



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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## GNB 30 Excerpts

Quarter ending  
June 30, 2008

published  
August 20, 2008

This *Gray Notebook* Lite provides highlights and performance topics selected from the Gray Notebook, WSDOT's quarterly performance report. This quarter's edition of the Lite includes annual excerpts from Highway Safety (Before & After), Bridge Conditions, Capital Facilities Management, Traveler Information, Incident Response, Fish Passage Barriers, and Construction Contracts.

The beige insert contains a summarized roll-up of WSDOT's Capital Project Delivery Program and a project delivery performance overview for the 2003 Nickel Program and the 2005 Transportation Partnership Account.

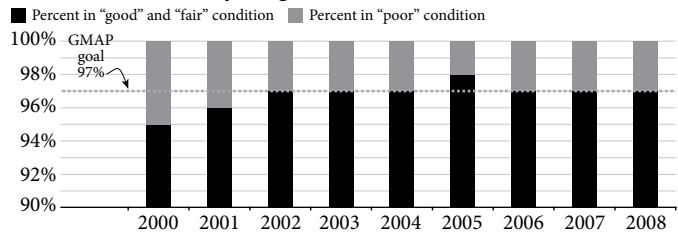
The complete edition of the *Gray Notebook* can be found at <http://www.wsdot.wa.gov/Accountability/GrayNotebook/default.htm>

## Asset Management: Bridge Conditions Annual Update

Each year, WSDOT reports on the condition of state-owned bridges. For 2008, WSDOT found that 97% of bridges were in “good” or “fair” condition. The remaining 3% of bridges were given a rating of “poor”. However, none of the bridges rated “poor” are unsafe for public travel. Nationally, Washington state ranks sixth for the lowest percentage (roughly 4%) of structurally deficient-rated bridges in the nation.

The condition rating is based on the structural sufficiency standards established in the Federal Highway Administration’s Recording and Coding Guide for the Structural Inventory and Appraisal of the Nation’s Bridges. In order to determine the overall condition rating of a bridge, WSDOT uses a ratings system from zero to nine (0 – 9) to evaluate a bridge’s superstructure, substructure, and bridge deck. A rating of zero indicates “failed condition” while a rating of nine indicates “excellent” condition. Condition ratings of four or less indicate poor or worsening conditions indicative of structural

## Bridge structural condition ratings Overall condition ratings by fiscal years 2000 - 2008 (based on the number of bridges)



Data Source: WSDOT Bridge Office.

deficiencies. Currently, no WSDOT bridge has a rating of less than three. If a bridge were to receive a condition rating of two or less, WSDOT will close the bridge to traffic.

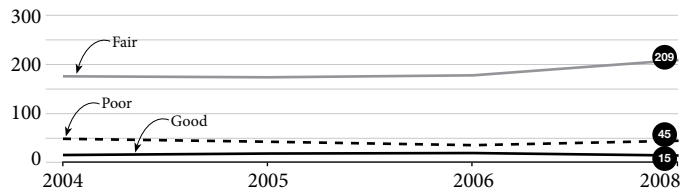
In addition to structural condition ratings, this year’s Bridge Condition report includes updates on WSDOT’s bridge replacement projects, bridge rehabilitation projects, steel bridge painting program, seismic retrofit program, and scour mitigation programs. The entire article can be found in the Preservation section of the *Gray Notebook* on pages 13-19.

## Asset Management: Capital Facilities Annual Update

WSDOT provides an update to the maintenance and construction of the department’s capital facilities.

### WSDOT facilities condition trend

Number of facilities, 2004-2008



Data Source: WSDOT Facilities Office.

WSDOT rates all of facilities using a “good”, “fair”, and “poor” condition ratings system just like bridges and pavement. For

2007, WSDOT determined that 83% of its facilities were in “good” and “fair” condition, a slight decrease from 85% in 2006. Overall, the number of facilities in “fair” condition are trending upward, with a slight decrease in the number of facilities rated “good”. The rate for facilities assessed as “poor” remains steady. WSDOT also compares the operating costs of its capital facilities, and found that the department spends less on costs per square foot when compared with the University of Washington’s facilities average, the Department of General Administrations average, and the International Facilities Management Associations annual benchmark (average).

The Capital Facilities annual update also includes information on selected preservation and replacement projects.

