

2009 Performance Audit of Transit: Status and Implementation Update

Background: The past three years have been characterized by difficult economic conditions, both on the local and national scale. As a result, financial issues, which in large part have been caused by a steep decline in sales tax receipts, have been at the forefront of concern for King County Metro Transit (Metro). In the fall of 2008, the King County Council called for a performance audit of Metro. Councilmembers were interested in finding efficiencies and savings within Metro that could help address difficulties in balancing Metro's budget. The general conclusion of the audit is that some ways in which Metro pursues its mission have contributed to higher costs – a situation that has been exacerbated by the difficult economic environment. Furthermore, the audit found that Metro could achieve cost savings and generate revenues through enhanced planning and more systematic data analysis. The audit identified \$37 million in opportunities for annual savings and up to \$54 million in options for increased annual revenue largely through various types of fare increases. In addition, the audit identified \$105 million in one-time savings by reducing the funds held for revenue fleet replacement. Of the 34 audit recommendations, Metro concurred with 31, partially concurred with one and did not concur with two.

Metro Actions: The 2009 Performance Audit of Transit was published on September 15, 2009. In response to the audit, Metro submitted an action plan to address all of the recommendations by 2012, with the mutual understanding that some actions would result in revised business processes that would require additional monitoring and evaluation. From the start of the audit, Metro actively collaborated with the auditors and consultants to implement changes and improvements, and since the audit was published, routine status reports have been submitted to the auditor. Even for the recommendations with which Metro did not concur, Metro has provided action plans and deliverables. Consistent with our commitments, substantial progress has already been made.

- **Improved Scheduling Techniques:** Metro has aggressively worked with consultants to train staff and upgrade its use of scheduling software. Through making these changes, Metro has identified 125,000 hours of scheduling efficiencies that will be implemented in 2010-2011. These actions are expected to yield \$12.5 million in annual savings, reducing the need for other reductions in bus service.
- **Changes to Operator Staffing Practices:** Metro is currently conducting analyses and evaluating the pros and cons of adjusting Operator staffing practices. One major staffing management effort has been to more closely track the way in which Metro has historically staffed daily operator assignments. Metro will continue to make adjustments to optimize staffing levels and operator efficiency, as possible within the parameters of the Amalgamated Transit Union (ATU) collective bargaining agreement.
- **Efficiencies in the Paratransit Program:** Paratransit (ACCESS) has developed a productivity strategic plan and is evaluating how to implement the 18 identified strategies to improve productivity over the next three years. Additionally,

Paratransit was able to expand its Community Access Transportation program by 25% resulting in over \$2.7 million in savings.

- Improvements in Vehicle Maintenance: Metro has established a pilot program at North base for extending the preventative maintenance interval and will evaluate the impacts on overhead costs. Metro estimates that it will take one year of data collection to evaluate the relationship between cost savings and the impact on fleet state of good repair. Additionally, Metro is working to expand, implement and monitor system-wide productivity standards for vehicle maintenance.
- Emphasis on Planning and Policies: Metro is currently working to update its Strategic and Comprehensive Plans, with input from the Regional Transit Task Force. As part of these updates, Metro will incorporate many of the suggested changes to planning and policies that the audit recommends, such as a Guidelines Document, a Facility Master Plan, new financial policies and fare policy recommendations.
- Evaluation of Current Policies and Plans: Metro is currently conducting several studies to evaluate current plans and policies. The Trolley Bus System Evaluation and evaluations of the Ride Free Area are currently underway, with results expected in the Spring of 2011. Metro is also updating its financial and economic replacement models to better guide fiscal planning in the next budget cycle. Metro has already planned to use \$100 million in fleet reserves to sustain service through 2013, while re-examining the fleet replacement fund financial policy.

The attached table provides a brief status report for all Metro responses to the audit recommendations as of the 3rd Quarter, 2010. As work is completed on the various audit responses, promising elements will be incorporated into Metro's 2012-2013 proposed budget.

