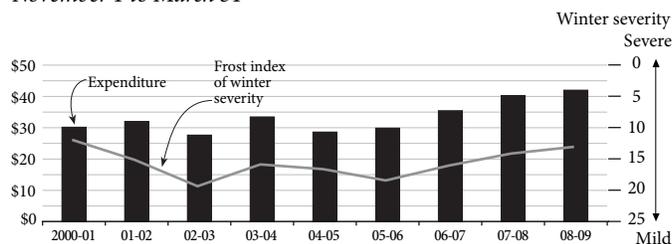
Despite the high cost of operations due to the severity of storms this past winter, WSDOT maintenance crews were able to respond effectively to keep drivers safe and moving. The Washington State Senate honored WSDOT maintenance crews and the Washington State Patrol for their heroic efforts and tireless dedication in response to the severe weather this winter and last. Highlights of the 2008-09 winter include:

- The December-January series of severe weather events caused \$36 million in damage to the state highway system.
- Pass closures for avalanche danger and avalanche control missions created 178 hours of closure on Snoqualmie Pass and 50 hours on Stevens Pass.
- Snow and ice material usage approached record levels once again with 81,000 tons of deicer products applied compared to 100,000 tons used in the winter of 2007-08.
- In response to the 2008-09 winter, the Legislature granted WSDOT \$16.5 million in funds to cover the continuing cost overruns occurring in the Snow & Ice Program due to the severe winter storms.

The frost index, measures winter severity based on daily temperatures. This year's index indicates that Washington had another more severe than normal winter. Frost index data is gathered from around the state. Lower temperatures increase the likelihood of snow and ice. Higher accumulations of snow and ice require more labor, equipment and materials to provide safer road conditions, which translates to a higher overall cost to deliver the winter maintenance program.

Winter severity vs. snow and ice expenditures

Dollars in millions, Winter severity (Frost Index) is measured November 1 to March 31



Data Source: WSDOT Maintenance.

WSDOT's Capital Project Delivery Program

Highway Construction: Nickel and TPA Project Delivery Performance Overview

Since 2003, WSDOT has delivered a total of 186 Nickel and Transportation Partnership Account (TPA) projects for \$1.934 billion, on target with the Legislative budget expectation.

WSDOT delivers one project during the third quarter of FY 2009

WSDOT's capital program delivery performance dipped by one percent to 78% of projects delivered both on-time and on-budget through the third quarter of FY 2009, as another TPA project was completed during the slow winter construction season.

On-time and on-budget performance on individual projects declined slightly

For the 186 highway projects completed through March 31, 2009, changes from the previous quarter are:

- On-time delivery performance remained steady at 90%;
- On-budget performance declined slightly to 86%;
- On-time and on-budget project delivery performance also declined slightly to 78%.

79 Nickel and TPA projects under construction or advertised for construction

This quarter, 20 new projects were advertised for construction. One project advertised earlier than scheduled, seven projects were advertised late, and the rest were on time. Thirteen projects are pending contract award amount, but the remaining projects have been awarded for a cumulative construction contract total of \$16.2 million.

16 projects totaling an estimated \$861 million at completion are scheduled to advertise by September 30, 2009

Five significantly sized projects have budgets of \$20 million or more, while another two mega-projects have budgets between \$172.7 and \$426 million. All but five are on their original schedule, and three have been advanced to advertise earlier.

Project information in the Schedule, Scope and Budget tables

The beige pages report the agency's project delivery performance against the most recent Legislative baseline (for the quarter reported, this is the 2008 supplemental budget). The next quarter, ending June 30, 2009, not only ends the fiscal year but also the 2007-2009 biennium; the beige pages for the next *Gray Notebook* will include biennial roll-up reporting, and will set out the 2009 budgetary information used to benchmark the next biennium's progress.

Accountability reporting on Federal Recovery Act-funded projects

For details of WSDOT's progress on and management of projects funded by American Recovery and Reinvestment Act ("Recovery Act"), turn to pages 62-65 of the March 31, 2009 *Gray Notebook*.