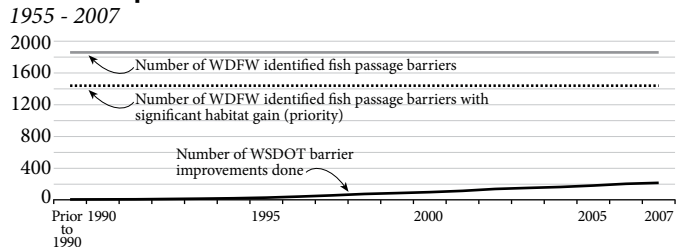
The article can be found on pages 10-11 in the Stewardship section of the June 30, 2008 *Gray Notebook*.

## Fish Passage Barriers: Annual Update

In 2008, the Washington Department of Fish and Wildlife (WDFW) reached a critical milestone by completing its decade-long inventory of fish passage barriers along WSDOT’s right-of-way statewide. WDFW has now identified 1,440 fish passage barriers that if removed or retrofitted, have the potential to significantly increase habitat for spawning salmon and trout.

As of 2008, WSDOT has completed 218 separate corrective projects that were included in the list of 1,440 barriers identified by WDFW. The barriers have been corrected either with funds from WSDOT’s environmental retrofit program (I-4), or they have been incorporated as part of larger safety and mobility projects financed by the 2003 Nickel and 2005 Transportation Partnership Account packages.

## Cumulative number of WSDOT fish passage barrier improvements 1955 - 2007



Data Source: WSDOT Environmental Services.

Note: 'Prior to 1990' includes barriers removed or retrofitted from 1955 - 1989.

Finally, WSDOT expects to correct three additional barriers in 2008, with additional corrections planned for the future.

The article can be found in the environmental section on pages 39-40.

## Highway Construction Performance Dashboard for the Quarter Ending June 30, 2008

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](http://www.wsdot.wa.gov)) through the Project Pages and Quarterly Project Reports. The *Gray Notebook's* Beige Pages do not generally include planning studies of projects that do not have a construction phase. The total cumulative number of projects line represents projects that include construction. Since PEF projects are budgeted by program for improvement

and preservation of the highway system, the delivery of the work included on the PEF projects is reported programmatically in six categories of work. Each of the 153 Nickel and 238 TPA projects funded has a line item budget; they are monitored and reported at the individual project level. Budgets for PEF, Nickel, and TPA in this edition of the *Gray Notebook* are based on the 2007 Budget, with references to the 2008 Supplemental Budget as appropriate.

### Highway construction performance dashboard

As of June 30, 2008; dollars in thousands

	Nickel (2003)	Transportation Partnership Account	Combined Nickel & TPA	Pre-Existing Funds
Total biennial number of projects (2007-09)	129	221	350	702
Total number of projects	153	238	391	758
Total biennial program (2007-09)*	\$3,946,466	\$9,415,872	\$13,362,338	\$4,411,627

#### Schedule, Scope, and Budget Summary: Results of completed projects

##### Cumulative to date: 2003 – June 30, 2008

For Nickel and TPA details, see pages 45-49

See pages 74-78

Total number of projects completed	100	52	152	
% Completed early or on-time	89%	90%	89%	
% Completed within scope	100%	100%	100%	
% Completed under or on-budget	88%	81%	86%	
% Completed on-time and on-budget	80%	71%	77%	
Baseline estimated total cost at completion	\$1,594,195	\$173,929	\$1,768,124	
Current estimated cost at completion	\$1,596,088	\$171,696	\$1,767,784	
% of total program over or under budget	0.1% over	1.3% under	0.0% under	

##### Biennium to date: 2007-09

Total number of projects completed	31	29	60	163
% Completed early or on-time	84%	90%	87%	–
% Completed within scope	100%	100%	100%	–
% Completed under or on-budget	84%	86%	85%	–
% Completed on-time and on-budget	74%	76%	75%	–
Baseline estimated cost at completion	\$840,292	\$159,010	\$999,302	\$1,271,405
Current estimated cost at completion	\$842,714	\$156,981	\$999,695	\$1,280,311

#### Advertisement Record: Results of projects entering into the construction phase or under construction

##### Cumulative to date: 2003 – June 30, 2008

For Nickel and TPA details, see pages 50-54

Total number of projects in construction phase	21	50	71	N/A
% Advertised early or on-time	71%	90%	85%	–
Total award amounts to date	\$383,582	\$621,908	\$1,005,490	–

##### Biennium to date: 2007-09

For Nickel and TPA details, see pages 50-54

Total advertised	10	38	48	133
% Advertised early or on-time	90%	92%	92%	N/A
Total award amounts to date	\$198,488	\$109,524	\$308,012	N/A

#### Advertisement schedule for projects in the pipeline: Results of projects now being advertised for construction or planned to be advertised

July 1, 2008 through December 31, 2008	For Nickel and TPA details, see pages 55-56			See pages 74-78
Total projects being advertised for construction bids	5	27	32	49
% On schedule or early	100%	85%	88%	–

Data Source: WSDOT Project Control & Reporting. \* per 2005-07 Transportation Budget, Section 603.

