SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

SAM LICCARDO, CHAIR
PAT KOLSTAD, VICE CHAIR
LAN DIEP, MEMBER
DAVE SYKES, MEMBER
DEV DAVIS, MEMBER
MARSHA GRILLI, MEMBER
DEBI DAVIS, MEMBER
STEVEN LEONARDIS, MEMBER
JOHN GATTO, MEMBER

AMENDED AGENDA/TPAC

4:00 p.m. **May 18, 2017** **Room 1734**

1. ROLL CALL

2. APPROVAL OF MINUTES

A. April 13, 2017

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTOR'S REPORT

A. Director's Report (verbal)
- Monthly Progress Report

5. AGREEMENTS/ACTION ITEMS

A. San Jose – Santa Clara Regional Wastewater Facility Capital Improvement Program Semiannual Status Report

Staff Recommendation: Accept the semiannual status report on the San José – Santa Clara Regional Wastewater Facility Capital Improvement Program for the period of July 2016 through December 2016.

This item was accepted by the Transportation and Environment Committee on May 1, 2017 and will be considered by the City Council on May 23, 2017.

B. San Jose/Santa Clara Water Pollution Control Plant Proposed Capital Improvement Program

Staff Recommendation: TPAC approval of the San Jose/Santa Clara Water Pollution Control Plant Proposed Capital Improvement Program

The San Jose/Santa Clara Water Pollution Control Plant Proposed Capital Improvement Program is scheduled for Council consideration on June 13, 2017, and for adoption on June 20, 2017.

C. RWF Proposed Operations and Maintenance Budget

Staff Recommendation: TPAC approval of the San Jose/Santa Clara Water Pollution Control Plant Proposed Operating and Maintenance Budget.

The San Jose/Santa Clara Water Pollution Control Plant Proposed Operating and Maintenance Budget is scheduled for Council consideration on June 13, 2017, and for adoption on June 20, 2017.

D. Report on Bids and Award of Construction Contract for 8101 – Headworks Critical Improvements Project – Rebid at the San José- Santa Clara Regional Wastewater Facility

Staff Recommendation:

(a) Reject all bids received and opened on December 8, 2016 for the Headworks Critical Improvements Project
(b) Report on bids and award of construction contract for 8101 – Headworks Critical Improvements Project – Rebid to the low bidder, C. Overaa & Co., in the amount of $1,499,000, and approve a 15 percent construction contingency in the amount of $224,850.
(c) Adopt a resolution authorizing the Director of Public Works to negotiate and execute one or more change orders in excess of $100,000 for the duration of the Project, not to exceed the total contingency amount for the project.

This item is scheduled for consideration by the City Council on May 23, 2017.

E. Report on Bids and Award of Contract for 8332 – Nitrification Clarifiers Lighting Improvements Project Re-Bid at the San Jose – Santa Clara Regional Wastewater Facility

Staff Recommendation:

(a) Reject all bids received and opened on February 2, 2017 for the Nitrification Clarifiers Lighting Improvements Project.
(b) Reports on bids and award of a construction contract for 8332 – Nitrification Clarifiers Lighting Improvements Project Re-bid to the sole bidder Boscacci, Inc. for the base bid in the amount of $500,000 and approval of a construction contingency of 15 percent in the amount of $75,000.

This item is scheduled for consideration by the City Council on May 23, 2017.

F. 8251- Master Consultant Agreement with SCA Environmental, Inc. for Industrial Hygienist Services at the San José – Santa Clara Regional Wastewater Facility

Staff Recommendation: Approve a Master Consultant Agreement with SCA Environmental, Inc. to provide industrial hygienist services at the San José – Santa Clara Regional Wastewater Facility from the date of execution through June 30, 2024 in an amount not to exceed $500,000, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on May 23, 2017.

G. Administrative Hearing for Claim 2 by the Tributary Agencies

Purpose: To conduct a hearing on the administrative claim for breach of contract and inequities filed by the Tributary Agencies against San José and Santa Clara.

1. Presentations from Tributary Agencies (10 minutes)
2. Presentations from Co-Owners (10 minutes)
3. Discussion (20 minutes)

6. OTHER BUSINESS/CORRESPONDENCE

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Discharge Regulations and Future Impacts on the San José – Santa Clara Regional Wastewater Facility

Staff Recommendation: Accept the first annual update on regulatory items related to the San José – Santa Clara Regional Wastewater Facility

The update was accepted by the Transportation and Environment Committee on April 2, 2017, and by the City Council on April 25, 2017.

B. Approve Master Service Agreements with Cornerstone Earth Group, Golder Associates, and AEI Consultants for On-Call Environmental Consulting Support for Various City Projects

Staff Recommendation: Approval of Master Service Agreements with the following firms for on-call environmental consulting services for various City projects:

(1) Cornerstone Earth Group from the date of execution through May 1, 2020 in an amount not to exceed $500,000;
(2) Golder Associates from the date of execution through May 1, 2020 in an amount not to exceed $500,000; and
(3) AEI Consultants from the date of execution through May 1, 2020 in an amount not to exceed $500,000.

The proposed recommendation was accepted by the City Council on April 25, 2017.

C. Amendment of Title 22 of the San Jose Municipal Code (Convention, Cultural and Visitors Services) Relating to Funding of Public Art

Staff Recommendation: Approve an ordinance to amend Section 22.08.030 of Title 22 of the San José Municipal Code to exempt capital improvement projects for the San José- Santa Clara Regional Wastewater Facility from the one percent public art Assessment of the capital improvement budget.

This item is scheduled for consideration by the City Council on June 6, 2017.

8. REPORTS

9. MISCELLANEOUS

A. The next monthly TPAC Meeting is on June 8, 2017, 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, 10th 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
San José City Hall, T-1734
Thursday, April 13, 2017 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: Debi Davis, John Gatto, Steven Leonardis, Sam Liccardo, Dave Sykes, Kathy Watanabe (alternate), Dev Davis, Anthony Phan (alternate), Sylvia Arenas (alternate)

Absent: Vice Chair Pat Kolstad, Committee Members Lan Diep and Marsha Grilli

2. APPROVAL OF MINUTES

A. January 12, 2017
Item 2.A. was approved to note and file.
Ayes – 8
Nayes – 0
Absent – 1 (Arenas)

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTOR'S REPORT

A. Director's Report (verbal)

- Monthly Progress Report

Assistant Director Ashwini Kantak presented a construction update of the Emergency Diesel Generators, Digester and Thickener Facilities upgrade, 78" SES Pipeline deterioration and 78" SES Pipeline Bypass System.

Committee Member Gatto asked how long the emergency diesel generators would be able to operate after an outage. Ms. Kantak clarified that there would be sufficient fuel to provide backup power for two days; additionally the new Cogeneration project would enable power generation from biogas and natural gas.

