



DATE: May 28, 2019

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adoption of a Resolution Authorizing the City Manager to Execute an Amendment to the Professional Services Agreement with Black & Veatch Corporation to Increase the Contract Amount by \$98,600 for Additional Engineering Services

RECOMMENDATION

That Council adopts the attached resolution (Attachment II) authorizing the City Manager to amend the professional services agreement (PSA) with Black & Veatch (B&V) Corporation to increase the contract amount by \$98,600, to a not to exceed amount of \$948,600, to provide additional engineering services for the WPCF Phase II Facilities Plan.

SUMMARY

On March 6, 2018, the City entered into a PSA with B&V to provide engineering services for the development of the WPCF Phase II Facilities Plan. This Plan intended to provide a comprehensive planning document that will serve the WPCF infrastructure needs for the next 25-year planning period. Additional engineering support services, not anticipated when the PSA was executed, are needed to revise the nutrient management strategy based on new regulatory requirements issued by the Regional Water Quality Board in May 2019, and to provide additional design support for the new WPCF Administration and Laboratory Building. Staff requests Council approval to increase the contract amount by \$98,600, to a total not to exceed amount of \$948,600, for B&V to provide these additional services..

BACKGROUND

In 2009, the City completed the Phase I WPCF Improvements Project, which focused on immediate projects needed to improve the redundancy and efficiency of the WPCF's secondary biological treatment processes. The major element of the Phase I project was secondary conversion to trickling filter/solids contact facilities. In 2014, the City prepared an update to the WPCF Master Plan (2014 Master Plan Update), that included a comprehensive list of near-term and long-term improvement projects for the Capital Improvement Program (CIP) to address WPCF infrastructure needs. The goal of the 2014 Master Plan Update was to provide a long-term plan for the WPCF to continue improving efficiency, while providing reliable treatment, and to guide the design and construction of the Phase II WPCF Upgrade.

Since the 2014 Master Plan Update was prepared, the City is facing more stringent wastewater discharge requirements and the need to make key decisions on investments and future upgrades of the WPCF's infrastructure. After reviewing the list of CIP projects, largely developed based on the 2014 Master Plan Update, staff recommended initiating the Phase II Facilities Plan to develop a comprehensive planning document that will serve the WPCF infrastructure needs for the next 25-year planning period. The Phase II Facility Plan will determine the most appropriate technologies for meeting future regulatory requirements and optimizing treatment processes, and refine and modify the CIP plan.

On November 6, 2017, a request for proposals was issued to qualified consulting firms to assist with developing the Phase II Facilities Plan. On February 27, 2018, Council approved execution of an agreement with B&V in an amount not to exceed \$850,000. On March 6, 2018, the City and B&V entered into a PSA to commence the Phase II Facilities Plan. A more detailed discussion of the purpose and scope of work for the Phase II Facilities Plan is included in the February 27, 2018 Council staff report.¹

DISCUSSION

Staff is requesting that B&V provide additional engineering support, not anticipated when the PSA was executed, for two project components of the Phase II Facilities Plan: 1) Nutrient Management Strategy and 2) New Administrative and Laboratory Building. A discussion of the additional work being requested is discussed below.

Nutrient-Management Strategy (NMS)

An important task in the Phase II Facilities Plan is development of a nutrient management strategy (NMS) to meet future regulatory requirements. Increasing nutrients in the San Francisco Bay (Bay) is a growing concern for the Bay Area water quality community. A growing body of evidence suggests that the historic resilience of the Bay to nutrient enrichment could be weakening due to a variety of contributing factors, including natural oceanic oscillations and cleaner wastewater discharges to the Bay with lower amounts of suspended solids. The high nutrient loadings result in harmful algal blooms, reduced spawning grounds and nursery habitats, fish kills, oxygen-starved hypoxic or "dead" zones and public health concerns related to increased exposure to toxic microbes.

