

Performance Management & Reporting at the Washington State Department of Transportation

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TRB 2007 Annual Meeting

Accountability and Performance : How State Departments of Transportation are
Reporting on Performance and Results

January 21, 2007 ; 8:30-12:00 Hilton

WSDOT PROFILE

- 7,000 employees

WSDOT owns, manages and maintains:

- 20,000 state highway lane miles (carry 86 million vehicle miles /day)
- 3,400 state bridges
- 28 ferry vessels and 20 terminals (carry 24 million passengers/year)
- Amtrak *Cascades* state passenger rail (carry 420,000 passengers/year)
- Grain Train (runs 89 grain cars)
- \$3.4 billion (2 year) capital program, over 1,000 active projects, currently delivering the largest infrastructure program in the state's history

What funds are available for WSDOT to deliver its programs for 2005-07?

	For the 2005-2007 Biennium			Total Funds Available for WSDOT 2005-2007
	Funding that Pre-Exists the Passage of New Funding Packages in 2003 & 2005	2003 Transportation Funding Package 2005-2007	2005 Transportation Funding Package 2005-2007	
<i>millions of dollars</i>				
Operating Budget	\$1,052	\$44	\$10	\$1,106
Capital Budget	\$1,447	\$1,274	\$709	\$3,430
Total Funding	\$2,499	\$1,318	\$719	\$4,536



WSDOT's Accountability Challenge :

.....To be a high performance organization credible with and accountable to the Governor, Legislature, taxpayers and transportation delivery partners across the state



An Unprecedented Level of Performance Measurement and Management: Why and Where did we start?

WSDOT, January 2001: An Agency In Crisis:

Political and Public Pressures were mounting:

- 30% revenue erosion from voter cutback (MVET) on transportation taxes.
- Blue Ribbon Commission and gubernatorial concerns over departmental inefficiency and lack of accountability
- Media/talk show preoccupation with state's "transportation crisis"
- Legislature embroiled in partisan and regional contentions
- WSDOT employee morale in the tank

WSDOT, April 2001: Secretary Doug MacDonald was hired with the mandate to enhance accountability

WSDOT's Response and How the *Gray Notebook* Fits into the Accountability Challenge

WSDOT's Strategic Approach as of April 2001

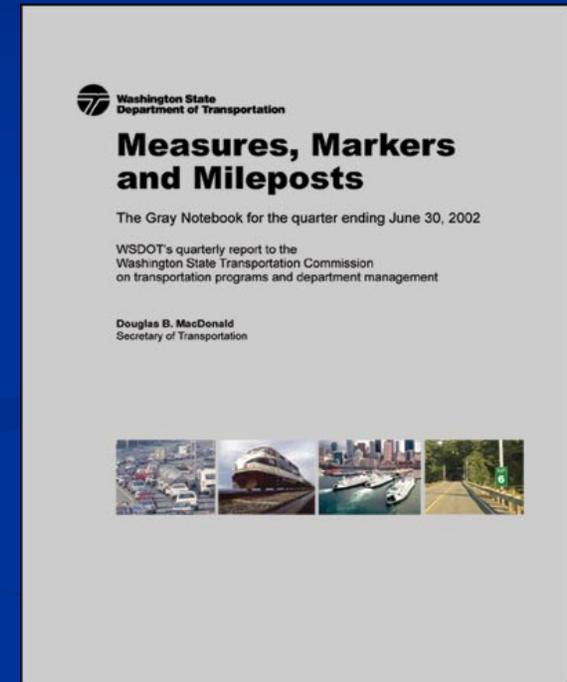
- Accountability and Transparency
- Comprehensive Performance Analysis and Reporting
- Adaptive and Dynamic Performance Measurement

Communicating Two Simple Themes:

1. Accountability
2. Project Delivery

Tool: a quarterly performance report:

- “*Measures, Markers and Mileposts*”, also referred to as the ***Gray Notebook (GNB)***
- 2 months from inception to publication





“These reports are among the best I’ve seen in Washington state government for using performance measurement data to tell the agency’s story.”

The Washington State Office
of Financial Management
July 2001

“MacDonald is adopting performance benchmarks within his agency, a recommendation high on the list of the governor’s Blue Ribbon Commission on Transportation last year”

Seattle P-I
November 2001

“As MacDonald’s style takes hold at DOT, we can hope for a change in perception. Accountability builds trust and candor, removes mysteries....”
“The Gray Notebook...is as addictive in the same manner as a copy of the The World Almanac.”