Chair Liccardo asked if the 78" concrete pipe was originally in the construction plan for rehabilitation or if the corrosion was a recent discovery. Ms. Kantak responded that this work was intended to be a part of the Yard Piping Project in the Capital Improvement Program. Staff is evaluating several options and anticipates bringing back a recommendation to TPAC and the City Council for an increase in contingency as the Yard Piping Project isn't expected to commence in a couple of years and there is an urgency to replace the piping now.

Committee Member Gatto commented that he found the construction briefing beneficial and suggested a verbal report be provided once or twice a year. Staff will continue to provide periodic updates for larger, complex projects.

5. AGREEMENTS/ACTION ITEMS

A. Discharge Regulations and Future Impacts on the San Jose – Santa Clara Regional Wastewater Facility

Staff Recommendation: Accept the first annual update on regulatory items related to the San José – Santa Clara Regional Wastewater Facility.

This item was accepted by the Transportation and Environment Committee on April 3, 2017, and will be considered by the City Council on April 25, 2017.

Assistant Director Ashwini Kantak presented on this item.

Committee Member Gatto inquired how staff will reduce the amount of biosolids at the Plant until the Dewatering Facility is completed in 2022. He expressed that his level of comfort would be higher if staff provided a clear solution as to how the biosolids would be disposed of as opposed to outsourcing.

Assistant Director Ashwini Kantak responded that staff had evaluated various disposition options during the feasibility analysis and biosolids transition strategy and had received several proposals for different disposition options through a Request for Interest solicitation. The current plan is to complete the new dewatering facility by 2022 and to decommission the biosolids lagoons and drying beds by 2027. A biosolids management team is envisioned to be in place to negotiate new disposition contracts, however if new regulations require a transition to non-landfill sites prior to 2027, alternate disposition options will need to be in place earlier and there will be an impact on operational costs.

Ms. Kantak added that although an on-site composting operation had been considered as part of the biosolids transition strategy, this option was not pursued because it could create potential odor issues.

Chair Liccardo directed staff to bring back information about disposition options, evaluated as part of the biosolids transition strategy, to the next TPAC meeting.

On a motion made by Committee Member Leonardis and a second by Committee Member Watanabe, TPAC recommended approval of staff's recommendation for Item 5.A.

Ayes – 9 (Arenas, Debi Davis, Dev Davis, Gatto, Leonardis, Liccardo, Phan, Sykes, Watanabe)
Nayes – 0
Absent – 0

B. Approve Master Consultant Agreements with Cornerstone Earth Group, Golder Associates, and AEI Consultants for On-Call Environmental Consulting Support for City Projects

Staff Recommendation: Approval of Master Service Agreements with the following firms for on-call consulting services for various City projects:

(1) Cornerstone Earth Group from the date of execution through May 1, 2020 in an amount not to exceed $500,000;
(2) Golder Associates from the date of execution through May 1, 2020 in an amount not to exceed $500,000; and
(3) AEI Consultants from the date of execution through May 1, 2020 in an amount not to exceed $500,000.

This item is scheduled for consideration by the City Council on April 25, 2017.

On a motion by Committee Member Debi Davis and a second by Committee Member Phan, TPAC approved to accept the staff recommendation.

Ayes – 8 (Arenas, Debi Davis, Dev Davis, Leonardis, Liccardo, Phan, Sykes, Watanabe)
Nayes – 0
Absent – 0
Abstain – 1 (Gatto)

C. Amendment of Title 22 of the San Jose Municipal Code (Convention, Cultural and Visitors Services) Relating to Funding of Public Art

Staff Recommendation: Approve an ordinance to amend Section 22.08.030 of Chapter 22.08 (Public Art Program) of Title 22 of the San José Muncipal Code to exempt capital improvement projects for the San José – Santa Clara Regional Wastewater Facility from the one percent public art assessment of the capital improvement budget.

This item is scheduled for consideration by the City Council on May 9, 2017

Committee Member Leonardis inquired why the amendment was not considered to go retroactive. Assistant Director Ashwini Kantak clarified that some of the monies collected have been spent; other remaining funds are planned to be used at the Regional Wastewater Facility, in conjunction with capital projects, for which the public art allocation was assessed.

On a motion by Committee Member Gatto and a second by Committee Member Phan, TPAC approved to accept the staff recommendation.

Ayes – 8 (Arenas, Debi Davis, Dev Davis, Gatto, Liccardo, Phan, Sykes, Watanabe)
Nayes – 1 (Leonardis)
Absent – 0

6. OTHER BUSINESS/CORRESPONDENCE

A. Information Memorandum: Decision to Use the Progressive Design-Build Delivery Method for the Yard Piping and Road Improvements Project at the San Jose – Santa Clara Regional Wastewater Facility

Item 6.A. was approved to note and file.

Ayes – 9 (Arenas, Debi Davis, Dev Davis, Gatto, Leonardis, Liccardo, Phan, Sykes, Watanabe)
Nayes – 0
Absent – 0

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Master Consultant Agreement with Kennedy/Jenks Consultants, Inc. for Engineering and Architectural Services for the 7944 – Support Buildings 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 and architectural services for the 7944 – Support Buildings Improvements Project at the San José– Santa Clara Regional Wastewater Facility from the date of execution through June 30, 2024, in an initial amount not to exceed $4,800,000, subject to the appropriation of funds.

The proposed recommendation was approved by the City Council on January 24, 2017.

Item 7.A. was approved to note and file.

Ayes – 9 (Arenas, Debi Davis, Dev Davis, Gatto, Leonardis, Liccardo, Phan, Sykes, Watanabe)
Nayes – 0
Absent – 0

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 of services between $100,000 and $270,000.

Item 8.A. was approved to note and file.

Ayes – 9 (Arenas, Debi Davis, Dev Davis, Gatto, Leonards, Liccardo, Phan, Sykes, Watanabe)
Nayes – 0
Absent – 0

9. MISCELLANEOUS

A. The next monthly TPAC Meeting is **May 18, 2017**, at 4:00 p.m., City Hall, Room 1734. **Please note this is on the third Thursday of the month.**

Assistant Director Ashwini Kantak mentioned that the Tributary Agencies had asked to continue with the administrative claim process; staff was proposing to hold the hearing at the monthly TPAC meeting in May. Staff is in the process of coordinating committee members' schedules to accommodate an extended meeting.

Chair Liccardo added that TPAC would be willing to waive the hearing if there is a desire for the Tributary Agencies to resolve issues through litigation or mitigation.

