

## SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

SAM LICCARDO, CHAIR  
PAT KOLSTAD, VICE CHAIR  
PIERLUIGI OLIVERIO, MEMBER  
DAVID SYKES, MEMBER  
MANH NGUYEN, MEMBER

JOSE ESTEVES, MEMBER  
TERESA O'NEILL, MEMBER  
STEVEN LEONARDIS, MEMBER  
JOHN GATTO, MEMBER

### AGENDA/TPAC

4:00 p.m.

October 13, 2016

Room 1734

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1. **ROLL CALL**

2. **APPROVAL OF MINUTES**

A. September 8, 2016

3. **UNFINISHED BUSINESS/REQUEST FOR DEFERRALS**

4. **DIRECTOR'S REPORT**

- A. Directors Report (verbal)
- Monthly Progress Report

5. **AGREEMENTS/ACTION ITEMS**

- A. **San José – Santa Clara Regional Wastewater Facility Capital Improvement Program Semiannual Status Report**

Staff Recommendation: Accept the semiannual progress report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period January through June 2016.

**This item is scheduled for consideration by the City Council on October 25, 2016.**

- B. **Master Consultant Agreement with Brown and Caldwell, for Engineering Services as Owner's Advisor for the 7758 – Digested Sludge Dewatering Facility Project at the San Jose – Santa Clara Regional Wastewater Facility**

Staff Recommendation: Approve a Master Consultant Agreement with Brown and Caldwell to provide engineering services as owner's advisor for the 7758- Digested Sludge Dewatering Facility Project at the San José- Santa Clara Regional Wastewater Facility from the date of execution through December 31, 2023, in a total amount not to exceed \$7,700,000, subject to the appropriation of funds.

**This item is scheduled for consideration by the City Council on October 25, 2016.**

C. Actions Related to the Purchase Order for Mechanical Maintenance and Repair Services

Staff Recommendation: Adopt a resolution to authorize the City Manager to:

1. Execute a Purchase Order with Monterey Mechanical Company (Oakland, CA) to provide all labor, material, and equipment for mechanical maintenance and repair services for various wastewater treatment projects at the Regional Wastewater Facility for the term November 1, 2016 through October 31, 2017, in an amount not to exceed \$290,000.
2. Exercise up to four one-year options to extend the term of the Purchase Order through October 31, 2021, for an aggregate maximum compensation amount of \$1,200,000, subject to the annual appropriation of funds.

**This item is scheduled for consideration by the City Council on October 25, 2016.**

D. Purchase of California Carbon Allowances

Staff Recommendation: Approve the Agreement between the City of San José and Vitol, Inc., which is approved by the California Air Resources Board for the purchase of California Carbon Allowances for the San José- Santa Clara Regional Wastewater Facility, as part of the California Cap-and-Trade Program, for an amount not to exceed \$310,000.

**This item is scheduled for consideration by the City Council on October 25, 2016.**

6. **OTHER BUSINESS/CORRESPONDENCE**

- A. Information Memorandum: Public Art Appropriation Review

7. **STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC**

- A. Master Consultant Agreement with Kennedy/Jenks Consultants, Inc. for Engineering Services for the 7760 – Facility Wide Water Systems Improvements Project at the San Jose- Santa Clara Regional Wastewater Facility

Staff Recommendation: Approve a Master Consultant Agreement with Kennedy/Jenks Consultants, Inc. to provide engineering services for the 7760 – Facility Wide Water Systems Improvements Project at the San José – Santa Clara Regional Wastewater Facility from the date of execution through June 30, 2023, in a total amount not to exceed \$2,100,00, subject to the appropriation of funds.

**The proposed recommendation was approved by the City Council on September 20, 2016.**

B. Report on Request for Proposal for Broker, Administrative, and Claims Services to Implement an Owner Controlled Insurance Program for the San Jose – Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendations: Accept the report on the Request for Proposal and adopt a resolution authorizing the City Manager to:

1. Negotiate and execute an agreement with Alliant Risk Services, Inc. to provide broker, claims, and administrative services to establish and maintain a multiline, rolling Owner Controlled Insurance Program for capital improvements at the Regional Wastewater Facility for the term September 20, 2016 through September 19, 2021, with a maximum compensation amount of \$1,025,000 for the initial five year term, not to exceed \$245,000 per year.
2. Exercise up to two five-year options to extend the term of the Agreement after the initial term through September 2031, subject to the appropriation of funds, with maximum compensation not to exceed \$245,000 per year.

**On September 20, 2016, City Council discussed this item. Based on questions raised through a protest, Council rejected all bids and directed staff to re-bid project.**

C. Approval of Citywide Insurance Renewals

Staff Recommendation: Adopt a resolution authorizing the Director of Finance to:

- (a) Select and purchase certain City property and liability insurance policies for the period October 1, 2016 to October 1, 2017 at a total cost not to exceed \$1,750,000, with the following insurance carriers:
  - (1) American Home Assurance Company for Property & Casualty Insurance, including Boiler & Machinery.
  - (2) Old Republic Aerospace, Phoenix Aviation Managers, for Airport Owners and Operators Liability including War Risks & Extended Perils Coverage (Primary and Excess) and Police Aircraft Hull & Liability including War Risks & Extended Perils.
  - (3) The Travelers Indemnity Company of CT for Automobile Liability, or other insurance carriers that the City is currently in negotiations with, (Airport fleet vehicles including Shuttle Buses, Regional Wastewater Facility fleet vehicles, and Airport Shuttle Bus physical damage).
  - (4) QBE Specialty Insurance Company for Secondary Employment Law Enforcement Professional Liability.
  - (5) National Union Fire Insurance Company of Pittsburg, PA for Life/Accidental Death and Dismemberment Policy for the Police Air Support Unit.
- (b) Select and purchase Government Fidelity/Crime Coverage for the period December 18, 2016 to December 18, 2017, at a cost not to exceed \$26,000.

**The proposed resolution was adopted by the City Council on September 20, 2016.**

D. Burrowing Owl Habitat Improvements at the San Jose- Santa Clara Regional Wastewater Facility

Staff Recommendation: Accept this progress report highlighting ongoing habitat management activities for the Western Burrowing Owl on San José- Santa Clara Regional Wastewater Facility bufferlands.

**The progress report was accepted by the Transportation and Environment Committee on September 12, 2016 and by the City Council on October 4, 2016.**

E. Master Consultant Agreement with Williams, Adley, & Company- CA, LLP for 8132 – Audit Services for the San Jose- Santa Clara Regional Wastewater Facility

Staff Recommendation: Approve a Master Consultant Agreement with Williams, Adley, & Company – CA, LLP to provide audit services for the Capital Improvement Program at the San José- Santa Clara Regional Wastewater Facility from the date of execution through December 21, 2021 in a total amount not to exceed \$1,000,000, subject to the appropriation of funds.

**The proposed recommendation was accepted by the City Council on September 20, 2016.**

F. Contract Change Order No. 12 for 7394 – Emergency Diesel Generator Package 2A Project

Staff Recommendation: Approve a Contract Change Order for a credit to the City in the amount of \$718,000 and extend the construction completion date from January 11, 2017 to February 22, 2017 for the 7394 – Emergency Diesel Generator Package 2A Project.

**The proposed recommendation was approved by the City Council on September 20, 2016.**

8. **REPORTS**

A. Open Purchase Orders Greater Than \$100,000 (including Service Orders)

The attached monthly Procurement and Contract Activity Report summarizes the purchase and contracting of goods with an estimated value between \$100,000 and \$1.08 million and of services between \$100,000 and \$270,000.

9. **MISCELLANEOUS**

A. The next monthly TPAC Meeting is November 10, 2016, at 4:00 p.m., City Hall, Room 1734.

**10. OPEN FORUM**

**11. ADJOURNMENT**

NOTE: If you have any changes or questions, please contact Melrose Cacal, Environmental Services (408) 975-2547.

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please contact Melrose Cacal (408) 975-2547 or (408) 294-9337 (TTY) as soon as possible, but at least three business days before the meeting/event.

**Availability of Public Records.** All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at San Jose City Hall, 200 East Santa Clara Street, 10<sup>th</sup> Floor, Environmental Services at the same time that the public records are distributed or made available to the legislative body.

**MINUTES OF THE  
SAN JOSÉ/SANTA CLARA  
TREATMENT PLANT ADVISORY COMMITTEE**  
City Hall, Council Chambers  
Thursday, September 8, 2016 at 4:00 p.m.

**1. ROLL CALL**

Minutes of the Treatment Plant Advisory Committee convened this date at 4:01 p.m. Roll call was taken with the following members in attendance:

**Committee Members:** Pat Kolstad, Steven Leonardis, Sam Liccardo, Manh Nguyen, Pierluigi Oliverio, Dave Sykes, Jose Esteves, John Gatto, Teresa O'Neill

**2. APPROVAL OF MINUTES**

A. August 11, 2016

**Item 2.A. was approved to note and file.**

**Ayes – 6** (Kolstad, Leonardis, Liccardo, Nguyen, Oliverio, Sykes)

**Nayes – 0**

**Absent – 3** (Esteves, Gatto, O'Neill)

**3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS**

**4. DIRECTORS REPORT**

- A. Directors Report (verbal)
- Monthly Progress Report

There were no items to report.

**5. AGREEMENTS/ACTION ITEMS**

- A. Master Consultant Agreement with Kennedy/Jenks Consultants, Inc., for Engineering Services for the 7760 – Facility Wide Water Systems Improvements Project at the San Jose – Santa Clara Regional Wastewater Facility

Staff Recommendation: Approve a Master Consultant Agreement with Kennedy/Jenks Consultants, Inc. to provide engineering services for the 7760 – Facility Wide Water Systems Improvements Project at the San José-Santa Clara Regional Wastewater Facility from the date of execution through June 30, 2023, in a total amount not to exceed \$2,100,000, subject to the appropriation of funds.

**This item is scheduled for consideration by the City Council on September 20, 2016.**

Program Manager Colin Page presented.

**On a motion made by Committee Member Kolstad and a second by Committee Member Oliverio, TPAC recommended approval of staff's recommendations for Item 5.A.**

**Ayes – 5** (Kolstad, Liccardo, Nguyen, Oliverio, Sykes)

**Nays – 2** (Esteves, Leonardis)

**Absent – 2** (Gatto, O'Neill)

**B. Report on Request for Proposal for Broker, Administrative, and Claims Services to Implement an Owner Controlled Insurance Program for the San Jose- Santa Clara Regional Wastewater Facility Capital Improvement Program**

Staff Recommendations: Accept the report on the Request for Proposal and adopt a Resolution authorizing the City Manager to:

- (1) Negotiate and execute an agreement with Alliant Risk Services, Inc. to provide broker, claims, and administrative services to establish and maintain a multiline, rolling Owner Controlled Insurance Program for capital improvements at the Regional Wastewater Facility for the term September 19, 2021, with a maximum compensation amount of \$1,025,000 for the initial five year term not to exceed \$245,000 per year.
- (2) Exercise up to two five-year options to extend the term on the Agreement after the initial term through September 2031, subject to the appropriation of funds, with a maximum compensation not to exceed \$245,000 per year.

**This item is scheduled for consideration by the City Council on September 20, 2016.**

Risk and Insurance Manager Stephanie Williams presented on this topic. The presentation provided an overview of the Owner Controlled Insurance Program (OCIP), its services and potential benefits, including projected cost savings from implementing an OCIP over the first five years.

Committee Member Esteves asked how staff determined the estimated cost savings, and requested a flowchart depicting the amount of savings on an annual basis.

Ms. Williams stated that the feasibility study estimated cost savings using loss exposure assumptions of between 25 and 100 percent. Director Kerrie Romanow and Ms. Williams stated that precise figures for the annual cost savings would not be available until the procurement was out to market. Assistant Director Ashwini Kantak re-iterated that the recommendation being brought forward was for broker services and not for insurance services and that it would cost approximately \$75,000 from September 2016 to January 2017 in broker services in order to procure the insurance products. Staff would return to TPAC with proposal in January 2017 with a recommendation on the insurance products.

Committee Member Gatto asked why the design portion was not being included in the OCIP. Ms. Williams responded that although the design product was not a recommended

element of the feasibility study, staff would look into adding an Owners Professional Indemnity Insurance. Ms. Williams also stated that comprehensive liability coverage was already part of the design consultant contracts and that there would likely not be any cost savings associated with this product in the OCIP. The feasibility study noted that professional liability and pollution liability are not recommended without further marketing analysis. The recommended broker will collect data on all products on a fixed premium rate.

**On a motion made by Committee Member Oliverio and a second by Committee Member Kolstad, TPAC recommended approval of staff's recommendations for Item 5.B.**

**Ayes – 6** (Kolstad, Liccardo, Nguyen, Oliverio, O'Neill, Sykes)

**Nays – 2** (Esteves, Leonardis)

**Absent – 0**

**Abstain – 1** (Gatto)

C. Approval of Citywide Insurance Renewals

Staff Recommendation: Adopt a resolution authorizing the Director of Finance to:

- (a) Select and purchase certain City property and liability insurance policies for the period October 1, 2016 to October 1, 2017 at a total cost not to exceed \$1,750,000, with the following insurance carriers:
  - (1) American Home Assurance Company for Property & Casualty Insurance, including Boiler and Machinery.
  - (2) Old Republic Aerospace, Phoenix Aviation Managers, for Airport Owners and Operators Liability including War Risks & Extended Perils Coverage (Primary and Excess) and Police Aircraft Hull & Liability including War Risks & Extended Perils.
  - (3) The Travelers Indemnity Company of CT for Automobile Liability, or other insurance carriers that the City are currently in negotiations with, (Airport fleet vehicles including Shuttle Buses, Regional Wastewater Facility fleet vehicles, and Airport Shuttle Bus physical damage).
  - (4) QBE Specialty Insurance Company for Secondary Employment Law Enforcement Professional Liability.
  - (5) National Union Fire Insurance Company of Pittsburg, PA for Life/Accidental Death and Dismemberment Policy for the Police Air Support Unit.
- (b) Select and purchase Government Fidelity/Crime Coverage for the period December 18, 2016 to December 18, 2017, at a cost not to exceed \$26,000.

**On a motion made by Committee Member Esteves and a second by Committee Member O'Neill, TPAC recommended approval of staff's recommendation for Item 5.C.**



**Ayes – 9** (Esteves, Gatto, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio, O’Neill, Sykes)

**Nayes – 0**

**Absent – 0**

D. Burrowing Owl Habitat Improvements at the San Jose- Santa Clara Regional Wastewater Facility

Staff Recommendation: Accept this progress report highlighting ongoing habitat management activities for the Western Burrowing Owl on San José- Santa Clara Regional Wastewater Facility bufferlands.