Audit Recommendations	Actions	Completed/Expected	Audit Identified Savings	Actual Savings/ Funds Used
A1: Create an updated version of the financial model that has complete documentation and explicitly identified assumptions.	Conducted review of current financial model; identified additional requirements for the new financial model; hired consultant to help develop the new model.	For use with 2012-2013 budget process	n/a	No
A2: Propose updated financial policies, particularly those related to sales tax distribution and cost growth.	Reviewed financial policies of other transit organizations and non-transit policies internal to King County; developing new policies with consideration of Regional Transit Task Force (RTTF) recommendations.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	n/a	No
A3: Revise assumptions to improve the accuracy of projections for capital expenditures and capital grant revenue.	Analyzing capital grant revenue assumptions and variances between planned to actual capital grant revenues; will analyze capital expenditures and revise the assumptions used in the model.	For use with 2012-2013 budget process	Unspecified	TBD
A4: Develop a plan for reducing the Revenue Fleet Replacement Fund balance.	Programmed \$100 million of the Revenue Fleet Replacement Fund to maintain transit service from 2009-2013.	Will be part of the 2012-2013 budget process	\$105 million in one time savings	\$100 million
A5: Address technical issues with the economic analysis model.	Corrected technical issues with this model; auditor's office confirmed that the issues were addressed.	Completed 1st Q2010	n/a	No
A6: Create economic replacement analysis models to inform vehicle replacement decisions.	Collaborating with Portland State University to generate new generation of fleet replacement models. These models will use Metro data in a case study that will inform vehicle replacement decisions.	For use with 2012-2013 budget process	Unspecified	TBD
A7: Complete a review of the Fleet Administration's replacement criteria for non-revenue vehicles. Compare to Metro's non-revenue vehicle fleet replacement criteria.	Reviewed operations and maintenance data for non-revenue vehicles; found that replacement goals for pickup trucks should be seven years instead of eight; will use the new replacement goal going forward.	Completed 3Q 2010	Unspecified	TBD
A8: Complete a comprehensive Asset Management Guidebook that includes all Asset Management efforts currently underway at Metro.	Currently comply with both state and federal requirements for asset maintenance; creation of a stand alone guidebook has limited value to Metro and is likely to be redundant with state and federal reporting.	Completed 2Q 2010	n/a	No
<p>Metro did not concur with this finding.</p>				
A9: Implement a facilities condition index to track and monitor facility condition relative to established systemwide targets.	Collaborating with the FTA on the State of Good Repairs project – through this project, transit agencies across the nation will develop a standardized rating system that is condition based in order to establish the criteria for rating and determining an acceptable level of asset condition. Metro does not see the need to implement a separate facilities condition index and systemwide targets.	Work on this project is dependent on the progress of the FTA	Unspecified	TBD
<p>Metro did not concur with this finding.</p>				
A10: Incorporate all elements of facility master planning in the update to the Comprehensive Plan.	Developing a Facility Master Plan, completed proposed outline, collaborating with various internal groups, developing an inventory of transit facilities.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	n/a	No
A11: Determine an appropriate fleet replacement for the trolley buses.	Conducting trolley bus system evaluation; completed scope, schedule and work plan; developing technical analysis.	Draft report expected in March 2011; final recommendation for use with 2012-2013 budget process	\$8.7 million annually	TBD
A12a: Develop and propose fare policy goals to be used as the basis for making fare policy decisions.	Presented on fare goals, trade-offs, structure implications, and adopted fare policies to the Regional Transit Committee; will determine fare policy goals in conjunction with plan updates.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	n/a	No

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A12b: Define and monitor target farebox recovery ratio.	Developing new policies with consideration of RTTF recommendations; will consider how to redefine and monitor the farebox recovery ratio.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	n/a	No
A12c: Consider further utilizing fare policy changes to generate additional revenues. A12d: Set senior, disabled, youth discounted fares in line with other peer transit agencies.	Developing new policies with consideration of RTTF recommendations; will consider when and how to generate additional revenues from fares and when and how to change senior, disabled, youth fares.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	Up to \$51 million annually	TBD
A13: Update and fully document the formula used to assess the City of Seattle's payment for the Downtown Seattle Ride Free Area (RFA) to reflect current ridership and operating conditions.	Developed two preliminary reports to consider potential impacts of eliminating the RFA. Found that Metro could potentially gain \$2.1-2.2 million per year, but would face increased operational challenges. Additional study is needed to fully assess the impacts of eliminating the RFA.	Completed preliminary analysis 3Q 2010, final evaluation expected Spring, 2011	n/a	\$2.1-2.2 million annually. <i>Note: this estimate requires further study to assess operational impacts.</i>
B1: Develop a plan to implement Service Development's schedule efficiency tools.	Developed a plan for implementation of scheduling efficiency tools, described in B1a-j.	Implemented over the course of 2010; ongoing effort to track and monitor progress	n/a	No
B1a: Expand the set of efficiency indicators and goals and use as targets when developing schedules.	Developed a report to be produced triannually; report tracks scheduling efficiency efforts and related performance measures; determines progress toward meeting goals.	Implemented over the course of 2010; ongoing effort to track and monitor progress	n/a	\$12.5 million annually
B1b: Complete, formally adopt, and publish a standards/guidelines document.	Developing a service guidelines document consistent with the recommendations of the RTTF.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	n/a	No
B1c: Develop a process and procedures for periodic global optimization of the bus system schedule.	Incremental improvements have been made to the "deadhead matrix," that make finding cost-effective solutions more possible. Global solutions are likely to be explored in the production of 2011 schedules when there are fewer incremental changes to be found.	Implemented over the course of 2010; ongoing effort to track and monitor progress	\$0.4 million annually	All scheduling efficiency savings are shown in the savings for B1a
B1d: Employ systematic percentile-based cycle time analysis. Metro concurred with caution to this finding.	Cycle time analysis has been employed in development of schedules; over 25,000 hours of savings have been achieved in the 2010 service changes; there has been a steady decrease in lay-over to in service ratios.	Implemented over the course of 2010; ongoing effort to track and monitor progress	\$12-19 million annually	All scheduling efficiency savings are shown in the savings for B1a
B1e: Utilize HASTUS' MinBus module to implement scheduling procedures that assign vehicles to trips more efficiently.	Each scheduler now uses HASTUS' MinBus module when creating schedules.	Implemented over the course of 2010; ongoing effort to track and monitor progress	\$0.7 million annually	All scheduling efficiency savings are shown in the savings for B1a
B1f: Develop the most efficient run cut using HASTUS' CrewOpt module.	Each scheduler now uses HASTUS' CrewOpt module when creating schedules.	Implemented over the course of 2010; ongoing effort to track and monitor progress	\$3 million annually	All scheduling efficiency savings are shown in the savings for B1a
B1g: Ensure full calibration of HASTUS to support schedule efficiency, reduce time taken to produce schedules.	HASTUS has been fully calibrated and focus has shifted to how to improve rule setting in the modules.	Implemented over the course of 2010; ongoing effort to track and monitor progress	n/a	All scheduling efficiency savings are shown in the savings for B1a