10. OPEN FORUM

11. ADJOURNMENT

A. The Treatment Plant Advisory Committee adjourned at 4:39 p.m.

Sam Liccardo, Chair
TREATMENT PLANT ADVISORY COMMITTEE

San José-Santa Clara Regional Wastewater Facility

Capital Improvement Program
Monthly Status Report: March 2017

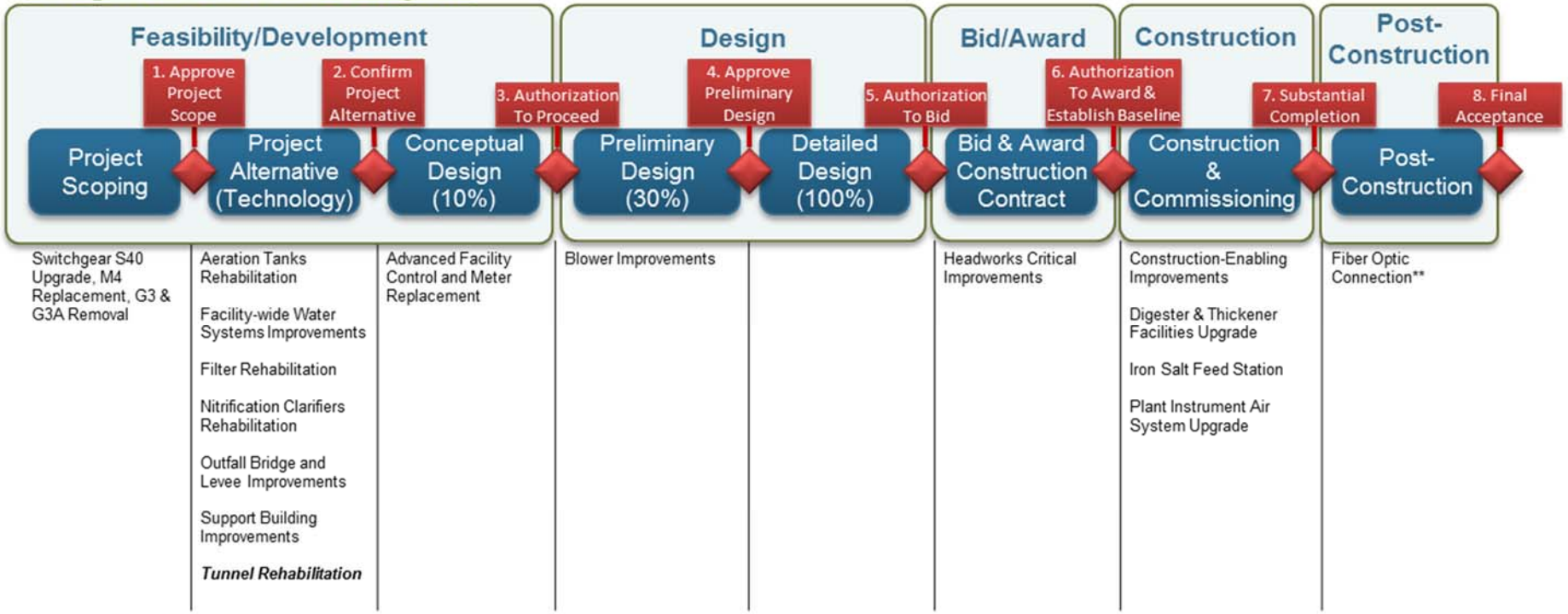
May 11, 2017

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for March 2017.

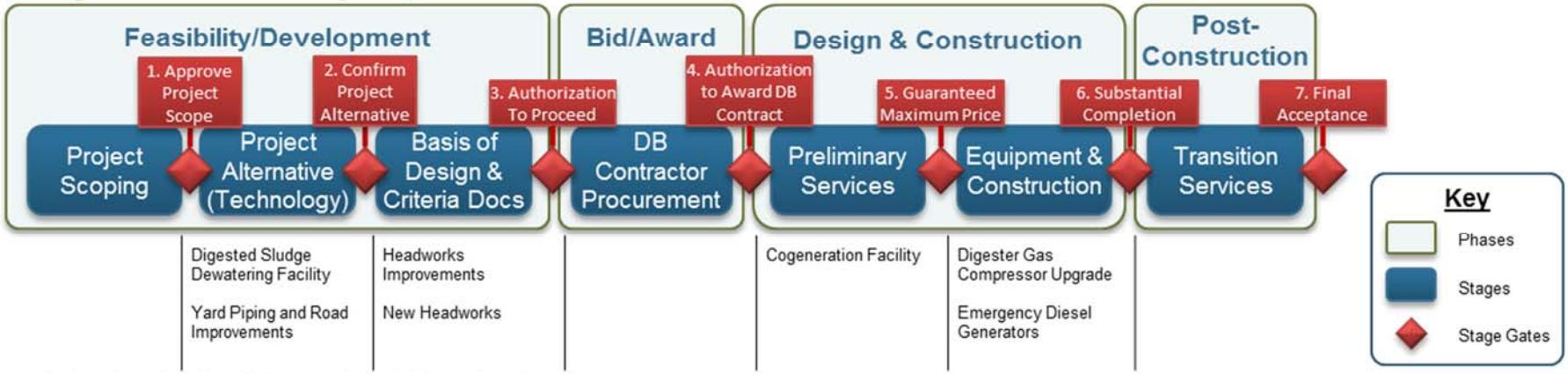
Report Contents

Project Delivery Model

Design-Bid-Build Active Projects



Design-Build Active Projects



*Projects shown in ***bold and italics*** have advanced this reporting period
**The Fiber Optic Connection Project achieved Beneficial Use in January. The Substantial Completion Stage Gate is scheduled for May 2017.

Program Summary

March 2017

The Tunnel Rehabilitation Project advanced through the first stage gate (Approve Project Scope) in the Project Delivery Model (PDM) stage gate process. This project will rehabilitate and repair critical portions of the 4.7 miles of tunnel infrastructure that extends beneath the RWF. The tunnels, many of which were constructed more than 50 years ago, house process equipment including pipes, pumps, valves, controls, instrumentation, and electrical components. Various structural repairs and other improvements such as structural coatings, lighting, ventilation, and drainage systems are needed to improve operational safety and long-term reliability.

The City rejected all bids received in December 2016 for the Headworks Critical Improvements Project to make clarifications to the Statement of Bidder's Experience specification. The project was successfully readvertised this month and staff anticipates making a construction award recommendation in May. Staff also received Statement of Qualifications to prequalify vendors for programwide system integrator services, and began evaluating these documents.

The alternatives analysis work for the Aeration Tanks Rehabilitation Project kicked off this month. Alternatives analysis efforts also continued for the Filter Rehabilitation, Nitrification Clarifier Rehabilitation, Facility-wide Water Systems Improvements, and Digested Sludge Dewatering projects. Conceptual design continued on the Advanced Facility Control and Meter Replacement Project. The Blowers Improvements Project reached the 30 percent design milestone this month. The Headworks Improvements and New Headworks project team advanced the basis of design and procurement documents and aim to start prequalification of design-builders in May.

Testing and commissioning continued successfully on the Digester Gas Compressor Upgrade (profiled on page 13) and Emergency Diesel Generators projects. The new emergency diesel generators passed a key "black-start" test to verify correct automatic operation when the RWF is isolated from PG&E-supplied electrical power. On the Construction-Enabling Project, the contractor began paving on Zanker Road, a portion of which is being widened to allow improved access for future construction traffic. For the Digester and Thickener Facilities Upgrade Project, major construction continued across multiple work areas. Staff continued to coordinate process shutdowns, isolating sections of the RWF to allow the contractor to reroute utilities necessary to allow construction to progress. Work continued to assess how best to address heavily corroded pipelines in the project area that are impacting construction progress.

