

[PROJECT DOCUMENTATION BINDER  
SCOPE OF WORK EXCERPTS  
FEBRUARY 2010]

EXHIBIT A  
Predesign Engineering Services  
for the  
Barton, Murray, Magnolia, and North Beach CSO Projects  
Contract E00022E06  
[ORIGINALLY DATED 1/2/07]

**[NOTE: THE FOLLOWING EXCERPTS FROM THE SCOPE OF WORK ARE FOR INFORMATION PURPOSES. INTRODUCTIONS TO THE SCOPE FOR THE BARTON BASIN ARE SHOWN HERE. SIMILAR TASKS FOR EACH OF FOUR BASINS ARE INCLUDED IN THE FULL SCOPE.]**

**SCOPE OF WORK**

Under this contract, the consultant will provide predesign engineering and project-related services for the Barton, Murray, Magnolia, and North Beach Combined Sewer Overflow (CSO) facilities. The North Beach work will also investigate upgrading the existing pump station and force main. King County (County) is obtaining Washington State Revolving Fund (SRF) money for the Barton, Murray, and North Beach projects. The Magnolia project will not receive any state funding. There is no federal money involved in these projects. The County will not amend this contract for final design and construction services; the County will conduct new separate contract procurements for those phases for each CSO facility.

**TASK 200 BARTON CSO PROJECT**

The objective of this Task is to complete preliminary design for a CSO control facility for the Barton basin.

**Task 201 Barton CSO Flow Analysis**

The purpose of this task is to confirm flow projections for the Barton basin.

**Activities**

- 1. Barton CSO Flow Analysis.** The County will calibrate recently collected flow data and incorporate it to the flow model to perform additional CSO flow analysis for the Barton CSO facility and will determine the size of the Barton CSO facility. The consultant will review the County's CSO flow analysis, peak flow estimates, and CSO facility size estimates.
- 2. Project Team Meetings.** Hold up to two (2) two-hour meetings with the County to review the County's CSO flow analysis, CSO facility capacity sizing, and an overview of the proposed Barton CSO facility.

## **Task 202 Planning Confirmation**

The purpose of this task is to review previous planning to identify innovative approaches to meeting CSO control goals and policies for all four CSO basins (Barton, Murray, Magnolia, and North Beach.)

### **Activities**

1. The CSO team will meet one (1) time with the City of Seattle and Department of Ecology to discuss CSO control strategies for the four basins.
2. The CSO team will review previous CSO Plans and the results of modeling in Task 201. Three (3), four hour workshops will be conducted with County staff and other agencies as identified by the County to select planning boundaries and possible approaches to meet CSO control goals for all four basins. Workshop #1 will identify and display a range of alternatives for assessment. Following assessment and coordination with the County's modeling team; Workshop #2 will comprise a report on the CSO team's assessment of alternatives. Alternatives will be selected for further assessment. Workshop #3 will comprise a briefing on results of evaluations of alternatives, and selection of up to three (3) for evaluation in following tasks. The outcome of this task will be a framework and boundary for creation of alternatives that will be technically evaluated in following tasks.
3. The Consultant will prepare a Technical Memorandum describing the results of the evaluation, proposing CSO control approaches, and basin planning boundaries for all four basins. The Consultant will present draft findings in one (1), four hour workshop. After receipt of County comments, the Consultant will prepare a final Technical Memorandum.

## **Task 203 Barton, Murray, Magnolia, and North Beach CSO Facility Selection Criteria.**

The purpose of this task is to develop and apply selection criteria for CSO facilities in all four basins.

## **Task 205 Barton CSO Project Alternative Development and Siting Evaluation**

The purpose of this task is to develop an array of project alternatives and facility sites. This assessment will lead to the selection of a preferred CSO facilities and sites. Siting criteria shall include approaches to: 1) minimize public impacts in acquiring property; 2) identify and secure initial permits and access rights for studies, as well as identifying all permanent property rights and permits to acquire; 3) minimize public impacts during construction and operation; 4) minimize environmental impacts; 5) minimize constructability impacts; 6) meet CSO program requirements; 7) estimate costs for land and easement acquisition; 8) address engineering issues, including geotechnical; and 9) minimize total life cycle costs.

