

Work Plan per Ordinance 17941, Section 110, Proviso P3

Introduction

This Work Plan responds to 2015/2016 Biennial Budget Ordinance 17941, Section 110, Proviso P3, which states, in part:

Of this appropriation, \$250,000 shall not be expended or encumbered until the executive transmits a detailed work plan for utilizing an expert review panel to provide review and recommendations regarding optimizing, cost control measures, risk management and risk mitigation for combined sewer overflow (“CSO”) control projects and the wastewater conveyance and treatment system and a motion approving the plan and the motion is passed by the council.

As directed by the Proviso, an Expert Review Panel of independent, technical experts in the field of CSO management, project design, construction, and implementation is being established to review and make technical recommendations to the King County Executive and Council on:

- Optimization of the design of the Georgetown Wet Weather Treatment Station (a CSO wet weather treatment facility to be constructed between the Brandon Street and South Michigan Street Regulator Stations), related conveyance pipeline, and a new outfall structure to release the treated water into the Lower Duwamish Waterway. Once constructed, the station will treat a peak flow of approximately 66-million gallons per day of combined sewage and stormwater that would otherwise have discharged, untreated, directly to the Duwamish River during storm events.
- The CSO Plan, which provides CSO control project recommendations, cost estimates, and schedule priorities for King County’s eleven remaining uncontrolled CSOs, will be updated in 2015-2017. The Expert Review Panel will provide review and make technical recommendations as part of this update process, including identifying options for optimization, cost control, risk management, and risk mitigation. Approaches to optimization will consider redefinition or refinement of CSO basin boundaries to optimize sizing of control facilities, sewer separation, upstream improvements to divert stormwater, and optimization of CSO treatment and facility use. The comments and recommendations of the Expert Review Panel will be considered for incorporation into the design and construction of the Georgetown Wet Weather Station and into the 2018 CSO Plan Update. This update is required under the West Point National Pollutant Discharge Elimination System permit; and the plan update is also governed by a CSO consent decree that the County entered into with the U.S. Environmental Protection Agency and the Washington State Department of Ecology, which was approved and filed by the court on July 3, 2103.

Work Plan

This section outlines the work plan associated with utilizing an Expert Review Panel to provide recommendations regarding optimization, cost control measures, risk management, and risk mitigation for King County’s CSO control projects and associated wastewater conveyance and treatment system. The Expert Review Panel will also conduct a technical review of the County’s Georgetown Wet Weather Treatment Station and CSO Plan.

MWH Americas, Inc., and its team of subconsultants, has been selected as the Expert Review Panel. The Panel consists of seven experts in the field of CSO control management, project design, construction, and implementation. The names and expertise of individuals on the Expert Review Panel are listed in Table 1 below. The resumes of each panel member are attached to this Work Plan as Exhibit A.

Table 1. Expert Review Panel Members and Expertise

Expert Review Panel Member	Expertise
Mark Graham, PE, PMP	Project Manager
Art Hamid, PE	Wet-Weather Projects
Bill Pisano, Ph.D., PE	Wet-Weather Systems Control
Shannon Conway, PE	CSO Modeling
Jeffrey Schmidt, PE, PMP	Northwest CSO Expert
Adrienne Nemura, PE	GSI & Permitting
Andre Tolme, PE	Cost Estimating & Cost Control

Main elements of the work plan are:

- **To provide review and technical recommendations to the County Executive and Council regarding the Georgetown Wet Weather Treatment Station project, including review of the October 10, 2014 Carollo Engineering report** – King County will provide the Expert Review Panel with technical reports pertaining to the facility siting and design, the Carollo Engineering report, and other applicable items related to the Georgetown project. The Expert Review Panel will review these items and provide recommendations on project optimization, cost control measures, risk management, and risk-mitigation measures regarding the project in the second quarter of 2015.
- **To provide recommendations on the potential redefinition of CSO basin boundaries to ensure optimization and correct sizing of treatment plants and storage throughout the combined wastewater and stormwater collection system** – When considering combinations of CSO control options during the CSO Plan update process, and prior to detailed alternative analysis, King County will provide the Expert Review Panel with details of the existing CSO basin boundaries. The Expert Review Panel will make recommendations regarding the redefinition of boundaries and/or refinement of the CSO basins that could be combined for a CSO control project. These recommendations are anticipated in the third quarter of 2015 and will be considered for incorporation into the CSO Plan update.

