



MEMORANDUM
EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Mital, Simpson, Helgeson, Manning, and Brown
FROM: Mel Damewood, Engineering Manager; Wally McCullough, Water Engineering Supervisor; Laura Farthing, Senior Engineer - Water
DATE: September 21, 2015
SUBJECT: Shasta 1150 Pump Station Replacement
OBJECTIVE: Adoption of Resolution Amendment and Contract Approval

Issue

EWEB recently opened bids for construction of a new Shasta 1150 Pump Station and a request is being made to award a construction contract for \$661,308 to Pacific Excavation of Eugene, Oregon, for this project. Management also recommends adoption of an amendment to Resolution No. 0908 which was adopted in 2009.

Background

The Shasta 1150 Service Area serves approximately 200 customers in the eastern south hills of the City. This service area is currently supplied by the Shasta 1150 Pump Station which is a constant run pump i.e. the pumps run continuously as there is no reservoir in the service area. The area exhibits high peak hour demands during the summer when customers are irrigating, which exceed the capacity of the pump station. Through the Water Utility's conservation efforts with the neighborhood that this pump station serves, we have been able to smooth the demand during peak times to a level that is manageable. However, the pump station was built in the 1950s and is at the end of its useful life. The mechanical systems are running to failure, the site does not have standby power, and the structure does not meet current seismic codes. The 2004 Water Master Plan recommendations included a reservoir for this area to enhance the reliability of the system. For the above reasons a public process was initiated in 2008 to develop alternative solutions to deliver reliable water to the service area.

The public process included meetings with EWEB staff and eleven members of the public. The group developed two potential alternatives, build a buried reservoir on EWEB owned land on Mount Baldy or construct two redundant pump stations to serve the area. The construction of a reservoir would have required easements through City Park Land, approvals for which were difficult to obtain and would have added to the construction costs. Each of the pump stations would have included redundant pumps, two different electric feeds, and full standby power, making the system almost as reliable as one with a reservoir.

In May 2009, the Board approved Resolution 0908- SERVICE PROVISIONS FOR THE SHASTA 1150 SERVICE AREA, which authorized staff to begin design and construction on two new pump stations to serve the Shasta 1150 Pump Station Service Area.

Discussion

After the resolution was passed, EWEB purchased land on Wendell Lane for the new pump station site. Shortly after the land was purchased, EWEB completed a project to develop a fully calibrated hydraulic model. EWEB staff used the new enhanced hydraulic model to evaluate the area and determine impacts to the water system with the two pump station option. The modeling identified deficiencies in the water distribution system in the vicinity of the new proposed pump station. Correcting these deficiencies would require approximately 5,000 feet of new 10-inch pipelines which significantly increases the cost of construction. In addition, the site, which is served by Lane Electric, required three phase power. Easements for the power proved difficult to obtain making it cost prohibitive to bring power to the site.

These improvements were not included in the original evaluation of alternatives. For these reasons, EWEB staff moved forward with the design of a single robust pump station with standby power at the site of the existing pump station.

Due to the high costs associated with development of the second pump station for this area, it is recommended to serve the area with a single robust pump station. This is contrary to Resolution 0908 but typical of what is provided for other areas in our system that do not have a reservoir. Staff is confident that the single pump station will provide for a reliable water supply for the service area. If opportunities develop in the future that allow for a reservoir to be constructed, the pump station can be modified to serve as a reservoir fill pump station. The addition of a reservoir would further enhance the reliability of the system,

The new pump station will include the following:

- Concrete masonry building designed to meet current seismic codes.
- New mechanical equipment, including redundant pumps.
- New electrical equipment, including variable frequency drives for each pump.
- New diesel generator sized to operate all of the pumps in the station.
- Associated site work to improve access to the site.

Four bids were received for the above work. Pacific Excavation submitted the low bid at \$661,308. Funding is in place in the Water Capital Improvement Plan (CIP) for 2015 for this project. There is approximately \$500,000 allocated in the 2015 Capital budget for this project. Additional funds, on the order of \$300,000 to \$400,000, will need to be allocated in 2016 during the April True-up to complete the improvements. Engineering is making a recommendation to defer the Willamette 800 Reservoir project to allow time to manage the CIP and stay within strategic spending levels.

Recommendation/Requested Board Action

Water Management is recommending that the Board approve award of a contract for \$661,308 to Pacific Excavation for construction of the new Shasta 1150 Pump Station. Management is also

recommending that the Board approve Resolution 1528 to amend Resolution No. 0908 to authorize staff to construct a single pump station to serve the Shasta 1150 Pump Station service area.

If there are any questions or if more information is needed, please contact Mel Damewood, Engineering Manager 541-685-7145 or mel.damewood@eweb.org.

EWEB Board Consent Calendar Request

For Contract Awards, Renewals, and Increases

The Board is being asked to approve a new Construction Contract with **Pacific Excavation** for Construction of the **Shasta 1150 Pump Station Replacement Project**.