## Highway Construction: Nickel and TPA Project Delivery Performance Overview for the quarter ending June 30, 2008

### Project Delivery Highlights for Nickel and TPA combined:

Both Nickel and TPA programs are 100% on or under their total legislative baseline of \$1.768 billion to date.

89% of Nickel and TPA projects combined are early or on-time — down two percentage points from last quarter.

86% of Nickel and TPA projects combined are under or on-budget — down two percentage points from last quarter.

77% of Nickel and TPA projects combined were on-time and on-budget — the same as last quarter.

### WSDOT has successfully delivered 152 Nickel and TPA projects on target with the \$1.768 billion Legislative budget

Since 2003, WSDOT has delivered a total of 152 Nickel and Transportation Partnership Account (TPA) projects for \$1.768 billion, on target with the legislative budget expectation. By June 30, 2008, more than half of the projects funded by Nickel and TPA will either be under construction or completed.

### WSDOT delivers 23 projects during the 4th quarter of FY 2008

WSDOT's capital program delivery performance held steady at 77% in delivering projects on-time and on-budget through the fourth quarter of FY 2008, as another seven Nickel projects and 16 TPA projects were completed. The projects were all completed within scope.

### On-time and on-budget performance on individual projects declines slightly

For the 152 highway projects completed through June 30, 2008, changes from the previous quarter are:

- On-time delivery performance decreased two percent to 89%;
- On-budget performance decreased two percent to 86%; and
- On-time and on-budget project delivery performance stayed at 77% this quarter.

### 71 Nickel and TPA projects under construction or advertised for construction

This quarter, nine new projects were advertised for construction. Two projects were advertised earlier than scheduled, two were late, and the rest were on-time. Three projects are pending contract awards, and will be reported next quarter. Six projects have been awarded for a cumulative construction contract total of \$38.8 million.

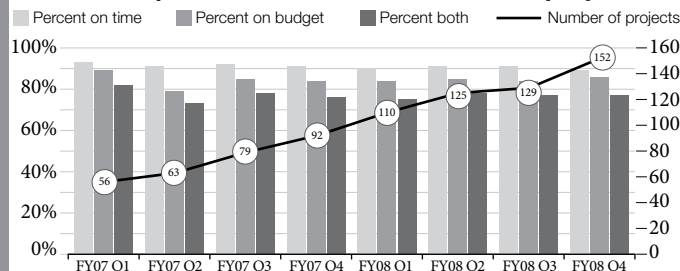
### 32 projects totaling \$899 million scheduled to advertise by year end

Seven significantly sized projects have budgets of \$20 million, while another seven have budgets between \$10 and \$20 million. All but four are on their original schedule. The U.S. 101/Hoodspout vicinity project is delayed due to Endangered Species Act compliance and other state water quality permit acquisitions. The Spokane, Stevens, and Pend Oreille project, SR 532/270th St. NW to 72nd Ave. NW project, and the N. Stevens and Ferry project have been delayed due to environmental permit issues. The SR 532/270th St. NW to 72nd Ave. NW is also dealing with right-of-way issues.

### Original project appropriation information

The beige pages report and measure the agency's project delivery performance against the most recent Legislative baseline (currently the 2008 supplemental budget). In addition, this *Gray Notebook* will report the amount that was original appropriated in the 2003 Nickel and 2005 TPA funding packages. Original appropriation data for this edition includes Nickel and TPA projects completed through March 31, 2008. Despite construction cost increases of 60%, WSDOT has delivered 129 projects, 18% above original appropriated amounts. See page 83 of this edition of the *Gray Notebook* for complete information.

### Cumulative performance of Nickel and TPA projects



Data Source: WSDOT Project Control and Reporting.

