



**DATE:** October 14, 2014

**CATEGORY:** Consent

**DEPT.:** Public Works

**TITLE:** **Stevens Creek Levee Improvements Study, Project 15-36 – Authorize Design Professional Services Contract**

### **RECOMMENDATION**

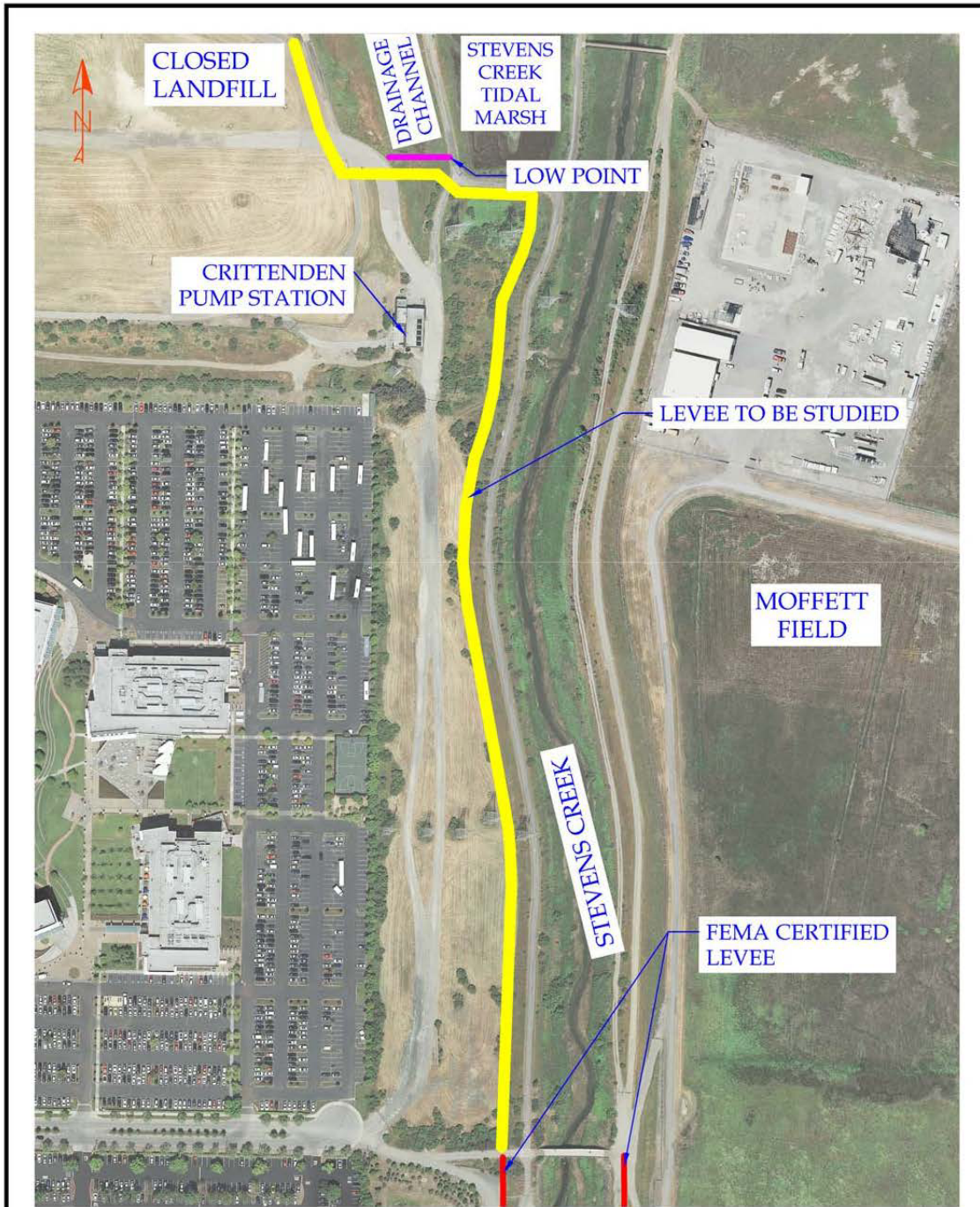
Authorize the City Manager to execute a professional services agreement with URS of Oakland to provide civil engineering services for the Stevens Creek Levee Improvements Study, Project 15-36, in a not-to-exceed amount of \$190,000.