**This item is scheduled for consideration by the Transportation and Environment Committee on September 12, 2016.**

Acting Sustainability and Compliance Manager Ken Davies presented on this item.

The presentation highlighted the substantial increase in the owl population, underscoring the success of the habitat management strategy. Mr. Davies also referenced a recent agreement that had been presented to TPAC through which the operations along with associated costs would be borne by the Santa Clara Valley Habitat Agency. Mr. Davies stated that another agreement with the Santa Clara Valley Habitat Agency would be brought forward in the future. This agreement would create long term conservation easement in lieu of paying mitigation fees of about \$1.4 million for various Capital Improvement Program projects.

Committee Member Esteves expressed concerns about the 50-year duration of the habitat easement and 72 acres allocated for conservation.

City of San José staff explained that when the Plant Master Plan was adopted, TPAC recommended, and San José and Santa Clara concurred that there would be 180 acres set aside for habitat. No additional land was intended to be set aside. Staff reiterated that by maintaining a productive site for the burrowing owls, the Regional Wastewater Facility managed to avoid paying \$1.4 million in mitigation fees to the Santa Clara Valley Habitat Agency. Director Kerrie Romanow stated that TPAC could discuss the fee-in-lieu option as a future action item if the habitat agency was no longer preferred by some of the Agencies.

**On a motion made by Committee Member Gatto and a second by Committee Member O’Neill, TPAC recommended approval of staff’s recommendation for Item 5.D.**

**Ayes – 9** (Esteves, Gatto, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio, O’Neill, Sykes)

**Nayes – 0**

**Absent – 0**

E. Master Consultant Agreement with Williams, Adley, & Company – CA, LLP for 8132- Audit Services for the San Jose- Santa Clara Regional Wastewater Facility

Staff Recommendations: Approve a Master Consultant Agreement with Williams, Adley & Company – CA, LLP to provide audit services for the Capital Improvement Program at the San Jose- Santa Clara Regional Wastewater Facility from the date of Execution through December 21, 2021 in a total amount not to exceed \$1,000,000, subject to the appropriation of funds.

**This item is scheduled for consideration by the City Council on September 20, 2016.**

Deputy Director Julia Nguyen presented on this item.

**On a motion made by Committee Member O’Neill and a second by Committee Member Oliverio, TPAC recommended approval of staff’s recommendations for Item 5.D.**

**Ayes – 8** (Gatto, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio, O’Neill, Sykes)

**Nays – 1** (Esteves)

**Absent – 0**

F. Contract Change Order No. 12 for 7394 – Emergency Diesel Generator Package 2A Project

Staff Recommendation: Approve a Contract Change Order for a credit to the City in the amount of \$718,000 and extend the construction completion date from January 11, 2017 to February 22, 2017 for the 7394 – Emergency Diesel Generator Package 2A Project.

**This item is scheduled for consideration by the City Council on September 20, 2016.**

Deputy Director Julia Nguyen presented on this item.

**On a motion made by Committee Member Kolstad and a second by Committee Member Oliverio, TPAC recommended approval of staff’s recommendation for Item 5.E.**

**Ayes – 9** (Esteves, Gatto, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio, O’Neill, Sykes)

**Nays – 0**

**Absent – 0**

6. **OTHER BUSINESS/CORRESPONDENCE**

7. **STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC**

A. **Report on Bids and Award of Construction Contract for 7617 – Plant Instrument Air Upgrade Project at the San Jose- Santa Clara Regional Wastewater Facility**

Staff Recommendations:

- (a) Adopt a resolution approving the San José- Santa Clara Regional Wastewater Facility Plant Instrument Air System Upgrade Project Initial Study/Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program (File No. PP15-114).
- (b) Report on bids and award of construction contract for 7617 – Plant Instrument Air System Upgrade Project to the low and only low bidder, Anderson Pacific Engineering Construction, Inc., in the amount of \$2,848,000, and approve a 15 percent construction contingency in the amount of \$427,200.
- (c) Adopt a resolution authorizing the Director of Public Works to execute one or more change orders in excess of \$100,000 for the remaining duration of the Plant Instrument Air System Upgrade Project, not to exceed the total contingency amount approved for the Project.

**The proposed resolutions were adopted by the City Council on August 23, 2016.**

**This item was approved to note and file.**

**Ayes – 9** (Esteves, Gatto, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio, O’Neill, Sykes)

**Nayes – 0**

**Absent – 0**

8. **REPORTS**

9. **MISCELLANEOUS**

- A. The next monthly TPAC Meeting is October 13, 2016, at 4:00 p.m., City Hall, Room 1734.

10. **OPEN FORUM**

- A. Dean Stanford spoke.

11. **ADJOURNMENT**

A. The Treatment Plant Advisory Committee adjourned at 4:41 p.m.

Sam Liccardo, Chair  
TREATMENT PLANT ADVISORY COMMITTEE



**San José-Santa Clara**  
Regional Wastewater Facility

# Capital Improvement Program Monthly Status Report: August 2016

October 6, 2016

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for August 2016.

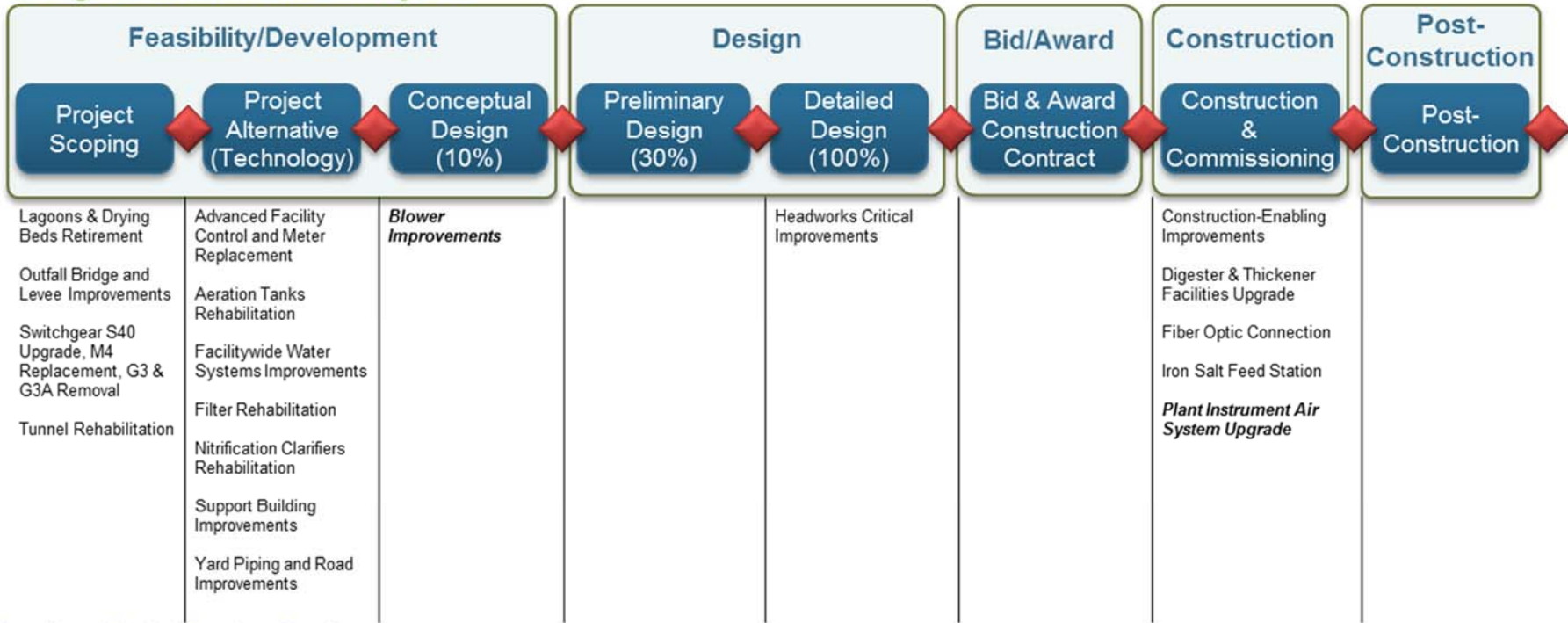
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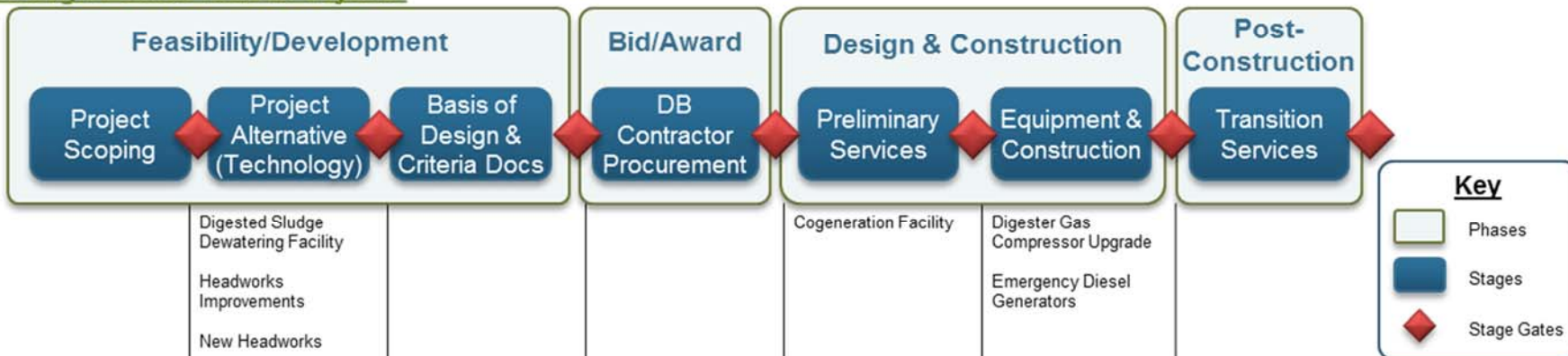


# Project Delivery Model

## Design-Bid-Build Active Projects



## Design-Build Active Projects



**Key**

- Phases
- Stages
- ◆ Stage Gates

\*Projects shown in **bold and italics** have advanced this reporting period



# Program Summary

## August 2016

The CIP progressed on multiple fronts in August, including advancing the Blower Improvements Project through the Project Delivery Model (PDM) stage gate process. The project passed through the “Confirm Project Alternative” stage gate, allowing conceptual design to proceed. Conceptual design is anticipated to be completed in October.

In additional developments, CIP staff:

- Completed Statement of Qualifications (SOQ) interviews and notified the top-ranked consultant for the Support Building Improvements Project;
- Completed the consultant selection for the Facilitywide Water Systems Improvements SOQ; and
- Presented recommendations to the Treatment Plant Advisory Committee (TPAC) and City Council (Council) to award a construction contract for the Plant Instrument Air System Upgrade Project to the lowest bidder, Anderson Pacific, for \$2,848,000. This recommendation was approved and construction is expected to commence in September.

Work began this month on a Flow Management Study to set future RWF flow management practices. This study is essential for consistent hydraulic planning and long-term flows management. It will validate current flow routing assumptions, field-calibrate existing hydraulic models, and evaluate hydraulic capacities and potential flow constraints throughout the RWF. This work will inform future CIP designs and operations across all projects that pertain to the treatment of liquid waste.

Design continued on the Headworks Critical Improvements Project, which reached the 90 percent design milestone this month. The Cogeneration Facility design-build project also made significant progress, holding five technical workshops and issuing engine-selection procurement documents. The design-builder will submit the Basis of Design Report for the cogeneration project in September, and anticipates early procurement of the cogeneration engines in November. Alternatives analysis continued on the Headworks Improvements, New Headworks, Filter Rehabilitation, and Nitrification Clarifiers Rehabilitation projects, with technical workshops held for each project this month. Condition assessment work also progressed on the Filter Rehabilitation and Nitrification Clarifiers Rehabilitation projects.

Construction work continued on the Emergency Diesel Generators, Digester Gas Compressor Upgrade, Iron Salt Feed Station, and Fiber Optic Connection projects. Site activities commenced this month on the Construction-Enabling Improvements project with clearing and grubbing, grading, and earthwork activities getting underway. A groundbreaking ceremony for the Digester and Thickener Facilities Upgrade project — the largest of the 10-year CIP projects to commence construction so far — was held at the RWF on August 24.

## Look Ahead

In September, CIP project teams and the selected design consultants will move forward with design, condition assessment, and alternatives analysis work for the Headworks Improvements, New Headworks, Cogeneration Facility, Filter Rehabilitation, Blower Improvements, and Nitrification Clarifiers Rehabilitation projects. Applications and discussions will continue with the State Water Resources Control Board on Clean Water State Revolving Fund (SRF) funding for the Digester and Thickener Facilities Upgrade and Cogeneration Facility projects.

Staff will proceed with consultant procurements and service orders for the Aeration Tanks Rehabilitation; Facilitywide Water Systems Improvements; Advanced Facility Control and Meter Replacement; Switchgear S40 Upgrade, M4 Replacement, G3 & G3A Removal; Digested Sludge Dewatering Facility; and Support Buildings Improvement projects.

Procurements for a number of programmatic services will continue to advance, including Audit Services, Owner-Controlled Insurance Program (OCIP), and Industrial Hygienist services.

Also in September, staff will recommend that TPAC and Council:

- Award an agreement to provide broker, administrative, and claims services to implement an OCIP;
- Award a master consultant agreement for the Facilitywide Water Systems Improvement project;
- Award a master consultant agreement to provide audit services at the RWF; and
- Process a change order for the Emergency Diesel Generator Project to eliminate particulate filters. This change will result in a credit to the City of approximately \$718,000.

Construction activities will continue on the Emergency Diesel Generators, Digester Gas Compressor Upgrade, Iron Salt Feed Station, Fiber Optic Connection, Digester and Thickener Facilities Upgrade, and Construction-Enabling Improvement projects. Construction will commence next month on the Plant Instrument Air System Upgrade project.

In addition, all CIP project managers and project engineers will continue formal staff training, with the next training session to be focused on design management.



## Program Highlight – Code Compliance Coordination

Permits ensure that regulatory agencies can properly administer and enforce codes and regulations to safeguard the public and the environment. Permits are particularly important for the CIP Program, which is constructing large, publicly funded, high-profile, critical infrastructure projects for the entire South Bay. Without permits, there would be no guarantee a project would be built correctly—and any resulting infrastructure failure would be very expensive to fix. Instead, all CIP projects go through a comprehensive evaluation process to determine whether permits are required, ensuring that projects are built safely and function effectively.