Look Ahead

In April, alternatives analysis work on the Aeration Tanks Rehabilitation, Digested Sludge Dewatering Facility, Facility-wide Water Systems Improvements, Filter Rehabilitation, and Nitrification Clarifiers Rehabilitation projects will continue. The Headworks Improvements and New Headworks projects will advance the Basis of Design Report and the design-build procurement documents. Design work will also continue for the Advanced Facility Control and Meter Replacement; and Blower Improvements projects. CH2M, the design-builder for the Cogeneration Facility Project, is expected to submit the 30 percent design for review.

The Advanced Facility Control and Meter Replacement Project will seek to advance through the Authorization to Proceed stage gate, and staff will advertise a Request for Qualifications (RFQ) for Owner's Advisor (OA) services for the Yard Piping and Road Improvements Project. Staff will also seek bids for an on-call repair and rehabilitation contract.

Testing and commissioning activities will continue on the Digester Gas Compressor Upgrade and Emergency Diesel Generators projects, with each project forecast to achieve Beneficial Use during the next three months.

In addition, CIP staff will continue to participate in monthly training for project managers. This training gives project managers tools and techniques based on Project Management Institute (PMI) fundamentals, tailored to the CIP. The training also includes topics such as environmental and regulatory requirements. Project management training modules are being repeated to provide consistent training for new staff.

In May, staff anticipates making the following recommendations to TPAC and Council:

- Award a Master Consultant Agreement (MCA) for on-call industrial hygienist services at the RWF;
- Amend the existing MCA with Stantec (formerly MWH) for program management services for the CIP;
- Award a construction contract for the Headworks Critical Improvements Project; and
- Accept the CIP Semiannual Status Report, which highlights progress for the period of July through December 2016.

Staff will also present the CIP Semiannual Status Report, and a status report on the RWF CIP Ten-Year Funding Strategy to the Transportation and Environment Committee in May.

Program Highlight – Scheduling

In the CIP, scheduling is used to plan and monitor project performance. Time-phased, activity-based schedules track actual progress and forecast future start and finish dates. A master program schedule provides a summary view of all CIP projects. Schedule information is used for reporting, cash flow forecasting, interface planning, and resource management.

Detailed project schedules are prepared using existing schedule templates as a basis to ensure consistency in activity structure and assumed durations. Schedule templates have been prepared for design-bid-build, low-bid design-build, and progressive design-build projects. These templates are updated as needed to reflect any changes in delivery strategy and assumptions based on actual experience on active projects, such as activity duration estimates. Each schedule template's work breakdown structure reflects PDM phases and stages and is aligned to the City cost breakdown structure to facilitate cost forecasting.

Milestone	Baseline	Actual	Forecast	Variance	Mth Slip/Gain
Start Date	12/09/2013	12/09/2013		0	0
Scope Comp./Auth. Proceed SG	11/26/2014	02/10/2015		-47	0
Design Completion	06/22/2016	04/14/2016		49	0
Award Date	11/08/2016		09/06/2016	45	0
Construction Start	11/07/2016		09/21/2016	33	0
Beneficial Use	02/09/2018		01/11/2018	21	0
Project Acceptance	03/09/2018		02/08/2018	21	0

Figure 1: Example Milestone Table

Project schedules are updated monthly as part of the CIP reporting process. The program scheduler works with project managers to update the individual project schedules to reflect progress and changes to future activities. Key milestones are used to report schedule performance in program and project monthly reports and dashboards.

As part of the CIP monthly reporting process, the program scheduler also updates the master program schedule to provide an overall view of the CIP. The master program schedule is used to facilitate project- and program-level discussions.

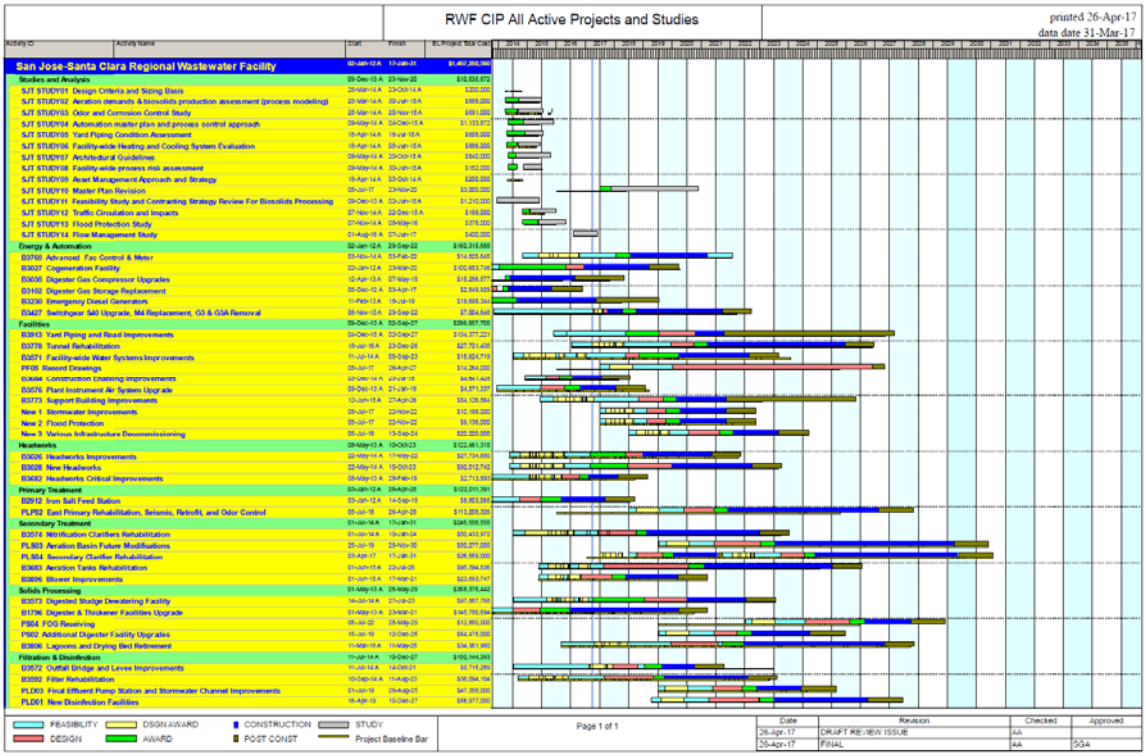


Figure 2: Program Schedule

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
Stage Gates	80%	90% 9/10[1]	●	↑	94% 16/17[2]	●	→
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%							
Schedule	90%	100% 1/1	●	→	33% 1/3[3]	◆	↓
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone.[4] Target: Green: >=90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	NA 0/0	●	→	100% 1/1	●	→
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget.[4] Target: Green: >=90%; Amber: 75% to 89%; Red: < 75%							
Expenditure	$186M	$191M	●	↑	$226M[5]	●	↓
Measurement: CIP FY16-17 committed costs. Committed cost meets or exceeds 70% of planned Budget Target: 70% of $266M = $186M. Therefore Green: >=$186M; Amber: $146M to $186M; Red: < $146M							
Procurement	80%	75% 3/4	▲	→	100% 6/6	●	→
Measurement: Number of consultant and contractor procurements advertised compared to planned for the fiscal year. Target: Green: >=80%; Amber: 70% to 79%; Red: < 70%							
Safety	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							
Environmental	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							
Staffing[6]	80%	80% 16/20[7]	●	↓	100% 24/24	●	→
Measurement: Number of planned positions filled for the fiscal year. Target: Green: >=80%; Amber: 70% to 79%; Red: < 70%							

