



CITY OF  
**HAYWARD**  
HEART OF THE BAY

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**DATE:** November 16, 2010  
**TO:** Mayor and City Council  
**FROM:** Director of Public Works  
**SUBJECT:** Installation of Sudden Loss Valves at Various Locations Project: Approval of Plans and Specifications and Call for Bids

**RECOMMENDATION**

That Council adopts the attached resolution approving the plans and specifications for the Installation of Sudden Loss Valves at Various Locations Project, and calling for bids to be received on December 14, 2010.

**BACKGROUND**

When a catastrophic event such as an earthquake occurs, water can drain out of a reservoir if its downstream pipe is sheared. To prevent such water loss from the reservoir, technology in the form of a rapid automatic shutoff valve is available. Installation of such valves, known as sudden loss valves, was evaluated and recommended in seismic retrofit studies performed for the City. The valves would serve to protect life and property by preserving water in the reservoir for domestic use and fire suppression in the event of an earthquake. The City has installed sudden loss valves in five of its fourteen reservoirs: the Highland 750, 1000, 1285, 1530, and North Walpert Reservoirs. In this project, sudden loss valves will be added to the following seven reservoirs: D Street, Garin Hill, Highland 250 and 500, Maitland, South Walpert, and Treeview Reservoirs.

The High School Reservoir has been offline for a period of time for repairs. The installation of a sudden loss valve will be considered for that facility after the reservoir is repaired and power is brought up to the reservoir site.

In November 2009, the City entered into a professional services agreement with consultant Carollo Engineers for design and construction administration services for the addition of sudden loss valves at various reservoirs.

## DISCUSSION

In this project, a contractor will be hired to install butterfly valves with electric motorized actuators at seven of the City's reservoirs. Work at the D Street, Maitland, South Walpert, and Highland 250, and 500 Reservoirs will involve removing existing valves and replacing them with new motorized butterfly valves. At the Treeview Reservoir, the existing valve vault does not have adequate room. Therefore, a section of the pipe outside the vault will be cut and a new concrete vault constructed in order to install the motorized butterfly valve. The Garin Hill Reservoir has an existing butterfly valve and needs only to be retrofitted with a motorized actuator.

Once the sudden loss valves are in place, the programmable logic controller (PLC) at each site must be programmed to activate closing of the valve and to communicate with the City's Supervisory Control and Data Acquisition (SCADA) system. This work will be done separately by a consultant. Staff will prepare an agreement with the consultant for the SCADA and PLC programming at a later date.

The project is categorically exempt from environmental review under the California Environmental Quality Act (CEQA). The Public Resources code states that CEQA does not apply to any project involving the maintenance, repair, restoration, reconditioning, replacement, removal, or demolition of an existing pipeline or drinking water facility.

## FISCAL IMPACT

The estimated project costs are as follows:

Design and Construction Administration Services – Consultant	\$ 75,000
SCADA/PLC Programming for Sudden Loss Valves	35,000
Design Administration – City Staff	40,000
Construction Contract	455,000
Inspection and Testing	50,000
Total:	<hr/> \$ 655,000

The FY 2011 Capital Improvement Program includes \$422,000 for the Installation of Sudden Loss Valves at Various Locations Project in the Water System Capital Improvement Fund. After bids are received, an additional appropriation from the fund balance will be requested as appropriate.

## PUBLIC CONTACT

All the installation work will be done inside the reservoir properties; there will be minimal impact to the residents and businesses in the area. During construction, notices will be provided to affected residents, property, and business owners to inform them of the nature and purpose of the work, potential impacts, work schedule, and City contact for additional information.

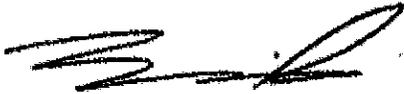
**SCHEDULE**

Open Bids	December 14, 2010
Award Contract	January 11, 2011
Begin Work	February 8, 2011
Complete Work	July 8, 2011

*Prepared by:* Alex Ameri, Deputy Director of Public Works

*Recommended by:* Robert A. Bauman, Director of Public Works

Approved by:



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Fran David, City Manager

Attachments:

- Attachment I: Draft Resolution
- Attachment II: Project Location Map

HAYWARD CITY COUNCIL

RESOLUTION NO. 10-

Introduced by Council Member \_\_\_\_\_

RESOLUTION APPROVING PLANS AND SPECIFICATIONS FOR  
INSTALLATION OF SUDDEN LOSS VALVES AT VARIOUS LOCATIONS  
PROJECT, PROJECT NO. 7023, AND CALLING FOR BIDS

BE IT RESOLVED by the City Council of the City of Hayward as follows:

1. That those certain plans and specifications for the Installation of Sudden Loss Valves at Various Locations Project, Project No. 7023, on file in the office of the City Clerk, are hereby adopted as the plans and specifications for the project;
2. That the City Clerk is hereby directed to cause a notice calling for bids for the required work and material to be made in the form and manner provided by law;
3. That sealed bids therefor will be received by the City Clerk's office at City Hall, 777 B Street, Hayward, California 94541, up to the hour of 2:00 p.m. on Tuesday, December 14, 2010, and immediately thereafter publicly opened and declared by the City Clerk in Conference Room 4D, City Hall, Hayward, California;
4. That the City Council will consider a report on the bids at a regular meeting following the aforesaid opening and declaration of same.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 2010

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:  
MAYOR:

NOES: COUNCIL MEMBERS:

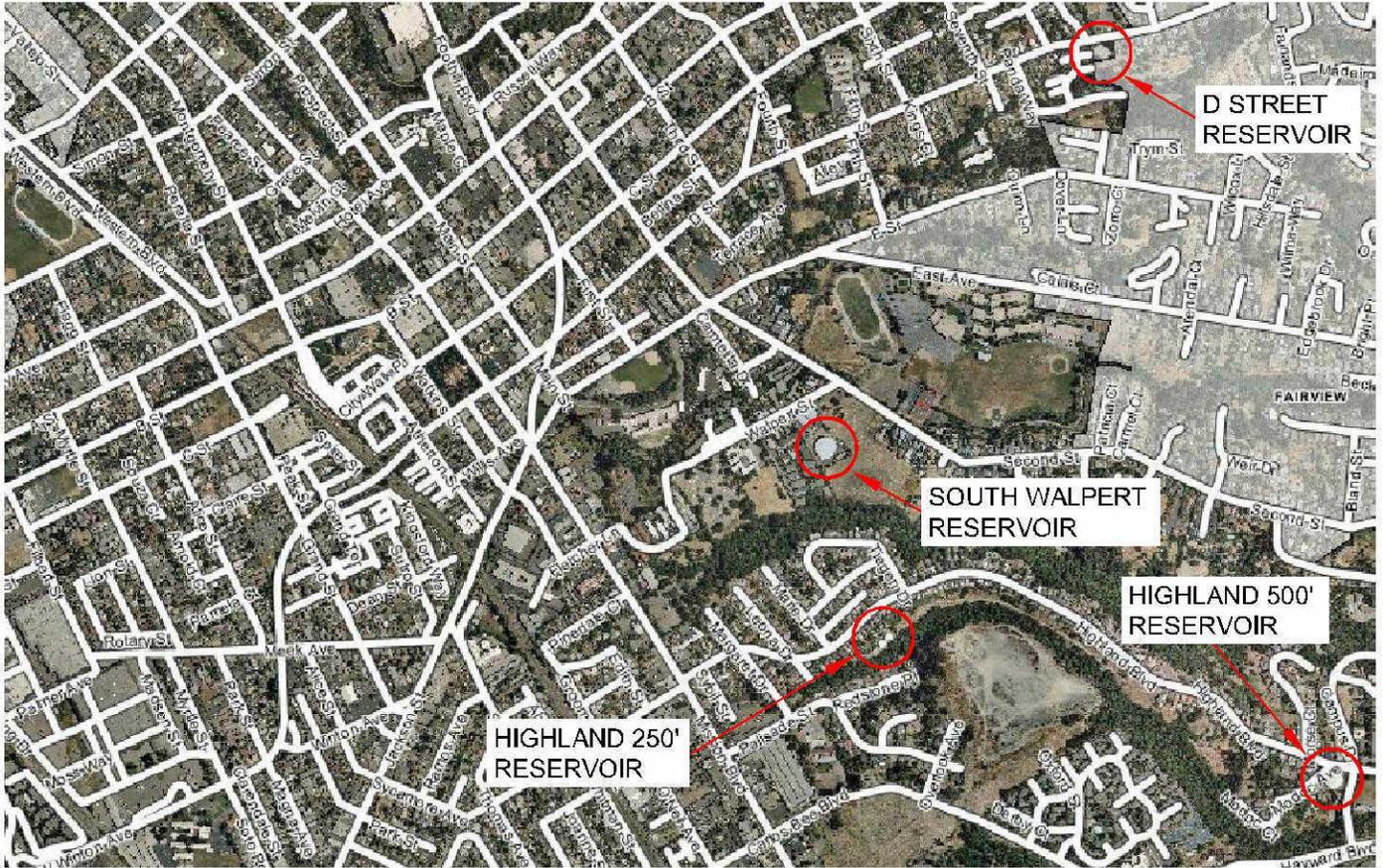
ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward



INSTALLATION OF EMERGENCY SUDDEN LOSS VALVES AT VARIOUS LOCATIONS - PROJECT NO. 622-7023  
LOCATION MAP