Project Delivery Highlights for Nickel and TPA combined:

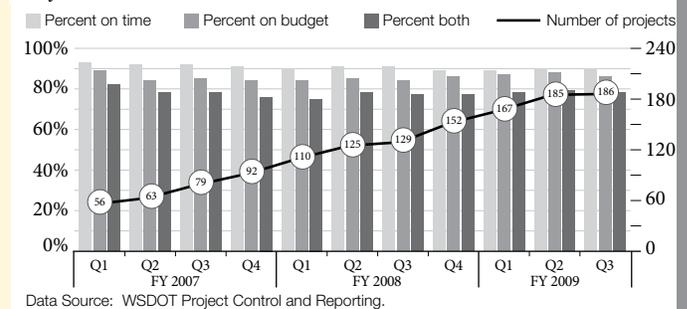
Both Nickel and TPA programs are 100% on or under their total legislative baseline of \$1.934 billion to date.

90% of Nickel and TPA projects combined are early or on time, unchanged from last quarter's results.

86% of Nickel and TPA projects combined are under or on budget, a 1% decline from last quarter.

78% of Nickel and TPA projects combined were both on time and on budget, a 1% decline from last quarter.

Cumulative performance of Nickel and TPA projects
As of March 31, 2009



Highway Construction: Nickel and TPA Performance Dashboard

Each quarter, WSDOT provides a detailed update on the delivery of the highway capital programs in the *Gray Notebook* and on the web (at www.wsdot.wa.gov) through the Project Pages and Quarterly Project Reports. The *Gray Notebook's* Beige Pages generally do not include planning studies or projects that do not have a construction phase. Pre-Existing Funds (PEF) projects are budgeted by program for the improvement

and preservation of the highway system, and the delivery of the work is reported programmatically in six categories.

Each of the 153 Nickel and 238 TPA projects has a line item budget, and are reported at an individual project level. Budgets for PEF, Nickel, and TPA in this edition of the *Gray Notebook* are based on the 2008 Supplemental Budget.

Highway construction performance dashboard				
<i>Dollars in thousands</i>				
	Nickel (2003)	TPA (2005)	Combined Nickel & TPA	Pre-Existing Funds (PEF)
Total number of projects	153	238	391	766
Total program budget *	\$3,946,466	\$9,415,872	\$13,362,338	\$4,676,341
Schedule, Scope, and Budget Summary: Results of completed projects				
Cumulative to date, 2003 – March 31, 2009		For Nickel and TPA details, see pages 69-75		See pages 97-99
Total cumulative number of projects completed	108	78	186	
% Completed early or on time	89%	91%	90%	
% Completed within scope	100%	100%	100%	
% Completed under or on budget	90%	82%	86%	
% Completed on time and on budget	81%	74%	78%	
Baseline estimated cost at completion	\$1,699,976	\$245,053	\$1,945,029	
Current estimated cost at completion	\$1,699,594	\$234,871	\$1,934,461	
% of total program over or under budget	0.0% over	4.2% under	0.5% under	
Biennium to date, 2007-09				
Total number of projects completed in 2007-09	39	54	93	283
% Completed early or on time	85%	91%	88%	-
% Completed within scope	100%	100%	100%	-
% Completed under or on budget	87%	85%	86%	-
% Completed on time and on budget	77%	78%	77%	-
Baseline estimated cost at completion	\$946,073	\$230,134	\$1,176,207	\$1,568,794
Current estimated cost at completion	\$947,100	\$220,157	\$1,167,257	\$1,569,211
Advertisement Record: Results of projects entering into the construction phase or under construction				
Cumulative to date, 2003 – March 31, 2009		For Nickel and TPA details, see pages 76-81		See pages 99-102
Total number of projects in construction phase	20	59	79	N/A
% Advertised early or on time	85%	83%	83%	-
Total award amounts to date	\$580,446	\$778,456	\$1,358,902	-
Biennium to date, 2007-09				
Total advertised	14	50	64	214
% Advertised early or on time	93%	82%	84%	90%
Total award amounts to date	\$311,885	\$419,804	\$731,689	N/A
Advertisement Schedule for projects in the pipeline: Results of projects now being advertised for construction or planned to be advertised				
January 1, 2009 through June 30, 2009		For Nickel and TPA details, see pages 82-83		See pages 100-102
Total projects being advertised for construction bids	3	13	16	47
% on or better than schedule	33%	77%	69%	-

Data Source: WSDOT Project Control & Reporting. * per 2005-2007 Transportation Budget, Section 603.