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B1h: Develop a systematic process for ensuring accurate costs are programmed into HASTUS.	Costs in HASTUS were immediately updated once the audit recommendations were released and will be updated on an annual basis.	Implemented over the course of 2010; ongoing effort to track and monitor progress	n/a	All scheduling efficiency savings are shown in the savings for B1a
B1i: Maintain accurate data in HASTUS data fields.	Accurate data has been inputted into HASTUS and focus has shifted to how to improve rule setting in the modules.	Implemented over the course of 2010; ongoing effort to track and monitor progress	n/a	All scheduling efficiency savings are shown in the savings for B1a
B1j: Ensure that staff have the knowledge to fully utilize the HASTUS system.	Trainings have taken place to improve the ability of schedulers to use HASTUS and develop efficient schedules.	Implemented over the course of 2010; ongoing effort to track and monitor progress	n/a	All scheduling efficiency savings are shown in the savings for B1a
C1: Capture additional data and modify current data sources to aid in the analysis of the relationship of Operations staffing levels and Operations staffing resource utilization to performance.	Determined appropriate data and measures to track to help achieve optimal staffing levels and resource utilization; working to track data and determine the impact on performance and costs.	Evaluation of efforts expected at the end of 2010	Unspecified	TBD
C2: Effectively manage the costs of planned and unplanned operator leave.	Progress on this recommendation is subject to the collective bargaining agreement with the Amalgamated Transit Union, currently under negotiations.	Evaluation of efforts expected at the end of 2010	Unspecified	TBD
C3: Use overtime and part-time staff more extensively in lieu of full-time staff.	Implemented changes to the extra board and to utilization of more overtime; working to track data and determine the impact on performance and costs.	Evaluation of efforts expected at the end of 2010	Unspecified	TBD
C4: Consider using lower cost police staffing options when these options are consistent with security objectives.	Evaluated different staffing options; created a matrix of potential staffing options that includes potential options, cost ranges, benefits and drawbacks. At this time, security objectives preclude any changes in staffing.	Completed 2Q 2010	Unspecified	TBD
C5: Strengthen Metro Transit Police (MTP) staffing management practices by employing a more statistically sound approach to planning staffing needs and regularly updating employee absences to reflect actual absences and backfill needs of MTP.	Implemented process improvements including monthly rosters and information about people on non-deployment leave, and have determined a more accurate relief factor for the MTP 4/10 patrol schedule.	Completed 1Q 2010	Unspecified	TBD
C6: Work with employees to schedule comp time absences in advance, avoiding the need for backfill whenever possible.	Conducted training with MTP employees to encourage better scheduling of comp time absences.	Completed 3Q 2010	Unspecified	TBD
C7: Develop a more precise approach to calculating and charging for Sound Transit's (ST) portion of tunnel-related police costs.	Developed a new model for charging ST in connection with the implementation of Link light rail service; ST now pays 40% of the tunnel-related policing costs, up from 19% in 2009 and 9% in 2008.	Completed 1st Q2010	Unspecified	Changes were part of planned Link integration
C8: Develop a long term vision and plan for MTP that can be integrated with Metro's Strategic Plan.	Working to integrate MTP vision with that of Transit; completed review of existing goals and objectives, will incorporate into planning efforts.	To be completed in conjunction with Strategic and Comprehensive Plan update, Feb 2011	n/a	No
D1: Adopt a strategic plan and approach to address how Paratransit productivity goals are to be met.	Developed a strategic plan to meet productivity goals; identified 18 ways to meet productivity goal of 1.83 boardings per hour by 2012.	Completed 2Q 2010	\$2.8 million annually	TBD
D2: Continue Access cost containment efforts and monitor their effectiveness while expanding the Community Access Transportation (CAT) program.	Expanded CAT program by 25% in 2009 due to unanticipated WSDOT budget reduction. Projected to save Metro \$2.7 million.	Completed 2Q 2010	\$2 million annually	Over \$2.7 million annually