### **BACKGROUND**

Home to numerous high-technology corporate campuses, the City's low-lying North Bayshore Area is subject to coastal flooding from San Francisco Bay and fluvial flooding from Permanente and Stevens Creeks. Under existing conditions, some coastal flood protection is provided by a complex system of levees and ponds, which was built to reclaim the margins of the Bay and for salt production. Flood-prone areas are identified in the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMs) as Special Flood Hazard Areas, subject to National Flood Insurance Program requirements.

#### **Vulnerability to a 100-Year Flood**

Stevens Creek has levees on both sides from Highway 101 to San Francisco Bay, protecting Mountain View to the west and Moffett Field/Sunnyvale to the east. The levees south of Crittenden Lane were accredited by FEMA as sufficient to provide protection from the 100-year flood event. The levees north of Crittenden Lane are not FEMA accredited as prior analysis showed possible deficiencies in the levees (see figure below).



LOWER STEVENS CREEK LEVEE IMPROVEMENTS STUDY  
PROJECT 15-36  
PROJECT LOCATION MAP



CITY OF MOUNTAIN VIEW

There is also a low point in the levee system at the south end of a drainage channel between Stevens Creek Tidal Marsh and the City's closed landfill. This low point and drainage channel are remnants of the storm drainage system that existed prior to construction of the Crittenden Storm Pump Station in the 1990s.

The unaccredited levees and low point in the levee system leave areas in North Bayshore vulnerable to flooding.

### Sea Level Rise

In February 2013, the City Council reviewed the conclusions of the Shoreline Sea Level Rise Study, which assessed the coastal and fluvial flooding vulnerability of the North Bayshore Area as a result of projected sea level rise. The study recommended a program of 12 projects to provide sea level rise flood protection. The list of projects range from coastal erosion protection and levee improvements to pump stations and interior drainage improvements.

One of the proposed projects is the Stevens Creek Levee Improvements Project to improve the levee deficiencies along Stevens Creek north of Crittenden Lane. In addition to providing vulnerability to flooding under existing conditions, these deficiencies also leave the North Bayshore Area vulnerable to flooding under sea level rise conditions.

### ANALYSIS

The recommended contract is the first phase of the project, which is to assess existing conditions and evaluate alternatives for improvements. The study would provide geotechnical analysis to fill in the knowledge gaps of the existing levee conditions, prepare an analysis to evaluate alternative options, and develop a conceptual design and cost estimate for the levee improvements. If constructed, the levee improvements would allow removal of a portion of North Bayshore from the FEMA Special Flood Hazard Areas designation and could also be constructed to provide protection from future sea level rise.

In June 2014, a Request for Proposals (RFP) for engineering services was issued to four firms. All of these firms have experience in Shoreline flood management and habitat restoration, and some of the firms have worked directly with the City on previous Shoreline projects. Three firms submitted proposals.

A review panel of Public Works staff deemed URS of Oakland the best-qualified firm based on the merits of their proposal, experience, and demonstrated competence. URS

has extensive coastal flood protection experience, and the proposed team has worked on the South Bay Salt Pond Restoration Project. The proposal articulated the project goals and objectives and provided a detailed, systematic approach for each major deliverable. URS' proposed scope of services and fees are provided in Attachment 1. The recommended fees are within the range typically charged for such services, and staff considers the fees to be fair and reasonable.

With the approval of this contract, URS could begin the project in October 2014. The study is scheduled to be completed by June 2015.

### **FISCAL IMPACT**

The Stevens Creek Levee Improvements Study, Project 15-36, is funded with \$275,000 from the Shoreline Regional Park Community Fund. The not-to-exceed contract amount of \$190,000 includes \$168,822 for basic services, including reimbursables, and a contingency in the amount of \$21,178 for unforeseen expenses. The project budget is adequate to fund the recommended agreement.

### **ALTERNATIVES**

Do not approve the recommended contract and direct staff to issue an RFP to a larger number of engineering firms.

### **PUBLIC NOTICING** – Agenda posting.

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RW-LA/TS/7/CAM/943-10-14-14CR-E

Attachment: 1. URS Scope of Work and Fees

cc: APWD – Solomon, USM, WS – Mulhearn, SCE – Muench, AAIL – Grimm,  
F/c (15-36)