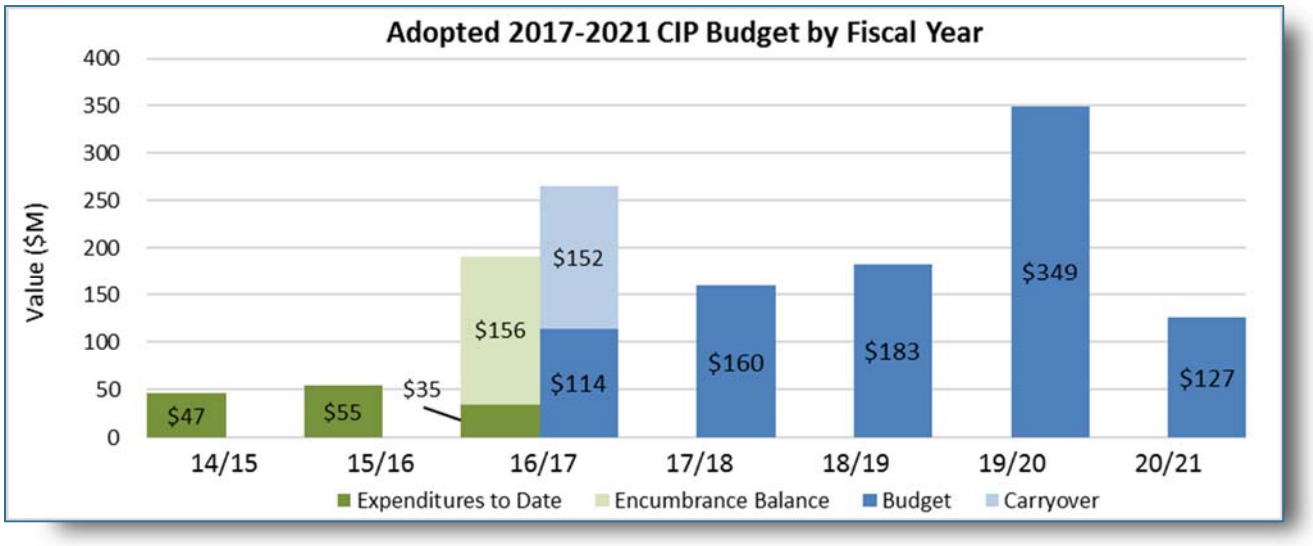
Notes

1. The Tunnel Rehabilitation Project successfully passed Stage Gate 1: Approve Project Scope.
2. The fiscal year-end count has been updated to reflect a decrease in the number of planned stage gates. The City no longer anticipates the Construction-Enabling Improvements Project to complete the Substantial Completion Stage Gate this fiscal year.
3. The schedule fiscal year-end forecast decreased from two of four to one of three, as the Construction-Enabling Improvements Project is no longer anticipated to reach Beneficial Use this fiscal year.
4. The Baseline Beneficial Use Date and the Baseline Budget for a project are established at the time of construction contract award and execution.
5. The expenditure fiscal year-end estimate was revised to reflect the most current encumbrance schedule. The schedule for alternatives analysis and design work for several projects have been extended. Funds that were budgeted to be encumbered this fiscal year for consultant services or construction will be rebudgeted to FY17-18 for those encumbrances.
6. The staffing KPI represents CIP recruitments planned for the fiscal year and is measured quarterly. This KPI measurement does not account for staff turnover throughout the fiscal year.
7. This KPI was updated for the January-March quarter. The program hired an engineer I/II, an office specialist, and four sanitary engineers this quarter.

Program Cost Performance Summary

This section summarizes CIP cost performance for all construction projects and non-construction activities for fiscal year (FY) 16-17 and for the 2017-2021 CIP.

Adopted 2017-2021 CIP Expenditure and Encumbrances



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. An encumbrance reserves the funding within the appropriation and project.

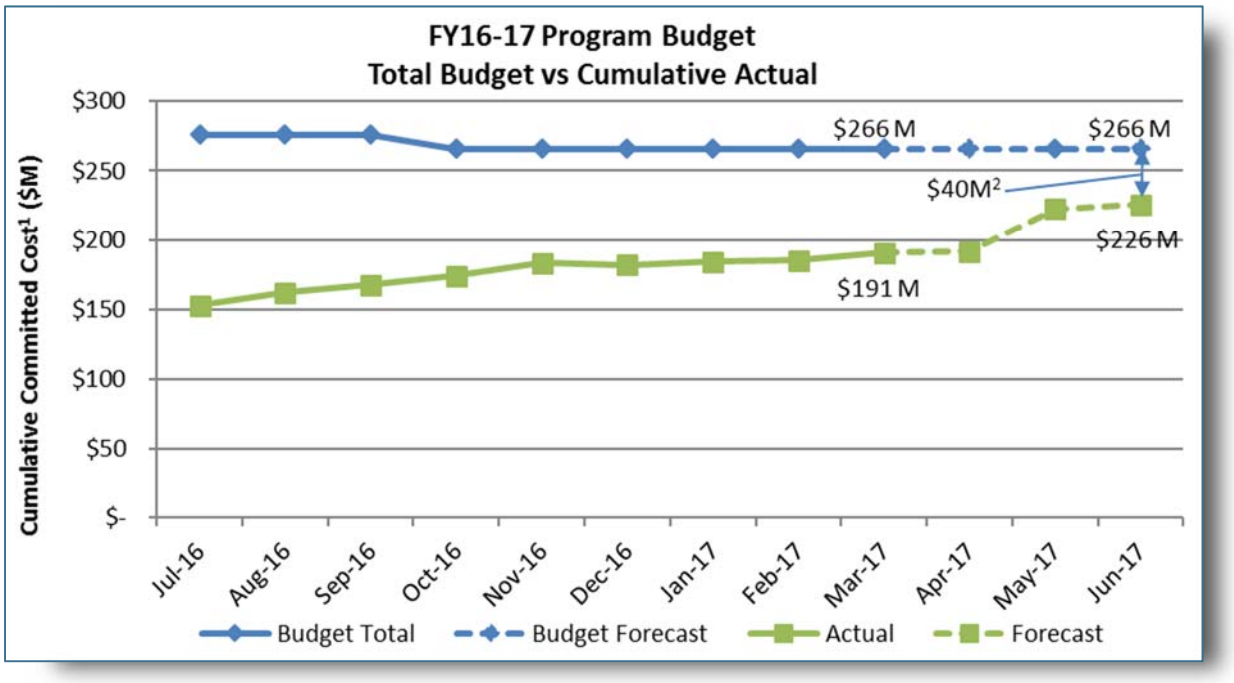
Encumbrance Balance: The amount of the remaining encumbrance committed after payments.

