

Finding	Rec.	Updated Project Management and Maintenance Audit Response	Lead	Done	Projected date of completion with current budget	Budget Impact	Needs Legislation
1	1	This action is ongoing: The Materials Management Team set a 2008 performance objective of 25 training sessions for 250 system users. In 2007, the team conducted 28 sessions for 203 users.	Bill Ford		Ongoing		
1	1	This action is ongoing: WSDOT discussed its inventory systems and requirements with OFM, and participates in Roadmap meetings and activities in support of a statewide enterprise systems that will fulfill WSDOT business needs.	Bill Ford		Ongoing		
1	1	An evaluation of the fleet management system for possible short term consumable inventory use is due to be completed by June 2008.	Bill Ford		June 2008		
1	1	An evaluation of financing for a consumable inventory system is due to be completed by June 2008.	Bill Ford		June 2008		
2	2	This action is ongoing. Current status is as follows: Certifications complete: 16 (8 in HQ; 8 in regions); Applications approved for testing: 4 (2 in HQ; 2 in regions); Applications in preparation: 5 (1 in HQ; 4 in regions); Expected new certifications in 2008: 9	Bill Ford		Ongoing		
2	2	Completed. All regions were surveyed, and the results have been compared to inventory data indicating which practices achieve the best results.	Bill Ford	Done			
2	2	This action is ongoing: The Materials Management Team set a 2008 performance objective of 25 training sessions for 250 system users.	Bill Ford		Ongoing		
2	2	Complete. Certification and training is being managed by the Purchasing and Materials Manager. All class attendance is logged into the department's Automated Training Management System.	Bill Ford	Done			
3	3	WSDOT is implementing the action steps associated with recommendations 1 and 2, as committed in the formal response to the audit report.	Bill Ford	Done	June 2008		
3	3	WSDOT completed its implementation plan for appropriate orders, receipts, and issues of inventory to be entered into the consumable inventory system, March 2008.	Bill Ford	Done	September 2008		
3	3	Adding used inventory in serviceable condition to the inventory system is due to be completed by FY09.	Bill Ford		June 30, 2009		
4	4	This action is an ongoing activity. WSDOT has worked with GA to review equipment requirements, engaged in training with GA staff on interagency agreement performance expectations, jointly met with contract suppliers, and reviewed critical contracts.	Bill Ford		Ongoing		
4	4	WSDOT and GA established performance measures that are now reviewed with GA staff during quarterly meetings.	Bill Ford		Ongoing		
5	5	An evaluation of additional oversight measures that can be implemented at the department-level is due to be completed by April 30, 2008.	Bill Ford		April 30, 2008		
5	5	WSDOT has budgeted for department-paid memberships in two professional organizations that provide supply management staff with access to continuing education and certification at reduced rates. In 2008, we anticipate nine additional purchasing and supply professional certifications to be earned. This action is ongoing.	Bill Ford		Ongoing		

