



Memorandum

TO: TRANSPORTATION AND
ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
Matt Cano

SUBJECT: SEE BELOW

DATE: March 20, 2019

Approved

Date

3-29-19

**SUBJECT: SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY
CAPITAL IMPROVEMENT PROGRAM SEMIANNUAL STATUS
REPORT**

RECOMMENDATION

Accept the semiannual status report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period of July 2018 through December 2018.

OUTCOME

The purpose of this semiannual status report is to provide an update on the implementation of the Capital Improvement Program (CIP) at the San José-Santa Clara Regional Wastewater Facility¹ (RWF) by highlighting key accomplishments during the first half of fiscal year 2018-2019 to the Transportation and Environment Committee (T&E), the Treatment Plant Advisory Committee (TPAC), and City Council (Council).

BACKGROUND

The San José and Santa Clara City Councils adopted the Plant Master Plan (PMP) in November 2013 and December 2013, respectively. The PMP identified more than 100 capital improvement projects totaling over \$2.1 billion to be implemented at the RWF over the next 30 years. A validation process was completed in early 2014 to update and prioritize the recommended PMP projects and additional gap projects into 33 projects to be initiated over 10 years. Beginning in fiscal year 2014-2015, the validation process was used to inform the five-year CIP and ten-year funding strategy. The 2019-2023 adopted CIP includes approximately \$1.4 billion in funding, of which approximately \$895 million is for construction. To provide visibility and accountability

¹ The legal, official name of the facility remains San José/Santa Clara Water Pollution Control Plant, but beginning in early 2013, the facility was approved to use a new common name, the San José-Santa Clara Regional Wastewater Facility.

for this significant CIP effort, staff began providing formal semiannual status reports to T&E, TPAC, and Council in spring 2013.

The first semiannual status report was published in April 2013 and focused on progress and activities from July 2012 through December 2012. This report is the 13th in the report series and highlights key program and project accomplishments from July 2018 through December 2018. This report also complements monthly CIP status reports, which staff began issuing in April 2014 to provide more frequent and time-relevant updates. Through December 2018, 57 monthly reports had been issued. Copies of the monthly reports are available at <http://www.sanjoseca.gov/Archive.aspx?AMID=190>.

ANALYSIS

Significant progress was made in several program areas from July 2018 through December 2018.

A. *Development of program wide hazardous material testing and mitigation protocol*

In October, staff began developing a programmatic hazardous material testing and mitigation protocol to provide guidance to CIP design consultants for investigating and testing hazardous materials early in the planning and design phase of the project, as well as developing specifications and standard operating procedures for use by CIP construction contractors in remediating construction sites. Early identification enables the project teams to include hazardous materials management methods in the bid documents, plan for potential project schedule impacts and coordinate with regulatory agencies on remediation approval, if needed. The protocol is expected to be completed by spring 2019.

B. *Recruitments*

During the first half of fiscal year 2018-2019, staff successfully filled nine vacant positions: a senior engineer, an environmental services program manager, three sanitary engineers, two senior engineering technicians, a senior office specialist, and an office specialist. The environmental services program manager started in mid-November and will oversee the RWF's biosolids transition. Their first assignment will be leading the biosolids disposition market assessment. Recruiting for entry level and senior technical engineering positions will continue to be a priority during the second half of fiscal year 2018-2019, particularly for Civil Engineer I/II, Sanitary Engineer, and Senior Engineer positions to support CIP project delivery.

C. *Vendor Open House*

In December, CIP staff hosted the program's fifth open house to increase vendor awareness of upcoming construction opportunities. Sixty people representing 48 companies attended, including consultants, contractors, material and equipment suppliers, with one-third of the attendees representing small businesses and approximately half representing local businesses.

On the project delivery front, 22 active projects progressed through various stages of the CIP project delivery model.

A. Feasibility/Development Highlights

Eight projects were in the feasibility/development phase during the first half of fiscal year 2018-2019. Key activities completed during this period include the following.