Federal Recovery Act Reporting

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act (Recovery Act) into law to spur an economic recovery. Washington received \$492 million for highway projects, and is using federal dollars to put people to work in a way that stimulates our economy and also helps maintain our transportation system. WSDOT, along with cities and counties, leveraged the \$492 million for highway projects into nearly \$1.4 billion in projects by combining federal dollars with partially funded, ready-to-go projects.

State highway projects

The Governor and Washington State Legislature allocated the state's \$340 million in federal stimulus dedicated for state highways to 32 individual projects (Tier One projects) and two funding buckets to address safety priorities. Another 12 projects were identified that could be ready to go should additional funding become available (Tier Two projects). These dollars are expected to support over 3,700 direct jobs spread across several skilled trades (such as masons, concrete workers, carpentry, iron workers), indirect jobs such as materials suppliers, and other jobs in local communities.

In prioritizing projects for funding, WSDOT emphasized:

- Advancing projects and jobs that would have otherwise been delayed due to funding shortfalls;
- Advancing projects and jobs that would address high priority highway preservation needs;
- Projects that can be completed within three years;
- Projects to assist communities most impacted by recession.

Local highway projects

Local cities and counties received \$152 million in Recovery Act funds for highway and road construction. Utilizing Washington State's process for allocating federal transportation funding, 147 local city and county projects were selected.

The three largest urban areas used Transportation Management Areas organization (Puget Sound, Spokane, and Vancouver) to select \$97.5 million in projects. Other local governments used Metropolitan Planning Organizations and County lead agencies to prioritize their respective projects, with a review and endorsement by a local oversight and accountability panel.

Consistent with the spirit of the stimulus package of getting people to work, the project selection processes at the state level required that projects be under way within 120 days.

Key priorities that the local dollars will address include 70 preservation projects (more than \$65 million in Recovery funds), 13 congestion relief projects (about \$28 million), and 39 bicycle and pedestrian projects selected by local jurisdictions.

State and local Recovery Act spending on projects

Dollars in millions

	Dollars provided	# of projects
State highway projects		
Mobility	\$150.00	5
Preservation	\$145.78	23
Economic development	\$30.80	1
Safety improvement	\$14.80	5
Total	\$341.38	34
Local highway projects		
Preservation	\$67.38	70
Mobility	\$28.19	13
Freight	\$25.73	8
Bicycle & pedestrian improvements	\$19.73	39
Economic development	\$6.43	7
Safety improvement	\$4.64	10
Total	\$152.10	147

Source: WSDOT Project Control & Reporting Office, Highways & Local Programs Office.

Transit projects

Washington received \$179 million in Recovery Act funds to support transit projects. The projects will help expand bus fleets (including hybrid and natural gas vehicles), upgrade maintenance facilities, build commuter parking lots, preserve ferry terminals and vessels, extend light rail service, and develop a new streetcar system, among other efforts. The state's Transportation Management Areas and Regional Transportation Planning Organizations selected most of the transit projects.

See pages 62-65 of *Gray Notebook 33* for more information.



Secretary of Transportation Paula Hammond spoke at the site of the first federal stimulus contract in the state to start construction, committing WSDOT to high standards of accountability reporting.

