

IMPACT STATEMENT

189117

Date: July 18, 2018

Council Date: August 15, 2018

Legislation Title: *Authorize an emergency construction contract with Stettler Supply & Construction in the estimated amount of \$681,500 for the rehabilitation or replacement of failed pumps and motors in drinking water Production Wells 3, 13, and 26 under the auspices of a Declaration of an Emergency per ORS 279C.335 Competitive bidding; exceptions (Ordinance)

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Presenter Name: Teresa K. Elliott, P.E., Chief Engineer

Purpose of proposed legislation and background information:

The pumps in wells PW-3, 13, and 26 have all failed between February and May of 2018. These three wells represent approximately 14 million gallons per day (MGD) or 14% of the initial groundwater capacity. Without these wells in service, there is risk of not being able to meet demands if there is a turbidity or other event that would take the Bull Run Supply out of service.

PW-3, 13 and 26 are part of the Columbia South Shore Well Field (CSSWF), which includes 26 wells. Portland Water Bureau relies on the CSSWF as a second supply source to augment and provide a backup to the Bull Run Supply. The CSSWF is able to provide 100 MGD for short periods and approximately 70 MGD for a sustained duration of several months. Available full capacity of the CSSWF is critical from October through April when the CSSWF has been relied upon to provide supply during turbidity or other events, lasting from 10-30 days. In addition, the CSSWF is critical to maintaining compliance with the bi-lateral agreement with OHA during the interim period until treatment of the Bull Run supply is in online.

The pumps in wells PW-3, 13 and 26 have submersible motors which are difficult to monitor due to their location down in the well, making sudden failure challenging to predict or prevent. PW-3's submersible pump motor has had declining performance as

measured by leaking current for several months. In May 2018, it unexpectedly failed due to overcurrent. PW-13's motor or power cable failed in February 2018. At PW-26, fuses have repeatedly blown and current to the motor is too high; the Water Bureau electricians determined that the motor or power cable failed in March/April 2018.

The Water Bureau does not have the equipment or the required State of Oregon Well Constructor's licensing to remove the column pipes, pumps, and motors; and reinstall factory repairs or replacements. The Water Bureau initiated three projects for repair or replacement of pumps and motors – one project at each of the three well sites. The Water Bureau further determined that one emergency contract must be prepared to include the work of all three projects.

Repair or replacement of the pumps and motors will take several months under the best of circumstances. A qualified contractor must plan the work, remove equipment, and ship to an out-of-state repair facility. The repair facility will provide a tear-down report and recommendations, and the Water Bureau will determine the repairs needed, or whether a replacement pump or motor is needed. After repair or replacement and shipping, the contractor will re-install and test. The Water Bureau will contribute to readying the equipment for removal, testing the reinstalled pump and motor, and disinfecting and flushing the well.

The Water Bureau's Operations Group has requested that repairs/replacement of the pumps and motors be done and the wells brought back into service immediately. Due to the long lead time associated with getting a pump motor rehabilitated or replaced, it was critical that work begin immediately.

Financial and budgetary impacts:

The Water Bureau has negotiated with Stettler Supply & Construction for performance for up to \$800,000. The work requires special licensing from the State of Oregon which Stettler Supply & Construction maintains. Funding for this emergency work (W2300, W02288, and W02298) was not included in the FY 2018-19 adopted budget, and will be funded from contingency as part of the FY 2018-19 Fall BMP. The total estimated cost for all three projects is \$1,075,000. This action will not result in a change to the forecast water rates. This legislation does impact any current or future staffing levels. The confidence level for this project is low.

Community impacts and community involvement:

The work on the wells will require minimal community outreach and public information services. The work is located on Water Bureau property in the industrial area north of NE Airport Way and on a Water Bureau easement on Metro property, and will have no impact on residential neighborhoods.

100% Renewable Goal:


This project has no impact on the City's 100% renewable goal.

Budgetary Impact Worksheet**Does this action change appropriations?**

☐ YES: Please complete the information below.

☒ NO: Skip this section

Fund	Fund Center	Commitment Item	Functional Area	Funded Program	Grant	Sponsored Program	Amount



Michael Stuhr, P.E., Administrator



Date