Budget: Adopted 2017-2021 CIP Budget, which is new funding plus rebudgeted funds in FY16-17.

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 $114 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 forecasted variance between budget and expenditures can be primarily attributed to the following factors:
    a. The Blower Improvements Project had originally planned to prepurchase blower equipment in FY16-17 due to long lead times. However, the equipment will now be furnished through the construction contract, shifting approximately $12 million in estimated expenditures to FY17-18.
    b. The Cogeneration Facility Project had originally planned to issue early work packages for site preparation and design work in FY16-17. Those packages, estimated at $8.2 million, are now forecasted to be issued in FY17-18.
    c. Several encumbrances for consultant services are either anticipated to be lower than budgeted or are anticipated to be awarded in FY17-18.
    d. Estimated personal services are anticipated to be under budget. Several authorized positions are currently vacant, resulting in lower than budgeted personal services expenses.
    e. The FY16-17 budget includes three recurring appropriations (Preliminary Engineering, Equipment Replacement, and Plant Infrastructure Improvements) totaling approximately $3.66 million. These appropriations are included in the budget for implementing minor capital improvement projects that may be needed during the fiscal year. As of March 2017, there are no new major expenditures or encumbrances against these appropriations.

Project Performance Summary

There are currently seven active projects in the construction or post-construction phases, with an additional 16 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[1]	Cost Performance [2]	Schedule Performance[2]
1. Fiber Optic Connection	Post-Construction	Jan 2017[3]	●	●
2. Digester Gas Compressor Upgrade	Construction	Apr 2017	◆	◆
3. Emergency Diesel Generators	Construction	Jun 2017	●	◆
4. Construction-Enabling Improvements	Construction	Jul 2017	●	◆
5. Iron Salt Feed Station	Construction	Sep 2017	●	●
6. Plant Instrument Air System Upgrade	Construction	Apr 2018	●	●
7. Digester and Thickener Facilities Upgrade	Construction	Apr 2020	●	●

KEY:

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

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.
2. An explanation of cost and schedule variances on specific projects identified in this table is provided on page 11.
3. Actual Beneficial Use date.

Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]
1. Headworks Critical Improvements	Bid and Award	Feb 2018
2. Cogeneration Facility	Design & Construction	Apr 2019
3. Blower Improvements	Design	Mar 2020
4. Outfall Bridge and Levee Improvements	Feasibility/Development	Oct 2020
5. Adv. Facility Control & Meter Replacement	Feasibility/Development	Jan 2021
6. Headworks Improvements	Feasibility/Development	May 2021
7. Switchgear S40 Upgrade, M4 Replacement, G3 & G3A Removal	Feasibility/Development	Sep 2021
8. Digested Sludge Dewatering Facility	Feasibility/Development	Jul 2022
9. Filter Rehabilitation	Feasibility/Development	Aug 2022
10. Facility-wide Water Systems Improvements	Feasibility/Development	Aug 2022
11. New Headworks	Feasibility/Development	Oct 2022
12. Nitrification Clarifiers Rehabilitation	Feasibility/Development	Jan 2023
13. Support Building Improvements	Feasibility/Development	Apr 2025
14. Aeration Tanks Rehabilitation	Feasibility/Development	Jul 2025
15. Tunnel Rehabilitation	Feasibility/Development	Dec 2025
16. Yard Piping and Road Improvements	Feasibility/Development	Aug 2026

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

Digester Thickener and Facilities Upgrade

- Contractor Walsh Construction completed the floor work for two of the four digesters, and completed preparation of the foundation for the new screenings building.

Digested Sludge Dewatering Facility

- The project team established the design criteria for the planned dewatering facility.
- OA Brown and Caldwell submitted the first technical memorandum regarding anticipated flows and loads and held a review workshop.
- The OA completed the condition assessment of the existing structures to evaluate potential reuse in the future.

Facilities Package

Cogeneration Facility

- Design-builder CH2M completed significant design work to integrate shop and administration space and architectural screening as part of the 30 percent design submittal anticipated in April.

Tunnel Rehabilitation

- The project team passed Stage Gate 1: Approve Project Scope and now anticipate advertising an RFQ by mid-year 2017 for a design consultant.

Yard Piping and Road Improvements

- The project team finalized the RFQ for OA services, which will be advertised in April 2017.

Liquids Package

Aeration Tanks Rehabilitation

- The City issued a Notice to Proceed to design consultant Brown and Caldwell to begin work on the alternatives analysis.

Blower Improvements

- Design consultant Brown and Caldwell submitted the 30 percent design and held a review workshop. Staff anticipate the 60 percent design to be completed by June 2017.

Headworks Critical Improvements

- The City rebid the project and received and evaluated bids. Staff will move forward with recommending award of a construction contract in May.

Iron Salt Feed Station

- Contractor Anderson Pacific completed concrete footings, slabs, and walls for the polymer station.

Headworks Improvements and New Headworks

- The project team began development of the design-build RFQ, which is anticipated to be advertised in May 2017.

Power and Energy Package

Digester Gas Compressor Upgrade

- The contractor completed the functional testing of the automation controls. The project team expects that the seven-day commissioning tests for each compressor will be completed by end of April.

Emergency Diesel Generators

- The “black start” test, which tests the generators’ performance when a power loss to the RWF is simulated, was successfully completed on March 16. All four generators energized to full capacity in only 41 seconds.

Explanation of Project Performance Issues

Digester Gas Compressor Upgrade

This project is over budget by approximately 3 percent due to increased project delivery costs associated with increased construction inspection requirements and an extended project timeline.

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

- The compressor skids needed to be reclassified from Class 1 Division 2 to Class 1 Division 1. This issue was resolved in May 2015.
- The Bay Area Air Quality Management District (BAAQMD) delayed approval of the digester gas flaring during the tie-in of the new gas piping. This issue was resolved in November 2016.
- Functional testing of the automation system has taken longer than anticipated.
- There are conflicting process shutdowns with other projects.

Emergency Diesel Generator

The schedule shows a delay in the project completion of approximately one year from the Notice to Proceed completion date. The City granted that an additional 179 working days be added to the schedule through the change order process due to additional scope. The project continues to be late due to the following 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 completed an engineering study and found a solution to the problem. Additional switches have been installed for the existing network system. Caterpillar's completion of the Level 2 process load tuning testing for four new emergency diesel generators also took longer than anticipated.
- Additional time was required for PG&E to review the third-party report and schedule the witness test for the new emergency diesel generators. PG&E has now completed this work.
- A no-cost time extension change order was required to split the commissioning sequence into two periods and ensure RWF backup power during engine modification work. The contractor completed phase 1 of the project, which includes modifications to the existing engine, an eight-hour load test for the four new generators, and the installation of the fueling system and the diesel exhaust fluid system.