Historically, numeric (concentration-based) nutrient criteria has been used by regulatory agencies such as the Environmental Protection Agency (EPA) and the California State Water Resources Control Board (SWRCB) to set water quality objectives and standards. When development of the Phase II Facilities Plan started in March 2018, the PSA with B&V assumed that the conventional concentration-based criteria would be the basis for developing the City's NMS. In the ensuing months, the Regional Water Quality Control Board (Water Board) has been developing a regulatory framework for nutrient management.

On May 8, 2019, the Water Board issued the final renewed Nutrients Watershed Permit (Order No. R2-2019-0017) for managing nutrients in wastewater discharges to the Bay. The final renewed Nutrients Watershed Permit includes a load-cap based approach (*i.e.* limits on kilograms of nitrogen) instead of a concentration-based approach for establishing future

¹ <https://bit.ly/2HsEaAT>

nutrient limits for discharges to the Bay. Based on this change, staff is requesting that B&V perform the following additional engineering services to revise the NMS for the City:

- Review of the final renewed Nutrients Watershed Permit
- Development of load-cap based NMS and treatment alternatives
- Impact analysis of recycled water flows and projected demands on NMS
- Discussions, negotiations, and meetings with Regional Water Board staff

New Administration and Laboratory Building

The Phase II Facilities Plan included the schematic design of a new Administration and Laboratory Building. After evaluating multiple design alternatives, a preferred conceptual design that addresses the current and future functional needs of the WPCF has been selected. Staff is planning to present the selected design layout to the Council Infrastructure Committee (CIC) in July 2019, and has requested that B&V provide the following additional services:

- Development of three-dimensional architectural renderings of the New Administration and Laboratory Building
- Presentation to the CIC
- Revisions to design layout based on CIC input

Staff is requesting a total budget increase of \$98,600 for additional engineering services related to revision of the NMS and the new Administrative and Laboratory Building, for a total not to exceed contract amount of \$948,600. A breakdown of the requested budget increase is shown in the table below.

Additional Engineering Services	Cost
1. Nutrient Management Strategy	\$75,243
2. New Administration and Laboratory Building	\$23,357
Total	\$98,600

ECONOMIC IMPACT

This agenda item in and of itself does not have an economic impact. The economic impacts of the Phase II Facilities Plan will be evaluated as project components are developed and implemented in the future. The improvements, modifications, and continued upkeep of the treatment processes at the WPCF are essential to maintain effective treatment of the wastewater and meet future regulations. The community will enjoy the benefits of the projects, including maintaining effective treatment that provides environmental protection of the San Francisco Bay.

FISCAL IMPACT

The current Ten-Year Capital Improvement Program includes sufficient funding in the Sewer Capital Improvement Fund (Fund 612) and the Sewer Replacement Fund (Fund 611) to provide funding for the costs associated with performing these additional support services requested by the City from B&V. There is no impact to the General Fund associated with this action.

STRATEGIC INITIATIVES

This agenda item supports the Complete Communities Strategic Initiative. The purpose of the Complete Communities initiative is to create and support structures, services, and amenities to provide inclusive and equitable access with the goal of becoming a thriving and promising place to live, work and play for all. The WPCF Phase II Facilities Plan identifies WPCF infrastructure needs and improvements to increase the reliability of the City's treatment plant, further supporting the goals of the City Council.

Goal 1: Improve quality of life for residents, business owners, and community members in all Hayward neighborhoods.

Objective 4: Create resilient and sustainable neighborhoods

SUSTAINABILITY FEATURES

This agenda item does not incorporate sustainability features. However, future Phase II projects will help maintain and improve the biology and health of the San Francisco Bay, which is vital for the region and the State.

PUBLIC CONTACT

This agenda item does not require public contact.

NEXT STEPS

Following Council approval, staff will amend the professional services agreement with Black & Veatch Corporation for the additional engineering services.

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Recommended by: Alex Ameri, Director of Public Works

Approved by:



Kelly McAdoo, City Manager