



IDAHO TRANSPORTATION DEPARTMENT PERFORMANCE AUDIT

January 19, 2009

Office of Performance Evaluations
Idaho Legislature

Presentation Outline

- Introduction, legislative direction, consultant selection (Mohan)
- Audit context and overall message (Huddleston)
- Audit scope and approach (Brock)
- Findings, conclusions, and recommendations
 - ▣ Management and performance
 - Organization (Brock)
 - Financial planning (Williams)
 - Scheduling and budgeting (Brock)
 - Performance metrics (Manshel)
 - ▣ Contractor selection and oversight (Manshel)
 - ▣ Outsourcing (Brock)
- Recap of overall message and moving forward (Thomas)

Introduction

- **Joint Legislative Oversight Committee (JLOC)**
 - 8-member, bipartisan committee
 - Membership is equally divided between the two chambers of the Legislature
 - Assigns evaluation projects to the Office of Performance Evaluations (OPE)
- **Office of Performance Evaluations**
 - Independent agency of the Legislature
 - Non-partisan staff
 - Conducts evaluations independently; reports to JLOC

Introduction (cont'd)

- **Audit/Evaluation process**
 - Work is guided by *Generally Accepted Government Auditing Standards* and the American Evaluation Association's *Guiding Principles for Evaluators*
 - Input from stakeholders is sought to understand context
 - Findings and conclusions are based on sufficient and relevant evidence
 - Recommendations are practical
 - Audited agency is given an opportunity to provide technical comments to ensure accuracy of facts
 - Audited agency and the Governor's Office are given an opportunity to provide formal response

Introduction (cont'd)

- Role of OPE in the ITD performance audit
 - Developed scope
 - Issued request for information (RFI)
 - Evaluated proposals and selected consultants
 - Approved audit plan
 - Served as a link between consultants and stakeholders
 - Monitored audit progress
 - Assisted with report message
 - Assisted with quality control
 - Assisted with report writing and presentation
 - Kept ITD and the Governor's Office informed

Clear Legislative Direction

- **House Concurrent Resolution (HCR) 50 of 2008**
 - Requested the Joint Legislative Oversight Committee to direct the Office of Performance Evaluation to commission an independent evaluation of ITD
 - Required the independent evaluation of ITD to be conducted by
 - Qualified consultant(s)
 - Without current contractual relationships with ITD or any consultant or contractor that works for or with ITD
 - Without any other conflict of interest with ITD
 - Specified a series of questions and issues to be addressed in the performance audit

Assembling a Team of Qualified, Independent Consulting Experts

- Published Request for Information (RFI) notice on June 20, 2008
 - ▣ OPE and industry websites
 - ▣ Evaluation and audit associations listservs
 - ▣ Direct invitation
- Received 14 responses by July 9, 2008, deadline

National Interest in Idaho Project

2 firms: California, Pennsylvania, and Washington

1 firm: Florida, Massachusetts, Minnesota, New York, Ohio, Oregon, and Virginia

1 firm: Idaho



Assembling a Team of Qualified, Independent Consulting Experts (cont'd)

- Completed interviews & reference checks on 4 finalists in late July and early August
- Announced consultant selection on August 9
- Conducted opening conferences with ITD and the Governor's Office on August 11 and 12

Consultants

- **Avant IMC, LLC Team**
(Joint venture of Gannett Fleming, Inc. and Dering Consulting Group, Inc.)
 - James M. Brock, PMP, Project Lead
 - Paul Caulfield
 - Keith Chase
 - Rodney Dawson
 - Brian Keefer
 - Dennis Lebo
 - Roberta Manshel
 - William J. Moyer, P.E.
 - Theodore H. Poister, Ph.D.
 - Joseph Sanchez, P.E.
 - Scott Zeevaart, P.E.