Construction-Enabling Improvements

This project was originally scheduled to be substantially complete by mid-February 2017. Due to the extremely wet winter season, contractor Teichert Construction (Teichert) was unable to perform substantial site work for several weeks from October through April and has been granted 47 extra workdays for weather-related delays. Teichert has also been granted additional time for the removal and replacement of asphalt pavement in damaged areas of Zanker Road; installing traffic-rated pull boxes for the streetlight system; installing underground conduits for the fiber optic system; and other changes.

In addition, Teichert estimates delivery of the trailers required for the project in late May. Installation and furnishing of the trailers, plus final inspection, should take another three to four weeks to complete, putting the Beneficial Use date in early July 2017.

Project Profile – Digester Gas Compressor Upgrade

Gas compressors are a critical element of the RWF's power system. A reliable supply of compressed digester gas will be a key input to the RWF's new cogeneration facility scheduled for completion by mid-2019. Engine generators rely on a blend of digester and natural gases to produce power and air for operating the RWF's various treatment processes. The compressors receive low-pressure digester gas and boost the pressure to levels required for use by the engines. Without reliable compressors, the engines would revert to operating on natural gas only, with valuable digester gas being wasted.

The RWF currently operates three digester gas compressors located in the Sludge Control Building: two smaller Ingersoll-Rand single-action gas compressors (GC1 and GC3), installed in 1964, and one Norwalk gas compressor (GC4), installed in 1984. GC1 and GC3 are more than 50 years old and are increasingly unreliable and difficult to maintain. GC4 is also nearing the end of its useful life due to continuous use. After the new compressor system is installed, GC4 will remain functional and will serve as a backup compressor, while GC1 and CG3 will be decommissioned through another project.

In 2014, the City and Anderson Pacific Engineering and Construction, Inc. entered a design-build contract for a total amount of $11.3 million to design and construct a new digester gas compressor system to be housed in a new building. To meet the project needs on a site located immediately north of the existing Sludge Control Building (See Figure 3), Anderson Pacific designed and constructed a new, 4,000-square-foot building to house two new, independent oil-flooded screw compressor systems that will increase the untreated anaerobic digester gas pressure (See Figures 4 & 5). The project also includes two digester gas pre-cooler chillers, two cooling towers, associated gas piping, and associated building and equipment utility tie-ins (See Figure 6). The Controls and Motor Control Center for each of the digester gas compressors and the cooling system are housed in the Electrical Room (See Figure 7). The new compressors have an expected life span of 30 years.

The notice to proceed was issued to Anderson Pacific in June 2014 and the project team anticipates accepting the project in September 2017. The project estimate to complete is just under $15.8 million.