- **Storm Drain System Improvements:** In November, the design consultant completed condition assessments for seven stormwater pump stations. A workshop was held in December to summarize the condition assessment results.
- **Fire Life Safety Upgrades:** The design consultant completed the condition assessment of 11 buildings and began development of the conceptual design.
- **HVAC Improvements:** The design consultant submitted the condition assessment technical memorandum and completed an alternatives analysis that identified improvements to the existing HVAC systems in 18 buildings.
- **Facility-Wide Water Systems Improvements and Outfall Bridge and Instrumentation Improvements** project teams completed alternatives analysis and began to develop conceptual design reports.
- **Digested Sludge Dewatering Facility** (progressive design-build): Staff received Statements of Qualifications (SOQs) from four interested design-build firms in August. In October, staff advertised a Request for Proposals (RFP). Three of the four qualified firms submitted proposals in mid-December.
- **Yard Piping and Road Improvements** (progressive design-build): The project team completed condition assessments of various primary and settled sewage pipes.

B. Design Highlights

Seven projects were in the design phase during the first half of fiscal year 2018-2019. Key activities completed during this period include the following.

- **96-inch and 87-inch Settled Sewage Pipes Rehabilitation:** The rehabilitation of these two pipes were expedited due to their criticality, and to take advantage of the extensive bypass system that was designed and installed to facilitate the replacement of the 78-inch SES pipeline. The design consultant completed an alternatives analysis and conceptual design and commenced the 50 percent design.
- **Filter Rehabilitation:** The project team completed the 30 percent design in September.
- **Nitrification Clarifiers Rehabilitation:** Upon completion of the 30 percent design in October, the project was packaged into two phases to allow rehabilitation of the most critical elements to proceed within the available budget. The 60 percent design for both phases was completed in December. The project team began developing the 90 percent design and contractor pre-qualification documents for the first phase of work.
- **Headworks** (progressive design-build): The project team and the design-builder held a series of preliminary workshops through the second half of fiscal year 2018-2019. The workshops focused on site selection and scope, site investigation, permitting, risk management, disciplinary systems and process alternatives. The recommendations

and alternatives selected from the workshops will be reconciled in the Basis of Design Report, which is anticipated to be completed in January 2019.

Advanced Facility Control & Meter Replacement – Phase 2: The project team conducted a hazardous materials investigation. The 90 percent design was completed in November.

C. Construction Highlights

Seven projects totaling roughly \$240 million were in construction during the first half of fiscal year 2018-2019 (see Attachment A). One of the seven projects is being delivered using the progressive design-build method, with the remaining six projects being delivered using the design-bid-build delivery method. Three projects reached Beneficial Use during this period: Construction-Enabling Improvements, Headworks Critical Improvements, and Plant Instrument Air System Upgrade.

Key activities completed during this period include the following.

- **Advanced Facility Control & Meter Replacement – Phase 1:** On July 6, 2018, staff issued the Notice to Proceed (NTP) to C. Overaa & Co. The contractor began mobilizing and preparing construction submittals along with submittals associated with long-lead time equipment. Construction will begin in spring 2019 coinciding with the next dry season.
- **Blower Improvements:** Staff advertised a request for bids in July and received four bids in August. The low bid was five percent below the engineer's estimate. On October 30, 2018, Council awarded the construction contract to Monterey Mechanical Company. Construction will begin in March 2019.
- **Cogeneration Facility** (progressive design-build): The four 3.1 MW cogeneration engines and the exhaust stacks arrived at RWF in August. The design builder completed installation of underground conduits, pipework and poured the base slab of the generator building in October. The four engine-generators (60 tons each) were set on the slab in November. In December, construction of the masonry building walls began. Through December 2018, construction was 27 percent complete.
- **Digester and Thickener Facilities Upgrade:** In July, the general contractor completed the foundation of the new sludge screen building's first floor and began excavating the foundation for the new flare. In August, the canopy, pump pads, conduits and control panels for the thickened sludge pumps were completed. During this period, the contractor poured the first-floor deck in the new sludge screen building; installed the first of two layers of post-tension cables for Digesters 5-8; installed the digester gas pipe rack columns near the new sludge screen building; and installed the dissolved air floatation tanks' mechanical systems and odor control systems. Pouring of the concrete walls for the new sludge screen building continued through December.