# Mobility

## Traveler Information Biannual Update

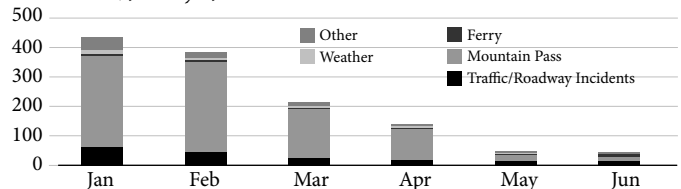
The winter of 2008 brought additional traffic to WSDOT's 5-1-1 system during the first two quarters of (calendar year) 2008. Calls to 5-1-1 were up 87% from 2007, and 49% from 2006.

Of the five major categories of information available, 73% of callers requested information on mountain pass conditions and closures, 15% requested information on traffic conditions, 3% for Washington State Ferries service updates, 3% for weather related information, and 7% for other, miscellaneous information.

In January 2008, WSDOT began using a more accurate tool to track website usage. The new tool removes multiple page views counted as multiple visits by a single user. The new tracking system indicated the WSDOT website views peaked in January with 437,000 daily views, trailing off to 106,000 views by June. As the weather warms up over the course of the year, WSDOT

## Types of information requested from 5-1-1 traveler information

In thousands, January - June 2008



Data Source: 5-1-1 iNi (Interactive Northwest Inc.) Activity Summary-Combined Report, Avaya BCMS combined report of PBX and VDN Daily historical numbers, WSDOT Traffic Office.  
Note: Total number of information types will not add up to the total number of calls to 5-1-1 because more than one type of information may be requested in one call, or one caller may hang up without selecting a category. Only completed calls are recorded.

receives fewer and fewer visits for traveler information, as the less severe weather produces fewer problems (closures, accidents, non-recurrent congestion) for travelers.

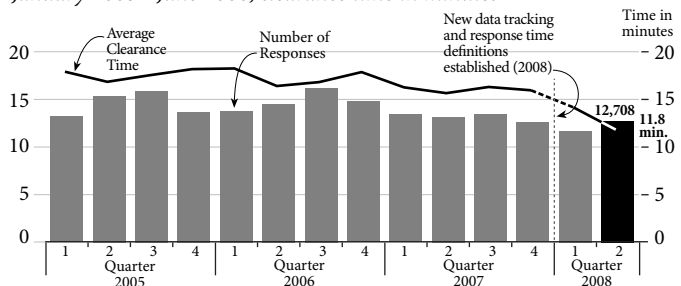
The Traveler Information article is available in the Mobility section on page 32.

## Incident Response

In the second quarter of 2008, WSDOT responded to 12,708 incidents, with an average, state-wide clearance time of 11.8 minutes per incident. In comparison, WSDOT responded to 11,686 incidents in the previous quarter, an increase of 8%. WSDOT also made progress on reducing the overall duration of incident response time to over-90 minute incidents on key highway segments. Clearance times average 153 minutes for over-90 minute responses, a 3% decrease from last quarter, and a 7% decrease over the same quarter one year prior. Fortunately, WSDOT and its partner the Washington State Patrol, did not have to respond to any extraordinary (six hours or longer) incidents this quarter, which helped in the reduction of the average clearance time. The complete article can be found in the Mobility section on pages 29-31.

## Number of responses and overall average clearance time

January 2005 - June 2008, clearance time in minutes



Data Source: Washington Incident Response Tracking System, WSDOT Traffic Office.  
Note: WITS-WSDOT Incident Tracking System used by Incident Response to keep track of daily activity at incidents. New system implemented in January 2008 which allows greater accuracy of time collection.

# Stewardship

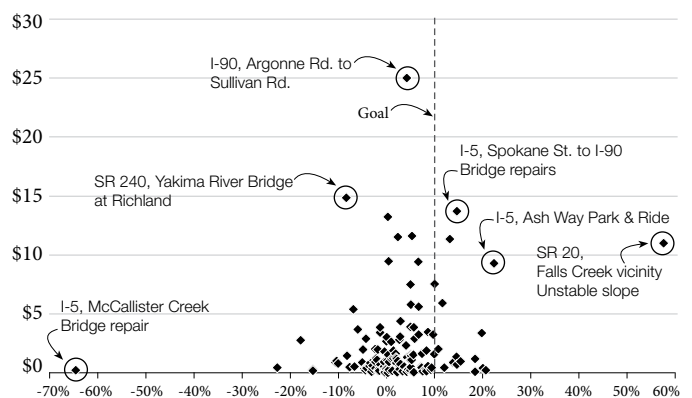
## Construction Contracts

For fiscal year 2008 (FY 08), WSDOT awarded 149 construction contracts valued at over \$544 million dollars. Although FY 08 saw a decline in the number of contracts awarded, (160 in FY 07), the total value of the contracts was up 1%. Of note, 66.4% of contracts were awarded below the engineer's original estimate compared with 48.1% in FY 07. Better contracting language and increased training were attributed to this increase.