Special Report on Federal Recovery Act-funded Projects

Recovery Act-funded Projects Overview

Recovery Act-funded highway projects

Number of projects by jurisdiction; dollars in millions

Project information	State	Local	Total	Notes
Individual Tier 1 highway projects	32	147	179	State projects specified in the Legislative Evaluation & Accountability Program (LEAP) list.
Certified by Governor	32	147	179	Governor must certify that projects were reviewed and represent an appropriate investment of taxpayer dollars.
Projects advertised	24	31	55	
Contracts awarded/Under construction	9	7	16	
Projects completed	0	0	0	
Financial information	State	Local	Total	Notes
Recovery Act dollars provided	\$340	\$152.1	\$492.1	
Recovery Act dollars obligated to date	\$175.3	\$67.1	\$242.4	Obligated dollars represent projects approved by the federal government with an executed project agreement. The state must obligate 50% of funds by June 29. This requirement has been met. Local jurisdictions must obligate 100% of funds by March 2010.
Total cost of obligated projects	\$556.2	\$344.6	\$900.8	Also includes non-Recovery Act leveraged fund sources; represents total project funds positioned to enter the economy.

State data as of May 15, local data as of May 18, 2009. Source: WSDOT Project Control & Reporting Office, Highways & Local Programs Office.

Recovery Act-funded state highway 'bucket' projects

Number of bucket projects by type; dollars in millions

Project status	Rumble	Cable	Total
	strips	median barrier	
Certified by Governor	27	6	33
Projects advertised	2	0	2
Contracts awarded / Under construction	0	0	0
Projects completed	0	0	0
Financial information			
Funds available for buckets	\$3.1	\$9.2	\$12.3
Recovery Act dollars obligated	\$0.27	\$0.70	\$1.0
Total cost of obligated projects	\$0.27	\$0.80	\$1.1
Recovery Act funds spent	\$0.0	\$0.0	\$0.0

Source: WSDOT Project Control & Reporting Office, Highways & Local Programs Office.



Construction begins on the Yakima River to West Ellensburg paving project, funded by Recovery Act dollars.

Recovery Act project definitions

Tier 1 Priority shovel-ready projects selected for Recovery Act funding.

Tier 2 The projects selected for funding with Recovery Act savings and/or additional Recovery Act funds.

Bucket projects State projects using Recovery Act funds to address programmatic safety priorities statewide.

Obligated funds An obligation is a commitment—the Federal government's promise to pay the State for the Federal share of a project's eligible cost. This commitment occurs when the project is approved and the project agreement is executed. Obligated funds are considered "used" even though no cash is transferred.

Transit projects information

Reporting timeline Transit agency projects differ from highway projects in that agencies usually wait until their grant is approved by Federal Transit Administration to issue requests for proposals (RFPs) or go out to bid on projects or purchases. As such, there may not be significant activity to report until August/September.

Process The projects in urbanized areas were selected locally. Metropolitan planning organizations usually have an established process for distribution of Federal Transit Administration funding.

Rural projects The projects for the rural areas were selected by the state using a competitive process. In December 2008 and January 2009, WSDOT developed a capital project list in anticipation of the Recovery Act. WSDOT identified over \$45 million in projects that met the definition of "ready to go" in the rural areas. An independent Grants Review Team prioritized projects. The final list of projects was added to the State Transportation Improvement Program and submitted to the FTA.

Special Report: The Economic Recession and Travel Demand

In part due to the deteriorating economy, travel times for 18 major central Puget Sound commute routes were lower for most trips during the July-December 2008 time period. Compared to the same time period in 2007, 15 of the 18 trips had improved travel times, while the other four trips showed little or no change. This distribution is similar to the overall pattern of results from WSDOT's analysis of the first six months of 2008 vs. 2007, when eight of 18 trips had lower travel times and the other 10 trips had small or near-zero changes during a period of high fuel prices. However, the second half of the year showed a more pronounced shift toward faster travel times than was seen in the first half of the year.

Overall, peak period volumes declined during the second half of 2008, with 12 of 18 sampled locations showing reduced volumes compared to the second half of 2007. Decreases in volumes ranged between -0.5% and -5.0%. The *Seattle to Bellevue* spot location on I-90 featured the largest volume drop (-5%). Preliminary data suggest that travel time trends during the

first two months of 2009 were consistent with those seen from July-December 2008, but with less pronounced changes. The preliminary 2009 data also showed a mix of trends concerning peak period volumes, with six locations showing decreases in volumes, 11 locations showing increases in volumes, and one location remaining unchanged.

