



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow  
Matt Cano  
Jim Shannon

**SUBJECT:** SEE BELOW

**DATE:** January 4, 2021

Approved

Date

1/7/2021

**SUBJECT: CONSTRUCTION CONTINGENCY INCREASE FOR THE 7418 – COGENERATION FACILITY PROJECT AT THE SAN JOSE – SANTA CLARA REGIONAL WASTEWATER FACILITY AND APPROPRIATION AMENDMENTS**

## RECOMMENDATION

- (a) Approve a \$1,900,000 increase to the owner-controlled construction contingency for the 7418 – Cogeneration Facility Project (“Project”) for a revised contingency in an amount not to exceed \$10,188,000.
- (b) Adopt a resolution authorizing the Director of Public Works to negotiate and execute amendments to the Design-Build Contract (Contract) to include additional work and services required to complete the Project or requested by the City, pay for costs resulting from the COVID-19 pandemic and increase the Guaranteed Maximum Price (GMP) from \$91,172,000 to \$93,072,000.
- (c) Adopt the following 2020-2021 Appropriation Ordinance Amendments in the San Jose-Santa Clara Treatment Plant Capital Fund:
  - (1) Decrease the Nitrification Clarifier Rehabilitation appropriation to the Environmental Services Department by \$1,900,000; and
  - (2) Increase the Energy Generation Improvements appropriation to the Environmental Services Department by \$1,900,000.

## OUTCOME

Approval of the recommended actions increase will provide funding for unanticipated schedule and cost impacts to the Project due to the COVID-19 pandemic, and will provide for additional Transition Services, as requested by the City, after acceptance of the Project. Approval of the appropriation ordinance amendments is necessary to increase the construction contingency for the Project.

## **BACKGROUND**

The San Jose – Santa Clara Regional Wastewater Facility requires significant power to run the numerous pumps and blowers necessary for the sewage treatment process. Much of this energy is self-produced using digester gas in cogeneration equipment that has been in operation for 25 to 65 years. This aging infrastructure has been subject to breakdowns of increasing frequency and severity, and the limited ability to acquire parts for aging equipment has become an equally critical consideration. As a result, a 2012 study recommended replacement of the existing cogeneration equipment in order to provide reliable and efficient on-site power and heat. Subsequent analysis refined the project concept to include a new cogeneration facility with state-of-the-art engine-generators, gas purification, heat recovery and emissions controls.

On April 26, 2016, the City Council approved the Design-Build Contract with CH2M HILL Engineers, Inc., and a construction contingency in the amount of \$8,288,000 and authorized the City Manager to negotiate and execute the definitive contract amendment (DCA) to, among other things, set the GMP in an amount not-to-exceed \$82,884,000 for the design-build work to be performed following the preliminary design services. On May 25, 2018, the City Manager executed the DCA and established a GMP in the amount of \$89,071,932 leaving a construction contingency amount of \$2,100,068 for unanticipated work or changes for which the City was responsible under the Contract.

## **ANALYSIS**

The Project is nearing completion of the startup, commissioning and testing phase with an anticipated final project completion date of March 15, 2021. The Project schedule has been delayed approximately six months due to a variety of reasons, but primarily due to impacts resulting from the COVID-19 pandemic. Pursuant to the Contract's terms, the COVID-19 pandemic is an "Uncontrollable Circumstance" which allows the Design-Builder to claim cost and/or schedule relief. On November 3, 2020, the Design-Builder submitted an initial claim for cost and schedule relief. The City and the Design-Builder met (virtually) several times over the months of November and December and have agreed in concept to the level of impacts that would be compensable under the Contract. The negotiated total amount of impacts is \$1,375,000 through December 10, 2020. Given that the project is within one month of acceptance, there may be additional impacts to be negotiated in the coming months.