In the early stages of the CIP program, leadership identified the need to develop a permitting procurement strategy to deal with the size and complexity of the projects. This strategy incorporates the following elements:

- Identify potential permit requirements and summarize potential applicability to CIP projects (i.e., Fire, Building & Safety, PG&E, etc.)
- For each permit type, summarize requirements, schedule for procurement, and responsible parties
- Create templates for key permit applications/submissions
  - Steps
  - Parties
  - Estimated durations
- Provide ongoing updates to permit strategy
- Regularly update staff on permit requirements, strategies, and future trends

### CIP Permit Coordinator

Instead of each project manager learning the permitting process and developing a permit procurement plan, the CIP established the CIP Permit Coordinator (PC) as a centralized resource for project managers. The PC guides project managers in obtaining permits required for construction, allowing more time and resources to focus on other important project aspects. Additionally, the PC acts as a liaison between the CIP and regulatory agencies to streamline permit processing.

PC duties include:

- Assisting with the creation of permit procurement plans for each project,
- Assisting project managers in meetings with permit agencies,
- Monitoring permit procurement plan compliance, and
- Assisting project managers with procurements as requested

### The Department of Public Works Building Official Program

The Department of Public Works Building Official Program (BOP) encompasses the Structural Engineering and Code Inspection group. This group administers the California Building Code (see Figure 1), and the City of San José Fire Department, which administers the California Fire Code. The BOP issues the Public Works Building Permit and construction inspections for all City projects, including the CIP. The Public Works Building Permit ensures that projects have been designed according to the current 2013 California Building Code (the 2016 California Building Code was recently adopted by the City and will be effective as of January 1, 2017) and City of San José Ordinance requirements. Routine inspections during construction verify that projects have been built according to applicable codes.

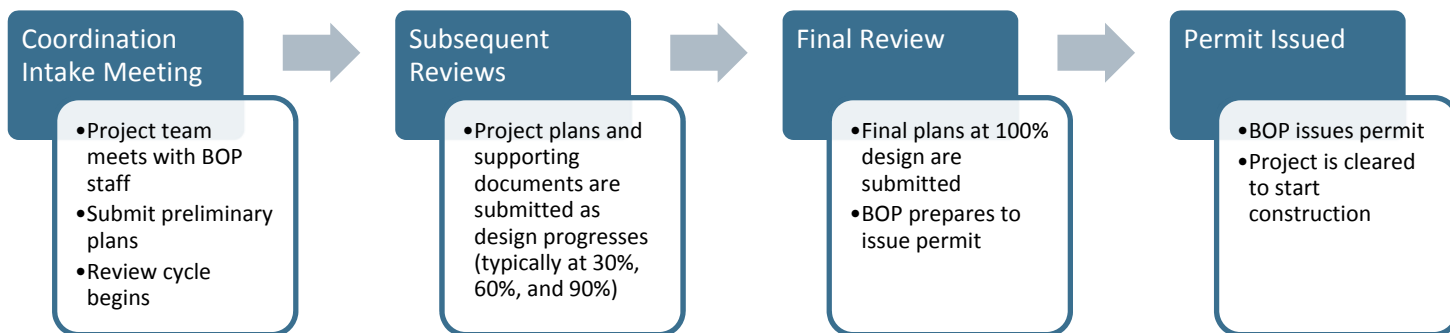


Figure 1: Permitting Process





## Next Steps

Using existing CIP tools (e.g. CIP Portal, Project Delivery Model, Program Execution Plan, etc.), staff will develop additional aids to help project managers track permits and incorporate permitting into project scopes, schedules, and budgets. Permit guidelines for project managers will be issued with regard to adding requirements to consultant service orders. CIP permit training classes will also be held to guide project managers through the permit process.

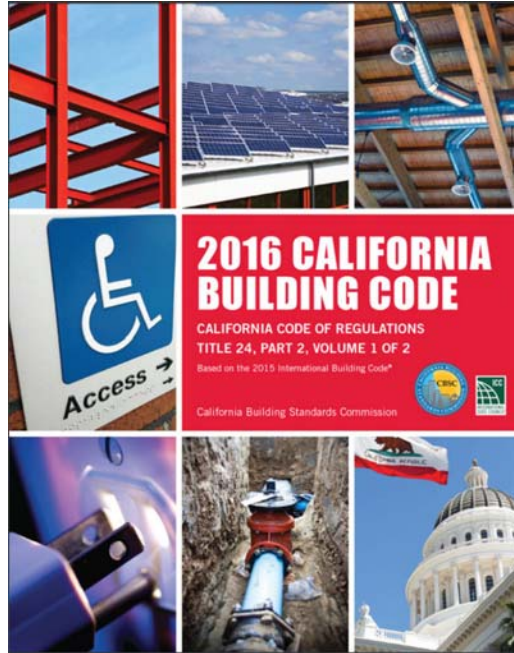


Figure 2: The City of San José recently adopted the 2016 California Building Code, effective January 1, 2017.

## Program Performance Summary

Eight key performance indicators (KPIs) have been established to measure overall CIP success. Each KPI represents a metric that will be monitored on a regular frequency. Through the life of the CIP, KPIs will be selected and measured that best reflect the current program.

### Program Key Performance Indicators – Fiscal Year 2016-2017

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
<b>Stage Gates</b>	80%	100% 1/1 <sup>1</sup>			100% 22/22		
Measurement: Percentage of initiated projects and studies that successfully pass each stage gate on their first attempt. Target: Green: >=80%; Amber: 70% to 80%; Red: < 70%							
<b>Schedule</b>	90%	NA 0/0 <sup>2</sup>			50% 2/4 <sup>3</sup>		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. Target: Green: >=90%; Amber: 75% to 89%; Red: < 75%							
<b>Budget</b>	90%	NA 0/0 <sup>4</sup>			75% 3/4 <sup>5</sup>		
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. Target: Green: >=90%; Amber: 75% to 89%; Red: < 75%							
<b>Expenditure</b>	\$193M	\$162M <sup>6</sup>			\$243M <sup>6</sup>		
Measurement: CIP FY16-17 committed costs. Committed cost meets or exceeds 70% of planned Budget Target: 70% of \$276M = \$193M. Therefore Green: >=\$193M; Amber: \$152M to \$193M; Red: < \$152M							
<b>Procurement<sup>7</sup></b>	80%	NA 0/0			100% 5/5		
Measurement: Number of consultant and contractor procurements advertised compared to planned for the fiscal year. Target: Green: >=80%; Amber: 70% to 79%; Red: < 70%							
<b>Safety</b>	0	0			0		
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
<b>Environmental</b>	0	0			0		
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
<b>Staffing<sup>8</sup></b>	NA	NA	NA	NA	NA	NA	NA
Measurement: Number of planned positions filled for the fiscal year. Target: Green: >=80%; Amber: 70% to 79%; Red: < 70%							

#### Notes

1. The Blower Improvements Project successfully passed stage gate 2: Confirm Project Alternative.
2. No projects reached Beneficial Use this month. Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City.
3. The Emergency Diesel Generators and Digester Gas Compressor Upgrade projects are expected to reach Beneficial Use this fiscal year, but are not expected to be within two months of the baseline schedule.
4. No projects were accepted this month.
5. The Digester Gas Compressor Upgrade Project is forecast to be accepted this year, but is currently over budget by 1.5 percent.
6. These values now reflect updated actual/forecasted amounts.
7. There were no procurements planned this month.
8. The City staffing level KPI for planned recruitments for positions that are vacant at the start of the fiscal year is measured quarterly; all other KPIs are measured monthly. KPI measurement does not account for staff turnover throughout the fiscal year.

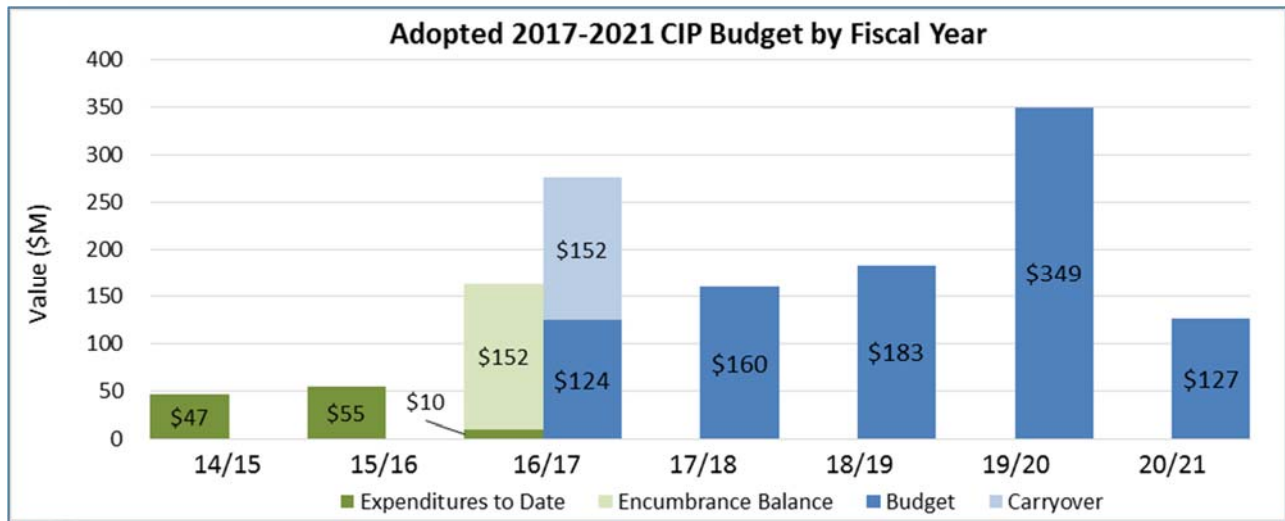


## Program Cost Performance Summary

This section summarizes CIP cost performance for all construction projects and non-construction activities for FY16-17 and for the 2017-2021 CIP.

### Adopted 2017-2021 CIP Expenditure and Encumbrances

FY14-15 and FY15-16 expenditures have been adjusted to reflect the CIP portion of the Treatment Plant Capital Fund (Fund 512), excluding South Bay Water and Urgent and Unscheduled Cost (\$2.6 million and \$1.5 million, respectively).



#### Notes:

**Expenditure:** Actual cost expended, either by check to a vendor or through the City's financial system, for expenses such as payroll or non-personal expenses that do not require a contract.

**Encumbrance:** Financial commitments, such as purchase orders or contracts that are committed to a vendor, consultant, or contractor. The encumbrance reserves the funding within the appropriation and project.

**Encumbrance Balance:** The amount of the remaining encumbrance committed after payments.

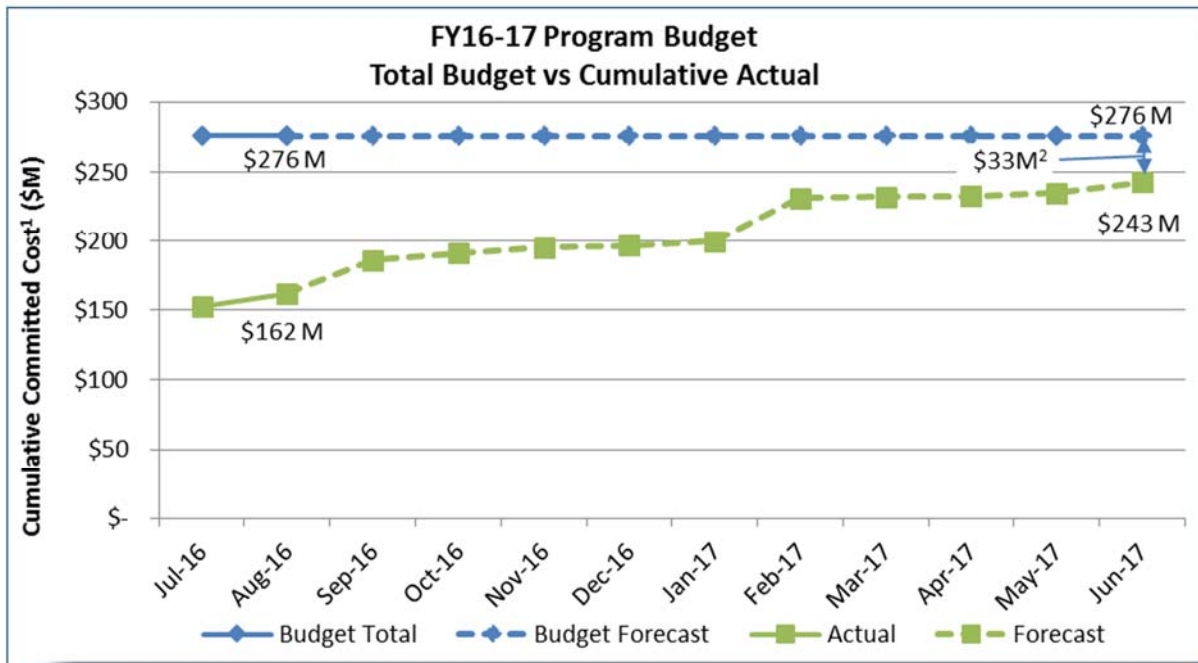
**Budget:** Adopted FY 2017-2021 Budget, which is new funding plus rebudgeted funds.

**Carryover:** Encumbrance balances at the end of a fiscal year become carryover funding. Carryover is different from rebudgeted funds, in that it automatically utilizes funding that was previously committed, but not yet paid.



## Fiscal Year 2016-2017 Program Budget Performance

This budget comprises the FY16-17 budget of \$124 million, plus carryover of \$152 million. The budget excludes Reserves, Ending Fund Balance, South Bay Water Recycling, Public Art, and Urgent and Unscheduled Rehabilitation items.



### Notes:















1. Committed costs are expenditures and encumbrance balances, including carryover (encumbrance balances from the previous fiscal year).
2. The forecast variance between budget and expenditure is primarily due to project contingencies not anticipated to be expensed, and changes in the timing of the Blower Improvements Project. Originally the project had identified that there may be a need to pre-purchase blowers to meet schedule constraints. As design has progressed this has not been found to be necessary and the equipment will now be purchased in FY17-18 as part of the main construction award.






## Project Performance Summary

There are currently seven active projects in the construction or post-construction phases, with an additional 17 projects in feasibility/development, design, bid and award, or design and construction (design-build projects) phases (see PDM, page 2). All active projects are listed in the tables below. Projects in the construction phase have established cost and schedule baselines and are monitored using the City's Capital Project Management System (CPMS). Green/red icons are included in the table below to indicate whether these projects are on budget and schedule, using CPMS data as a source.

### Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date <sup>1</sup>	Cost Performance <sup>2</sup>	Schedule Performance <sup>2</sup>
1. Digester Gas Compressor Upgrade	Construction	Jan 2017		
2. Emergency Diesel Generators	Construction	Mar 2017		
3. Fiber Optic Connection	Construction	Feb 2017		
4. Construction-Enabling Improvements	Construction	Mar 2017		
5. Iron Salt Feed Station	Construction	Sept 2017		
6. Plant Instrument Air System Upgrade	Construction	Jan 2018 <sup>3</sup>		
7. Digester and Thickener Facilities Upgrade	Construction	April 2020		

#### KEY:

Cost:		On Budget		>1% Over Budget
Schedule:		On Schedule		>2 months delay

#### Notes

- Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
- An explanation of cost and schedule variances on specific projects identified in this table is provided on page 13.
- Project construction Beneficial Use date will be baselined once the contractor submits their construction schedule.



## Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date <sup>1</sup>
1. Cogeneration Facility	Design & Construction	May 2019
2. Headworks Critical Improvements	Design	Sept 2017
3. Blower Improvements	Feasibility/Development	Mar 2019
4. Adv. Facility Control & Meter Replacement	Feasibility/Development	Dec 2020
5. Switchgear S40 Upgrade, M4 Replacement, G3 & G3A Removal	Feasibility/Development	April 2021
6. Headworks Improvements	Feasibility/Development	April 2021
7. Digested Sludge Dewatering Facility	Feasibility/Development	Dec 2021
8. Outfall Bridge and Levee Improvements	Feasibility/Development	Feb 2022
9. Filter Rehabilitation	Feasibility/Development	May 2022
10. Facilitywide Water Systems Improvements	Feasibility/Development	July 2022
11. New Headworks	Feasibility/Development	Aug 2022
12. Nitrification Clarifiers Rehabilitation	Feasibility/Development	Nov 2022
13. Yard Piping and Road Improvements	Feasibility/Development	Dec 2022
14. Aeration Tanks Rehabilitation	Feasibility/Development	Jan 2024
15. Tunnel Rehabilitation	Feasibility/Development	Nov 2025
16. Support Building Improvements	Feasibility/Development	Jan 2027
17. Lagoons & Drying Beds Retirement	Feasibility/Development	Mar 2027

### Notes

1. Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.



## Significant Accomplishments

### Biosolids Package

#### Digested Sludge Dewatering Facility

- Staff finalized scope and fee negotiations with the top-ranked firm for owner's advisor services. Staff will bring a recommendation to Council in October.

#### Digester and Thickener Facilities Upgrade

- The City held a groundbreaking ceremony on August 24.
- The project team has begun coordinating dedicated process shutdowns with Operations and Maintenance (O&M) staff in advance of demolition work by Walsh Construction.
- The project team has begun reviewing submittals and requests for information from the contractor.

### Facilities Package

#### Cogeneration Facility

- Staff held five workshops to discuss major elements of the project. Topics included engines; gas treatment; emissions controls; heat recovery; building architecture; heating and cooling loops; and landfill gas considerations.
- The design-build team continues to develop the Basis of Design Report, which is due in mid-September.

#### Construction-Enabling Improvements

- Teichert Construction, Inc. began construction with clearing, grading, and earthwork activities.

#### Facilitywide Water Systems Improvements

- Staff completed its evaluation of the SOQs and will present an award recommendation to Council in September.

#### Fiber Optic Connection

- The contractor, Aegis ITS, Inc., has ordered materials and is anticipated to begin site work in early September.

#### Support Building Improvements

- Staff conducted interviews with the top-ranked firms and will present an award recommendation to Council in November.

#### Yard Piping and Road Improvements

- The project team completed all requirements associated with stage gate conditions, and received approval from CIP leadership to proceed to the Project Alternatives stage.

### Liquids Package

#### Advanced Facility Control and Meter Replacement

- Staff reviewed the final design cost and schedule proposal received under the General Engineering Services master consultant agreement with Black and Veatch Corporation.

#### Blower Improvements

- Staff successfully passed Stage Gate 2: Confirm Project Alternative, and finalized negotiations with the design consultant, Brown and Caldwell, for final design.
- Program staff completed a draft of the Blower Improvement Conceptual Design Report.

#### Filter Rehabilitation

- The design consultant, Kennedy/Jenks Consultants, Inc., submitted the draft final copy of the Maintenance of Plant Operations Plan, held a preliminary inspection debrief workshop to discuss visual condition assessment results, and submitted the draft final copy of the Tertiary Process Narrative that summarized the filter unit process.

#### Headworks Critical Improvements

- Staff received and began internal review of the 90 percent design and cost estimate submittals.

#### Headworks Improvements and New Headworks

- Staff held an alternative analysis workshop and developed a recommended approach to implement the project.



### Iron Salt Feed Station

- Anderson Pacific completed site excavations.
- Staff held a workshop with the programming subcontractor, ABB/TESCO, to coordinate distributed control system programming.

### Nitrification Clarifiers Rehabilitation

- HDR completed the visual condition assessment of the nitrification clarifiers and mixed liquor channels, and continued to plan the approach for a condition assessment of the settled sludge lines.

### **Power and Energy Package**

#### Emergency Diesel Generators

- The City Fire Department approved the pressure test for the fuel tanks, belly tanks, and double containment piping. This approval allows the tanks to be filled with fuel.
- Anderson Pacific completed outstanding items for the generators and switchgear.

#### Plant Instrument Air System Upgrade

- Council awarded a construction contract to Anderson Pacific in the amount of \$2,848,000. Construction is expected to commence in September.





## Explanation of Project Performance Issues

### Emergency Diesel Generator

The project completion schedule has been delayed approximately nine months due to the following three factors:

- Caterpillar, the supplier of the emergency diesel generator system, encountered delays in developing the controls and network switches that interface with existing RWF controls. Caterpillar and Peterson Control are in the process of completing all outstanding items. A problem was found with the new network switches during the factory acceptance test. The City and the design-build team have completed an engineering study and have found a solution to the problem. Additional switches will be ordered and installed for the network system.
- Additional time is required for Pacific Gas & Electric (PG&E) to schedule the witness test of the emergency diesel generator equipment installation and commissioning to connect to the RWF grid. The City completed a batteries load test. The third-party testing report has been submitted to PG&E for review and approval. After PG&E approves the emergency diesel generator plans and the third-party test report, it will require 60 days to schedule a PG&E technical team to witness the emergency diesel generator equipment commissioning.
- A no-cost time extension change order has been processed and fully executed to split the commissioning sequence into two periods and ensure RWF backup power during engine modification work. The City is currently working on phase 1 engine modification.

### Digester Gas Compressor Upgrade

This project is over budget by 1.5 percent. The two issues below have increased project delivery costs, pushing the total project cost slightly over budget:

- Construction inspection requirements were more involved than anticipated, and
- Necessary changes in the contract have extended the project and the project management labor budget was not increased to reflect the project time extension.

The project Beneficial Use has been delayed primarily due to the following reasons:

- The compressor skids needed to be reclassified from Class 1 Division 2 to Class 1 Division 1, and
- The Bay Area Air Quality Management District (BAAQMD) has not approved digester gas flaring during the tie-in of the new gas piping with existing piping.

Staff have resolved the reclassification issue and are working with the BAAQMD to update the RWF air permit to allow flaring during equipment upgrades.



## Project Profile – Support Building Improvements Project

The plan now underway to renovate and refurbish the entire RWF site brings with it an opportunity to upgrade the RWF's complex network of support buildings, staff amenities, and other facilities. A key function of the support facility network is to provide comprehensive repair shop and warehousing support, as well as a range of other elements. Support facilities to be upgraded include warehouses and repair workshops; various heating, ventilation, and air conditioning (HVAC) systems; the fire alarm and sprinkler systems; landscaping; signage; lighting; and women's restrooms and locker rooms. As a critical part of the overall RWF remodel effort, these improvements will be completed under the Support Building Improvements Project concurrently with the construction of other CIP projects. The total project budget is roughly \$54 million.

Support building facilities were constructed over many years as the need arose. Because of the complexity of the network and the differences in age, condition, and use of each building, a design and engineering consultant was required who could provide a wide range of planning, design, and engineering services over a long contract term. In June 2016, staff completed a Request for Qualifications (RFQ) and evaluated the two responding firms. Staff then negotiated a master consultant agreement (MCA) with the top-ranked consultant, Kennedy/Jenks. Staff anticipate presenting the proposed MCA to TPAC and Council in November.

The project consists of the following parts:

1. Fire, Life, and Safety improvements, including installation of new sprinklers and fire alarm systems with a central control room; scheduled to begin in 2019.
2. Heating, Ventilating, and Air Conditioning improvements, including installation of new and more efficient HVAC units that are more operationally efficient to control and monitor via the City's standard Building Management System.
3. New warehouse construction to store RWF parts, tools, and other supplies.
4. Public Art and Landscape Improvements, including installation of enhanced landscaping around the RWF perimeter, Administration, and Environmental Services buildings; sitewide landscape elements such as fencing, plants, irrigation, pavement, hardscape improvements, and site lighting; and new building identification signage.
5. Upgraded restrooms, locker rooms, new bridge cranes, and elevators.

City service orders under the MCA will include various tasks such as condition assessments, project alternatives, cost analysis, conceptual design, preliminary design, and detailed design. Either the design-bid-build or design-build project delivery approach may be used. Both would allow for dedicated interaction with O&M staff during design and construction, and both could reduce the City's risk; potentially lower the volume and cost of contract change orders; decrease construction delays; and provide more efficient solutions to complex construction sequencing issues. In addition, both approaches would include CEQA review process completion support and, potentially, assistance with the SRF application process.

Staff will execute a consultant service order to begin assessing the buildings and gathering documents for project alternatives and cost analyses. Construction of Parts 1 and 2 is scheduled to begin in 2019 with substantial completion expected for all sections of the project by 2027.



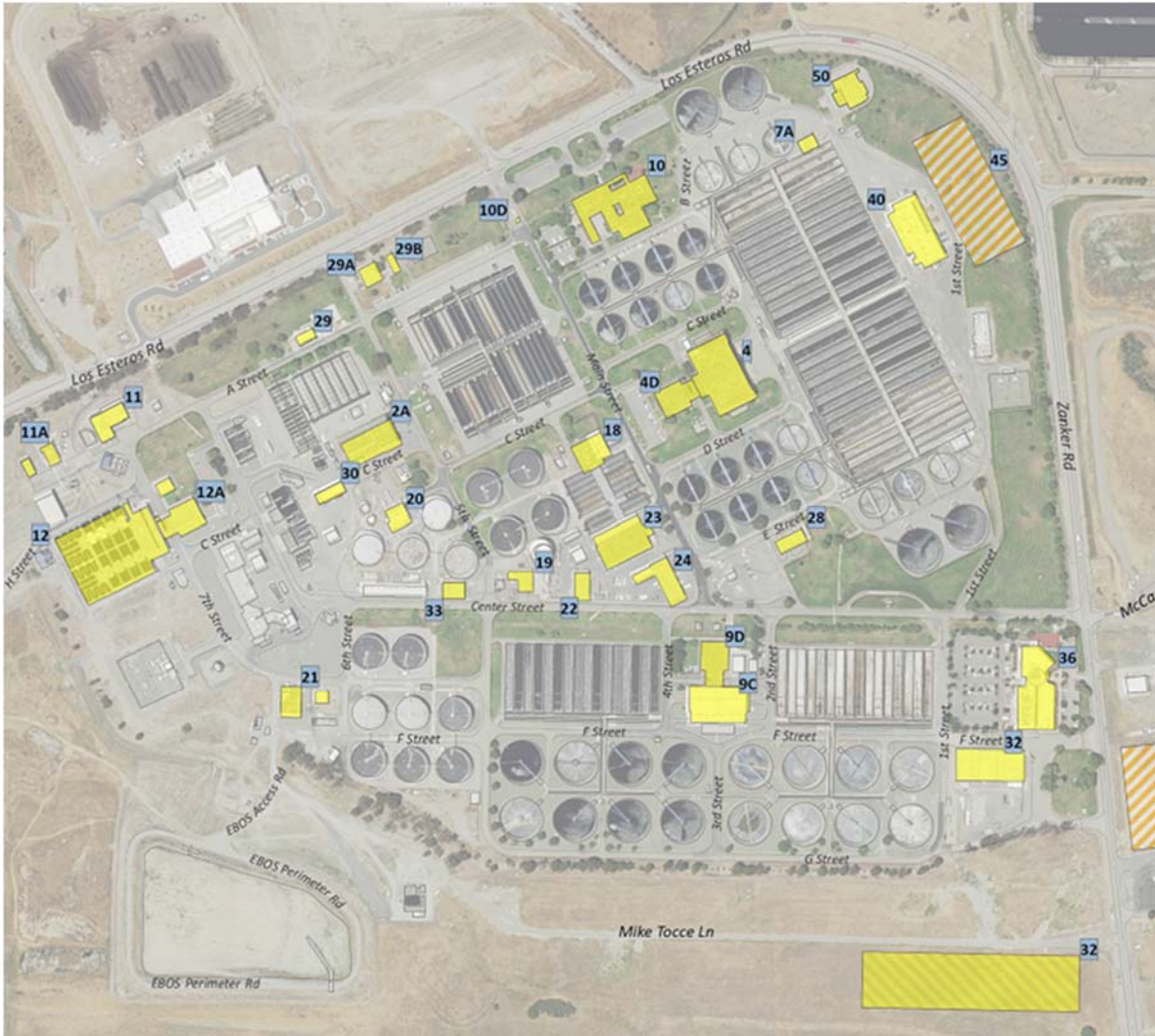


Figure 3: Existing Support Building Facilities Map with Building Identification Numbers

# Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

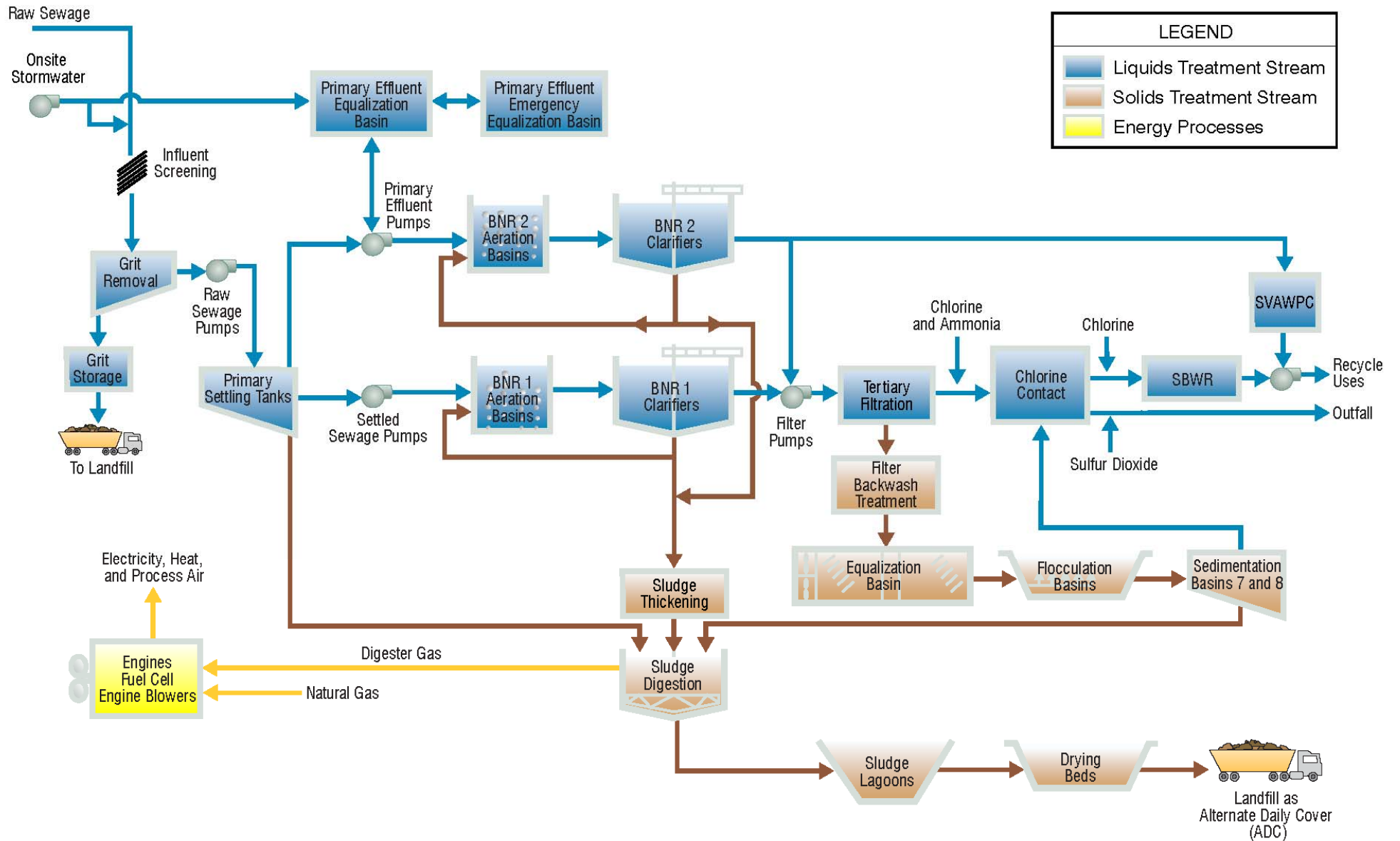


Figure 4 – Current Treatment Process Flow Diagram



# Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

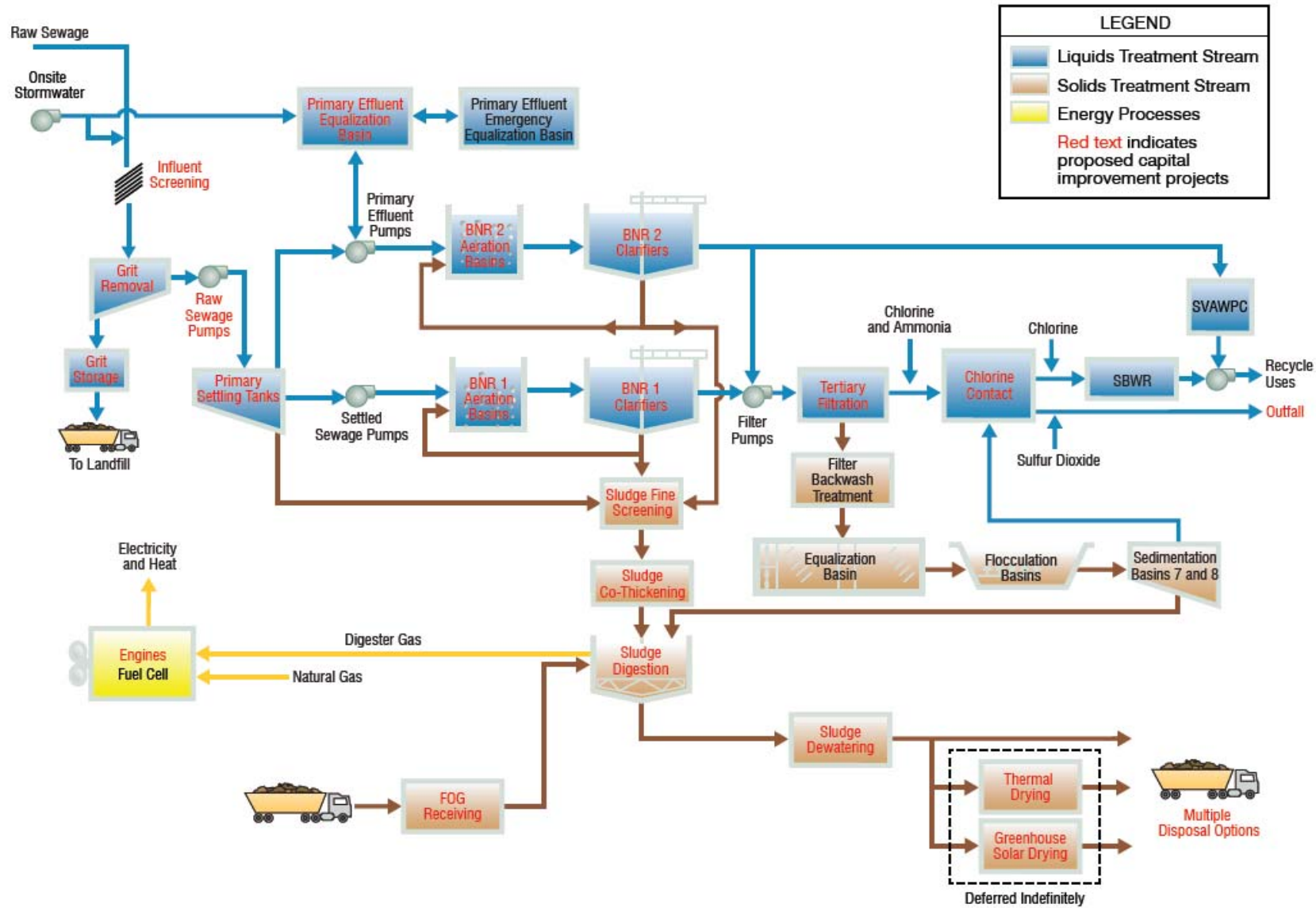


Figure 5 – Proposed Treatment Process Flow Diagram



## Active Construction Projects – Aerial Plan

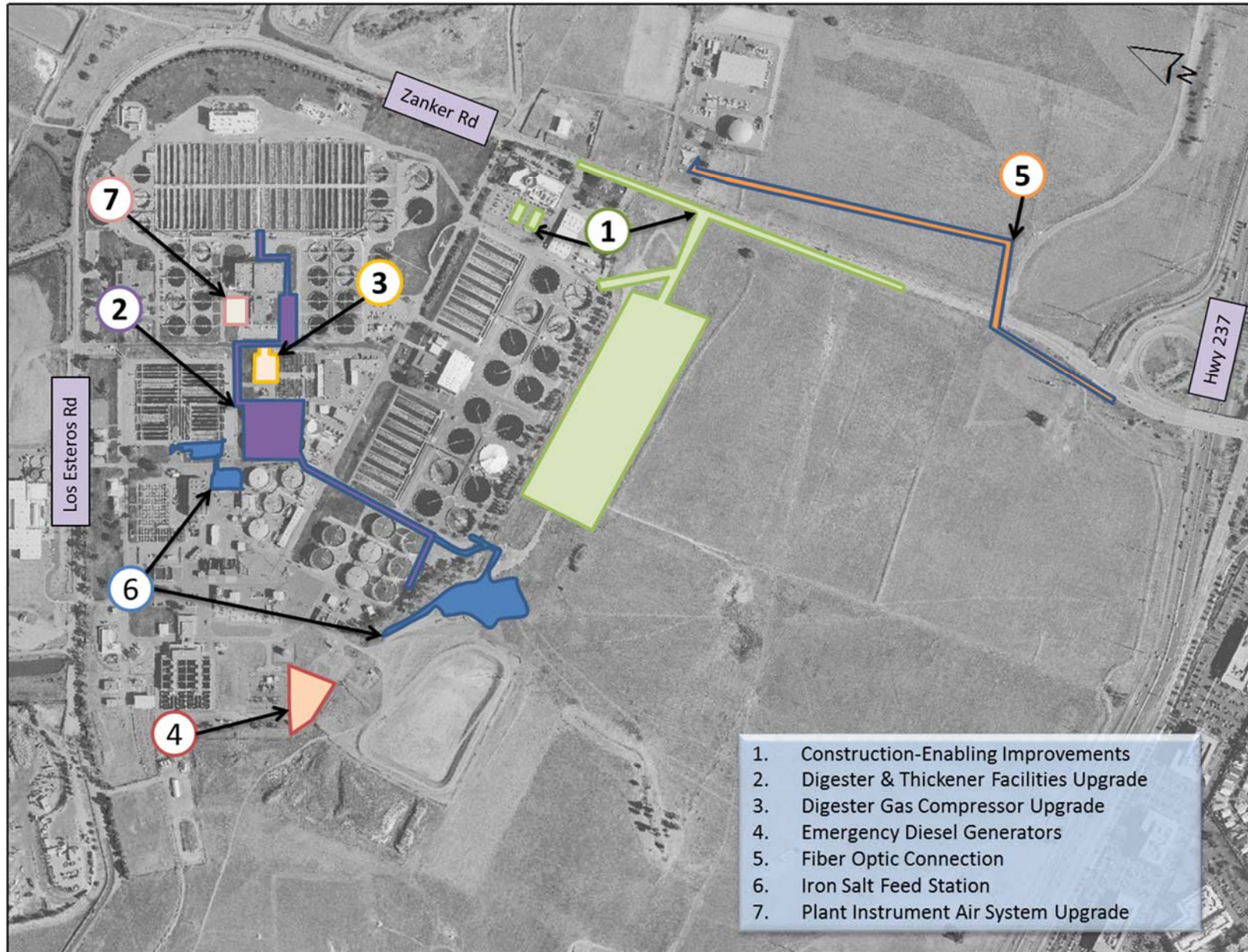


Figure 6 – Active Construction Projects





# Memorandum

**TO:** TRANSPORTATION AND  
ENVIRONMENT COMMITTEE

**FROM:** Kerrie Romanow  
Barry Ng

**SUBJECT:** SEE BELOW

**DATE:** September 19, 2016

Approved

*D. D. Sy L*

Date

*9/23/16*

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

## RECOMMENDATION

Accept the semiannual status progress report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period January through June 2016.

## OUTCOME

The purpose of this semiannual status report is to provide the Transportation and Environment Committee (T&E), the Treatment Plant Advisory Committee (TPAC), and San José City Council (Council) with a progress update on Capital Improvement Program (CIP) implementation at the San José-Santa Clara Regional Wastewater Facility, and more specifically, to highlight key accomplishments achieved during the second half of fiscal year 2015-2016.

## BACKGROUND

The San José and Santa Clara City Councils adopted the Plant Master Plan (PMP) in November and December 2013, respectively. The PMP identified more than 100 capital improvement projects totaling over \$2.1 billion to be implemented at the San José-Santa Clara Regional Wastewater Facility<sup>1</sup> (RWF) over the next 30 years. A validation process was completed in early 2014 to update and prioritize the recommended PMP projects, as well as additional gap projects into 33 construction packages to be initiated in the next ten years. Beginning in fiscal year 2014-2015, the validation process was used to inform the five-year CIP and ten-year funding strategy. The 2016-2020 adopted CIP includes funding in the amount of \$1.07 billion, of which approximately \$709 million is for construction projects. To provide visibility and accountability

<sup>1</sup> The legal, official name of the facility remains San Jose/Santa Clara Water Pollution Control Plan, 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 the 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 through December 2012. Three subsequent semiannual reports were published in October 2013, April 2014, and October 2014, respectively. With the establishment of the MWH/Carollo consultant program management team, a new monthly CIP status report was created to provide more frequent and time-relevant updates. The first CIP monthly status report was issued to TPAC in April 2014 and a total of 29 monthly reports have been issued to date. This semiannual status report is provided to T&E, TPAC, and Council to highlight key program and project accomplishments achieved for the period January through June 2016 and serves to complement the monthly reports. Copies of the monthly reports are available online at <http://www.sanjoseca.gov/Archive.aspx?AMID=190>.

## ANALYSIS

For the period January through June 2016, significant progress was made in several program areas including:

### *A. Design and Construction Management System*

On April 26, 2016, Council approved a contract with Bentley Systems for a design and construction management system (DCMS), which will allow staff to manage all significant contract communications; facilitate coordination during the review and approval of documents submitted by project consultants and contractors; and exchange and track the latest project information, such as schedules and costs securely and electronically. Staff is implementing the DCMS and the first major project to use the system is the recently awarded Digester and Thickener Facilities Upgrade.

### *B. Procurements*

Between January and June 2016, Council awarded seven master consultant agreements for construction management and inspection services, general engineering services, and value engineering and peer review services. The construction management and inspection agreements will supplement City resources to meet the increased construction activity in the coming years. The scope of the general engineering services agreements includes engineering studies and engineering services for small, urgent or unscheduled projects. The peer review and value engineering services agreements will enable independent reviews of the large design projects.

In addition, staff awarded four construction contracts, one design-build contract, and three project-specific master consultant agreements, discussed further below.

### *C. Recruitments*

Staff continued to focus on recruiting for the positions approved by Council in June 2015. The approved positions include all levels of engineers and engineering technicians, as well as an analyst and staff specialist, that will support three functional groups within the RWF



CIP division: 1) program management, 2) design/project delivery, and 3) process engineering. Between January and June, staff successfully filled six positions, including one senior engineer, two engineers, two senior engineering technicians, and one staff specialist.

Other notable achievements during this reporting period include:

- In April 2016, the PMP received the prestigious National Planning Achievement Award for Environmental Planning from the American Planning Association (APA). The Northern California Chapter of the APA recognized the PMP, in June 2016, with an Award of Merit for Innovation in Green Community Planning.
- In May 2016, staff completed the Flood Protection study to identify improvements necessary to protect the RWF from regional flooding and develop guidelines for protecting existing and new RWF facilities from major flood events.

On the project delivery front, 25 active projects progressed through various phases of the project delivery model as further discussed below:

*A. Construction Activity Highlights*

During the second half of the fiscal year, eight projects totaling more than \$143 million were either in active construction (see Attachment A) or post-construction. Two of the eight projects are being delivered using the design-build low bid project delivery method, with the remaining six projects being delivered using the conventional design-bid-build project delivery method.

