

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES
FROM: ERICH RAUBER, SUPERVISING ENGINEER
CAPITAL PROJECTS ENGINEERING
SUBJECT: REQUEST FOR CHANGE- OF- SCOPE CHANGE ORDER–
EMERGENCY WELL PUMP STATION – A PLACE TO PLAY

AGENDA ACTION: MOTION

RECOMMENDATION

It is recommended by the Water and Transportation and Public Works Departments that the Board of Public Utilities, by motion, approve a Change-of-Scope contract change order to include an arsenic removal treatment process for Construction Contract No. C01965 with Team Ghilotti, Inc., of Petaluma, California (TGI) by \$870,369.00, and authorize a total contract amount, including a 10% contingency, of \$3,035,618.94.

EXECUTIVE SUMMARY

During project construction, the results of routine well water quality sampling and analysis revealed arsenic levels that exceeded drinking water standards (also referred to as maximum contamination levels or MCLs). Based on these results, additional arsenic removal treatment is recommended as part of the project. This change order would provide additional funds and allow TGI to implement design revisions necessary to reduce arsenic levels in groundwater to below MCLs.

BACKGROUND

The project generally consists of site grading, demolition of an existing well head, construction of a pump station facility, well rehabilitation and improvements, modifications to an existing sewer manhole, storm drainage improvements, connection of electrical service to existing power, and final restoration of the disturbed areas. In 2006, a test well was installed to assess the potential of the site to serve as a future emergency water supply location. Pumping tests revealed that the well could sustainably produce up to approximately 500 gallons per minute (gpm), or about 0.72 million gallons per day (mgd). In 2016, a full inspection of the physical condition of the test well was completed. The well was reconditioned, and a subsequent pumping test determined an optimal pumping rate to be 475 gpm (0.68 mgd).

REQUEST FOR CHANGE- OF- SCOPE CHANGE ORDER– EMERGENCY WELL
PUMP STATION – A PLACE TO PLAY
PAGE 2 OF 4

Data and information obtained from this work was used to prepare a design for converting the test well and installing the necessary infrastructure to contribute to the City's emergency municipal water supply. During this process, staff worked in close collaboration with City Recreation and Parks staff to amend the Master Plan for A Place to Play Park to include the planned emergency well facility.

The results of historical analyses of water from the test well indicated that regulated constituents were below primary MCLs¹. Surprisingly, recent analyses during construction yielded arsenic levels above its respective MCL; subsequent resampling and testing yielded similar results. Consequently, the City and TGI agreed to suspend the construction contract to allow the City to assess whether arsenic can be safely and cost-effectively treated.

To assess arsenic removal alternatives and associated costs, the City retained Black & Veach, Overland Park, Kansas (BV). In a July 22, 2021 report, BV presented several alternatives for addressing the arsenic issue and several recommendations for additional work. The City's preferred alternative reduces arsenic levels by increasing iron in groundwater to facilitate formation of iron arsenate that is then removed via cartridge filters. BV then performed a series of bench scale tests using groundwater from the emergency well to confirm the effectiveness of this alternative and develop criteria for revising the design. Using the results of BV's studies, the project designer, West Yost Associates, revised the design to include the BV-recommended approach to arsenic removal

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

On May 7, 2020, the Board approved, by motion, award of Construction Contract No. C01965 in the amount of \$1,807,141.77 to the lowest responsive bidder, Team Ghilotti, Inc., of Petaluma, California, for Emergency Well Pump Station – A Place to Play, approved a 15% contingency, and authorized a total contract amount of \$2,078,213.03.

ANALYSIS

The City issued a notice to proceed with construction on June 3, 2020. Work was suspended on November 16, 2020 due to the discovery of arsenic in groundwater. The City has evaluated measures to address the presence of arsenic in groundwater. These evaluations concluded that arsenic can be reduced to acceptable levels by revising the design to include the addition of ferric sulfate followed by filtration via cartridge filters. TGI has indicated the cost increase to implement the revised design, including cost increases

¹ Drinking water standards are called maximum contaminant levels (MCLs). MCLs are found in [Title 22 of the California Code of Regulations](#). Primary MCLs address health concerns; esthetics such as taste and odor are addressed by secondary MCLs.

REQUEST FOR CHANGE- OF- SCOPE CHANGE ORDER– EMERGENCY WELL
PUMP STATION – A PLACE TO PLAY
PAGE 3 OF 4

in material goods and labor that occurred during the suspension period, is \$870,369 for an overall cost, including a 10% contingency, of \$3,035,618.94.

Council Policy 100-07, Authorization of Contract Change on Public Works Contracts, requires Board approval for a Change in Scope Change Order, as the design modifications materially change the character of work prescribed in the contract plans and specifications

Construction is anticipated to resume in November 2021 and be complete by August 4, 2022.

The Public Participation Plan has been revised and has been approved by the Transportation and Public Works Marketing and Outreach Coordinator.

FISCAL IMPACT

Funds for this project were appropriated in the fiscal year 2019-20 Capital Improvement Program budget. Approval of this contract has no additional impact on this budget.

ENVIRONMENTAL IMPACT

This project has been found in compliance with the California Environmental Quality Act (CEQA):

- Pursuant to CEQA Guidelines Section 15303, the Project is categorically exempt because it involves construction of a small building. The Project aspects involving minor grading, paving and underground work that will not have a significant effect on the environment are exempt pursuant to CEQA Guidelines Section 15304.
- On September 19, 2013, the City Council adopted a Mitigated Negative Declaration (MND) for the Ground Water Master Plan, which included emergency groundwater supply development as a component of the project. There have been no changes in circumstances resulting in new or more severe impacts; and there is no new information indicating that the project will have one or more significant effects not discussed in the approved negative declaration. Therefore, further environmental review is not required pursuant to CEQA Guidelines Section 15162.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

Not applicable

ATTACHMENTS

None.

REQUEST FOR CHANGE- OF- SCOPE CHANGE ORDER– EMERGENCY WELL
PUMP STATION – A PLACE TO PLAY
PAGE 4 OF 4

CONTACT

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