Puget Sound Business Journal
May 2002

Immediate Results: Responses from the media and transportation partners were encouraging

“The Measures, Markers and Mileposts publication is education in action. If you are not checking this out, you are missing out.”

Washington Highway Users Federation
May 2002

“WSDOT’s Gray Notebook is second to none in the country for reporting performance measures.”

Christine Johnson
FHWA Director of Field Services
November 2002

Tangible Benefits of Consistent Performance Management and Reporting

**Enhanced WSDOT credibility and accountability supports
positive funding considerations:**

2003 State Gas Tax Increase

- **Transportation Revenue Package. 5 cents/gallon gas tax increase took effect July 1, 2003**

2005 State Gas Tax Increase

- **Transportation Revenue Package. 9.5 cents/gallon gas tax increase (phased in over three years). July 1, 2005**

Nov 2005: I-912

Through a simple majority vote, Washington State citizen had a choice to eliminate the 9.5 cents gas tax that was passed by the 2005 WA Legislature.

47% voted YES – eliminate the new gas tax

53% voted NO – don't eliminate the new gas tax



What made the difference?

- Continued Performance Communication in the *Gray Notebook*, including the “On –Time” and “On- Budget” Delivery Message for “Nickel” Projects completed to that date
- Five year history of transparency and accountability
- Supportive Governor and Legislature
- Hurricane Katrina

WSDOT Performance Reporting: *The Gray Notebook*

- More than a report: –anchors WSDOT’s management philosophy and cultural change
- Basis for all external performance reporting
- The Gray Notebook is organized into two main sections:
 - The *Beige Pages* report on the delivery of the projects funded in the 2003 Nickel Funding Package, 2005 Transportation Funding Package, and the Pre-Existing Fund Package.
 - *The White Pages* describe key agency functions and provide regularly updated system and program performance information.
- Combines Quantitative and Narrative Reporting; “Telling the Story”
- Not a Dashboard
- Ongoing “No Surprises” reporting focus.
- “The good, the bad and the ugly “–no exceptions.
- Intense scrutiny and quality control by all management levels



Project Delivery Reporting

The GNB's *Beige Pages*

- The *Beige Pages* is WSDOT's project delivery performance report on the Nickel, Transportation Partnership Account, and Pre-Existing Funds project programs.
 - Schedule, Scope and Budget Executive Summary
 - Completed Projects: Final Schedule, Scope and Budget
 - Under Construction: Advertisement, Schedule and Budget
 - In the Pipeline: Advertisement, Schedule and Budget
 - Milestone Performance (six milestones)
 - Narrative : Project Delivery Highlights
 - Narrative" Watch List" Projects- Cost, Schedule Concerns
 - Narrative: Cross Cutting Management Issues

GNB *Beige Pages*- Executive Summary for On-time, On -scope and On-Budget Performance

Performance Information	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA	Pre-Existing Funds
<i>As of June 30, 2006, Dollars in Thousands</i>				
Total Biennial Number of Projects (2005-07)	145	178	323	923
Total Biennial Program (2005-07)	\$1,192,198	\$409,727	1,601,925	\$1,061,010
Schedule, Scope and Budget Summary: Results of Completed Projects				
	See Pages 3-4	See Pages 3-4	See Pages 3-4	NA
Cumulative to Date, 2003 – June 30, 2006				
Total Completed	23	12	35	-
% Completed Early or On-Time	87%	100%	91%	-
% Completed Within Scope	100%	100%	100%	-
% Completed Under or On-Budget	91%	100%	94%	-
Current Legislative Expectation (Baseline)	\$249,158	\$5,009	\$254,167	-
Current Estimated Cost to Complete (WSDOT)	\$249,155	\$5,066	\$254,221	-
Biennium to Date, 2005-07				
Total Completed	10	12	22	190
% Completed Early or On-Time	80%	100%	91%	-
% Completed Within Scope	100%	100%	100%	-
% Completed Under or On-Budget	100%	100%	100%	-
Current Legislative Expectation (Baseline)	\$132,403	\$5,009	\$137,412	\$424,249
Current Estimated Cost to Complete (WSDOT)	\$132,295	\$5,066	\$137,361	\$492,944

GNB *Beige Pages*- Narrative Reporting i.e. “Watch List” Project Cost and Schedule Concerns

“Watch List” Projects - Cost and Schedule Concerns

To provide the most efficient construction with the overlapping projects, the department is proposing to move the construction of a fly-over bridge structure from Stage Two to Stage One. This action will require an advance of \$10.5 million of construction funds from 2009-11 to 2007-09. Additional funding is also needed to complete the construction of this project and will be further discussed in a future quarterly report.