Key construction activities highlighted for this period include:

- Construction-Enabling Improvements: The project team completed 100 percent design in February. The project bid set was approved and advertised in March and bids were opened in April. Three bids were received. On June 21, 2016, Council awarded the construction contract to Teichert Construction. Staff anticipates issuing the Notice to Proceed (NTP) in July.
- Digester and Thickener Facilities Upgrade: The project bid set was approved and advertised in January and bids were opened in March. Five bids were received. On May 24, 2016, Council awarded the construction contract to Walsh Construction. Staff issued the NTP to the contractor on June 22, 2016. The State Water Resource Board continued its review of the project's Clean Water State Revolving Fund (SRF) loan application. Staff anticipates returning to Council in fall 2016 to execute the SRF Financing Agreement, if the loan application is approved. The final loan amount will be adjusted to reflect participation by San José and Santa Clara.
- Digester Gas Compressor Upgrade (Design-Build Low Bid): The contractor installed the gas compressor motors and gas compressor skids, including their respective control panels. Through June, construction is 82 percent complete. The project is anticipated to reach beneficial use in fall 2016.

- Emergency Diesel Generators (Design-Build Low Bid): The contractor installed the two fuel tanks, the engine-generator units with housings, and connections. Through June, construction is 88 percent complete. The project is expected to reach beneficial use in spring 2017.
- Fiber Optic Connection: Council awarded the construction contract to Aegis ITS, Inc. on May 24, 2016. Staff issued the NTP in June 2016. The project is anticipated to reach beneficial use in spring 2017.
- Iron Salt Feed Station: Council awarded the construction contract to Anderson Pacific Engineering Construction on January 26, 2016. Staff issued NTP to the contractor in March. The project is anticipated to reach beneficial use in fall 2017.
- The Influent Magnetic Meter and Valve Replacement for Nitrification Clarifiers A5 & A6 achieved substantial completion and project acceptance and the Digester Gas Storage Replacement also achieved project acceptance.

There were no OSHA reportable safety incidents during this construction reporting period.

*B. Design Activity Highlights*

Three projects were under active design. Key design activities highlighted for this period include:

- Cogeneration Facility (design-build): On April 24, 2016, Council awarded the design-build contract to CH2M HILL Engineers, Inc. In May, staff issued an NTP to the design-builder for preliminary services to produce the Basis of Design report. Also in May, the project team held a formal partnering session and kickoff meeting. In June, the project team held several workshops to discuss key project elements. The final Basis of Design report is expected in October 2016.
- Headworks Critical Improvements: The consultant completed the 30 percent design in April and submitted their 60 percent design for review in June. Final plans are expected in October.
- Plant Instrument Air System: The consultant completed the final plans and specifications in March. The project team advertised the project for bids in April. Contract award is anticipated for August.

As significant design work gets underway, the program continues to work on developing comprehensive strategies, approaches, and tools for guiding the design development of current and future projects with the aim of establishing baselines, achieving consistency across different designers/design-builders, ensuring project interfaces are considered, incorporating operational flexibility, and considering current and future demands.

*C. Planning/Feasibility Development Highlights*

Fourteen projects were in active planning and feasibility development. Key activities highlighted for this period include:

- Scoping work began on the Lagoons and Drying Beds Retirement Project, continued on the Outfall Bridge and Levee Improvements and Switchgear S40/G3 Relay Upgrade projects, and completed on the Yard Piping and Road Improvements Project.
- Consultant procurement activities continued for five projects, including: 1) Advanced Facility Control and Meter Replacement, 2) Digested Sludge Dewatering Facility, 3) Facility-wide Water Systems Improvements, 4) Support Building Improvements, and 5) Yard Piping and Road Improvements.
- Between January and June 2016, Council awarded consultant agreements for design services for the Filter Rehabilitation, Nitrification Clarifiers Rehabilitation, Aeration Tanks Rehabilitation and Blower Improvements projects.
- Staff held alternative analysis workshops for the Blower Improvements, Headworks Improvements, and New Headworks projects.

Significant activity is expected to continue in the upcoming six-month period including:

- Obtain Council approval of SRF loan agreement for the Digester and Thickener Facilities Upgrade Project
- Obtain Council approval of three resolutions required to be submitted with the financial security package as part of the SRF loan application for the Cogeneration Facility Project
- Obtain Council approval to award a consultant agreement for owner's advisor and construction management services for the Digested Sludge Dewatering Facility Project
- Obtain Council approval to award consultant agreements for design services for Facility-wide Water System Improvements and Support Building Improvements projects
- Obtain Council approval to award a construction contract for the Plant Instrument Air System Upgrades Project
- Continue design and/or design-build work on four projects: Headworks Critical Improvements, Cogeneration Facility, Digester Gas Compressor Upgrade, and Emergency Diesel Generators
- Obtain broker, administrative, and claims services to further evaluate implementation of an Owner Controlled Insurance Program (OCIP)
- Obtain as-needed third-party audit services for CIP projects
- Continue to develop the five-year CIP staffing and transition plan
- Continue recruitment activities to fill capital program vacancies

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

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

**PUBLIC OUTREACH/INTEREST**

This memorandum will be posted on the City's website for the October 3, 2016 Transportation and Environment Committee agenda.

**COORDINATION**

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

**COMMISSION RECOMMENDATION/INPUT**

This item is scheduled to be heard at the October 13, 2016 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended October 25, 2016 City Council meeting agenda.

**CEQA**

Not a Project, File No. PP10-069(a), Staff Reports / Assessments / Annual Reports / Informational Memos that involve no approvals of any City Actions.

/s/Ashwini Kantak for

/s/

KERRIE ROMANOW  
Director, Environmental Services

BARRY NG  
Director, Public Works

For questions please contact Ashwini Kantak, Assistant Director of Environmental Services, at (408) 975-2553.

Attachment A – Projects in Active Construction

## Attachment A – Projects in Active Construction - January 2016 – June 2016

	Project Name	Contractor	Amount of Award	Date of Award	Est. Beneficial Use
1	7076 – Influent Magnetic Meter and Valve Replacement for Nitrification Clarifiers A5 & A6	JMB Construction, Inc.	Base Contract: \$270,300 Contingency: \$27,030	5/21/13	Summer 2016 <sup>1</sup>
2	7100 - Digester Gas Compressor Upgrade (D-B Low Bid)	Anderson Pacific Engineering Construction, Inc.	Base Contract: \$11,316,000 Contingency: \$1,697,400	5/20/14	Fall 2016
3	7394 – Emergency Diesel Generator (D-B Low Bid)	Anderson Pacific Engineering Construction, Inc.	Base Contract: \$15,310,000 Contingency: \$1,531,000	6/17/14	Spring 2017
4	6717 – Iron Salt Feed Station	Anderson Pacific Engineering Construction, Inc.	Base Contract: \$5,205,000 Contingency: \$780,750	1/26/16	Summer 2017
5	6970 – Fiber Optic Connection	Aegis ITS, Inc.	Base Contract: \$271,692 Contingency: \$40,754	5/24/16	Spring 2017
6	7382 – Digester and Thickener Facilities Upgrade	Walsh Construction Company II, LLC.	Base Contract: \$107,925,000 Contingency: \$13,490,625	5/24/16	Spring 2020
7	7987 – Construction-Enabling Improvements	Teichert Construction, Inc.	Base Contract: \$3,135,910 Contingency: \$314,000	6/21/16	Spring 2017

1. Influent Magnetic Meter and Valve Replacement for Nitrification Clarifiers A5 & A6 Project reached Beneficial Use on May 27, 2016.



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow  
Barry Ng

**SUBJECT:** SEE BELOW

**DATE:** October 6, 2016

Approved

Date

10/6/16

**SUBJECT: MASTER CONSULTANT AGREEMENT WITH BROWN AND CALDWELL, FOR ENGINEERING SERVICES AS OWNER'S ADVISOR FOR THE 7758- DIGESTED SLUDGE DEWATERING FACILITY PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY**

## RECOMMENDATION

Approve a Master Consultant Agreement with Brown and Caldwell to provide engineering services as owner's advisor for the 7758 - Digested Sludge Dewatering Facility Project at the San José-Santa Clara Regional Wastewater Facility from the date of execution through December 31, 2023, in a total amount not to exceed \$7,700,000, subject to the appropriation of funds.

## OUTCOME

Approval of this master consultant agreement with Brown and Caldwell will provide the City with professional engineering and owner's advisor services for implementation of the Digested Sludge Dewatering Facility Project (Project) at the San José Santa Clara Regional Wastewater Facility<sup>1</sup> (RWF). Approval of this agreement will not result in any physical changes to the environment, as the City Council will need to take additional actions before construction on the Project commences.

<sup>1</sup> The legal, official name of the facility remains San Jose-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.

## **EXECUTIVE SUMMARY**

The RWF currently uses an open lagoon and drying bed process to stabilize biosolids resulting from the wastewater treatment process. The Plant Master Plan (PMP), adopted by the San José City Council in November 2013 and by the Santa Clara City Council in December 2013, recommended a comprehensive biosolids management program including construction of a new mechanical dewatering facility to:

- Reduce potential odors in the community from the current process,
- Position the RWF to have multiple and diversified biosolids disposition options,
- Reduce the footprint of the lagoons and drying beds area to enable other land uses, and
- Create flexibility to respond to future regulations governing the disposal of treated biosolids.

In 2014, a Biosolids Transition Strategy was completed to further develop the implementation plan transitioning out of the open lagoons and drying bed process. The recommendations from this strategy were approved by the City Council on December 2, 2014, and June 2, 2015.

The planning level construction cost estimate for this Project, excluding contingency, is \$65,000,000. The Project will be delivered using the progressive design-build delivery method which has multiple benefits as described in an information memo issued to the City Council on January 19, 2016.

Staff is seeking a consultant to provide owner's advisor services for the Project. These specialized engineering services include:

- Development of project alternatives,
- Development of the Basis of Design Report required for the procurement of a Design Build (DB) firm,
- Assistance with the procurement and selection of a design builder,
- Provision of technical support during detailed design development ,
- Preparation of environmental engineering studies required for CEQA clearance and/or for Clean Water State Revolving Fund (SRF) financing,
- Provision of independent reviews of cost estimates, and
- Assistance with negotiations for a Guaranteed Maximum Price (GMP) for the project.
- Support during the construction period by providing construction management and inspection services, and
- Support and performance trouble-shooting after substantial completion.

Staff has completed the evaluation of four consulting firms that responded to a Request for Qualifications (RFQ). Brown and Caldwell (B&C) was the top ranked consultant and staff has negotiated an agreement with B&C that is being recommended for award. The master consultant agreement will have a total maximum compensation of \$7,700,000 and a term that ends December 31, 2023. After execution, B&C would proceed with specified tasks under the master

consultant agreement upon issuance of service orders by the City. B&C will be compensated based on actual hourly wages times a multiplier.

## **BACKGROUND**

The RWF is an advanced wastewater treatment facility that treats an average of 110 million gallons per day of wastewater collected from eight South Bay cities and four special districts. Biosolids resulting from the wastewater treatment process are first digested in anaerobic digesters, resulting in approximately 85 dry tons of digested sludge per day, and then transferred to open-air lagoons. The stabilization process in the open air lagoons lasts approximately three-and-a-half years before moving the biosolids to drying beds for another six months, resulting in Class A biosolids that are transported to the adjacent Newby Island landfill for use as an alternative daily cover (ADC) material.

In 2008, the RWF embarked on a master planning process to rehabilitate and upgrade its facilities and to explore potential process changes. The Plant Master Plan (PMP) used an extensive community engagement process to develop overarching environmental, economic, social, and operational goals for the RWF. To support these goals, the PMP recommended a comprehensive Biosolids Management Plan (BMP) that would transition from the current open lagoons and drying bed process to an enclosed, mechanical dewatering and drying facility with the resulting dewatered biosolids hauled off-site. This transition was recommended for the following reasons:

- Reduce potential odors in the community,
- Position the RWF to have multiple and diversified disposition options besides use of biosolids as ADC,
- Reduce the footprint of the lagoons and drying beds area to enable other land uses, and
- Create flexibility to respond to future regulations governing the disposal of treated biosolids.

An additional recommendation was to prepare a Biosolids Transition Strategy to further evaluate specific issues regarding implementation of this biosolids transition. The PMP was adopted by the San José and Santa Clara City Councils in late 2013.

In 2014, the City completed a Biosolids Transition Strategy. Council approved recommendations from the strategy in December 2014 and June 2015. The staff reports are available online.<sup>2</sup> One of the key recommendations was to proceed with implementation of the Digested Sludge Dewatering Facility.

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<sup>2</sup> December 2, 2014 Memo: <http://sanjoseca.gov/DocumentCenter/View/37716>

June 2, 2015 Memo: [http://sanjose.granicus.com/MetaViewer.php?view\\_id=&event\\_id=732&meta\\_id=516437](http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516437)



October 6, 2016

**Subject: Master Consultant Agreement with Brown & Caldwell for the Digested Sludge Dewatering Facility Project**

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The Project will construct a new mechanical dewatering facility and associated support facilities to replace the existing lagoons and drying beds. The support facilities may include a transfer sludge pump station, digested sludge storage facilities, sludge cake conveyance facilities, and truck load-out facilities. Mechanical dewatering is an established process for reducing the volume of wastewater biosolids, and is used extensively across the country with multiple installations at publicly owned treatment works in California and the San Francisco Bay Area. Similar to the RWF, many treatment plants are transitioning to mechanical dewatering to allow flexibility of multiple diversified biosolids disposition options to position for future biosolids regulations.

The City analyzed various project delivery methods and ultimately selected a progressive design-build (DB) method to deliver this project. This method is expected to reduce the City's risk, potentially lower the volume and cost of change orders, decrease construction delays, increase the likelihood of having high-quality specialized equipment installed and to provide more efficient solutions to complex construction sequencing issues. A memorandum informing Council of this decision was issued on January 19, 2016, and can be found at <https://www.piersystem.com/go/doc/1914/2777394/>.

The City requires the services of a professional engineering consultant to serve as an owner's advisor to assist City staff with the procurement and management of a Design-Build entity. The owner's advisor will provide a broad array of services including:

- Development of project alternatives,
- Development of the Basis of Design Report required for the procurement of a Design Build (DB) firm,
- Assistance with the procurement and selection of a design builder,
- Provision of technical support during detailed design development ,
- Preparation of environmental engineering studies required for CEQA clearance and/or for Clean Water State Revolving Fund (SRF) financing,
- Provision of independent reviews of cost estimates, and
- Assistance with negotiations for a Guaranteed Maximum Price (GMP) for the project.
- Support during the construction period by providing construction management and inspection services, and
- Support and performance trouble-shooting after substantial completion.

The planning level construction cost estimate, excluding contingency, for this Project is \$65,000,000. The project cost will be further refined as the project definition is advanced and more specific details are known. The Project construction is scheduled to begin in fall 2019 with substantial completion by late 2021.