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5	5	This action is an ongoing activity: WSDOT is comparing its purchasing manual with GA's on commodity procurements. The manual will be updated based on the outcome of this review.	Bill Ford		Ongoing		
5	5	The cost of materials purchased under "Q" contract authority will be included in the 2009-11 budget request.	Bill Ford		With 2009-11 Budget Request		
6	6	This action is an ongoing activity: As of November 2007, no pay adjustments were made on asphalt contracts that included the cost adjustment provision. The next annual update is due in November 2008.	Jerry Lenzi		Ongoing		
7	7	This action is an ongoing activity: WSDOT discussed RAP at the State Pavement Technology Consortium March meeting. The group talked about the use of RAP with Warm Mix Asphalt (not much experience but potential trials in the future) and about performance issues (cracking) with higher percentages of RAP (seen in Minnesota). We continue to have discussions and to study the performance issues.	Jerry Lenzi		Ongoing		
8	8	This is action is ongoing: State Materials Engineer continues to participate in a national Technical Working Group and has been asked to join the steering committee for an international WMA conference. There is a possible WMA test project in 2008 in North Central Region. WSDOT is reviewing possible test projects west of the Cascades for 2008 or 2009.	Jerry Lenzi		Ongoing	Yes	
9	9	This action is an ongoing activity: WSDOT has seen a general increase in competition in the last year. In rural areas with less competition, WSDOT attempts to establish material sources to attract competition. Bid prices are reviewed routinely as bids are opened to check for irregularities.	Jerry Lenzi		Ongoing		
10	10	The Safety Rest Area strategic plan is due to be completed in early summer 2008. The anticipated due date of March 2008 was not met due to extended SRA Advisory Team efforts to obtain additional information and evaluate potential future SRA locations, ten year rest area funding needs, and program organizational structure	Jerry Lenzi		Early Summer 2008 (original date: March)		
10	10	We have been using water data now since 2005 to calculate visitors and plan on using this information to justify the need for funding and other suggestions from the audit on why funding is need for the program.	Jerry Lenzi		Annually		
11	11	The Safety Rest Area strategic plan is due to be completed in early summer 2008. The anticipated due date of March 2008 was not met due to extended SRA Advisory Team efforts to obtain additional information and evaluate potential future SRA locations, ten year rest area funding needs, and program organizational structure	Jerry Lenzi		Early Summer 2008 (original date: March)		
11	11	SRA Operations has developed a clear understanding of the three contracts' language and requirements, and all vendor contracts (three) are now handled by one office, which will provide ongoing assistance and oversight of state rest area contracts	Jerry Lenzi		Ongoing		
12	12	The Computer Maintenance Management Systems is due to be implemented by December 2009.	Jerry Lenzi		December 2009	Possible	
12	12	The preservation funding request is due to be completed by September 2008.	Jerry Lenzi		Ongoing	Possible	

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13	13	An evaluation of career paths and training opportunities within the maintenance field is due to be completed by August 31, 2009.	Jerry Lenzi, Bill Ford		Begin by July 1, 2008 and conclude by August 31, 2009 December 2008 (original date: 6/19/08) 2009-11 Budget Request December 2008 (original date: 6/19/08) 2009-11 Budget Request June 30, 2008 June 2008 (original date: March) 2009-11 Budget Request Fall 2008 Ongoing May 2008 (original date: January 2008) July 2008 (original date: February 2008) Ongoing as part of SPMG effort	Possible	
14	14	Strategies to identify essential maintenance backlogs are due to be completed by December 2008.	Jerry Lenzi			Yes	
14	14	An estimate operations and maintenance costs needed to support the highway expansion underway as a result of the 2003 and 2005 funding packages is due to be completed as part of the preparation for the 2009-11 budget development process.	Jerry Lenzi			Yes	
15	15	A strategy to measure a maintenance backlog is being developed as part of the preparation for the 2009-11 budget development process.	Jerry Lenzi			Yes	
15	15	Documenting the consequences of not funding maintenance activities is being worked on as part of the preparation for the 2009-11 budget development process.	Jerry Lenzi			Yes	
16	16	Budget impacts of unfunded mandates are due to be estimated by June 30, 2008.	Jerry Lenzi				
17	17	Alternative uses of safety rest areas will be developed as part of the SRA Strategic Plan, which will be completed by June 2008.	Jerry Lenzi			Yes	
18	18	This is an ongoing activity: SRA Operations meets annually with WSP personnel and local law enforcement as appropriate to identify and curtail inappropriate and illegal behaviors.	Jerry Lenzi				
19	19	Annual MAP surveys will begin in June 2008. The effectiveness of this change (from bi-annual surveys) will be evaluated in the fall of 2008.	Jerry Lenzi				
20	20	A narrative summary is included in the <i>Gray Notebook</i> for 2007 MAP reporting. Narrative summaries have also been included in reporting 2007 MAP results during the 2008 legislative session.	Jerry Lenzi				
21	21	Policy statements and procedures to coordinate consistent and timely PMRS application are due to be implemented between May and July 2008.	Jerry Lenzi				
21	21	Executive Order 1032.00 for project management is now scheduled to be enacted in July 2008, not January as originally anticipated. The implementation will be timed to coincide with the deployment of new software in July 2008.	Jerry Lenzi				
21	21	This is an ongoing activity as part of SPMG. Key milestones include: implementation of the Enterprise Content Management System by Summer of 2008, Primavera Project Manager by Spring of 2009, Primavera Contract Manager by Fall of 2009, with the integration completed by Spring of 2010. Business Managers will be integrated into WSDOT project offices as needed to support delivery of the program.	Jerry Lenzi				