n/a: recommendations that were not expected to generate directly related cost savings by the audit

Unspecified: recommendations that are expected to generate cost savings, but the amount was not estimated by the audit

Audit Recommendations	Actions	Completed/Expected	Audit Identified Savings	Actual Savings/ Funds Used
D3: Determine the potential savings and impacts on customer service if Metro adjusts paratransit service and fares to levels allowable by ADA.	Considering the feasibility of adjusting Paratransit service and fares to levels allowable by ADA; draft report nearing completion.	Expected in Fall 2010	Up to \$3.8 million	TBD
D4: Develop a thorough Paratransit staffing model that incorporates workload factors and processes, efficiency benchmarks, impacts of workload changes on staffing needs, and effects of staffing changes on Access performance.	Hired a consultant to conduct analysis and develop report for the staffing model; report is currently being reviewed and finalized.	Expected in Fall 2010	n/a	No
D5: Monitor and enforce contract incentives and penalties and evaluate their usefulness as a tool for improving productivity.	Established incentives and disincentives for contractors related to productivity and reliability; will be tracked and impact will be reported.	Implemented 1Q 2010; results expected 1Q 2011	Unspecified	TBD
E1: Initiate a pilot program to extend the preventative maintenance interval on a control fleet.	Established pilot program at North base for extending preventative maintenance and have established a mechanism by which data from this pilot program will be compared to baseline data; will monitor and provide a recommendation.	Recommendation on impacts expected by 3Q 2011	Unspecified	TBD
E2: Track and monitor planned and unplanned vehicle maintenance work and formulate a strategic approach to manage unplanned work.	Established categories and definitions of planned/unplanned work; produced report on baseline data for planned work; will track work over time, looking for places where efficiencies can be made and will determine whether or not a performance indicator would be useful.	Recommendation on usefulness of performance indicator expected 1Q 2011	Unspecified	TBD
E3a: Regularly monitor adherence to vehicle maintenance productivity standards and work to ensure consistency in standards across bases.	Began process of calculating repair times for inspections and regularly scheduled preventative maintenance jobs; working to expand, implement and monitor productivity standards for vehicle maintenance and to ensure consistency across bases.	Expected 1Q 2011	n/a	No
E3b: Expand vehicle maintenance productivity standards beyond preventative maintenance inspections to other routine jobs.	Working to expand productivity standards beyond preventative maintenance inspections to other routine jobs.	Expected 1Q 2011	n/a	No
E3c: Establish a system-wide vehicle maintenance productivity program expanding on current productivity standards and performance measures.	Working to expand, implement and monitor system-wide productivity standards for vehicle maintenance.	Expected 1Q 2011	n/a	TBD
F1: Develop detailed implementation plan and timeline for integrating new on board and central communications systems data with existing data processing tools and data streams as the new system comes online.	Working to integrate new systems with existing systems; created a scope and an integration plan; will implement the plan through the end of 2011.	Expected 4Q 2011	n/a	No
F2: Continue to improve customer communications during emergencies, ensuring that the update to the strategic plan includes elements related to customer communication, completing an analysis of communications and developing a prioritized plan, and implementing improvements to the website, email notification system, and other technology to improve communications.	Implemented a number of strategies such as route specific email notification of information, improved adverse weather communications, and Metro website and web offerings improvements; working to integrate customer communications planning into Metro Strategic planning efforts; developing an analysis of communications options and a prioritized implementation plan.	Some have been completed, others expected by the end of 2010	n/a	No

n/a: recommendations that were not expected to generate directly related cost savings by the audit

Unspecified: recommendations that are expected to generate cost savings, but the amount was not estimated by the audit