



DATE: January 17, 2014

TO: Metropolitan King County Councilmembers

FROM: Kymber Waltnunson, King County Auditor

SUBJECT: Follow-up on the Implementation of Recommendations of the 2012 Combined Sewer Overflow (CSO) Performance Audit

The Wastewater Treatment Division (WTD) has made progress implementing recommendations from the 2012 audit. Since the audit was published in October 2012, WTD has implemented five recommendations, partially implemented three recommendations, and two recommendations are unresolved. One of these recommendations is not due for implementation until 2017.

The recommendations implemented by WTD to date will improve the quality and consistency of cost information during CSO project planning, and when WTD is selecting alternatives for CSO projects to move forward into design. However, significant work still remains to implement recommendations relating to providing incentives for customers to reduce their use of the combined sewer system, for WTD to improve their planning and implementation of green stormwater infrastructure (GSI) as an alternative “gray infrastructure” projects, and to use measures of cost-effectiveness in sequencing projects.

The tables below provide status updates on the 10 recommendations of the 2012 CSO audit. Of the 10 audit recommendations:

DONE	5	have been fully implemented
PROGRESS	3	are in progress or partially implemented
OPEN	2	one is not due to be implemented until 2017

Please see below for details on the implementation status of these recommendations.

Implementation Status as of January 2014

#	Quick Status	Recommendation	Status Detail
2012 AUDIT			
1	DONE	WTD should develop and follow a quality assurance procedure to ensure the consistent and valid use of its life cycle cost model.	WTD has implemented a new QA procedure for life cycle cost analyses.
2	DONE	WTD should revise its Guidelines for Life Cycle Cost Analysis and Doing Economic Analysis of WTD Capital Improvement Projects to identify thresholds for revisiting alternatives if project costs increase to that threshold and describe how the analysis should be conducted.	WTD has implemented a new policy requiring reconsideration of alternatives if the project cost is projected to grow by at least 30% during the predesign phase.
3	DONE	WTD should ensure that its template for presenting information on project alternatives to decision-makers is followed and that information is presented in a consistent format.	WTD has implemented a new policy to require supervisory review of documents to be presented to decision-makers for selecting project alternatives. The supervisory review will include ensuring that project cost information is presented in a consistent manner.
4	DONE	If the project alternative selected to move forward to design is not the lowest cost alternative, WTD should clarify in its documentation why other considerations that resulted in a more costly alternative being selected are worth the additional cost.	WTD's new policy for supervisory review (discussed above) will ensure that reasons for recommending a more expensive alternative are documented.
5	DONE	WTD projections of the rate impacts of the CSO control program should reflect the wide range of uncertainty in the cost of the program.	WTD developed a new policy requiring rate impacts of the CSO control program be presented in a range to reflect the uncertainty of cost estimates.

IMPLEMENTATION STATUS

#	Quick Status	Recommendation	Status Detail
2012 AUDIT			
6	PROGRESS	<p>King County should enhance its efforts to work with the City of Seattle to provide incentives for individual customers to reduce their use of the wastewater treatment system.</p>	<p>WTD and the City of Seattle have expanded the RainWise downspout disconnection program to additional geographic areas, and are working toward extending the program to school buildings.</p> <p>The RainWise program is still very limited in its application, and WTD is not pursuing other customer incentives at this time.</p> <p>WTD still lags behind other jurisdictions in implementing rate incentives for reducing volume. Rate incentives could be a more cost-effective way to reduce CSO's than building large capital projects.</p>
7	PROGRESS	<p>WTD should increase its institutional knowledge and expertise with GSI and strengthen its program methodology to address its planning and jurisdictional challenges by:</p> <ol style="list-style-type: none"> Examining and investigating innovative and cost-effective GSI approaches successfully utilized by other jurisdictions, such as Portland's downspout disconnection program. Continuing detailed GSI-effect modeling (based on EPA's SWMM model) for CSO basins feasible for GSI, not just basins pre-selected as having a GSI project component. Performing an analysis of cost-effectiveness and cost comparison of GSI with gray infrastructure alternatives for each CSO project basin, applying GSI in the project design phase to the maximum extent cost-effectively possible and setting project targets based on these maximums. 	<p>WTD is expanding the potential application of GSI in project basins selected for GSI in the 2012 Executive's Recommended CSO Control Plan, based on additional modeling. WTD continues to increase its knowledge base and expertise in GSI.</p> <p>WTD will not revisit the application or cost-effectiveness of GSI approaches in 2012 CSO Control Plan project areas not selected for GSI before the next Control Plan update (assumed in 2017).</p> <p>GSI projects have the potential to improve the cost-effectiveness of the CSO control program. By not revisiting the decision to exclude GSI from consideration in certain project areas until 2017, WTD is foreclosing upon GSI as an option for some projects.</p>

IMPLEMENTATION STATUS

#	Quick Status	Recommendation	Status Detail
2012 AUDIT			
		<p>d. Allowing for a wider range of GSI alternatives consideration in the project development phase for each CSO control project basin.</p> <p>e. Revising the planning model for future iterations of the CSO Control Plan to integrate GSI planning and engineering into each project recommendation (while keeping the gray component for early phase cost estimating).</p>	
8	PROGRESS	WTD should phase implementation of the individual control projects within the CSO Control Plan, ensuring inclusion of greater system modeling to assess wider application of GSI in each CSO basin, developing integrated project approaches, and providing a more concerted GSI strategy overall.	WTD will revisit the feasibility of GSI for the projects in the CSO Control Plan in the next Control Plan update (assumed to be 2017), including previous efforts and new or changed project approaches.
9	OPEN	<p>To the extent that reliable scientific knowledge is available, WTD should develop quantitative measures of the impacts on water quality from CSO outfalls, and the expected water quality improvements to be provided by each control alternative. The development of such measures should be included in the County Executive's proposed Water Quality Assessment and Monitoring Study, if that study is funded.</p> <p>a. These measures should then be applied in an analysis of project cost-effectiveness and the time-value of program sequencing alternatives.</p> <p>b. This analysis should be used to propose updated prioritization and sequencing in the next CSO Control Program Review, to be completed in 2017.</p>	This recommendation is not due to be implemented until 2017.

IMPLEMENTATION STATUS

#	Quick Status	Recommendation	Status Detail
2012 AUDIT			
10	OPEN	<p>Until such time that reliable scientific knowledge becomes available in evaluating the cost-effectiveness of overflow projects and project sequences, WTD should document:</p> <ol style="list-style-type: none"> Consideration of CSO discharge volumes to be reduced. The time value of volume reduction in evaluating the cost-effectiveness of overflow projects and project sequences. 	<p>WTD submitted a report in response to a County Council budget proviso supporting this recommendation. While the report was largely responsive to the County Council proviso, it did not meet the intent of the recommendation. For example, the report did not take into account the time value of volume reduction.</p> <p>KCAO issued a separate management letter on November 22, 2013, discussing WTD's response to this recommendation in more detail.</p>

If you have any questions regarding this follow-up letter or the implementation status of any of the audit recommendations, please contact Larry Brubaker at 206-477-1034 or me at 206-477-1043.

cc: Dow Constantine, King County Executive
Fred Jarrett, Deputy County Executive
Rhonda Berry, Assistant Deputy County Executive
Dwight Dively, Director, Office of Performance, Strategy & Budget
Carol Basile, Deputy Director, Department of Executive Services, Finance & Business
Operations Division
Christie True, Director, Department of Natural Resources & Parks (DNRP)
Pam Elardo, Division Director, DNRP, Wastewater Treatment Division