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21	21	This is an ongoing activity: CEVP® is a very active part of our project development program, and is refined during the life of a project. It usually is updated on an annual basis or as major milestones or decisions are achieved on a project.	Jerry Lenzi		Ongoing		
21	21	The latest round of Region Design and Construction Conferences (February 2008) all included a session regarding SPMG and PMRS expectations and timelines for implementation. In addition, this will be a component of the Statewide PE meeting.	Jerry Lenzi		Ongoing		
22	22	Addressing recommendation 21 as described above. Additional action is ongoing regarding a lessons learned folio that was developed and presented at the Region and Statewide Design and Construction Conferences. Currently, each Region has a different method of capturing lessons learned. WSDOT is developing a plan to support a more systematic approach to this process.	Jerry Lenzi		See Dates Above for Recommendation 21; Beginning February 2008 & Ongoing		
22	22	Progress of the lessons learned effort and the schedule for developing improvements on the website is due to be completed by February 2009.	Jerry Lenzi		February 2009		
23	23	This is an ongoing activity: WSDOT continues to use performance contracting and best value selection as appropriate	Jerry Lenzi		Ongoing		
24	24	The special provisions for primavera 3 schedule requirements have already been developed with Industry input through our AGC Admin team. Admin meetings are generally held on a monthly basis and ongoing and adjustment to specifications will be made as appropriate and as the PMRS tools are deployed. We will make sure we align new primavera 6 specifications with the Deployment, so that available tools are in place.	Jerry Lenzi		Ongoing as part of SPMG effort		
25	25	A cross functional team to evaluate existing informal processes and procedures that support trend analysis has been formed and is scheduled to meet in May to collect regional input and decide on a course of action.	Jerry Lenzi		July 2008		
26	26	See 27.2; we support our existing bid award process, but will continue to work with Regions and industry for improvements as PMRS tools and training are deployed.	Jerry Lenzi		Ongoing as part of SPMG effort		
26	26	This action is due to be completed as part of the preparation for the 2009-11 budget development process.	Jerry Lenzi		2009-11 Budget Request		
27	27	Initial investigation of electronic bidding opportunities was completed December 2007.	Jerry Lenzi	Done			
27	27	An electronic bidding implementation plan is due to be completed by December 2008.	Jerry Lenzi		December 2008 (original date: August 2008)		
28	28	Addressing recommendation 21 as described above.	Jerry Lenzi		See Dates Above for Recommendation 21		

