

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES
FROM: EMMA WALTON
DEPUTY DIRECTOR OF ENGINEERING RESOURCES
WATER DEPARTMENT
SUBJECT: PROFESSIONAL SERVICES AGREEMENT APPROVAL –
PROFESSIONAL ENGINEERING SERVICES WITH BLACK AND
VEATCH FOR THE 2019 WATER SYSTEM RELIABILITY STUDY

AGENDA ACTION: MOTION

RECOMMENDATION

It is recommended by the Water Department that the Board of Public Utilities, by motion, approve a Professional Services Agreement (PSA) with Black and Veatch Corporation to provide professional services for the 2019 Water System Reliability Study in the amount not to exceed \$403,890.00.

EXECUTIVE SUMMARY

This proposed action will allow the research, engineering studies, and preparation of recommendations for increasing the resiliency of the City's drinking water distribution system. These recommendations will be incorporated into the City's Water Master Plan and become part of the City's Capital Improvement Program as appropriate.

BACKGROUND

The Tubbs Fire, which began Sunday October 8, 2017, spread rapidly through Sonoma County causing significant damage to the City of Santa Rosa's Fountaingrove and Coffey Park Neighborhoods. As the fire spread through the Fountaingrove area, operation of the water system was most impacted by three main factors:

- Extreme water demands due to the destructive effects of the fire, which were many times higher than typical conditions.
- Partial loss of real-time information provided by the Supervisory Control and Data Acquisition (SCADA) system. This system provides operators the ability

- to monitor the system and to understand the water tank levels, system pressures, and the flow rates.
- The inability to immediately access and close openly flowing appurtenances and inability to access, assess, and operate critical facilities due to safety concerns.

To better understand how the City's water system responded during the event, the City contracted with Black & Veatch (B&V) in 2018 to perform a focused evaluation of the water system within the Fountaingrove Area during the Tubbs Fire. This evaluation is titled: "Evaluation of the Water System's Response in Fountaingrove to the October 2017 Fire," referred to as the "2018 B&V Report."

The 2019 Water System Reliability Study will expand on the 2018 B&V Report and take a more in-depth look at the reliability and redundancy of the City's entire water system as outlined in the Recommendations Section of the 2018 B&V Report. B&V will utilize the findings and recommendations of both studies to update the City's Water Master Plan.

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

The Board participated in a Study Session on September 6, 2018 to review the conclusions and recommendations of the initial Black & Veatch report titled: "Evaluation of the Water System's Response in Fountaingrove to the October 2017 Fire."

ANALYSIS

The City's Water System Master Plan is typically updated on a 5-year cycle. Due to the devastation of the Tubbs fire in October of 2017, staff determined that, in addition to a full update of the Master Plan which is due for an update in 2019, a focused update of the Master Plan should be completed to look at the performance, reliability, resiliency, and redundancy of the City's water infrastructure and communication systems as it relates to fire protection. The base scope of this project includes the recommendations identified in the 2018 B&V Report.

In addition to the recommendations that were generated from the 2018 B&V Report, the base scope of this effort includes an evaluation of the Proctor Heights reservoirs (Proctor Tanks). The Proctor Tanks, which have been out of service since 2008 due to difficulties in maintaining water quality, were originally constructed to provide additional drinking water supply to the aqueduct zone in the event of a severance from the Sonoma County Water Agency Aqueduct. It is important to note that the Proctor Tanks were not constructed to provide additional water in the event of a fire. The intent of the evaluation is to determine options to modify the operation or configuration of the reservoirs to utilize the tanks for their intended purpose while maintaining water quality.

In addition to the base scope of work, optional tasks include:

- Provide coordination with the fire department to solicit ideas and suggestions to improve water system reliability and coordination between the Fire and Water Departments.
- Perform a detailed study to identify redundant communication option for the SCADA system.
- Perform a focused investigation of water system's response to the Tubbs Fire for the Coffey Park neighborhood, similar to the 2018 B&V Report which focused on the Fountaingrove Area.
- Explore the development of a fire damage probability index for properties in high risk areas.
- Evaluate water quality and water age impact to balance fire protection and water quality goals.

The Request for Proposals (RFP) for the Water System Resiliency Study was advertised on October 30, 2018 and proposals were received on November 20, 2018. A total of two (2) proposals were received. A review panel made up of an Associate Civil Engineer, and a Utility System Superintendent reviewed and evaluated the proposals. Black & Veatch Corporation was selected as the most qualified consultant for this project. B&V has successfully completed water system analyses, both for the City of Santa Rosa and other municipalities. B&V's fee estimate was reviewed and determined to be reasonable for the scope of work that was proposed.

Project initiation is anticipated to begin in March of 2019 and be completed by December of 2019.

FISCAL IMPACT

Approval of this contract has no additional impact on the budget. Funds for this project were appropriated in the 2018/2019 fiscal year as a mid-year revision.

ENVIRONMENTAL IMPACT

This action is exempt from the California Environmental Quality Act (CEQA) because it is not a project which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, pursuant to CEQA Guideline section 15378.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

A Contract Review Subcommittee meeting to review this contract is scheduled for March 19, 2019. A Subcommittee Report from the committee members will be given during the March 21st Board Meeting.

ATTACHMENTS

- Attachment 1 – Professional Services Agreement

CONTACT

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