



## REPORT TO COUNCIL City of Sacramento

915 I Street, Sacramento, CA 95814-2604  
www. CityofSacramento.org

Consent  
September 2, 2008

Honorable Mayor and  
Members of the City Council

**Title: Agreement: Combined Sewer System Improvement Plan Update Project  
(X14010022)**

**Location/Council District:** This project is located within the Combined Sewer System service area and Council Districts 1,3,4,5,6 (See Attachment 2 Location Map).

**Recommendation:** Adopt a **Resolution** to 1) award a professional services contract for the Combined Sewer System Improvement Plan Update to Metcalf & Eddy-Boyle / Aecom for an amount not to exceed \$476,247; and 2) transfer Sewer funds in the amount of \$73,900 from the Base CIP Reserve-Sewer Project (X14000500) to the CSS Improvement Plan Project (X14010022).

**Contact:** David L. Brent, Engineering Services Manager, 808-1420, David R. Schamber, Supervising Engineer, 808-1423, Bruce Barboza, Senior Engineer, 808-1414

**Presenters:** Not applicable

**Department:** Department of Utilities

**Division:** Engineering Services

**Organization No:** 140001321

### Description/Analysis

**Issue:** The City's National Pollution Discharge Elimination System (NPDES) permit for the combined sewer system (CSS) requires continuous improvements to the combined system to reduce outflows to City streets. This project supports the City's ongoing sustainability efforts to construct improvements that will reduce combined system outflows to City streets. There are two phases to this program. The first phase (Phase 1) will update and calibrate the computer model that the Department of Utilities (DOU) uses to evaluate combined system construction projects. The second phase (Phase 2) will be the implementation of this model to evaluate several



proposed construction projects in the combined system. The proposed contract is for Phase 1 of this program.

**Policy Considerations:** The Combined Sewer System Improvement Plan Update will give DOU a template to guide growth and capital improvements that will provide for a safer and more reliable combined sewer system. It will also help ensure compliance with expected new regulations that will accompany new NPDES permits regulating the CSS. This Combined Sewer System Improvement Plan Update project is consistent with the City Council focus areas of public safety, economic development, and sustainability and livability.

**Environmental Considerations:** California Environmental Quality Act (CEQA): This agreement is Categorical Exempt under CEQA Guidelines Section 15306, Information Collection, which consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.

**Sustainability Considerations:** The project is consistent with the City's Sustainability Master Plan by reducing combined sewer outflows, which is one of the City's sustainability targets. Reducing combined sewer outflows to City streets will also reduce costly maintenance and clean up efforts.

**Other:** Not applicable

**Commission/Committee Action:** Not applicable

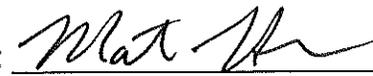
**Rationale for Recommendation:** City Council approved funding for the Combined Sewer System Improvement Plan Update with adoption of the Fiscal Year 2008/09 budget. Approval of this contract is consistent with the approved budget. The Engineering Services division of the DOU developed a scope of work for the improvement plan update and solicited Qualifications Statements from consulting firms. A review panel interviewed the top two firms and selected Metcalf & Eddy-Boyle / Aecom.

**Financial Considerations:** The agreement is for the amount not to exceed \$476,247, and the total project cost, including the agreement and City staff time, is estimated to be \$522,283. The current balance in X14010022 is \$448,383.00. In

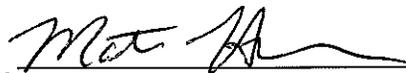
order to award the agreement for this project, the expenditure budget should be amended to reflect a transfer of Sewer funds in the amount of \$73,900 from the Base CIP Reserve-Sewer (X14000500) to the CSS Improvement Plan Update Project (X14010022).

**Emerging Small Business Development (ESBD):** The project included a participation goal of 20% for emerging and small business enterprises (ESBEs) as required by Ordinance 99-007 and Resolution 99-055 relating to ESBD participation goals and policies, adopted by City Council on February 9, 1999. Metcalf & Eddy-Boyle / Aecom met the ESBE goals with a participation level of 20%.

Respectfully Submitted by:   
David L. Brent  
Engineering Services Manager

Approved by:   
Marty Hanneman  
Interim Director of Utilities

Recommendation Approved:

  
Ray Kerridge  
City Manager

**Table of Contents:**

Report	pg. 1
<b>Attachments</b>	
1 Background	pg. 4
2 Location Map	pg. 6
3 Resolution	pg. 7

## Attachment 1

### Background

On June 22, 1990, the California Regional Water Quality Control Board, Central Valley Region (RWQCB) adopted Cease and Desist Order No. 85-342. The Cease and Desist Order (National Pollutant Discharge Elimination System - NPDES Permit No. CA0079111 and amendments 91-199 and 92-217) required that the City control Combined Sewer System (CSS) impacts from outflows to City streets and overflows to the Sacramento River. In 1995 the City as part of the cease and desist order produced a Combined Sewer System Improvement Plan (CSSIP) that includes system improvements to reduce combined sewer overflows to the Sacramento River and combined sewer outflows to City streets.