I-5/SR 522/ BOTHELL UW Campus Access

Advertisement for this project to construct a new south access to the University of Washington Bothell/Cascadia Community College Campus from I-405 and SR 522 has been delayed until November 2006 for the project team to redesign the roadway to a higher elevation to avoid a high groundwater table. The construction estimate is within budget; however, design costs have increased by \$400,000 because of the additional engineering effort. WSDOT is monitoring costs to provide future “Watch List” updates as needed.

New “Watch List” Projects

SR 9, Schloman Road to 256th & 268th

This project realigns two existing curves and widens SR 9 to provide twelve-foot lanes and four-foot shoulders. Slopes will be flattened and other safety features will be improved as needed.

Complications with environmental permitting require changes in the project’s design. An updated preliminary engineering cost estimate, an updated construction cost estimate, along with an increased oil, asphalt and steel prices have increased project costs. Project cost escalation is being assessed program-wide and will be reported in WSDOT’s proposed budget to the Governor. This project remains on schedule.

Right-of-way settlements on parcels in condemnation and the higher cost of site dewatering for retaining wall and retention pond construction will result in a \$1.2 million budget overrun. The project is currently on schedule.

SR 20, Ducken Road to Rosario Road

This project improves existing guard rail and illumination and constructs a southbound left-turn lane and a northbound right-turn lane at Ducken Road. The project is within Deception Pass State Park limits. The new guardrail will retain many of the character-defining features of the old guardrail, including the defining log and rock-and-mortar post appearance, as defined by a Memorandum of Understanding (MOU) between the Federal Highway Administration (FHWA) and the Washington State Parks and Recreation Commission.

Construction costs have increased for several reasons: the costs associated with the unique guardrail, the effort required to avoid underground utilities, unexpected drilling into bedrock, and escalating materials costs. Project cost escalation is being assessed program-wide and will be reported in WSDOT’s proposed budget to the Governor. The Memorandum of Understanding must be updated to address design concerns. This may impact the schedule and may delay the project advertisement date.

SR 31, Metaline Falls to International Border

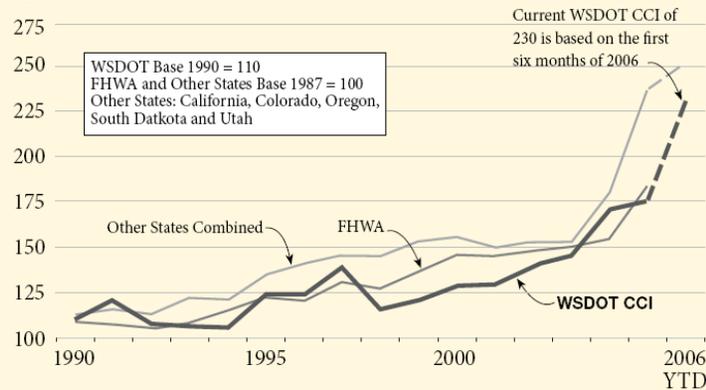
This project constructs an all-weather highway to eliminate truck weight restrictions. The contractor resumed work on May 9, 2006 following a winter shutdown. At the construction site, the contractor recently discovered hydrostatic pressure that exceeds the retaining wall’s design specifications. WSDOT is currently assessing to determine if the retaining wall will have to be redesigned and new permits obtained. The impact to the schedule and budget has not been determined at this time. In the interim, to allow vehicular traffic, the contractor has placed over half of the rock cap material on the roadway and is covering it with a temporary asphalt-treated base driving surface. Guardrail and drainage items are currently being installed and final asphalt paving is scheduled to begin in early August 2006.

GNB *Beige Pages*- Other topics relevant to delivery: i.e. Construction Cost Trends

Construction Cost Index is up 31% over 2005

WSDOT's CCI has increased 31% in the first two quarters of 2006 over the annual average for 2005, from 176 to 230. Most of this increase occurred in the first quarter (see the March 2006 *Gray Notebook*, p. 33). Of the seven materials WSDOT tracks in the CCI, Hot Mix Asphalt (HMA) comprises almost half the weight of the index. HMA costs rose 33% in the first two quarters of 2006 (see page 32).