Consultants (cont'd)

- Bob Williams
Robert M. Williams & Associates
Clinton, WA
- Michael Huddleston
Woodinville, WA
- Bob Thomas
Robert C. Thomas & Associates
Olympia, WA

Legislative Questions

- HCR 50 focused on ITD's highway division and asked specific questions
 - Management and performance
 - Contract selection and oversight
 - Outsourcing
- See a separate handout for crosswalk of audit questions and report pages where answers to those questions could be found
- HCR 50 is included in the report as Appendix B

Audit Focus – ITD Highways

- Idaho Transportation Department responsibilities
 - Aeronautics, **Highways**, Motor Vehicles, **Transportation Planning**, Administrative Services, and Public Transportation
 - ITD support offices — Budget Policy, Intergovernmental Relations, Internal Review, and Public Affairs
 - 5,000 miles of highway / 12,000 lane miles
 - 1,761 bridges
 - 29 rest areas
 - 1,800 (1,329 highway) employees statewide
 - FY 2009 appropriation \$494 million
- Seven-member Transportation Board has oversight responsibility

Summary of Findings

- Current ITD funding is insufficient to maintain and preserve state highways
- Road construction costs are increasing faster than the general rate of inflation
- Comprehensive statewide strategy is lacking
- Business and financial planning process is missing
- Departmental programs are generally reactive, lacking a long-term infrastructure management plan
- Capital projects could be improved by establishing uniform project selection criteria and better integration of the planning process

Summary of Findings (cont'd)

- ITD management is district-centered and decentralized
- Program outcomes are measured against a select but limited set of performance measures
- ITD does not use currently available technology for management of complex maintenance needs
- ITD does not use consistent project management and consultant management best practices agency-wide
- GARVEE performance could be improved through a more flexible project finance strategy and institutionalizing generally accepted project management practices

Summary of Benefits

- Implementation of the performance audit recommendations would yield significant benefits
 - Near-term benefits are estimated at up to \$19.6 million in one-time savings and more than \$11 million in savings during the first five years of implementing the report recommendations
 - Thereafter, an estimated \$6.6 million in savings would be realized annually
 - Cost avoidance of hundreds of millions of dollars through extending asset life
- Capturing these savings could help address, but will not solve, the funding shortage currently being faced by the highway program

Overall Audit Recommendations

- Idaho should adopt explicit policies to promote maintenance, preservation, and restoration as highest priorities for transportation funding
 - Bring existing statewide infrastructure to an acceptable, manageable, and cost-effective level
 - Policy should not allow new capacity projects to siphon funding from basic highway operating, maintenance, and preservation programs
- New highway projects should be evaluated for cost-effectiveness, and project plans should include long-term maintenance costs for these new roadways

Scope

1. Management and performance
2. Contractor selection and oversight
3. Outsourcing

Approach – Performance Audit

- Identify standards of excellence
 - ▣ Determine departmental goals and expectations
 - ▣ Review peer states' current practices
 - ▣ Analyze transportation research and studies
- Assess ITD current practices and results
- Evaluate variance or gaps
- Recommend solutions and benefits

Peer States

State	Miles	Lane Miles	# Highway Employees	State Gasoline Tax/Gal.	Lane Miles per Employee
Idaho	4,959	12,083	1,329	\$0.25	9.1
Arizona	6,813	18,737	2,255	\$0.19	8.3
Colorado	9,110	22,993	3,050	\$0.22	7.5
Montana	10,780	24,461	1,947	\$0.278	12.6
Nevada	5,381	13,051	1,751	\$0.325	7.5
Oregon	7,532	18,279	2,400	\$0.25	7.6
Utah	5,848	15,237	1,650	\$0.245	9.2
Wyoming	6,753	15,594	1,550	\$0.14	10.1

1. Management and Performance

- Organization
- Financial plans
- Scheduling and budgeting
- Performance and metrics

Organization: Audit Objective

- Assess how the management and governance structure of ITD, particularly in relation to the performance of the state's highway programs, compares to transportation industry benchmarks and best practices