Changes in average travel times during peak periods: July-December 2007 compared to 2008¹

Travel times in minutes

		Average travel time		
		2007	2008	Δ from 2007

Peak direction – Morning commutes				
I-5	Federal Way – Seattle	42	35	-7
I-5	Everett – Seattle	41	36	-5

Peak direction – Evening commutes				
I-5	Seattle- Federal Way	31	29	-2
I-5	Seattle - Everett	38	34	-4

Source: Washington State Transportation Center (TRAC).
¹ Travel time and volume data for weekdays only; peak periods are 6-9 AM and 3-7 PM.

Commute Options Annual Report

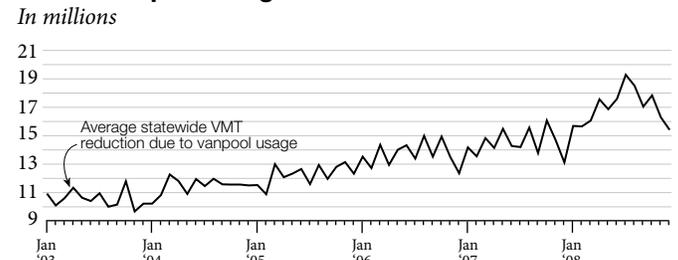
Public vanpools eliminated 203 million drive-alone miles statewide in 2008

With 2,610 vanpools in operation as of December 2008, Washington's vanpool program remains one of the largest and most successful in the U.S. The number of commuters in vans has increased to over 23,000 average daily riders, an increase of 82% since 2003.

In 2008, vanpools resulted in 8.4 million annual passenger trips, which eliminated an estimated 203.3 million annual drive-alone miles, conserved 10 million gallons of fuel over the year and reduced 180 million pounds of carbon dioxide emissions

throughout the state (estimates based on vehicle miles traveled reduction averages).

Statewide vehicle miles traveled reduction due to vanpool usage



Data Source: WSDOT Public Transportation Division.

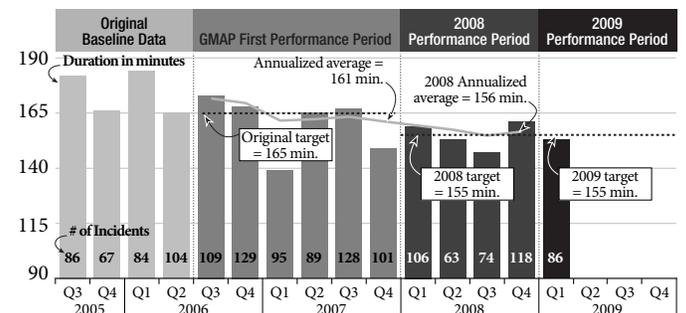
Incident Response

The mission of WSDOT's Incident Response program is to safely and quickly clear traffic incidents on state highways. This year, WSDOT and the Washington State Patrol are working collaboratively towards reducing the average over-90 minute response time to 155 minutes for nine key corridors in western Washington. For the first quarter of 2009, the Incident Response program's response time averaged 153 minutes, meeting the goal. One factor contributing to the quarterly goal was the reduction in extraordinary incidents (response time of six hours+) from six in the fourth quarter of 2008 to two in the first quarter of 2009.

Overall, total responses were down 7.8% from the previous quarter to 9,961, averaging 14.1 minutes in response time, a 6.6% improvement over the 15.1 minute average in the fourth quarter of 2008.

Progress towards the goal for reducing average clearance time for over-90-minute incidents on 9 key highway segments

July 2005-March 2009
Average duration in minutes



Data Source: Washington State Patrol and WSDOT Traffic Office.