**ANALYSIS**

On March 4, 2016, the City issued a Request for Qualifications (RFQ) seeking professional services for an owner’s advisor for the Project. A non-mandatory pre-proposal conference and site tour was held on March 17, 2016, which was attended by 11 engineering firms. The City received Statements of Qualifications (SOQs) from four firms by the April 18, 2016, submittal deadline. The firms included HDR, Inc. (HDR), Hazen and Sawyer (Hazen), Brown and Caldwell (B&C), and GHD, Inc. (GHD).

A Technical Evaluation Panel (TEP) which consisted of representatives from the Environmental Services Department and Department of Public Works, evaluated and ranked all four SOQs in accordance with the procurement process set forth in the RFQ. Each panel member evaluated the SOQs using a consistent scoring matrix based on the firm’s expertise, experience, approach, cost, and Local Business Enterprise (LBE) and Small Business Enterprise (SBE) status.

As a result of the evaluation of the SOQs, the top two proposing consultants were selected for panel interviews. The interviews were conducted on May 25, 2016, by the same evaluation panel that completed the initial score of the SOQs.

Each firm received a total score comprised of their SOQ score, LBE/SBE status, and interview score (if applicable) as follows:

<b>Description</b>	<b>Weight</b>
<b>SOQ</b>	
Submittal Responsiveness	Pass/Fail
Minimum Qualifications	Pass/Fail
Expertise	20
Experience	23
Project Approach	10
Cost	10
Local Business Enterprise	5
Small Business Enterprise	5
<b>Interview</b>	
Technical Evaluations	27
<b>TOTAL</b>	<b>100</b>

The final ranking and scores for the top two proposing firms were as follows:

Rank	Firm	Expertise	Experience	Approach	Cost	LBE	SBE	Interview	Total
<b>1</b>	B&C	18.1	15.9	8.8	9.3	5.0	0	21.2	<b>78.3</b>
<b>2</b>	HDR	17.3	14.0	7.6	9.8	5.0	0	19.3	<b>73.0</b>

October 6, 2016

**Subject: Master Consultant Agreement with Brown & Caldwell for the Digested Sludge Dewatering Facility Project**

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In accordance with City policy, 10 percent of the total evaluation points were reserved for local and small business enterprise status. All firms qualified for the LBE status. None of the firms qualified for the SBE status.

Staff recommends awarding a master consultant agreement in an amount not-to-exceed \$7,700,000 to the top-ranked firm, Brown and Caldwell. B&C is a nationally recognized environmental engineering and consulting firm, specializing in the design and construction of all components associated with the treatment of wastewater, including all aspects of the biosolids treatment process. B&C is also the biosolids program manager for other large biosolids programs, including the District of Columbia Water Biosolids Program.

The B&C team demonstrated extensive knowledge of design of sludge dewatering facilities, excellent understanding of potential issues associated with the operations and maintenance of such facilities, broad experience in the role of owner's advisor for similar type of projects and specifically for design build. The proposed team has strong prior experience in negotiations with design-build entities and comes highly recommended from references provided for previous projects at other publicly owned treatment works. The agreement not-to-exceed (NTE) amount of \$7,700,000 represents approximately 11.8 percent of the estimated construction cost \$65,000,000. Staff considers this amount appropriate for the work involved, and it is consistent with other CIP projects, as well as the industry standard for owner's advisor preliminary engineering and construction management services that is typically in the range of 5 percent to 12.5 percent of estimated construction cost.

The planning-level construction cost estimate for this Project is \$65,000,000. Staff has compared this preliminary estimate with design estimates and contractor bids from other agencies who are in the process of implementing similar projects and/or have constructed similar facilities within the last five years. Agencies surveyed include: Denver Metro Wastewater Reclamation District, Orange County Sanitation District, Albuquerque Bernalillo County Water Utility Authority, and City of Garland, Texas. On a unit cost basis (i.e., cost to dewater one dry ton of biosolids/day), the preliminary cost for this Project is \$0.5 million/dry ton. By comparison, data from the agencies surveyed indicate a cost ranging from \$0.4 million/dry ton to \$0.6 million/dry ton. It is important to note that variations exist in total dewatering capacity, overall scope, site conditions, market conditions, labor rates, union regulations, construction completion date, and geographical location among projects. The unit cost basis comparison for this Project will need to be updated at final design completion and construction bid award.

Depending on the type of services rendered, B&C will be compensated based on actual hourly wages times a multiplier of 3.16 or 2.88. The 2.88 multiplier will be applied for construction management services and the 3.16 multiplier will be applied for all other services performed by the consultant. The multiplier covers overhead (e.g. fringe benefits, payroll taxes, group insurance, building/rental expenses, etc.), associated project costs (e.g. routine printing and copying, computer equipment use, network and telecommunications expenses, etc.), and profit.

**EVALUATION AND FOLLOW-UP**

All service orders issued under this master consultant agreement will be reported to the Treatment Plant Advisory Committee (TPAC) on the monthly summary of procurement and contract activity and the quarterly CIP agreement and service order summary. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee (T & E Committee), and the City Council on a semi-annual basis. Monthly progress reports of the RWF Capital Improvement Program (CIP) will also be submitted to TPAC and posted on the City’s website.

The current action is for the award of a master consultant agreement for owner’s advisor services only. After the procurement process for the selection of the design-build entity, staff will return to the City Council, anticipated in summer 2018, for approval of the final proposer ranking and authorization to negotiate the design-build contract. In fall 2018, staff will return again for approval of the design-build contract and authorization to negotiate and execute contract amendments that include the Guaranteed Maximum Price for the Project and the initiation of the construction portion.

Staff will return to the City Council after completion of the CEQA review process, anticipated in mid-2018, to recommend the adoption of a resolution approving the CEQA findings for this Project. This process will be completed prior to any disturbance to the physical environment conditions and no construction activity will be initiated before approval.

In addition, staff will seek SRF funding for this Project and will return to the City Council for approval of all resolutions required for the application process. If the SRF application is successful, staff anticipates returning to the City Council to seek approval to enter into a financing agreement for the Project.

The anticipated project schedule milestones are outlined below:

<b>Timeline</b>	<b>Milestone</b>
Fall 2017	Completion of Basis of Design Report and initiation of Design Build procurement process
Summer 2018	City Council approval of final proposer ranking and authorization to negotiate the design-build contract
Fall 2018	City Council approval of the design-build contract and authorization to negotiate and execute contract amendments that include the Guaranteed Maximum Price
Fall 2019	Completion of 60% design, GMP negotiations, and initiation of construction
Winter 2021	Substantial completion of construction

## **POLICY ALTERNATIVES**

***Alternative #1: Direct City staff to provide the required services with in-house resources.***

**Pros:** Increased work options for City staff.

**Cons:** City staff does not currently possess the capacity and technical expertise needed for the anticipated scope of services. This limited resource may cause delays in implementation of the Project.

**Reason for not recommending:** The challenges of implementing a project of this size and complexity and the use of a DB delivery method would require specialized expertise and experience that the City does not currently have. The City would need to hire new staff with knowledge and expertise in a variety of professional disciplines, which may delay the Project.

***Alternative #2: Direct City staff to perform the work using program management consultant.***

**Pros:** Program management consultant has experience and expertise in providing owner's advisor services for similar projects.

**Cons:** The current program management contract does not include scope and budget for these services. In addition, the contract expires before the Project's completion.

**Reason for not recommending:** The program management consultant agreement would need an amendment to add scope and budget for owner's advisor services, as well as extend the agreement term, which could delay the Project.

## **PUBLIC OUTREACH**

This memorandum will be posted on the City's website for the October 25, 2016, City Council meeting agenda. This item is scheduled to be heard at the TPAC meeting on October 13, 2016.

## **COORDINATION**

This memorandum has been coordinated with the City Manager's Budget Office, the City Attorney's Office, Finance Department, and the Department of Planning, Building, and Code Enforcement.

## **COMMISSION RECOMMENDATION/INPUT**

This item is scheduled to be heard at the October 13, 2016, TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended October 25, 2016, City Council meeting agenda.

**FISCAL/POLICY ALIGNMENT**

This Project is consistent with the City Council-approved budget strategy to focus on rehabilitating aging RWF infrastructure, improve efficiency, and reduce operating costs. This Project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

**COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION: \$7,700,000
  
2. COST ELEMENTS OF MASTER AGREEMENT:

Project Management	\$470,000
Alternatives Analysis	\$1,540,000
Basis of Design, CEQA, Permitting, and SRF Support	\$880,000
DB Contractor Procurement	\$270,000
Design Review and GMP Negotiation Support	\$1,180,000
Construction Management and Post-Construction Services	\$3,360,000
<b>TOTAL AGREEMENT AMOUNT</b>	<b>\$ 7,700,000</b>
  
3. SOURCE OF FUNDING: 512 - San José-Santa Clara Treatment Plant Capital Fund.
  
4. FISCAL IMPACT: This Contract is funded through the San José-Santa Clara Treatment Plant Capital Fund and will have no impact on the San José-Santa Clara Treatment Plant Operating Fund (Fund 513).
  
5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), the cost for this project will be allocated 40 percent to biochemical oxygen demand (BOD) and 60 percent to total suspended solids (TSS).

**BUDGET REFERENCE**

The following table identifies the fund and appropriation to fund the master consultant agreement recommended as part of this memorandum.

October 6, 2016

**Subject: Master Consultant Agreement with Brown & Caldwell for the Digested Sludge Dewatering Facility Project**

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Fund #	Appn. #	Appn. Name	Total Appn.	2016-2017 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7452	Digested Sludge Dewatering Facility	\$3,192,000	V-162	06/21/2016 Ord. No. 29762

Services performed by B&C under this agreement will be authorized by service orders. An appropriation is not required for execution of the master consultant agreement, but is required for each service order authorized under this agreement. The appropriation listed above is included in the 2016-2017 Adopted Capital Budget and may be used for service orders issued in 2016-2017. Future funding is subject to appropriation and, if needed, will be included in the development of future year budgets during the annual budget process.

**CEQA**

Statutory Exempt, File No. PP16-069, Section 15262, Feasibility and Planning Studies with respect to the scope of work that is limited to this action. Any future activities resulting in a change to the physical environment would require approval of CEQA review.

/s/Ashwini Kantak for  
KERRIE ROMANOW  
Environmental Services Director

/s/  
BARRY NG  
Director, Public Works

For questions, please contact Ashwini Kantak, Assistant Director, Environmental Services Department, at 408-975-2553.

Attachment A: Site Plan of the Digested Sludge Dewatering Facility Project

ATTACHMENT A -  
SITE PLAN



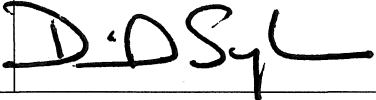
SITE A



1000 ft



**CITY COUNCIL ACTION REQUEST**

<b>Department(s):</b> Finance	<b>CEQA:</b> Not a Project, File No. PP10-066(a), Agreements and Contracts, Purchase Orders.	<b>Coordination:</b> Environmental Services Department, City Attorney's Office, City Manager's Budget Office.	<b>Dept. Approval:</b> /s/ Julia H. Cooper
<b>Council District(s):</b> City-wide			<b>CMO Approval:</b> 

**SUBJECT: ACTIONS RELATED TO THE PURCHASE ORDER FOR MECHANICAL MAINTENANCE AND REPAIR SERVICES**

**RECOMMENDATION:**

Adopt a resolution to authorize the City Manager to:

1. Execute a Purchase Order with Monterey Mechanical Company (Oakland, CA) to provide all labor, material, and equipment for mechanical maintenance and repair services for various wastewater treatment projects at the Regional Wastewater Facility for the term November 1, 2016 through October 31, 2017, in an amount not to exceed \$290,000; and
2. Exercise up to four one-year options to extend the term of the Purchase Order through October 31, 2021, for an aggregate maximum compensation amount of \$1,200,000, subject to the annual appropriation of funds.

**Desired Outcome:** To ensure the Regional Wastewater Facility (RWF) has a viable contractor available to provide mechanical maintenance and repair services as required.

**BASIS FOR RECOMMENDATION:**

The RWF is a regional wastewater treatment facility that serves over 1.4 million residents over a 300 square mile service area covering most of the Santa Clara Valley. It is critical the City have a contractor capable of providing emergency and non-emergency services to maintain plant process equipment in optimal conditions.

In March 2016, the Finance Department issued a Request for Proposal (RFP) for Mechanical Maintenance and Repair Services through the City's e-procurement system. Staff recommends award of the purchase order to Monterey Mechanical Company as the best value proposal in accordance with evaluation criteria and award factors outlined in the RFP.

Office of Equality Assurance: Living Wage or Prevailing Wage, whichever is higher, is applicable to work under this purchase order.

This item is consistent with the Council approved Environmental and Utility Services Mission: "Provide environmental leadership through policy development, program design, and reliable utility services."

**COMMISSION RECOMMENDATION/INPUT:**

This item is scheduled to be heard at the October 13, 2016 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended October 25, 2016 City Council meeting agenda.

**COST AND FUNDING SOURCE:**

Fund #	Appn #	Appn. Name	Total Appn.	Amt. for Recommendation	2016-2017 Proposed Operating Budget Page*	Last Budget Action (Date, Ord. No)
513	0762	ESD Non-Personal / Equipment	\$30,439,019	\$290,000	X-78	6/21/2016; 29762

\*The 2016-2017 Proposed Operating Budget was approved by City Council on June 21, 2016.

**FOR QUESTIONS CONTACT:** Mark Giovannetti, Purchasing Deputy Director at 408-535-7052



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow

**SUBJECT:** PURCHASE OF CALIFORNIA  
CARBON ALLOWANCES

**DATE:** September 27, 2016

Approved

*D. OSYU*

Date

*9/29/16*

## RECOMMENDATION

Approve the Agreement between the City of San José and Vitol, Inc., which is approved by the California Air Resources Board for the purchase of California Carbon Allowances for the San José-Santa Clara Regional Wastewater Facility, as part of the California Cap-and-Trade Program, for an amount not to exceed \$310,000.

## OUTCOME

Purchase California Carbon Allowances for the San José-Santa Clara Regional Wastewater Facility<sup>1</sup> (RWF) as part of the California Cap-and-Trade Program to remain in compliance with Assembly Bill (AB) 32.

## BACKGROUND

The Global Warming Solutions Act of 2006, or AB 32, is a California State Law that fights climate change by establishing a comprehensive program to reduce greenhouse gas emissions from all sources throughout the state. AB 32 requires the California Air Resources Board (CARB) to develop regulations and market mechanisms to reduce California's greenhouse gas emissions to 1990 levels by the year 2020, representing a 25 percent reduction statewide, with mandatory caps beginning in 2012 for significant emissions sources. Greenhouse gases are comprised of methane, nitrous oxide, and carbon dioxide emissions. Annual emissions are measured in carbon dioxide equivalents (CO<sub>2</sub>e), a standardized measure that allows the effect of different greenhouse gases and other factors to be compared using carbon dioxide as a standard unit for reference. The CO<sub>2</sub>e measurement is given in metric tons per year for greenhouse gas reporting.