Organization: Findings

- ITD Division of Highways functions as a decentralized organization consistent with structures in comparable states
- The staff size ITD is legislatively limited 1,833.5 full-time positions (FTPs)
 - ▣ The highway division has remained static at 1,329 FTPs
- ITD is experiencing high professional and technical employee turnover

Organization: Recommendations

- Establish strategic and operational goals for ITD that flow from the board, through ITD central office, to the districts
- Report performance against strategic and operational goals
- Create and implement a formal management succession and leadership development process
- Continue to develop retention and recruitment strategies to reduce turnover

Financial Planning: Audit Objective

- Assess, over an appropriate timeframe, how planning and budgeting for highway maintenance, preservation, and improvement programs adequately integrated and coordinated, both among programs and with the short- and long-term financial plans

Financial Plans

- **Multiple Financial Plans including**
 - GARVEE \$997 million financing plan
 - Overall 8 year revenue and expenditure plan
 - 5 year STIP
 - ITD plan description for use of \$137 million revenue increase (part of \$240 million statewide increase)

GARVEE

- Due to market interest rates and current ITD cash management policies, ITD financial plan has a projected cost of \$22.1 million of 'negative arbitrage' — \$19.6 million of this cost is in projected future bond issuances
- Strategies for reducing this large cost include
 - ▣ Reducing cash balances subject to negative arbitrage by reducing large cash balances through timing borrowing with cash flow or more frequent issuances
 - ▣ Use of lower cost short-term construction period financing with long-term financing secured upon phases of completed construction

Note: Negative arbitrage is the cost related to cash balances awaiting payment for project costs borrowed at high long-term rates, but invested at lower short-term rates. (Rate difference X cash balance is either positive or negative arbitrage).

Financing

GARVEE Financing Plan

			Total Proceeds	Negative Carry Cost Projected	
Issued	1st	Series 2006	\$212,321,732	none	¹
Issued	2nd	2008 Series A	\$179,000,000	\$2,500,000	^{2,3}
Pending	3rd	2008 Series B	\$205,000,000	\$4,905,630	⁴
Planned	4th	Series 2009	\$299,500,000	\$10,644,081	⁴
Planned	5th	Series 2010	\$102,000,000	\$4,083,076	⁴
			\$997,821,732	\$22,132,787	⁵

¹ Reinvestment rate higher than borrowing rate; no net cost

² Original estimate was \$3,634,197 but contract renegotiated effective July 2008 to reduce cost impact

³ Corrected revised estimate as Citigroup revision estimate was as of date of issuance

⁴ Borrowing rates for issuances 3 thru 5 assumed at 4.6%, 5.0% and 5.4% respectively; reinvestment at 2.5%

⁵ Negative carry is difference between interest rate paid and interest rate earned on cash balances

Adequacy of \$137 million

Preservation and Restoration Capital Planning

(Values in \$1,000's)

2009-2013 STIP

Current Shortfall	Requirement \$157,000 85,000	Programmed		Shortfall =Requirement vs Programmed	Revenue Increase ³	Available after Operations ⁵	Balance
		Programmed	w/ escalation				
2009 Base	242,000	\$154,883	\$154,883	\$87,117			
2010	254,100 ¹	124,957	131,205 ²	\$122,895 ⁴	\$137,000	\$127,000 ⁵	\$4,105
2011	266,805	103,089	113,656	153,149	138,680	128,180	(\$24,970)
2012	280,145	124,759	144,424	135,721	146,626	135,601	(\$120)
2013	294,153	107,705	130,916	163,236	140,684	129,108	(\$34,128)
							(\$55,113)

¹ Annual amounts in 2010 and beyond are escalated at 5%, the ITD cost assumption

² Programmed amounts in STIP require a 5% annual escalator to time of programmed expenditure

³ Revenue increase is assumed to follow the same forecast of increases as ITD State revenue forecast-delay till 2010

⁴ Impact of 1 year delay in implementing P&R funding till 2010 and resulting backlog not reflected in forecast

⁵ ITD forecasts need of \$10 million in operations deficit, escalated at 5% annual in outyears

