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DATE: February 24, 2025

TO: Honorable Mayor and Members of the City Council through City Manager

FROM: Steve Worrell, PE – Senior Civil Engineer, Public Works Department (PWD)  
Jonathan Sanglerat, PE – Engineering/CIP Manager, PWD  
Paul Kaushal, PE – Director, PWD

SUBJECT: Resolution Accepting Completion of the Oak Hill Well Construction Project  
(C67501611)

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### **RECOMMENDATION**

It is recommended that the City Council approve a Resolution accepting completion of contract for the Oak Hill Well Construction project (C67501611) by Well Industries, Inc.

### **BACKGROUND**

The Restructured Agreement for Water Supply between the City and Sonoma Water establishes a local water production capacity goal for Petaluma. The City has agreed to maintain the ability to deliver up to 40% of the maximum monthly water demand in case of a water shortage emergency, which is approximately 4 million gallons per day (mgd), or 2,800 gallons per minute (gpm). As one step toward meeting that goal, the Oak Hill Well Construction project (C67501611) was created for well construction and repair to improve and maintain the City's groundwater well system by drilling and installing a new municipal water supply well. Oak Hill Well would be one of multiple local water supply development projects required to meet the local production capacity goal for Petaluma.

In 2019, the City contracted with West Yost Associates to provide a well siting study to assist in identifying potential groundwater well locations throughout the City. The well siting study considered the following parameters to establish potential priority sites: City-owned parcels, distance to the water distribution network, distance to existing utilities, potential groundwater aquifer yield, potential water quality issues, and prioritized locations west of the Petaluma River. As a result of this study, three potential sites were identified for future groundwater wells: Oak Hill, Magnolia Open Space, and Paula Lane.

In 2021, West Yost Associates prepared a technical memorandum (TM) evaluating and ranking the three potential sites for the City's next groundwater well project. The TM used the following

criteria to rank the groundwater well locations: site constraints, construction costs, operation and maintenance requirements, infrastructure modifications, and life cycle costs. Based on the evaluation of these criteria, West Yost's TM recommended the Oak Hill site for the City's next groundwater well location.

After selection of the preferred site, the City contracted with West Yost Associates and GHD to provide design services and prepare documents necessary for compliance with the California Environmental Quality Act (CEQA).

At the September 12, 2022, City Council meeting, Council approved the Oak Hill Well Construction project and adopted the mitigated negative declaration (MND) and mitigation monitoring and reporting program (MMRP), allowing the project to continue through design and completion. In the Fall of 2022, Sonoma County issued a moratorium on all well drilling projects until April 2023 to evaluate environmental impacts of well drilling operations and adjust permitting requirements. In May of 2023, Sonoma County lifted the well drilling moratorium allowing for well drilling permits to be issued. Once the moratorium was lifted, staff began efforts to complete the construction documents. On June 1, 2023, staff held a public informational meeting to provide updates to the residents in the vicinity of the project.

## **DISCUSSION**

On September 18, 2023, the City Council awarded a \$558,515 construction contract to Well Industries Inc. for this project. A well permit was issued by Permit Sonoma (WEL23-0390) and site construction began in May 2024. To comply with the MMRP, a nesting bird survey was conducted prior to contractor mobilization. In order to reduce potential noise impacts to the surrounding community, additional temporary sound attenuation barriers were constructed around the project site to fully enclose the work area.

Borehole construction proceeded with initial aquifer testing with full development anticipated in July. However, preliminary logging of the aquifer and rock formations, as well as initial water production, indicated relatively low yield from the targeted deep aquifer. While water quality samples were collected and tested, there was not sufficient water production to complete initial well development. Following this discovery staff engaged with the Petaluma Valley Groundwater Sustainability Agency (GSA) to explore the possibility of pivoting the installation to a monitoring well rather than the originally proposed municipal supply well. The GSA was receptive to partnering for installation of a monitoring well due to gaps in their monitoring well network within the project vicinity. Staff worked with the GSA to obtain cost estimates for a monitoring well meeting the GSA's requirements. The GSA agreed to share costs for the monitoring well, and staff executed a change order to the contract to remove scope associated with the original municipal supply well, and add completion of a nested, two zone, monitoring well. The completed monitoring well provides indication of the static groundwater level at two separate depths within the borehole, to maximize the value of the monitoring well. The GSA will be responsible for ongoing operations and maintenance of the monitoring well. The changes to the scope of work included:

1. Additional sound wall rental, including increases to both rental time and additional materials to account for the extended duration of project and to provide enhanced sound attenuation;
2. Deletion of well completion components, including F480 PVC well casing and slotted screen pipe, testing and installation of a well pump, backfill, aquifer testing, disinfection, and wellhead finishing;
3. Minimal standby time associated with the time to review initial yield results, consult with the GSA, and arrange for the monitoring well installation; and
4. Monitoring well materials and labor including blank casing and slotted screen pipe, alternate backfill materials meeting the GSA standard specifications, and alternate wellhead finishing appropriate for a monitoring well.