<sup>1</sup> The legal, official name of the facility remains San Jose-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.

Stationary combustion facilities that combust less than 10,000 metric tons of CO<sub>2</sub>e annually are not mandated for greenhouse gas reporting. Facilities that emit greater than 10,000 metric tons are subject to mandatory reporting. Facilities that emit 25,000 metric tons of CO<sub>2</sub>e are required to participate in California's Cap-and-Trade program (CATP).

CATP is a market based regulation that is designed to reduce greenhouse gases (GHGs) from multiple sources and creates a market to trade credits for those facilities that are part of the program.

Once a facility enters the CATP, it is responsible for the purchase of California Carbon Allowances (CCA) for the emissions for all years within the compliance period in which it exceeded the threshold, regardless of total emissions. The CATP is divided into three compliance periods between now and 2020:

1st Compliance Period: 2013-2014

2nd Compliance Period: 2015-2017

3rd Compliance Period: 2018-2020

In 2013, the RWF emitted 25,029 metric tons of CO<sub>2</sub>e and entered the CATP. Prior to 2013, the RWF ran its engines on a blend of digester gas produced as part of the RWF's processes, landfill gas purchased from Republic Services' nearby landfill, and natural gas purchased from PG&E. Biomass fuel, such as digester and landfill gas, are exempt from CATP. The RWF also increased its purchase of natural gas in 2013 due to equipment used to store digester gas failing, and when the landfill gas supplier ceased to supply landfill gas. In order to comply with the CATP, the City entered into an agreement with Vitol Inc. to purchase CCAs for the 2013 emissions at a total cost of \$306,605.25, or \$12.25 per metric ton CO<sub>2</sub>e emission. In 2014, the RWF emitted 24,742 tons and purchased CCAs for \$315,460.50, at \$12.75 per metric ton.

## **ANALYSIS**

As communicated in the staff report in 2015, once a facility enters the CATP, the requirement to purchase CCAs is lifted two compliance periods after it has entered the CATP if the facility remains beneath the cap during the second compliance period. Thus, the RWF will not be relieved of its obligation to purchase CCAs until 2018 irrespective of whether the emissions for each subsequent year between now and 2018 are below the threshold.

RWF emitted an estimated 23,433 metric tons of CO<sub>2</sub>e in 2015. This number has been reported to CARB, as required, and was verified via an US Environmental Protection Agency (EPA) 3<sup>rd</sup> Party Verification Audit on August 31, 2016.

CCAs are sold on the open market, and the RWF is working with an emissions broker to identify a seller of 2015 credits and confirm the best pricing. Currently the market prices per CCA are in the \$12.90-\$13.00 range, similar to 2014 prices. Therefore, given the current prices and the 2015 emissions, the RWF expects a final purchase agreement not to exceed \$310,000. The anticipated

total cost to purchase CCAs for years 2015 through 2017 is \$930,000 assuming current rate of emissions and current price per metric ton of emissions.

Additionally, the RWF has embarked on a strict energy management program to stay under the 25,000 metric tons of CO<sub>2</sub>e threshold. Currently, the intent is to continue to manage the RWF to remain under the threshold through 2017, while options will be evaluated as part of a broader analysis of energy management, needs, and associated costs, including the costs of remaining in CATP. A recommendation on whether to manage the RWF to stay under the threshold or not will be developed as part of this analysis and presented in 2017. Some of the elements that will inform this broader analysis include the proposed Digester and Thickener Facilities and Cogeneration Facility projects that are anticipated to come online in 2019 and will enable increased production and use of biogas respectively.

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

The RWF currently anticipates the ability to stay under the 25,000 metric ton threshold in 2016 and 2017. If the RWF is unable to remain under the threshold, staff would need to return to Council for authority to purchase CCA for 2018 and beyond.

#### **PUBLIC OUTREACH**

This memorandum will be posted on the City's Council Agenda website for the October 25, 2016 City Council Meeting.

#### **COORDINATION**

The memorandum has been coordinated with the Treatment Plant Advisory Committee (TPAC), City Manager's Budget Office, and the City Attorney's Office.

#### **COMMISSION RECOMMENDATION/INPUT**

This item is scheduled to be heard at the October 13, 2016 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended October 25, 2016 City Council meeting agenda.

**COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION/AGREEMENT: \$ 310,000
2. SOURCE OF FUNDING: San José-Santa Clara Treatment Plant Operating Fund (513)
3. FISCAL IMPACT: No additional funding is necessary to approve this purchase.

**BUDGET REFERENCE**

The table below identifies the fund and appropriations proposed to fund the agreement recommended as part of this memorandum.

Fund #	Appn #	Appn. Name	RC	Total Appn.	Amount for Agreement	2016-2017 Proposed Operating Budget Page*	Last Budget Action (Date, Ord. No.)
513	0762	Non-Personal / Equipment	900000	\$30,439,019	\$ 310,000	X – 78	06/21/2016 Ord No. 29762

\* The 2016-2017 Operating Budget was adopted on June 21, 2016.

**CEQA**

Not a Project, File No.PP10-066(a), Agreements and Contracts.

/s/  
 KERRIE ROMANOW  
 Director, Environmental Services

For questions, please contact Ken Davies, Sustainability and Compliance Manager (Acting), at (408) 975-2587.



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow

**SUBJECT:** PUBLIC ART APPROPRIATION  
REVIEW

**DATE:** September 27, 2016

Approved

Date

9/29/16

## INFORMATION

The attached information memorandum will be submitted to the Treatment Plant Advisory Committee to provide background and analysis for the adjustments made to the Public Art Appropriation between the City of San José, City of Santa Clara, and tributary agencies as part of the 2015-2016 Plant Capital Improvement Program budget.

/s/ Ashwini Kantak for  
KERRIE ROMANOW  
Director, Environmental Services

For questions, please contact Ashwini Kantak, Assistant Director of Environmental Services, at (408) 975-2553.

Attachment

# Memorandum

**TO:** TREATMENT PLANT  
ADVISORY COMMITTEE

**FROM:** Kerrie Romanow

**SUBJECT: PUBLIC ART APPROPRIATION  
REVIEW**

**DATE:** September 27, 2016

Approved

*D. D. SyL*

Date

*9/29/16*

## INFORMATION

### BACKGROUND

In 1984, the City established the Art in Public Buildings Program. The purpose of the San José Public Art Program is to enhance the appearance of public places; to engage artists to help beautify the appearance of the City; to provide staff to assist the City on matters pertaining to public art; and to implement the provisions of the public art master plan. Over time, updated resolutions were approved specifying guidelines, procedures and funding sources for public art projects.

In June 2008, the San José City Council considered amendments to the City's Public Art Ordinance under Title 22 of the San José Municipal Code to reduce the art allocation from two percent (2%) to one percent (1%), and to broaden the eligibility to include infrastructure projects whose sites were not accessible from the public right of way. Unless restricted by the funding source, appropriations may be pooled within a fund and be allocated to projects remote from capital project where they were generated. In creating this new funding source, the City Council endorsed the Public Art Master Plan recommendation to "*establish ongoing collaborative relationships with other City Departments to ensure that the Public Art Program aligns with their plans.*" For example, public art projects funded by ratepayer-funded capital projects for the wastewater treatment process are intended to be highly visible to the public and facilitate education and behavior changes in ways that are beneficial to the utility system and ultimately the ratepayers in the service areas. The Council adopted the amendments in August 2008 following a recommendation by the Treatment Plant Advisory Committee (TPAC).



The preferred alternative for the San José-Santa Clara Regional Wastewater Facility<sup>1</sup> (RWF) Master Plan was approved by San José City Council on April 19, 2011. This prompted a review by the Administration of the Public Art funding at the RWF included in the 2012-2016 Proposed Capital Improvement Program (CIP) to confirm compliance with the Public Art Ordinance. As follow-up to the review by staff, San José City Council approved the City Manager's Budget Addendum #11 to amend the 2011-2012 Proposed Capital Budget by decreasing the allocation for Public Art by \$314,000, and to amend the Water Pollution Control Plant Capital Improvement Program for 2012-2013 through 2015-2016 to decrease the Public Art allocation by \$2,002,000.

In August 2012, the Office of the City Auditor issued a report entitled "Environmental Services: A Department at a Critical Juncture," and recommended that the Administration review past and current public art allocations in the Water Pollution Control fund to determine whether the appropriations are in accordance with the Public Art Ordinance. As previously mentioned, a review was conducted for the Fiscal Year 2011-2012 Proposed Capital Budget and the 2012-2016 Regional Wastewater Facility Five-Year CIP resulting in an adjusted, and reduced, RWF public art allocation. In Fiscal Year 2015-2016, staff also concluded a review of the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 RWF CIP budgets, and confirmed if prior allocations included capital projects costs that would be considered exempt since Fiscal Year 2011-2012.

## **ANALYSIS**

The Administration has determined that, in alignment with the evaluation conducted in 2011, public art costs associated with the following projects should have been exempt from the Public Art Ordinance as specified further below.

To address this needed adjustment, staff proposed changes to the FY 2015-2016 budget. With the June 21, 2016 San José City Council approval of the 2015-2016 Appropriation Ordinance and Funding Sources Resolution amendments in various funds, the Public Art allocation for the 2015-2016 Plant CIP budget Public Art appropriation was reduced by \$719,000. As a result of this action, the City of San José, City of Santa Clara, and each tributary agency will be credited for their share of the Public Art appropriation reduction as indicated in Table A on the following page.

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<sup>1</sup> *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.*

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**Table A- Public Art Reconciliation for the Water Pollution Control Plant Capital Program**

<b>Fund 512 Capital Improvement Program</b>	<b>2007 - 2008</b>	<b>2008 - 2009</b>	<b>2009 - 2010</b>	<b>2010 - 2011</b>	<b>Comments</b>
Total Construction Projects	33,596,000	46,738,000	39,145,000	31,680,000	
Public Art	(102,000)	(419,000)	(138,000)	(275,000)	
Advanced Process Control and Automation				(1,940,000)	Equipment Replacement
Digester Gas Line Replacement	(1,100,000)				Equipment Replacement
Digester Rehabilitation		(10,000,000)	(2,000,000)	(1,000,000)	Rehabilitation/Replacement
Environmental Services Building Repair		(6,000,000)			Rehabilitation/Maintenance
Land Management and Improvements			(250,000)		Non-Construction
East Primary Concrete Tank Repair and Stainless Steel Conversion				(1,684,000)	Rehabilitation/Maintenance/Seismic Retrofit
Fine Bubble Membrane Diffuser Conversion and Automation				(750,000)	Equipment Replacement
Inactive Lagoons Bio-Solids Removal Study	(100,000)			(875,000)	Non-Construction
M5, Ring Buss and Cable Replacement and Automation	(7,000,000)				Equipment Replacement
Plant Electrical Reliability	(5,000,000)		(20,500,000)	(3,400,000)	Equipment Replacement
Scum Digestion	(2,350,000)				Maintenance/Equipment Replacement
Secondary and Nitrification Clarifier Rehabilitation			(1,000,000)	(3,701,000)	Rehabilitation/Equipment Replacement
Dissolved Air flotation dissolution Improvements				(298,000)	Maintenance/Equipment Replacement
Filter Improvements				(200,000)	Maintenance/Equipment Replacement
Equipment Replacement	(2,553,000)	(4,200,000)	(2,380,000)	(2,420,000)	Equipment Replacement
Plant Infrastructure Improvements	(7,552,000)	(7,991,000)	(5,738,000)	(8,472,000)	Rehabilitation/Maintenance
Unanticipated/Critical Repairs	(250,000)	(250,000)	(250,000)	(250,000)	Rehabilitation/Maintenance/Equipment
SBWR Reservoir Facility			(6,000,000)		Rebudget
Revised South Bay Action Plan - SBWR Extension	(2,000,000)	(9,301,000)			Rebudget
Subtotal	5,589,000	8,577,000	889,000	6,415,000	
1% for Public Art	55,890	85,770	8,890	64,150	
Actually Allocated Per Proposed	(102,000)	(419,000)	(138,000)	(275,000)	
Variance	(46,110)	(333,230)	(129,110)	(210,850)	
<b>Total Variance</b>	<b>(719,300)</b>				
<b>Total Recommended Adjustment</b>	<b>(719,000)</b>				

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**Estimated Public Art Refund by Agency (FY07/08-FY10/11)**

San José	\$480,102
Santa Clara	96,360
West Valley Sanitation District	48,265
Cupertino Sanitary District	31,035
City of Milpitas	55,582
County Sanitation District 2-3	5,913
Burbank Sanitary District	1,743
<b>Total</b>	<b>\$719,000</b>

**EVALUATION AND FOLLOW-UP**

As part of the annual year-end audit, staff has calculated the amount of credit owed to the City of San José, City of Santa Clara, and the tributary agencies, and any credits owed will be reflected in the January 2017 reconciliation for the Treatment Plant Capital Fund Annual Transaction Report.

**COORDINATION**

This memorandum has been coordinated with the City of San José City Manager's Budget Office, Office of Cultural Affairs, and with the City Attorney's Office.

/s/ Ashwini Kantak for  
KERRIE ROMANOW  
Director, Environmental Services

For questions, please contact Ashwini Kantak, Assistant Director of Environmental Services, at (408) 975-2553.

**City Manager's Contract Approval Summary**  
**For Procurement and Contract Activity between \$100,000 and \$1.08 Million for Goods and \$100,000 and \$270,000 for Services**

AUGUSTE 31, 2016 - SEPTEMBER 30, 2016

Description of Contract Activity <sup>1</sup>	Fiscal Year	Req#/RFP#	PO#	Vendor/Consultant	Original \$ Amount	Start Date	End Date	Additional \$ Amount	Total \$ Amount	Comments
CATHODIC PROTECTION SYSTEM TESTING, MAINTENANCE AND REPAIR	16-17	23176	53302	CORRPRO COMPANIES INC	\$105,000	8/1/2016	7/31/2017	\$90,000	\$195,000	ADDED \$90K RWF-ELEC (513); \$25K WATER RESOURCES (515) & \$80K SBWR (513)
SPECIAL INSPECTION	15-16		AC26408	CONSTRUCTION TESTING SERVICES	\$98,797	2/1/2016	1/31/2017	\$26,912	\$125,709	SERVICE ORDER # 1, THIRD AMENDMENT (MASTER AGREEMENT TERM 10/22/14-12/31/19)

<sup>1</sup> This report captures completed contract activity (Purchase Order Number, Contract Term, and Contract Amount)