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28	28	This was completed in the 2008 session. WSDOT is required, via proviso, to report PMRS scope, schedule and budget to the Legislature and to OFM on a quarterly basis. WSDOT has used our DIS/ISB reports for this purpose to avoid extra effort and inconsistencies in our external reporting. We also provided an update to the SPMG Strategic Plan in the Fall of 2007.	Jerry Lenzi	Done				
29	29	Addressing recommendation 21 as described above.	Jerry Lenzi	Done	See Dates Above for Recommendation 21 Ongoing, review at end of 2008 construction season (November)			
30	30	Integrating business managers to WSDOT project offices and providing cost tracking and estimating software is due to be completed in November 2008.	Jerry Lenzi					
30	30	Based on results of projects reviewed, WSDOT will take actions as appropriate to improve cost estimation	Jerry Lenzi			Ongoing		
31	31	Integrating business managers to WSDOT project offices and providing cost tracking and estimating software is due to be completed in November 2008.	Jerry Lenzi			Ongoing, review at end of 2008 construction season (November)		
32	32	The new system for categorizing change orders has been deployed. Modifications to the construction manual providing guidance is being distributed and training to deploy the new expectations has occurred. The system was deployed May 1st 2008 and not February 2008 as planned originally due to unanticipated software complications. We will monitor and improve the system as the users provide feedback.	Jerry Lenzi			May 2008 (original date: February 2008); Follow up review in November 2008 (end of next construction season)		
33	33	This is an ongoing action: training has been developed and has provided in two regions to 101 people. We will continue to address and deploy on an ongoing basis.	Jerry Lenzi			Ongoing		
34	34	This is an ongoing action: WSDOT continues to track and evaluate performance measures as reported in the <i>Gray Notebook</i> and GMAP.	Jerry Lenzi			Ongoing		

Highway Project Management and Maintenance Audit

Highway Project Management and Maintenance Audit Recommendations

Recommendation #1: We recommend WSDOT:

- pursue the development of an integrated purchasing-inventory management system linked to the Department's accounting system.
- consider the use of M4 as a short-term solution.

Recommendation #2: We recommend WSDOT assure inventory is managed only by appropriately trained personnel.

Recommendation #3: We recommend WSDOT:

- adopt the inventory level recommendations from the Cisco Systems report.
- direct all field operations to maintain accurate information in the consumable inventory system.
- redistribute high-value and/or critical-need materials among regions.

Recommendation #4: We recommend WSDOT work directly with GA to:

- obtain detailed information identifying timeliness of service.
- establish reasonable benchmarks.
- monitor service levels.

Recommendation #5: We recommend WSDOT:

- increase department-level oversight of regional "Q" contract practices to promote more efficient bidding and contract administration.
- continue and expand its training and certification program for procurement and inventory management personnel.
- revise the WSDOT Purchasing Manual to provide specific guidance price adjustments during the term of a contract and at the time of contract renewal.

Recommendation #6: We recommend WSDOT pursue the use of price adjustment clauses for HMA to include all future HMA-related contracts.

Recommendation #7: We recommend WSDOT:

- encourage local governments to allow the use of RAP consistent with WSDOT practices.
- explore increasing allowable RAP levels in non-critical mixes.

Recommendation #8: We recommend WSDOT continue to monitor WMA research and current U.S. evaluations

Recommendation #9: We recommend WSDOT and other public entities monitor HMA competition and service levels.

Recommendation #10: We recommend WSDOT:

- undertake a comprehensive strategic and operational review of the SRA Program.
- maintain historical records and develop a trending log to assist in determining budgetary requirements.

Recommendation #11: We recommend WSDOT:

- conduct a comprehensive organizational review of its SRA Program.
- establish milestones and key performance indicators.

Recommendation #12: We recommend WSDOT:

- pursue statutory changes to allow SRA revenues to be dedicated to SRA maintenance activities.
- prioritize preservation of the SRA System and fund appropriately.

Recommendation #13: We recommend WSDOT:

- determine the types of skills by timeframe that the M&O program will need to replace as experienced personnel retire.
- determine what types of work schedules - project, part-time, job-sharing, job rotation - could be offered in order to retain persons eligible to retire or

Recommendation #14: We recommend WSDOT:

- determine from the respective maintenance management systems the current backlogs of essential maintenance and repair.
- prepare a comprehensive listing of the backlogs of essential maintenance and repair and assess the risk that the backlogs may pose, if any.
- include the backlogs of essential maintenance and repair as one element of the M&O budget justification.

Recommendation #15: We recommend WSDOT:

- prioritize the development of a centralized maintenance management system.
- annually calculate an estimate of the current replacement cost of the infrastructure.
- establish an M&O minimum.
- include each measurement in its performance measures program.