Construction Cost Indices Washington State and Others



Sources: WSDOT Construction Office, Federal Highway Administration (FHWA)
Note: WSDOT 2006 Index is for Quarters 1 & 2; Other States 2006 Index based on California, Colorado and Oregon First Quarter Data; FHWA, South Dakota and Utah 2006 Data not available
Note: 2003 and 2004 CCI data points adjusted to correct for spiking bid prices on structural steel

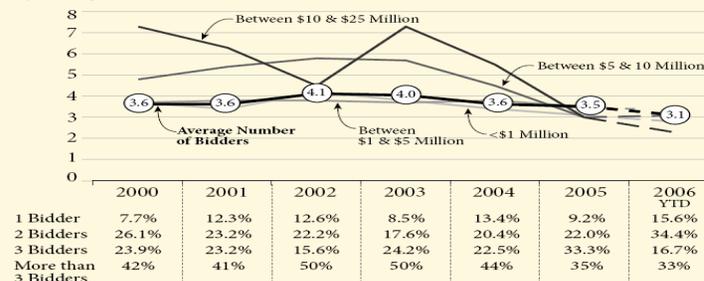
50% of Projects Have Three or More Bidders, 50% Have Two or Fewer

WSDOT's goal is to have three or more bidders for each highway construction project. However, large public and private construction programs in Washington, as well as at the national level, are contributing to a trend of fewer contractors submitting bids for WSDOT projects. This reduction in bidding competition is a sign that contractors have a full load of workload ahead of them; unfortunately, it will tend to produce less higher prices for WSDOT projects.

The average number of contractors bidding on each WSDOT project decreased 11% in the first two quarters of 2006, from an average of 3.5 bidders in 2005 to an average of 3.1 bidders in the first two quarters of 2006. The percentage of WSDOT projects with three or more bidders decreased from 69% in 2005 to 50% in the first two quarters of 2006. The percentage of WSDOT projects with three bidders decreased 48% in the first two quarters of 2006, from 33% in 2005 to 17%, while the number with one or two bidders has increased in that time. For information about how WSDOT can influence the highway construction market in Washington State, and factors that are outside of WSDOT's control, see the December 31, 2005 *Gray Notebook* (p. 29).

Average Number of Bidders

By Size of Contract



Source: WSDOT Construction Office

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

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

Project Delivery Reporting

The GNB's *White Pages*

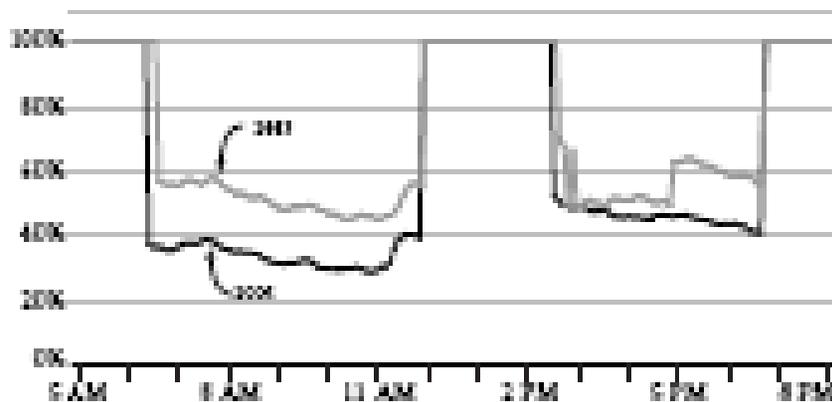
- Reports on all Key Programs in Great Detail, including:
 - Highway Safety
 - Highway Maintenance
 - Highway Congestion
 - Asset Management (bridges, pavement, capital facilities, safety rest areas)
 - Worker Safety
 - Washington State Ferries