- **To provide recommendations on the feasibility of isolating or separating the sanitary sewer system from the existing combined system, where appropriate, and on upstream improvements to divert stormwater flows from the CSO system** – When considering stormwater separation and upstream diversion options during the CSO Plan update process, King County will provide the Expert Review Panel with existing and new technical analyses on isolation or separation of the sanitary sewer system from the combined system. These analyses include potential upstream improvements to divert stormwater flow to the stormwater system, as well as green stormwater infrastructure options. The Expert Review Panel will review these items and provide recommendations, which King County will consider for incorporation into the CSO Plan update, in the fourth quarter of 2016.
- **To provide recommendations on the feasibility of optimizing CSO treatment and storage facility use** – When analyzing CSO treatment and storage facility use options during the CSO Plan update process, King County will provide the Expert Review Panel with existing and new documentation and technical analyses on County CSO control options. These items include treatment and storage facility details, information on applicable regulations, and other items related to the potential optimization of CSO facilities. The Expert Review Panel will review these items and provide recommendations on the feasibility of optimizing County CSO treatment and storage facilities, which King County will consider for incorporation into the CSO Plan update, in the first quarter of 2017.
- **To provide review and recommendations during the CSO Plan update process to identify options for optimization, cost control, risk management, and risk mitigation, noting which projects would be the highest priority for alternatives analysis** – Throughout the CSO Plan update process, King County will engage with the Expert Review Panel, sharing existing and new technical analyses related to the County's CSO's and the Plan. The Expert Review Panel will review these items and provide recommendations on options for optimization, cost control, risk management, and risk mitigation, which King County will consider for incorporation into the CSO Plan update, in the first quarter of 2017.

In addition to the documentation provided by King County, the Expert Review Panel may consider additional information or documents from other sources outside of King County related to CSO planning, design, construction, and implementation. This information would be applied in the review of King County's Plan. The Expert Review Panel may also visit King County sites or other wastewater facilities to further facilitate their review and recommendations.

Schedule and Deliverables

The staff of the King County Wastewater Treatment Division (WTD) of the Department of Natural Resources and Parks will implement this work plan. The Expert Review Panel will begin work in the spring of 2015 following approval of the work plan by Council. The majority of the work will take place during the remainder of 2015, throughout 2016, and conclude in the first quarter of 2017. Briefings and discussions with the County Executive, King County Council, Regional Water Quality Committee, and the Metropolitan Water Pollution Abatement Advisory Committee will occur throughout the expert review process at key deliverable milestones. An overview of the schedule and deliverables is provided in Table 2 and Figure 1 below.

**Table 2. Schedule and Deliverables for the
King County CSO Control Projects Expert Review Panel**

Task	Major Deliverables	Completion Date
Expert Review Panel quarterly meetings	Meeting handouts and notes	Quarterly, through Q2 2017
Expert Review Panel provides technical recommendations on design and construction of the Georgetown Wet Weather Treatment Station project	Written review comments and recommendations	Q2 2015
Expert Review Panel provides recommendations on the potential redefinition or refinement of CSO basin boundaries	Written review comments and recommendations	Q3 2015
Expert Review Panel provides recommendations on the feasibility of isolating or separating the sanitary sewer system from the existing combined system	Written review comments and recommendations	Q4 2016
Expert Review Panel provides recommendations on upstream improvements to divert stormwater	Written review comments and recommendations	Q4 2016
Expert Review Panel provides recommendations on the feasibility of optimizing CSO treatment and storage facilities	Written review comments and recommendations	Q1 2017
Expert Review Panel provides review and recommendations during the CSO Plan update process to identify options for optimization, cost control, risk management, and risk mitigation, noting which projects would be the highest priority for alternatives analysis	Written review comments and recommendations	Q1 2017

Resources and Costs

Section 129, ER2 Expenditure Restriction, of 2015/1016 Biennial Budget Ordinance 17941, directed WTD to expend up to \$1,250,000 to retain and support the work of the Expert Review Panel and conduct the research and analyses to produce the reports required by Section 110, Proviso P3. Some of the analyses performed by the Expert Review Panel include work that is also part of the scope of design for the Georgetown Wet Weather Treatment Station and the update of the CSO Plan. MWH Americas, Inc. has been retained to organize, manage, and coordinate the Expert Review Panel. WTD staff time will include overseeing the consultant and the Expert Review Panel process, as well as participating in meetings, preparing items for panel review, and documentation of review comments and recommendations.