Recommendation #16: We recommend WSDOT:

- research, document, and maintain summary information concerning past and future unfunded mandates.
- record budget ramifications.

Recommendation #17: We recommend WSDOT:

- consider creating direct communication links between the Traffic Management Centers and the state's Emergency Operation Centers.
- identify SRA deficiencies in acreage, motor vehicle parking capacity, water supply and distribution, emergency power, and the means for disposing of sewage during the surge conditions of a major emergency.
- seek federal funding to support safety rest area disaster preparedness upgrades and the construction of additional sites for the most likely risk

Recommendation #18: We recommend WSDOT consider adding cameras and monitoring equipment to the broadband capabilities of current and future

Recommendation #19: We recommend WSDOT determine if information needs will permit the reduction of the size of the required random samples for the Maintenance Accountability Process

Recommendation #20: We recommend WSDOT increase the detail of MAP organizational review level achievements to provide additional indication of

Recommendation #21: We recommend WSDOT:

- ensure SPMG recommendations are followed and published management practices are implemented.
- follow up with activities to assure expected outcomes are realized.

Recommendation #22: We recommend WSDOT:

- ensure all aspects of the Project Management On-Line Guide are applied consistently to each project.
- require consistent entry of "lessons learned" into the agency's centralized database.

Recommendation #23: We recommend WSDOT pursue legislative authority to use a performance contracting strategy for applicable projects. We recommend the Washington State Legislature modify current contracting requirements to allow performance based contracting as appropriate.

Recommendation #24: We recommend WSDOT:

- identify required scheduling software.
- stipulate in its standard specifications, the required scheduling software program to be used by contractors.

Recommendation #25: We recommend WSDOT continuously review cost changes and manage as appropriate.

Recommendation #26: We recommend WSDOT incorporate actual costs and quantities into EBASE to develop cost benchmarks and cost metrics that can be used for estimating future projects and determining cost overrun trends.

Recommendation #27: We recommend WSDOT continue investigating electronic bidding systems to streamline the process, increase competition among vendors and reduce paper use.

Recommendation #28: We recommend WSDOT:

standardize cost reporting practices for all project phases.

utilize cost engineers or business managers who are responsible for projects on a collective or regional basis.

Recommendation #29: We recommend WSDOT standardize Change Order Logs and integrate each into Project Cost Reports.

Recommendation #30: We recommend WSDOT use, where appropriate, rate adjustments based upon a pro-rata of the bid contract unit rates to assure the optimization of the value of changes

Recommendation #31: We recommend WSDOT hire, where appropriate, cost engineers or quantity surveyors to aggressively manage all change costs during construction, and maximize the cost-benefit of deployment through integrating activities such as cost report management and budget estimating.

Recommendation #32: We recommend WSDOT use change source categories to provide a basis for understanding changes on all projects.

Recommendation #33: We recommend WSDOT require greater price transparency from contractors for proposed change costs.

Recommendation #34: We recommend WSDOT continue to develop and maintain project performance indicators that can be monitored at state and

Highway Project Management and Maintenance Audit Findings

Finding#1: WSDOT's Consumable Inventory Management System does not Support the use of Automated Business Processes Relying on Non-Automated, Burdensome Business Processes to Perform Routine Tasks

Finding#2: Current Practices in Some WSDOT Regions have Prevented the Processing of Inventory and Accounting Transactions to Leverage its Inventory Management System

Finding#3: WSDOT Inventory Records are Not Consistently Adjusted Creating Inaccuracies in the Consumable Inventory System and Impeding Efforts to More Effectively Manage Inventory

Finding#4: WSDOT Procurement Through the Department of General Administration Exceed Federal Procurement Benchmarks and Limit Purchasing Options

Finding#5: WSDOT Regional Purchasing Practices for Quantity "Q" Contracts May be Inconsistent Reducing Public Visibility, Requiring Additional Work for Bidders, Restricting Price Adjustment Provisions, and Inappropriately Using Liquidated Damage Clauses