Among the claimed impacts are direct costs associated with additional health and safety measures required by the various County Health Orders, labor productivity losses, extended project overhead, travel restriction impacts, and additional insurance and bond costs. The City has agreed in concept to share the direct cost impacts related to additional health and safety measures that were not known nor contemplated at the negotiation of the DCA in 2018. These costs will be shared equally between the Design-Builder, its subcontractors (as a group) and the City. These costs are related to jobsite health screening, additional wash stations, hand sanitizer, sanitizing of hand tools and equipment, additional personal protective equipment (PPE) such as

masks, gloves, face shields, Jobsite Safety and Accountability Supervisor, and various trainings, logbooks and documentation.

The Design-Builder also claim that labor productivity has been impacted due to the additional time it takes to complete work while complying with health and safety measures such as maintaining social distance, additional PPE, cleaning tools and work areas, daily check-ins to the jobsite, fogging up glasses and goggles, etc. This is a very difficult claim to substantiate but the Design-Builder has adequately substantiated certain impacts. Therefore, staff propose that the City recognizes there is an impact, and as such has agreed in concept to acknowledge approximately 3% of labor productivity loss due to these impacts.

Another element of the claim is the additional cost that the project incurred due to travel restrictions and an international travel ban that prevented engine manufacturer technicians from Germany from being present on site during startup and commissioning of the new engines. In July 2020, the City and the design-builder agreed to a remote start-up plan that would avoid international travel but would require additional staff on site, and a longer duration of start-up activities due to the technician's physical absence from the project site. Not knowing when the travel ban would be lifted, the project team was left with no options other than to shut the project down until international travel could resume and the engine startup process could be performed as originally planned. This would have delayed the project indefinitely and would have resulted in significantly higher costs in addition to loss of use of the new cogeneration facility. The travel ban is still in effect at the time of this writing. The City and the design-builder agreed to a cost impact of \$290,000 for the remote start-up workaround. This memorandum recommends approval of a project contingency increase and appropriation actions necessary to implement this plan.

After acceptance of the project, the City would like to exercise the option to have the design-builder provide technical support for up to two years while City operations and maintenance (O&M) staff become familiar with the operation of the new facility and crews become familiar with the operation of the new facility. These "transition services" are in addition of any tasks included in the original contract and were not part of the negotiated GMP with the Design Builder. At the time of negotiation, there were still unknown details about the specific services and level of effort that would be required and that could not be determined until the engines were selected along with the appurtenant gas treatment, heat recovery and emissions control systems. Services would include, but not be limited to:

- developing operating procedures for various operational modes beyond the basic modes called out for in the contract;
- troubleshooting system trips and alarms;
- providing additional training to City O&M staff; and
- updating O&M manuals as needed.

All services would be performed at the specific request of the City. Called "transition services", these were anticipated at the outset of the Project, however, the specific services and level of effort could not be determined until the engines were selected along with the appurtenant gas

treatment, heat recovery and emissions control systems. Staff anticipates that these services will cost approximately \$400,000 over the next two years.

The addition of the recommended \$1,900,000 in construction contingency includes all of the negotiated cost impacts described above and will bring the total construction contingency to \$10,188,000, which represents approximately 12.3% of the contract value. This project was tracking within the previously approved construction contingency prior to the onset of the COVID-related impacts described above.

### **CONCLUSION**

COVID-19 has had a direct impact on the construction of the Project, causing schedule delays and increasing mitigation costs not anticipated at the time the GMP was originally established. City staff have negotiated a fair and equitable split of the costs and schedule impacts associated with the pandemic. As the Project nears completion, the addition of transition services will allow the City's O&M staff the ability to develop additional operating procedures and provide additional training support to enable smooth and efficient operation of the facility for years to come.

### **EVALUATION AND FOLLOW-UP**

No follow-up action with the City Council is expected.

### **CLIMATE SMART SAN JOSE**

The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals. The Project, when completed, will utilize all the biogas created at the RWF in the most efficient and flexible manner available to self-generate power to run the facility.