78-inch Pipe Replacement – In July, the contractor continued to operate the settled sewage (SES) reroute, allowing for construction of the new wye structure. Installation of the new 78 -inch SES, wye structure and connection to the existing the

96-inch and 87 x 136-inch SES pipes were completed in October. All major work associated with the SES reroute were completed before the wet weather season of 2018.

Seismic Redesign – The Contractor made progress on the ring beam foundation excavations, the roof forms, and gas dome for first of four Digesters 5-8. In September, the first two of four lifts of Digester 5 ring beam foundation were completed. Additionally, the Contractor completed installing the roof forms and placed the steel reinforcement on two of the four digesters.

Handling and Mitigation of PCBs – The Contractor removed and disposed of PCBs-impacted soil around Digesters 5-8. Excavations around Digesters 5 and 6 were completed and work around Digesters 7 and 8 continued through July. Mitigation efforts for all four digesters were completed by October, with the exception of Digester 7 which will have PCB caulking removed from the top interior in the near future.

Through December 2018, construction was 65 percent complete. The project is expected to reach beneficial use in Fall 2020.

Staff, contractors, and consultants continue to work safely and there were no reportable incidents to the State's Division of Occupational Safety and Health (Cal/OSHA) during the first half of fiscal year 2018-2019.

Staff expects to achieve the following during the second half of fiscal year 2018-2019.

1. Issue a final ranking for the design-builder procurement, negotiate with the highest ranked design-builder, and obtain Council approval to award a design-build contract for the Digested Sludge Dewatering Facility.
2. Continue design on four projects: Filter Rehabilitation, Fire Life Safety Upgrades, Headworks, Switchgear M4 Replacement and G3/G3A Removal.
3. Pre-qualify general contractors, complete design, and advertise the 96-inch and 87-inch Settled Sewage Pipes Rehabilitation and Nitrification Clarifiers Rehabilitation – Phase 1 projects for construction bidding.
4. Amend the consultant agreement with Brown and Caldwell for the Digester and Thickener Facilities Upgrade project.
5. Amend the master consultant agreements with Kennedy/Jenks Consultants, Inc. and MNS Engineers, Inc. for construction management services.
6. Amend the master consultant agreements for special inspection and material testing services during construction for various CIP projects.
7. Complete the disposition market assessment for the biosolids management program.
8. Complete a program-wide protocol for the testing and mitigation of hazardous materials during project design and construction.
9. Continue to develop longer term resource and staffing plans, particularly for construction management, in anticipation of increased construction activities in upcoming fiscal years.

10. Continue recruitment activities to fill remaining RWF CIP vacancies.

EVALUATION AND FOLLOW-UP

No follow-up action is required at this time. Staff will continue to provide regular updates to inform T&E, TPAC, and Council of significant changes or issues (particularly as related to rate impacts) as implementation of the CIP progresses. In addition to semiannual presentations, staff will continue to share monthly progress reports with TPAC.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the April 8, 2019, T&E agenda.

COORDINATION

This report has been coordinated with the Office of the City Attorney and City Manager's Budget Office.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the April 11, 2019, TPAC meeting.

CEQA

Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Information Memos that involve no approvals of any City action.

/s/
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/s/
MATT CANO
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For questions, please contact Napp Fukuda, Assistant Director, Environmental Services Department at (408) 973-5353.

Attachment A – Projects in Construction: July 2018 – December 2018