Example: Congestion Reporting- Measuring and Communicating the Productivity Gap

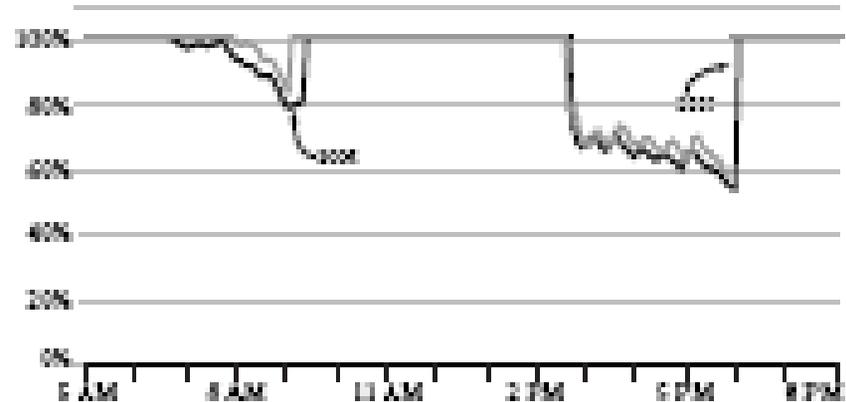
..Showing the Data.....

Productivity Graphs (Lost Throughput)

I-5 at I-90



I-5 at S. 165th St. near Sea-Tac





Congestion: Measuring and Communicating the Productivity Gap (cont.)

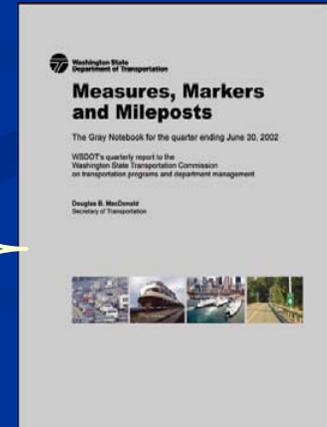
And Telling the Story:

...According to the real-time data recorded on some of the most congested freeways in the Central Puget Sound, less than half the existing capacity is effectively used at a time when it is needed the most. When cars are stuck in congestion, the difference between the potential capacity of the roadway and the actual number of cars that the road is serving is called “lost productivity,” “lost throughput,” or “lost capacity”. Whatever the term, congested freeways deliver far fewer benefits to citizens than if the roads could be kept flowing smoothly....

“One Stop Shopping”

In addition to being a management and accountability tool, the *Gray Notebook* meets multiple State and Federal performance reporting needs:

- Statewide Transportation Benchmarks
- Governor’s Priorities of Government (POG)
- Performance Based Budgeting for the state Office of Financial Management (OFM)
- Federal Governmental Accounting Standards Board (GASB)
- Governor’s Government, Management, Accountability Performance (GMAP) initiative
- Performance Audits by: state Transportation Performance Audit Board (TPAB), Joint Legislative Review Committee (JLARC) and the State Auditor
- And feeds many specialized reports, folios, communication needs, websites, etc.....



WSDOT's Challenges for Performance Reporting

- We raised the bar – managing high accountability expectations
- The GNB is a brand and has a high public and political profile
- Over 1000 active construction projects to report on, over 400 of those in great detail
- Over 20 key programs to report on in great detail
- Timeliness is important but quarterly reporting is difficult to maintain at that level of detail, scope and quality
- Accuracy is all important but quality control is difficult
- Process is manual and very time and resource intensive
- Inadequate IT systems with no technology fixed in sight
- Has grown into an advanced PM program with sophisticated analysis needs but performance analysis is a rare skill and difficult to recruit for – stressful positions and demand for this skill set leads to high turnover rates



So the Challenge Continues :

.....To be a high performance organization credible with and accountable to the Governor, Legislature, taxpayers and transportation delivery partners across the state and country.....



Resources and Contacts

- WSDOT's overall Accountability site:
<http://www.wsdot.wa.gov/accountability/>
- WSDOT's quarterly performance report: the Gray Notebook:
<http://www.wsdot.wa.gov/accountability/Archives/GrayNotebookJun-06.pdf>
- WSDOT's Folio Navigating the Gray Notebook
<http://www.wsdot.wa.gov/publications/folio/GNBFolio.pdf>
- WSDOT's Project Delivery Websites:
<http://www.wsdot.wa.gov/projects/>
- Strategic Planning:
<http://www.wsdot.wa.gov/accountability/publications/StrategicPlanWEB.pdf>
- Congestion and Systems Analysis:
<http://www.wsdot.wa.gov/accountability/archives/WSDOTCongestionReport.pdf> and
http://www.wsdot.wa.gov/accountability/peaktime/WSDOT_Measuring_congestion.pdf

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