Finding#6: WSDOT Does Not Use Price Adjustment Clauses for All HMA Resulting in Increased Vendor Risk

Finding#7: WSDOT Can Educate and Encourage the Use of Reclaimed Asphalt Pavement Potentially Resulting in Cost Saving Opportunities

Finding#8: Potential Opportunities Exist to Use WMA Technology to Reduce the Cost of Installed Asphalt

Finding#9: Although WSDOT Does Not Own HMA Plants WSDOT, Direct Ownership May be Appropriate Given Specific Conditions

Finding#10: WSDOT Has Not Strategically Considered SRA Use and Operations nor Maintained Historical Records Regarding the Number of Travelers

Finding#11: Unclear WSDOT SRA Roles and Responsibilities and No Single Program Level Leader With Full Accountability Have Resulted in Non-Collection of Contract Amounts, Capacity Issues, and Limited Planning.

Finding#12: Revenues: Essential WSDOT Maintenance and Repair of SRAs is not Consistently Prioritized or Adequately Funded Resulting in a

Finding#13: WSDOT is Facing an Engineer and Project Manger Labor Shortage Potentially Resulting in Increased costs and the Loss of Institutional

Finding#14: WSDOT Does Not Compile Essential Facility Maintenance and Repair for all Activities Limiting the Ability to Estimate the Degree of Risk Concerning the Condition of the Infrastructure.

Finding#15: WSDOT Maintenance and Operations Program Does Not Provide a Measure of the Effectiveness of Efforts Towards Determining Significant

Finding#16: WSDOT Does Not Maintain Summary Information Concerning Past and Future Unfunded Mandates Reducing the Ability to Determine

Finding#17: WSDOT is Favorably Organized to Respond Regionally or Statewide to Emergencies or Disasters

Finding#18: WSDOT Can Improve SRA Safety to Help Deter Illegal Activities

Finding#19: WSDOT Sampling Plans Can Potentially be Reduced to Help Decrease Costs

Finding#20: WSDOT MAP Organizational Review Level Achievements Do Not Provide Detailed Indication of Accomplishments
Finding#21: WSDOT Implementation of SPMG Recommendations Will Eliminate Many Management and Reporting Inconsistencies
Finding#22: Many Sampled Projects Contained Planning Inconsistencies and Deficiencies Resulting in Project Inconsistencies
Finding#23: WSDOT's Current Procurement Strategies Limit Best Value, Increase Project Risk and Soft Costs, and Result in Longer Delays
Finding#24: WSDOT Has Minimal Consistency in Procedures and Schedules Limiting the Ability to Effectively Manage Projects
Finding#25: WSDOT Has Had Difficulty in Identifying Trends in High-Risk Quantity Growth Items Resulting in Unnecessary Costs.
Finding#26: WSDOT's Bid Evaluation and Award Approach Does Not Incorporate Actual Costs and Quantities Potentially Increasing Costs
Finding#27: WSDOT's Does Not Participate in an Electronic Bid Evaluation and Award Forum Potentially Limiting Perspective Vendors
Finding#28: Sampled WSDOT Projects Found No Consistency of Total Project Cost Forecasting Decreasing the Ability to Determine the Volume of Change Orders and Other Categories of Cost Growth
Finding#29: WSDOT Change Order Logs Varied Extensively in Format and Level of Detail Increasing Potential Project Claims
Finding#30: WSDOT Does Not Use Rate Adjustments Based Upon a Pro-Rata of Bid Contract Unit Rates Resulting in Increased Costs
Finding#31: WSDOT Does Not Aggressively Manage Change Orders Resulting in Increased Project Costs
Finding#32: WSDOT's Categorization of Change Costs Limits the Ability to Effectively Track and Manage
Finding#33: WSDOT's Independent Engineer's Estimates Do Not Optimize Value of Change Orders Limiting the Ability to Determine Fairness and
Finding#34: WSDOT's Current Performance Measures Could be Enhanced to Provided Additional Indicators of Performance