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Financial Planning: Findings

- Plans not adequately integrated
 - Financial ability to maintain current infrastructure with available resources not clearly identified before obligating existing revenues for alternative uses
 - Implications of new capacity not adequately integrated into future operating and maintenance planning and attendant costs
 - Even with the requested \$137 million revenue increase preservation and rehabilitation of existing infrastructure will fall \$55 million short through 2013

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Financial Planning: Recommendations

- Develop a complete financial plan that includes
 - A description of the selection of the proposed capital projects as compared to alternative capital project candidates, including preservation and restoration
 - A forecast of the financial implications of the completion of these projects on the overall ITD financial plan and the ability of ITD to adequately operate, maintain, preserve, and restore transportation infrastructure
- For each major capital project financing phase
 - Develop a formal written evaluation of alternative financing structures to be considered and shared with key decision-makers through the Idaho Credit Enhancement Committee

Scheduling and Budgeting: Audit Objectives

- Assess the integration and coordination of planning and budgeting for highway maintenance, preservation, and improvement among the programs and with the short- and long-term financial plans
- Assess the formulas used for scheduling and budgeting highway preservation and maintenance work

Scheduling and Budgeting: Findings

- Lack of comprehensive statewide strategy for capital improvements and operations
- ITD lacks the necessary systems and tools to run a cost-effective program
- ITD's "Worst-First" strategy is inefficient
- Local road funding lacks basic oversight

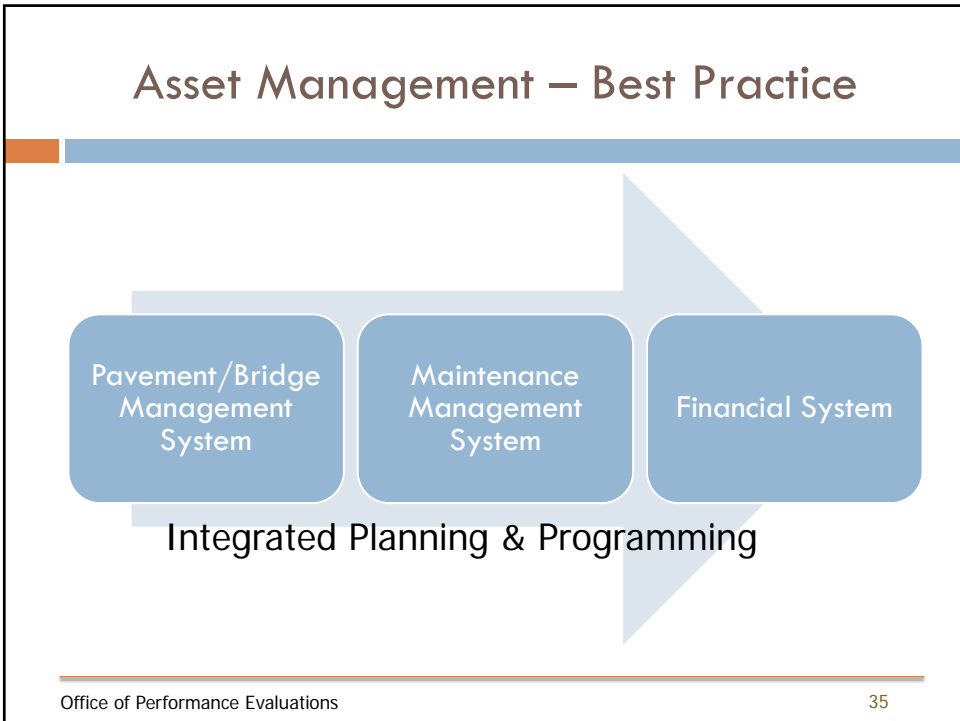
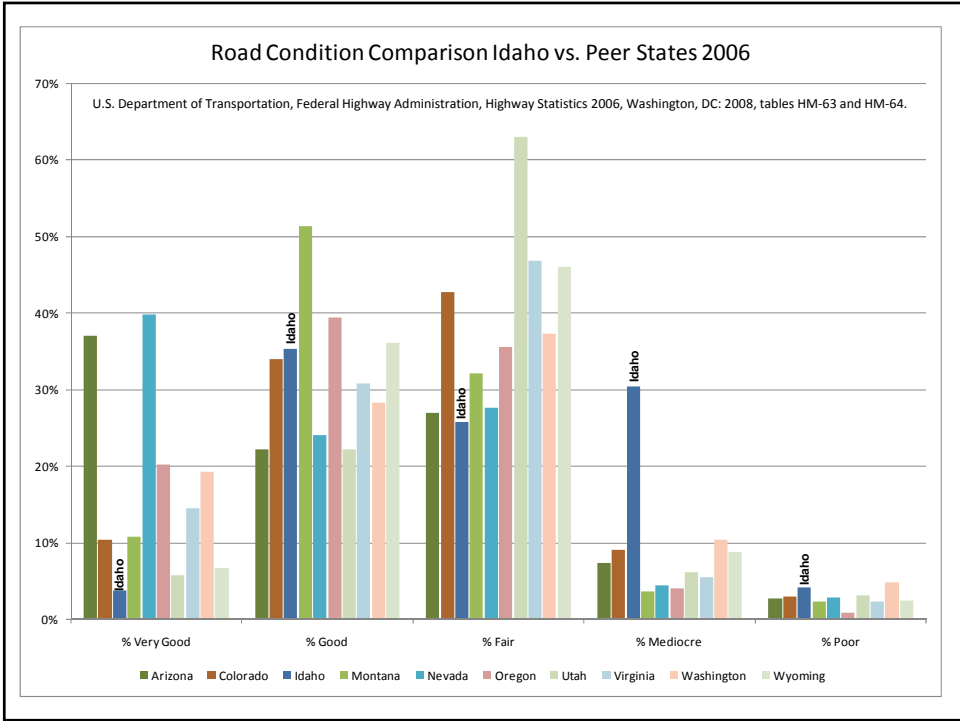
Preservation-First