The 1995 plan consisted of increasing the pumping capacities of Sumps 1/1A and 2/2A, converting Pioneer Reservoir to a primary treatment facility with disinfection, installing a relief sewer system in the downtown area, and constructing several local or regional underground storage facilities and relief sewers in areas that are currently subjected to frequent outflows and flooding. In addition, the CSSIP had a substantial rehabilitation and replacement component, due to the antiquity of the system. Most of these improvements have been completed, others are in design or under study as part of an on-going process to improve the CSS system and update the CSSIP.

The components of the CSSIP were incorporated in the City's NPDES permit for the CSS as the Long Term Control Plan (LTCP). To date, the City has constructed about \$128 million in improvement and rehabilitation projects and is required by the State mandated LTCP to continue improving the CSS.

The LTCP will be implemented by the construction of facilities identified in the CSSIP program. The award of this contract is part of an ongoing program to improve the combined sewer system that will update the 1995 Combined Sewer System Improvement Plan. There are two phases to this program. The first phase (Phase 1) will update and calibrate the computer model that DOU uses to evaluate combined system construction projects. The second phase (Phase 2) will be the implementation of this model to evaluate several proposed construction projects. This contract covers Phase 1 of this program.

A key tool used by DOU staff to analyze the effectiveness of proposed improvements is the combined sewer system Storm Water Management Model (SWMM computer model). This model has been developed over the last 20 years and needs to be updated and calibrated using measured storm data. The DOU will review other computer models to see if these models are more efficient and accurate for simulating the combined sewer system. To assist DOU with these goals, the consultant will perform the following primary tasks: (1) collect flow data throughout the combined system during storm events for model calibration, (2) evaluate the SWMM computer model, (3) evaluate other computer models as replacement candidates for the SWMM computer model, and (4) either update and calibrate the SWMM computer model or calibrate a new replacement model. A calibrated computer model would allow DOU

staff to test proposed improvements to the combined sewer system and determine which improvements will be cost effective in reducing outflows. The results from the Phase 1 contract will be used in Phase 2 to identify and evaluate cost-effective improvements for controlling combined sewer outflows to City streets and will also address increased combined sewer flows from the City's 2030 General Plan growth projections.

The goal of the Combined Sewer System Improvement Plan Update is to improve the accuracy of City's twenty year old SWMM model or replace it with a new calibrated model to more realistically identify cost effective improvement projects for controlling CSS outflows to City streets and to achieve the long term goal of providing protection from the 10-percent storm throughout the entire CSS.