These changes decreased the contract value by \$167,165 for a new total construction contract amount of \$391,350.

The construction contract work was completed satisfactorily, with no disputed claims or incidents. This work closes out the Oak Hill Well Construction (C67501611) project. Staff continues to explore opportunities to increase the city's local water supply and meet local water production goals. The Well Construction Program will continue in future years by expanding upon existing well siting studies and incorporating new technologies to evaluate potential water production. In addition, staff is implementing a Well Treatment Program to greater utilizes the city's existing groundwater wells.

## **PUBLIC OUTREACH**

The Notice Inviting Bids was posted in the Argus-Courier on July 28, 2023. The plans and specifications were emailed to the local Building Exchanges and posted on the City's website. On September 18, 2023, the Council approved an award of contract for the construction of this project.

This agenda item also appeared on the City's tentative agenda document on February 3, 2025, which was a publicly noticed meeting.

## **COUNCIL GOAL ALIGNMENT**

The Capital Improvement Program serves as a comprehensive catalog of community needs. Each year, the Council adopts a budget for the fiscal year that allocates funds and resources to priority projects. The Oak Hill Well Construction project (C67501611) is included in the FY2024-2025 Adopted Budget under CIP-143. The full FY2024-2025 Adopted Operating and Capital Improvement Program Budget can be found here: <https://cityofpetaluma.org/documents/fiscal-year-2025-adopted-budget/>.

## **CLIMATE ACTION/SUSTAINABILITY EFFORTS**

While the Oak Hill Well Construction project's original intent was to enhance the City's emergency water supply capacity, its pivot to a monitoring well installation contributes directly to long-term water resource sustainability. The new monitoring well will support the Petaluma Valley GSA in managing the local groundwater basin, a critical component of sustainable water resource planning. By providing valuable data on groundwater levels at two distinct depths, the monitoring well strengthens the GSA's ability to assess aquifer health, inform groundwater management strategies, and adapt to changing environmental conditions, including droughts exacerbated by climate change.

Additionally, the project incorporated measures to minimize environmental impacts during construction. Temporary sound attenuation barriers reduced noise for the surrounding community, and nesting bird surveys ensured compliance with habitat protection requirements. These efforts demonstrate the City's dedication to balancing infrastructure improvements with environmental stewardship and climate resilience.

## **ENVIRONMENTAL REVIEW**

This Project complied with the California Environmental Quality Act ("CEQA") pursuant to Title 14 of the California Code of Regulations ("CEQA Guidelines") through the City Council's adoption of the Initial Study/Mitigated Negative Declaration ("IS/MND") and MMRP on September 12, 2022. The IS/MND analyzed potential environmental impacts of the Project, identifying mitigation measures to address impacts related to aesthetics, biological resources, cultural resources, geology/soils, hazards, hydrology, noise, transportation, and tribal cultural resources.

The MMRP ensures that these mitigation measures have been implemented to reduce impacts to less-than-significant levels, and the City has determined that the Project would not result in significant adverse environmental effects, either individually or cumulatively. Additionally, accepting completion of the Project falls within the previous CEQA determination and does not constitute a "project" pursuant to CEQA Guidelines Section 15378, as it is an administrative action with no direct or indirect impact on the environment.

## **FINANCIAL IMPACTS**

The Well Industries Inc. construction contract award amount was \$558,515. Due to the required deductive change orders mentioned above, the contract value decreased by \$167,165 for a total construction contract amount of \$391,350.

The Oak Hill Well Construction (C67501611) project has a total approved budget of \$1,301,000, funded by Water Capital. The estimated total project amount from inception to date is \$771,000. There are sufficient funds in this project budget to cover total project costs. Additionally, grant funding from the GSA of approximately \$95,000 is anticipated to offset the monitoring well installation costs. Any unused project budget funds will be returned to operating funds and could be used for future CIP projects.

## **ALTERNATIVES**

The contractor completed the project satisfactorily. Not accepting completion would likely result in a contractual dispute with the contractor.

## **ATTACHMENTS**

1. Resolution
2. Project Location Map