"Worst-First" Focus

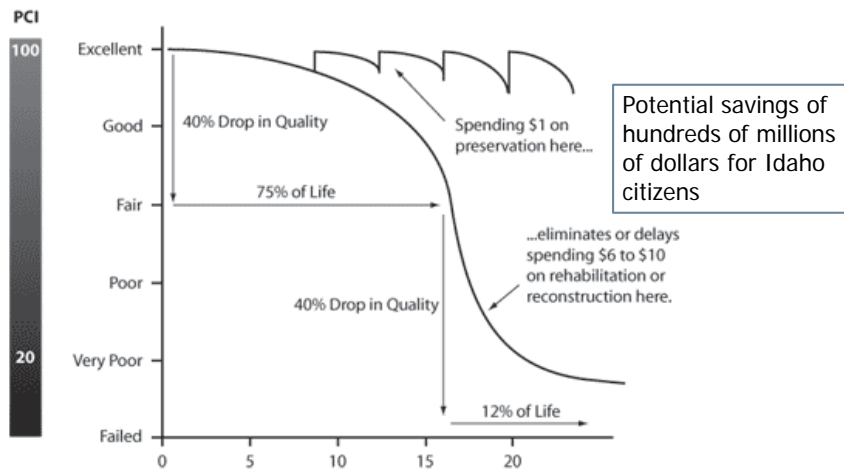
- Primary focus on "poor" conditions
- Address pavements and bridges that have deteriorated the most
- Require immediate short-term costly rehabilitation or reconstruction
- Reactive day-to-day decision-making
- Disconnected or stand-alone systems

"Preservation-First" Strategy

- Focus on good, fair, and mediocre conditions to keep pavements and bridges in good condition longer
- Use an optimization approach that looks at both current and forecasted conditions
- Use investment and cost strategies that maximize condition and minimize costs over entire system
- Realistic performance targets
- Organized data and integrated Maintenance Management, Pavement Management, and Financial Management systems