Board Meeting Date: October 6, 2015
Project Name/Contract#: Shasta 1150 Pump Station Replacement/ITB 038-2015
Primary Contact: Mel Damewood Ext. 7145
Purchasing Contact: Tracy Davis Ext. 7468

Action Requested:

Contract Award
 Contract Renewal
 Contract Increase
 Other

Funding Source:

Budget
 Reserves
 New Revenue
 Bonding
 Other - CIP
Reprioritization

Contract Amount:

Original Contract Amount: \$ 662,000
Additional \$ Previously Approved: \$ N/A
Invoices over last approval: \$ N/A
Percentage over last approval: N/A %
Amount this Request: \$ 662,000

Resulting Cumulative Total: \$ 662,000

Contracting Method:

Method of Solicitation: Formal Invitation to Bid
If applicable, basis for exemption: N/A
Term of Agreement: 10/12/15 to 01/31/2016
Option to Renew? No

Form of Contract:

Single Purchase
 Services
 Personal Services
 Construction
 IGA
 Price Agreement
 Other

Approval for purchases "as needed" for the life of the contract No

NARRATIVE:

The Board is being asked to approve a new Construction Contract with **Pacific Excavation** for Construction of the **Shasta 1150 Pump Station Replacement Project**.

The Shasta 1150 Service Area serves approximately 200 customers in the eastern south hills of the City. This service area is currently supplied by the Shasta 1150 Pump Station which is a constant run pump - i.e. the pumps run continuously as there is no reservoir in the service area. The area exhibits high peak hour demands during the summer when customers are irrigating, which exceeds the capacity of the pump station. In addition, the pump station was built in the late 1960s and is at the end of its useful life. The mechanical systems are running to failure, the site does not have standby power, and the structure does not meet current seismic codes. The 2004 Water Master Plan recommendations included new facilities to replace the aging infrastructure. There is approximately \$500,000 allocated in the 2015 Capital budget for this project. Additional funds, on the order of \$300,000 to \$400,000, will need to be allocated in 2016 during the April True-up to complete the improvements. Engineering is making a recommendation to defer the Willamette 800 Reservoir project to allow time to manage the CIP and stay within strategic spending levels.

The new pump station will include:

- New concrete masonry building designed to meet current seismic codes.
- New mechanical equipment, including redundant pumps.
- New electrical equipment, including variable frequency drives for each pump.
- New diesel generator sized to operate all of the pumps in the station.
- Site work to improve access to the facility.

Staff issued a Formal Solicitation in August, 2015. EWEB received four bids from: 2KG of Portland, OR; Stettler Supply of Salem, OR; Wildish Building Company of Eugene, OR; and Pacific Excavation of Eugene, OR. Pacific Excavation was the lowest responsive and responsible bidder. Pacific Excavation has sixteen years of experience with similar public works projects. If approved, Pacific Excavation will provide construction services as specified in the solicitation documents.

ACTION REQUESTED:

Management requests the Board approve a Construction Contract with **Pacific Excavation** for the construction of the Shasta 1150 Pump Station Replacement Project. Funds for this work were budgeted for 2015, and will be budgeted for 2016.

SIGNATURES:

Project Coordinator: _____

LT Manager: _____

Purchasing Manager: _____

General Manager: _____

Board Approval Date: _____

Secretary/Assistant Secretary verification: _____

**RESOLUTION 1528
OCTOBER 2015**

**EUGENE WATER & ELECTRIC BOARD
AMENDMENT TO RESOLUTION NO. 0908 - SERVICE PROVISIONS FOR THE
SHASTA 1150 SERVICE AREA**

WHEREAS, the Eugene Water & Electric Board (EWEB) is the water service provider for properties within the City of Eugene;

WHEREAS, the Shasta 1150 Service area, a neighborhood located in the Eastern South Hills of Eugene, where EWEB serves nearly 200 customers, is in need of an upgrade from a continuous running pump station that is near its capacity and service life;

WHEREAS, EWEB staff conducted a public involvement process in 2008 that included a stakeholder task team which examined nearly two dozen service alternatives and narrowed the alternatives to two viable solutions, one being a 750,000 gallon buried reservoir and the other being two continuous running pump stations with standby power;

WHEREAS, EWEB Board of Commissioners approved the design and construction of the dual pump station option by signing Resolution 0908 – Service Provisions for the Shasta 1150 Service Area in May 2009.

WHEREAS, EWEB staff during the planning phase of the project identified issues with the construction of two pump stations from enhanced hydraulic modeling capabilities that made the construction of two pump stations cost prohibitive;

NOW, THEREFORE BE IT RESOLVED that the EWEB Board of Commissioners approve an amendment to Resolution 908 that directs the General Manager to begin construction of a single robust pump station to serve the Shasta 1150 service area, acknowledging this service method deviates from a traditional reservoir option, yet is an industry accepted practice for domestic water and fire service.

Dated this 6TH day of OCTOBER 2015.

THE CITY OF EUGENE, OREGON
Acting by and through the
Eugene Water & Electric Board

President

I, ANNE M. KAH , the duly appointed qualified, and acting Assistant Secretary of the Eugene Water & Electric Board, do hereby certify that the above is a true and exact copy of the Resolution adopted by the Board at its October 6, 2015 Regular Board Meeting.

Assistant Secretary