During FY 08, WSDOT completed 131 contracts, with 112 (85.5%) having final costs of no greater than 10% of the original award amount, a 5% improvement of FY 07. Of the 131 projects completed in FY 08, 89 (69.7%) projects' final costs were within 10% of the engineer's original estimate, a decline of 2.7% from FY 07. Construction materials escalation has made completing projects on-budget more and more difficult despite programs to minimize the impacts of inflation on estimations, bidding, and construction.

## Individual contracts: final costs to award amount, FY 2008

Percent final cost above or below award amount; Dollars in millions



Data Source: WSDOT Construction Office.

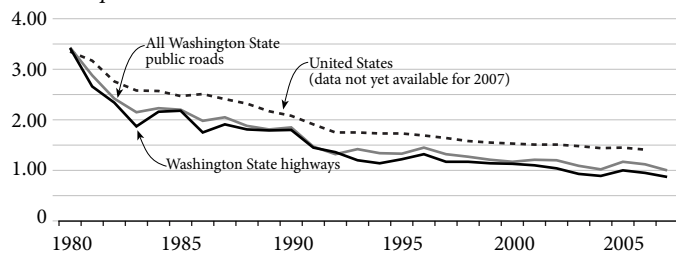
The of the Construction Contracts annual update can be found in the Stewardship section on pages 94-96.

## Highway Safety: Annual Update

In 2007, Washington state reached an important milestone in its efforts to reduce highway fatalities. The rate of highway fatalities dropped to an average of 1.0 per 100 million vehicle miles traveled (VMT), which meets the performance target set by the federal Department of Transportation in 2003 for all state transportation agencies. In 2006, Washington state's fatality rate was 1.12 per 100 million VMT, and the national average was 1.41 fatalities per 100 million VMT. Overall, the number of fatalities on Washington state highways dropped from 635 in 2006 to 568 in 2007, a 10.6% decrease.

### Traffic fatality rates in Washington compared to the national average

Fatalities per 100 million VMT: 1980-2007



Provided by: WSDOT Transportation Data Office (TDO).  
Data Sources: U.S. Fatalities/VMT: NHTSA Traffic Safety Facts; WA Fatalities: FARS;  
State Highway Fatalities: WSDOT-TDO; WA VMT: WSDOT-TDO.

### Washington state seat belt use continues to grow

In 2007, 96.4% of drivers wore their seatbelts when driving in Washington State, an improvement of one-tenth of one percent over 2006. Nationally, Washington state ranks second for seat belt use nationally, and is roughly one percent behind the leader, Hawaii, in having the highest seat-belt use in the US. Seatbelt usage rates continue to be over 90% for all types of surveyed roads in Washington state: county roads, city streets, state routes, US routes, and the interstate highways. Washington's

consistently high seatbelt usage ratings since 2002 have been attributed to the successful 'Click It or Ticket' program that includes stepped-up enforcement for violators and additional reminders courtesy of WSDOT's variable message signs to help reinforce the importance of wearing seatbelts while driving.

### Cable Median Barrier Updates

WSDOT includes a Before & After update to its cable median barrier installation program. Overall, for cable median barriers installed one year prior to surveying, these systems reduced the annual fatal median collision rate by 46% and the serious injury median collision rate by 61%. In 2007, WSDOT added an additional 43 miles of cable median barrier, raising the total coverage to 177 miles statewide. These barriers provide a cost effective means of reducing the risk of vehicles leaving the roadway and striking hard objects, steep slopes, bodies of water, or crossing into oncoming traffic.

### Collision rates after cable barrier installation

1995-2007

	Before	After	% change
Annual median collisions	223	561	+152%
Median collision rate (per 100 million VMT)	7.64	14.66	+92%
Annual serious injury median collisions	16.6	5.2	-69%
Annual fatal median collisions	8.2	4.4	-46%
Serious injury median collision rate (per 100 million VMT)	0.57	0.22	-61%
Fatal median collision rate (per 100 million VMT)	0.28	0.12	-57%

Data Source: WSDOT Design Office.

The Highway Safety annual update can be found on pages 4-8 in the Safety section of the June 30, 2008 *Gray Notebook*.

## 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 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, 2008 is available on line at: <http://www.wsdot.wa.gov/Accountability/GrayNotebook/default.htm>

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