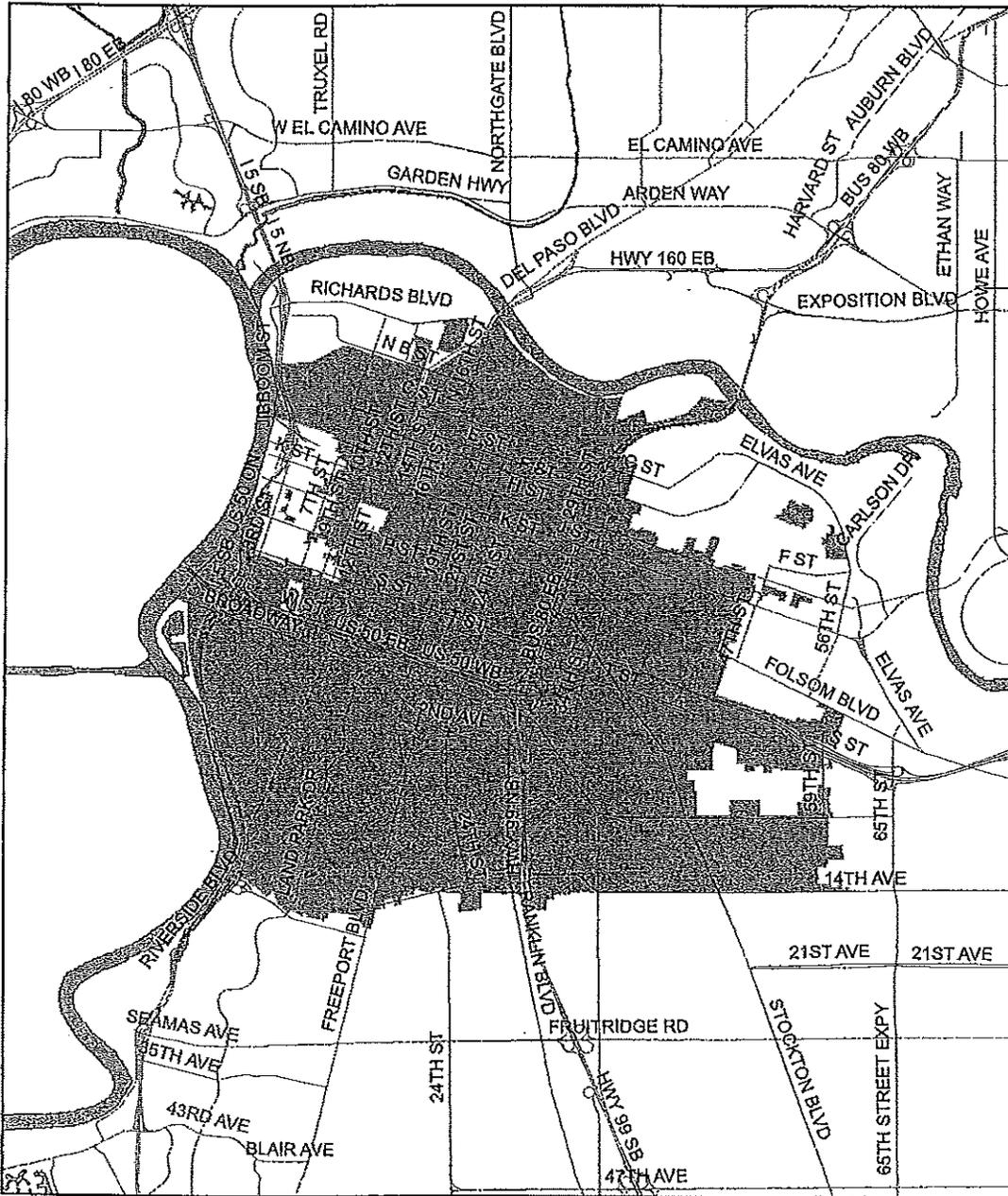
A Request for Qualifications (RFQ) was advertised on May 23, 2008 and the following four firms submitted written RFQ's: On July 10, 2008 the following four firms submitted proposals:

- West Yost Associates
- Metcalf & Eddy-Boyle / Aecom
- CDM
- Parsons Brinckerhoff

A panel of DOU staff reviewed the RFQ's and the top two firms, West Yost and Metcalf & Eddy-Boyle / Aecom, were invited to submit a written proposal for the work. After an oral presentation by each firm and a review of the proposals, a panel of DOU staff selected the proposal from Metcalf & Eddy-Boyle / Aecom and negotiated an agreement in the amount of \$476,247. If an alternative computer model is elected to be purchased by DOU staff, the contract includes funds for software acquisition and staff training. Phase 1 of the improvement plan update is scheduled to be completed in summer 2009.

**Attachment 2**

**LOCATION MAP FOR  
COMBINED SEWER SYSTEM IMPROVEMENT PLAN UPDATE**



Map Prepared by  
City of Sacramento  
Department of Utilities



**Attachment 3****RESOLUTION NO.**

Adopted by the Sacramento City Council

**AWARD CONSULTANT SERVICES CONTRACT TO METCALF & EDDY-BOYLE / AECOM FOR THE COMBINED SEWER SYSTEM IMPROVEMENT PLAN UPDATE (X14010022) -****BACKGROUND**

- A. The City's National Pollution Discharge Elimination System (NPDES) permit for the combined sewer system (CSS) requires continuous improvements to the combined system to reduce outflows to City streets. As part of its on-going program to improve the CSS and comply with NPDES permit requirements, the City is updating its CSS Improvement Plan in two phases. The first phase (Phase 1) will update and calibrate the computer model that the Department of Utilities uses to evaluate combined system construction projects. The second phase (Phase 2) will be the implementation of this model to evaluate several proposed construction projects in the combined system.
- B. A request for qualifications was issued to engineering firms to perform the Phase 1 services. Four firms responded, and Metcalf & Eddy-Boyle / Aecom was selected as the top ranked firm. City staff has negotiated an agreement with Metcalf & Eddy-Boyle / Aecom for an amount not to exceed \$476,247.

**BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

- Section 1. The City Manager is authorized to execute a Professional Services Agreement with Metcalf & Eddy-Boyle / Aecom for the Combined Sewer System Improvement Plan Update (X14010022), for an amount not to exceed \$476,247.
- Section 2. The City Manager is authorized to transfer Sewer funds in the amount of \$73,900 from the Base CIP Reserve-Sewer Project ( X14000500) to the CSS Improvement Plan Project (X14010022).