Wetland Protection Annual Report

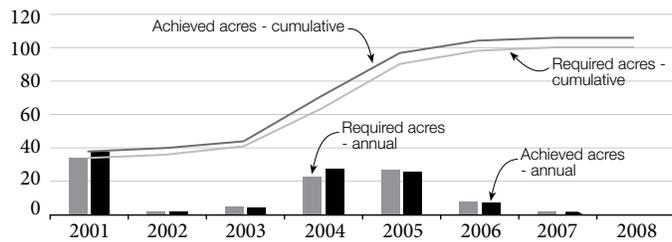
Wetland protection is an important environmental priority at WSDOT. WSDOT's efforts to preserve, establish, restore, or enhance wetlands has resulted in the department being successful in 2009 for meeting the federal mandate of no-net-loss of wetland acreage as a result of project activity. WSDOT is actually exceeding the federal requirement by maintaining 106% of the required acreage for its wetlands program.

WSDOT continues to grow, maintain wetlands

WSDOT's wetlands inventory supports five different wetland mitigation projects: buffer, enhancement, creation/establishment, preservation, or restoration wetlands. There are now 167 different sites covering 913 acres across the state. In 2008, WSDOT added nine new sites covering 22 acres to its inventory (which began in 1988). After construction, WSDOT works to maintain the sites using best practices. Each site has a management plan with activities that correspond with on-site needs identified during monitoring visits. In 2008, WSDOT was able to complete 98% of the identified activities (114 out of 116). Activities not completed in 2008 are scheduled to be completed in 2009.

WSDOT wetland mitigation acreage inventory, 2001-2008

Number of acres achieved vs. required



Data Source: WSDOT Environmental Services.

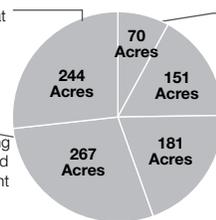
WSDOT Replacement Wetlands, 1988-2008

Total Acreage of Wetland Projects

167 Sites, 913 Acres

Buffer: An upland area that separates wetland from adverse impacts and may enhance adjacent wetland functions (244 acres).

Enhancement: Improvements to an existing wetland to increase wetland function or change the plant assemblage (267 acres).



Restoration: Re-establishes functions to a former wetland or repairs historic functions of a degraded wetland (70 acres).

Preservation: Protecting wetlands from threats to their function or condition (151 acres).

Establishment (Creation): The development of wetlands in a non-wetland area (181 acres).

Data Source: WSDOT Environmental Services.

Safety Rest Areas Annual Report

Construction at some of the busiest rest areas, as well as decreased travel due to high gas prices, may have contributed to a 3% decrease in visitors between 2007 and 2008 (see table on page 8 in GNB 33).

Most rest areas are in good or fair condition

WSDOT conducts rest area facility condition assessments every two years. In 2007-08 WSDOT assessed 42 rest areas. Eight (19%) were in good condition, 32 (76%) were in fair condition, and two (5%) were in poor condition. Buildings at the two rest areas in poor condition, Vernita and Selah Creek (both located in WSDOT's South Central Region) are scheduled for replacement during the 2009-11 biennium.

Preliminary analysis indicates that safety rest areas are improving highway safety

WSDOT surveys indicate that while about 75% of users stop to use rest rooms, 25% stop because they are tired. WSDOT examined the before-and-after effectiveness of three rest areas

Safety rest area condition ratings

Number of safety rest areas in each category

Condition	Number of Safety Rest Areas
Good (meets standards)	8
Fair – High (minimal deficiencies)	6
Fair – Mid (adequate condition)	6
Fair – Low (multiple deficiencies)	20
Poor (multiple major deficiencies)	2
Total	42

Source: WSDOT Facilities Office.

in reducing collisions: Iron Goat on SR 2, Dusty-Mader on SR 26, and Price Creek on SR 90. WSDOT compared the number of collisions attributed to fatigue within 30 miles of each rest area for 24 months before and 24 months after they opened. Preliminary analysis indicates that fatigue related collisions declined after the rest areas opened.

How to find performance information

The electronic subject index gives readers access to current and archived performance information. This 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 *Gray Notebook* edition.

To access the index electronically, visit: <http://www.wsdot.wa.gov/Accountability/GrayNotebook/SubjectIndex.htm>

The information presented here is a snapshot of what you'll find in the full version of the *Gray Notebook*. The full version for the quarter ending March 31, 2009 is available on line at: <http://www.wsdot.wa.gov/Accountability/GrayNotebook/default.htm>

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