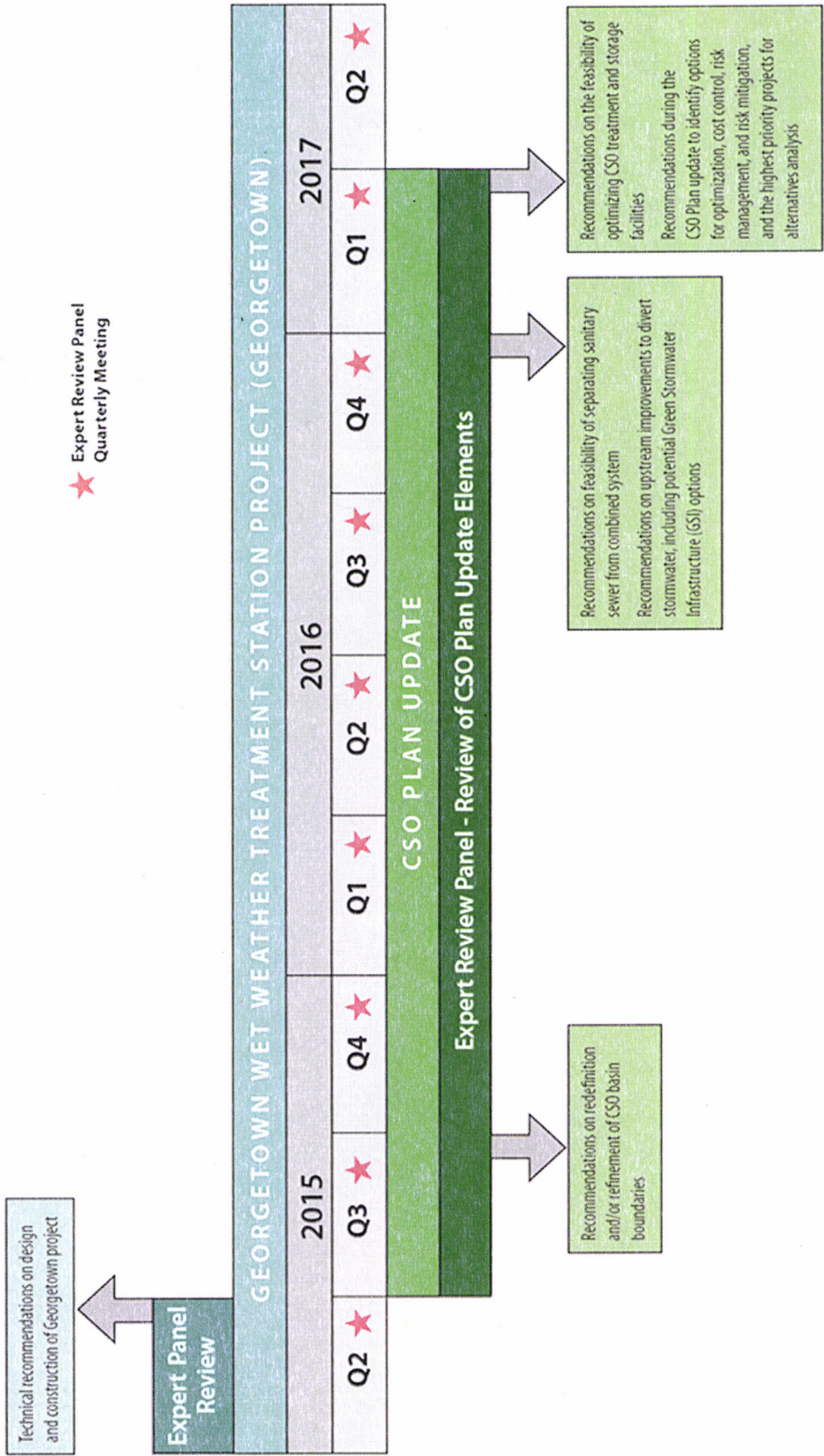


Figure 1. Overall Schedule and Major Deliverables for the King County CSO Control Projects Expert Review Panel