### **Activities**

1. **CSO Facility Development and Siting Evaluation.** The Consultant shall propose up to three alternative technical approaches based on the results of Task 202. The Consultant shall then identify up to three facility sites for each alternative technical approach for evaluation by the project team and Stakeholders (up to nine combinations.) After review by Stakeholders, the Consultant shall develop three (3) alternative projects using siting criteria input from Stakeholders. Proposed project alternatives may occupy the same or separate sites. Alternatives shall include storage or other improvements within the planning boundaries as described in Task 202, and by using the criteria developed in Task 203. The Consultant shall conduct an evaluation to identify and select a preferred CSO facility and site. One alternative project shall include improvements to existing Barton wastewater pumping and conveyance facilities.

2. **Planning Level Total Life Cycle Cost Estimates.** The Consultant shall compile planning level total life cycle cost estimates for the alternatives and the preferred CSO facility at each project location. The County shall provide a format for Life Cycle Costs analysis. The County shall provide preferred labor and utilities rates, and provide discount and inflation factors.
3. **Alternative Selection Workshops.** The Consultant shall conduct three (3) four-hour workshops with the County, public agencies, community stakeholders, and other interested parties to discuss and obtain input on alternatives. The County shall select the Preferred Project using information prepared by the Consultant and Stakeholders.
4. **Prepare a Siting Report detailing the work under this task.** The Consultant shall prepare a Technical Memorandum describing alternatives, candidate sites, results of applied selection criteria, the Preferred Project, and shall include information prepared and compiled in Tasks 210, 215, and 220.

**Task 210 Barton Environmental Compliance**

The purpose of this task is to provide environmental services and documents to satisfy the requirements of SEPA and the State Environmental Review Process (SERP).

**Task 215 Barton Permit Services**

The County will procure permits for the project. The County will gather and summarize information on local, state, and federal permit requirements that may be used to evaluate the feasibility of CSO facility site alternatives. The County cannot make formal application for most permits until the project is in the 30 percent design level. The Consultant will provide services to the County as requested and authorized by written, approved scope and budget.

**Task 220 Barton Community Relations**

The County will work with the community to review siting criteria developed in Task 203, policy siting criteria (community, technical, environmental, financial), detailed evaluation questions, and key factors (community, environmental, and engineering) to guide the siting process.

**Task 225 Barton Geotechnical Investigations**

The purpose of this task is to complete predesign level geotechnical investigations for alternative projects evaluation, and to complete predesign level field geotechnical information for the Preferred Project for the Barton and Murray CSO facilities.

**Task 230 Barton Survey and Mapping**

The purpose of this Task is complete fieldwork, survey, preliminary base mapping information, and related services the Preferred Project site, pipelines, and predesign work.

**Task 235 Barton CSO Facilities Plan**

The consultant shall prepare a Facility Plan for the Barton CSO facility. The Facility Plan shall satisfy the requirements of federal rule 40 CRF 35 and state WAC 173-240-060 and 173-245-050.

**Task 240 Barton Cost Estimating**

The purpose of this task is to perform total life cycle cost estimating using County standards. Conduct a Total Life Cycle cost estimating for the alternative siting analysis and facility plan. Include both construction costs and operation and maintenance costs as described in task 205 and 235. Deliverables are described in task 205 and 235. The County shall provide the format for the analysis.

**Task 245 Barton Property and Easement Acquisition Survey**

The purpose of this task is to provide land survey in support of Task 250, Property Acquisition.

The County may start property acquisition during the predesign phase of the project.

**Task 250 Barton Property and Easement Acquisition Services**

The purpose of this task is to acquire property and easements for the Preferred Project. The County will lead the acquisition process. Under the County's direction, the consultant shall provide services during the acquisition for one CSO facility site and three utility easements, as needed. King County will be responsible for the cost of property and easement purchase.