Pavement Deterioration



<http://www.fhwa.dot.gov/pavement/preservation/ppc0621.cfm>

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Impact of Preservation-First

- Preventive maintenance applies the right **treatment** to the right **pavement** at the right **time**
- Idaho will get longer use of a pavement at a higher quality for less cost by maintaining the roadway at a higher level earlier in the lifecycle
- Avoid future highway reconstruction costs potentially in the hundreds of millions of dollars

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Scheduling & Budgeting: Recommendations

- Adopt an asset management approach to manage Idaho's transportation system
- Acquire and implement management systems to better manage their assets
 - ▣ Maintenance and Pavement Management
 - ▣ Idaho Legislature should appropriate \$6 million
- Improve the planning and budgeting process for better priority setting and cost estimating
- Idaho Legislature should revise Idaho Code to allow for improved oversight of local road funding

Performance and Metrics: Audit Objective

- Assess the program evaluation methodology used and the extent to which evaluations of past programs improve the success of future maintenance and preservation programs

Performance and Metrics Best Practices

- **Accountability** for expenditures and results
- Centralized performance direction
- Taxpayer access — communication tool



Performance Metrics: Findings

- ITD measures not clearly aligned with stated mission
- Limited usefulness in assessing performance
- Some measures inaccurate or poorly specified
- Not performance driven culture
- Opportunity to improve transparency

Performance and Metrics: Recommendations

- Translate long-term strategy into immediate and uniform, consistent operational goals
- Hold programs and districts accountable
- Report in simple terms
- Highlight what is working efficiently and opportunities to improve

2. Contractor Selection and Oversight: Audit Objectives

- **Comparison to best practices**
Assess the extent to which ITD's contracting process and supervision of consultant contracts compare to transportation industry best practices
- **Project risk sharing**
Assess the procedures and procurement strategies used by ITD to share the risk of project performance with private contractors

2. Contractor Selection and Oversight: Findings

- ITD consultant selection and oversight procedures and practices are generally consistent with industry standards and provide for adequate competition
- ITD does not have sufficient oversight tools or training to effectively oversee large, complex projects
- Because of limitations in state law, ITD does not use Design-Build and other alternative procurement strategies to Design-Bid-Build

2. Contractor Selection and Oversight: Recommendations

- Create a division-wide project management office (PMO) under the Highway Division
- Develop a standardized district-wide consultant supervision process by using standard project schedule templates and cost management tools
- Pursue legislation that would provide ITD with the authority to use design-build

3. Outsourcing: Audit Objectives

- In-House v. outsourcing

Assess whether professional service work currently outsourced would be better performed in-house and vice versa; the adequacy of staff to perform work that is outsourced; potential cost-savings and increased quality improvement

- Preservation and maintenance

Assess the array of state highway preservation and maintenance activities, how they are provided, and the experience of other states in contracting comparable services

3. Outsourcing: Findings

- Districts are following a policy where design engineering work is done in-house when the capability and capacity to perform exists
- The data to compare the costs and quality of similar work performed in-house versus outsourced is lacking and difficult to assemble
- The technical staff turnover rate affects staff capacity and productivity
- ITD outsources preservation work, seal coats, and overlays by low bid only

3. Outsourcing: Recommendations

- Systematically capture data and calculate a department overhead rate for cost-benefit comparison in outsourcing decisions
- Develop outsourcing criteria and guidelines to use with appropriate systems to determine optimal outsourcing strategy
- Continue to use internal resources for higher-level consulting services when fully staffed, and capacity and availability exists

Closing Comments: Major Finding

- The current situation facing Idaho's highway system is untenable.
 - The state is falling further and further behind in its ability to maintain and preserve its highway and bridge infrastructure

Closing Comments: Focus of Recommendations

- First stabilize and then reverse the current trend by:
 - ▣ Funding and following a “preservation first” strategy
 - ▣ Providing the incentives and tools for the department to transform itself