### **PUBLIC OUTREACH**

This memorandum will be heard at the January 14, 2021, Treatment Plant Advisory Committee (TPAC) meeting and will be posted on the City's Council Agenda website for the January 26, 2021, City Council meeting.

### **COORDINATION**

This memorandum has been coordinated with the City Attorney's Office. This memorandum will be presented at the January 14, 2021, Treatment Advisory Committee (TPAC) meeting for consideration.

**COMMISSION RECOMMENDATION/INPUT**

This memorandum will be heard at the January 14, 2021, TPAC meeting. A supplemental memo with TPAC’s recommendation will be included in the amended January 26, 2021, City Council meeting agenda.

**FISCAL/POLICY ALIGNMENT**

This Project is consistent with the City Council-approved budget strategy to address rehabilitation and replacement of critical infrastructure and equipment at the RWF and to improve operational efficiency.

**COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION: \$1,900,000

2. COST ELEMENTS

Project Delivery	\$17,350,000
Design (Base Preliminary Services)	5,655,000
Design Contingency (Additional Preliminary Services) (10%)	565,000
Design-Build Work (GMP)*	89,071,932
Remaining Owner-Controlled Contingency at time of GMP (2.4%)	2,100,068
Owner-Controlled Contingency Modification (2.1%) **	1,900,000
<b>TOTAL PROJECT COSTS</b>	<b>\$116,642,000</b>
Prior Year Expenditures	110,461,130

<b>REMAINING PROJECT COSTS</b>	<b>\$6,180,870</b>
2020-2021 Available Funding	\$4,283,000

**ADDITIONAL FUNDING REQUIRED \$1,897,870**

\* The GMP for design-build work includes \$6,187,932 of previously authorized construction contingency.

\*\*The recommended contingency increase of \$1,900,000 consists of the following elements:

- Negotiated COVID impact settlement through December 15, 2020- \$1,375,000
- Potential future COVID-related impacts through Project completion - \$125,000
- Transition Services through December 31, 2022 - \$400,000

3. SOURCE OF FUNDING: 512 – San José-Santa Clara Treatment Plant Capital Fund. This memorandum recommends reallocating funding of \$1.9 million from the Nitrification Clarifier Rehabilitation project. As this project has experienced unrelated delays, funding can be shifted to the Energy Generation Improvements Project. Funding will be restored to the Nitrification Clarifier Rehabilitation project as part of a future budget process.

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4. **FISCAL IMPACT:** The Project will have no additional impact on the San José-Santa Clara Treatment Plant Operating Fund (Fund 513) or the General Fund.

5. **PROJECT COST ALLOCATION:** In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memo (Carollo Engineers, March 2016), this project is allocated between the four billable parameters relative to the rolling weighted average distribution of all RWF assets.

**BUDGET REFERENCE**

The table below identifies the fund and appropriations to fund the contract recommended as part of this memo and remaining project costs, including project delivery, construction, and contingency costs.

Fund #	Appn #	Appn. Name	Total Appn	Budget Action Req	Amt for Contract	2020-2021 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7454	Energy Generation Improvements	\$4,283,000	\$1,900,000	\$1,900,000	V-139	10/20/20 Ord. No. 30494
512	7074	Nitrification Clarifier Rehabilitation	\$19,826,000	(\$1,900,000)	N/A	V-147	10/20/20 Ord. No. 30494

**CEQA**

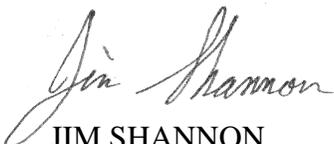
Mitigated Negative Declaration (MND), File No. PP14-005. The MND states that the proposed Project will not have significant effects on the environment because mitigation measures have been made a part of the Project.

/s/

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Director of Public Works



JIM SHANNON  
Budget Director

For questions, please contact John Cannon, Deputy Director, Public Works at (408) 535-8340.