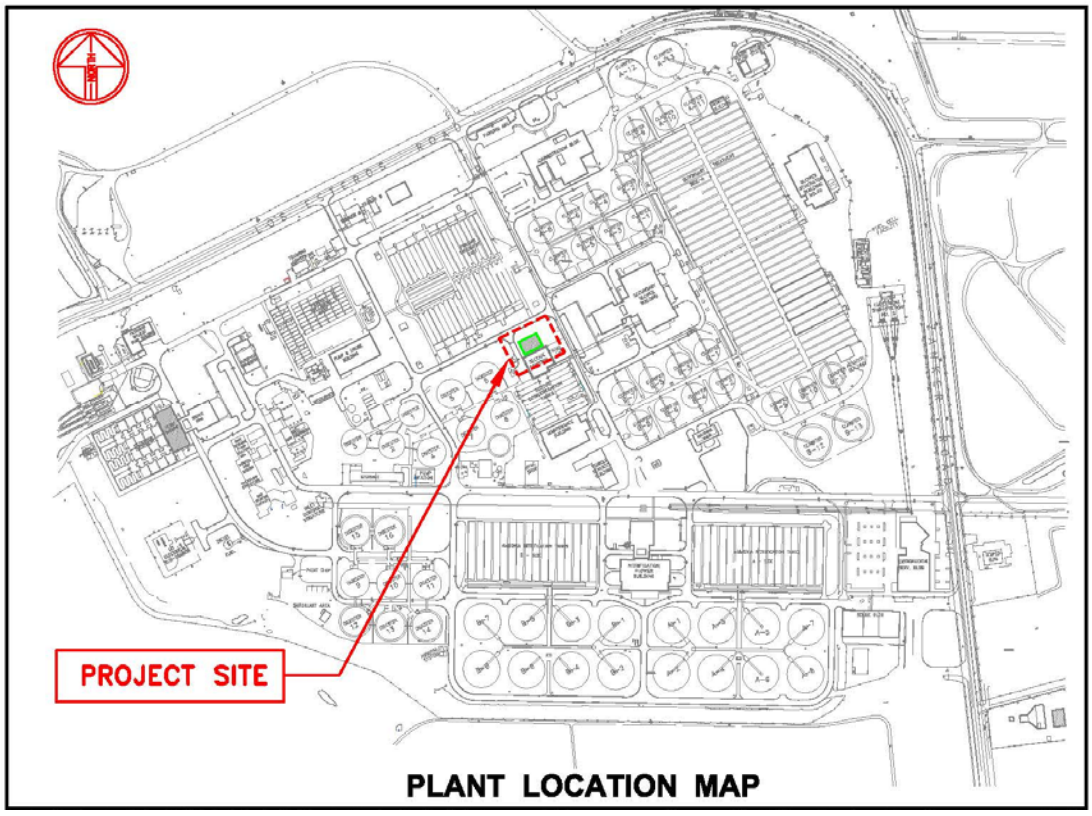


Figure 3: Digester Gas Compressor Location Plan

Figure 4: New Digester Gas Compressor Building

Figure 5: Digester Gas Compressor Skid

Figure 6: Digester Gas Compressor Cooling System

Figure 7: Digester Gas Compressor Electrical Room Control Panels

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

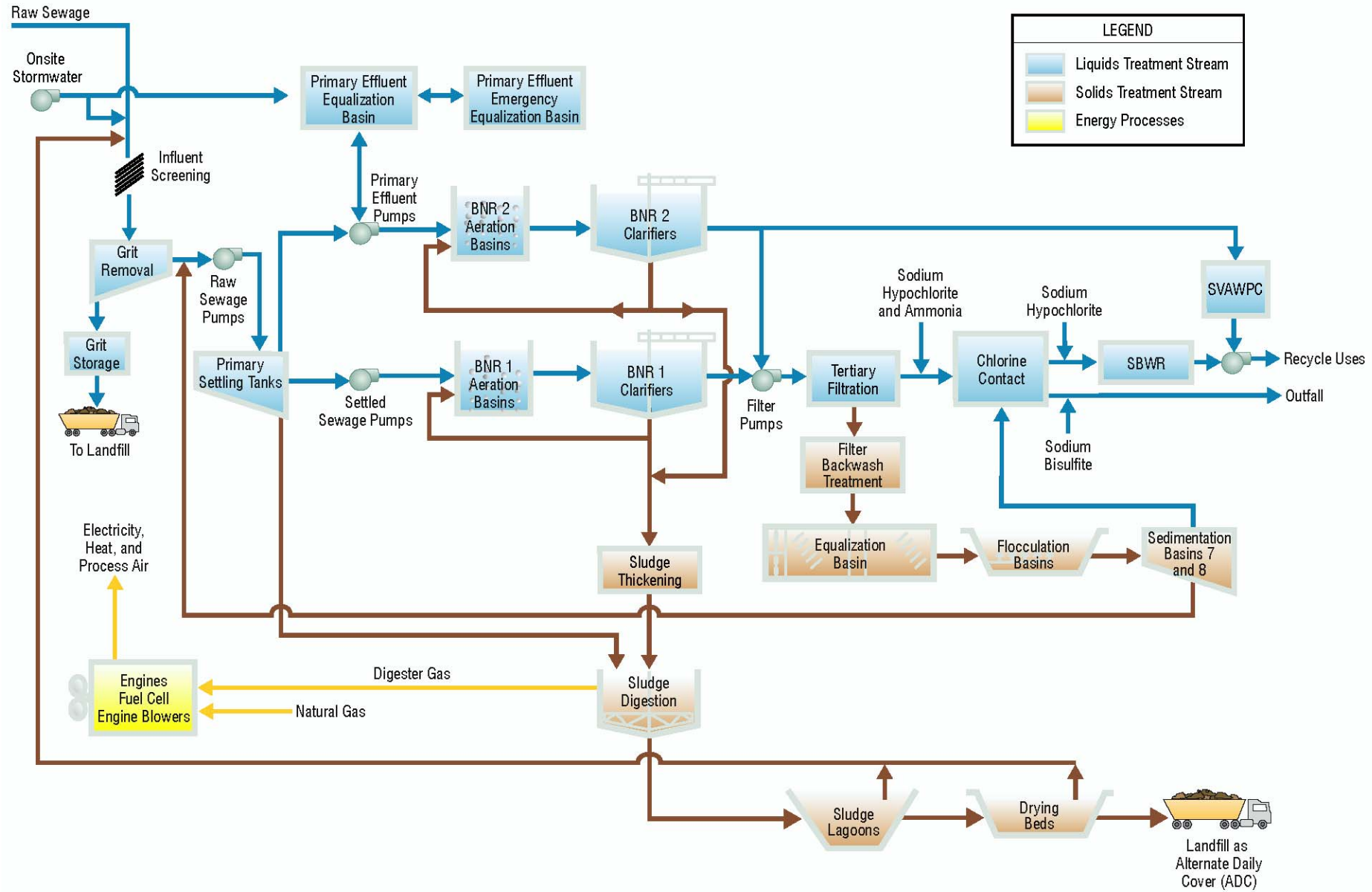


Figure 8 – Current Treatment Process Flow Diagram

Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

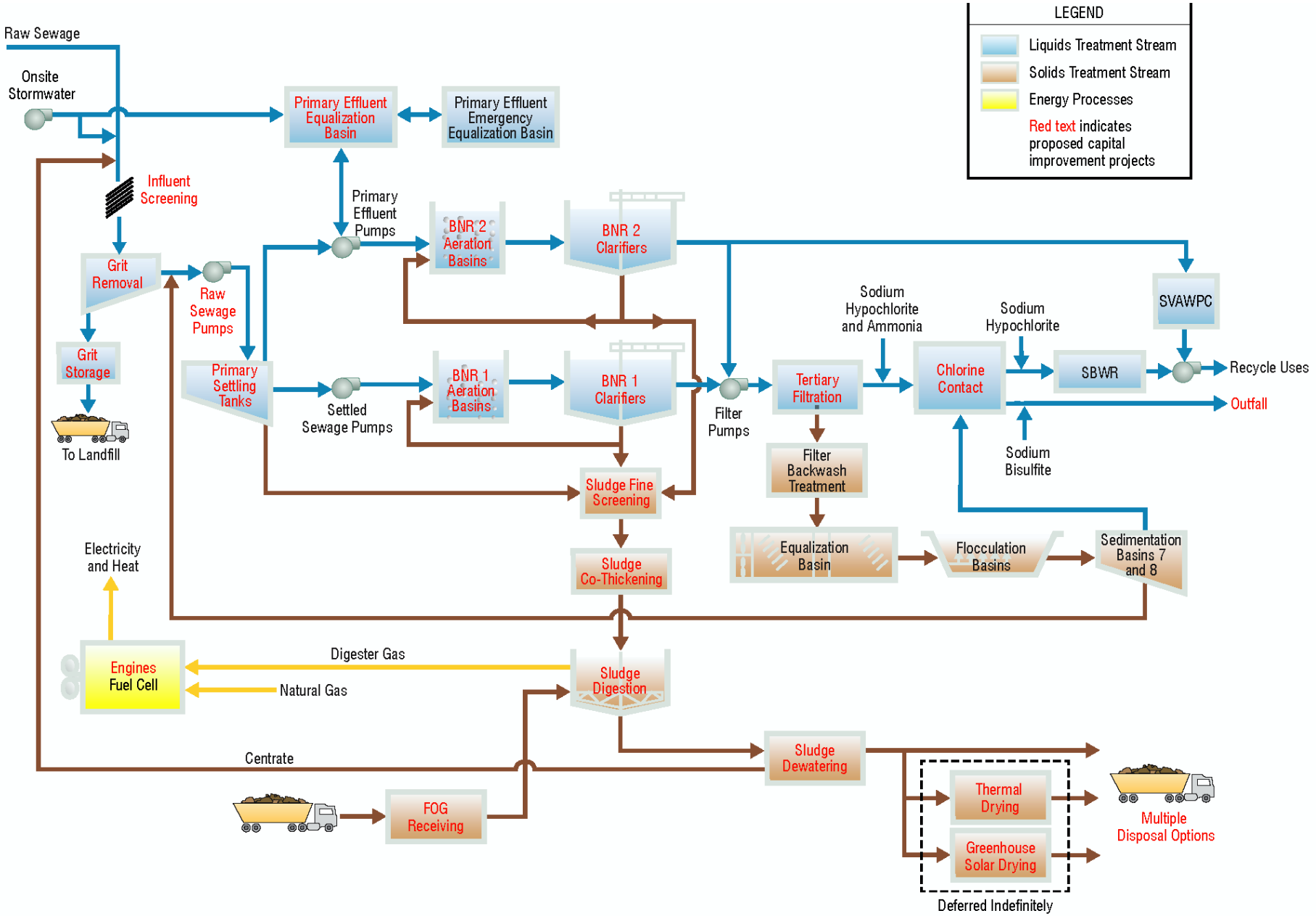


Figure 9 – Proposed Treatment Process Flow Diagram

Active Construction Projects – Aerial Plan

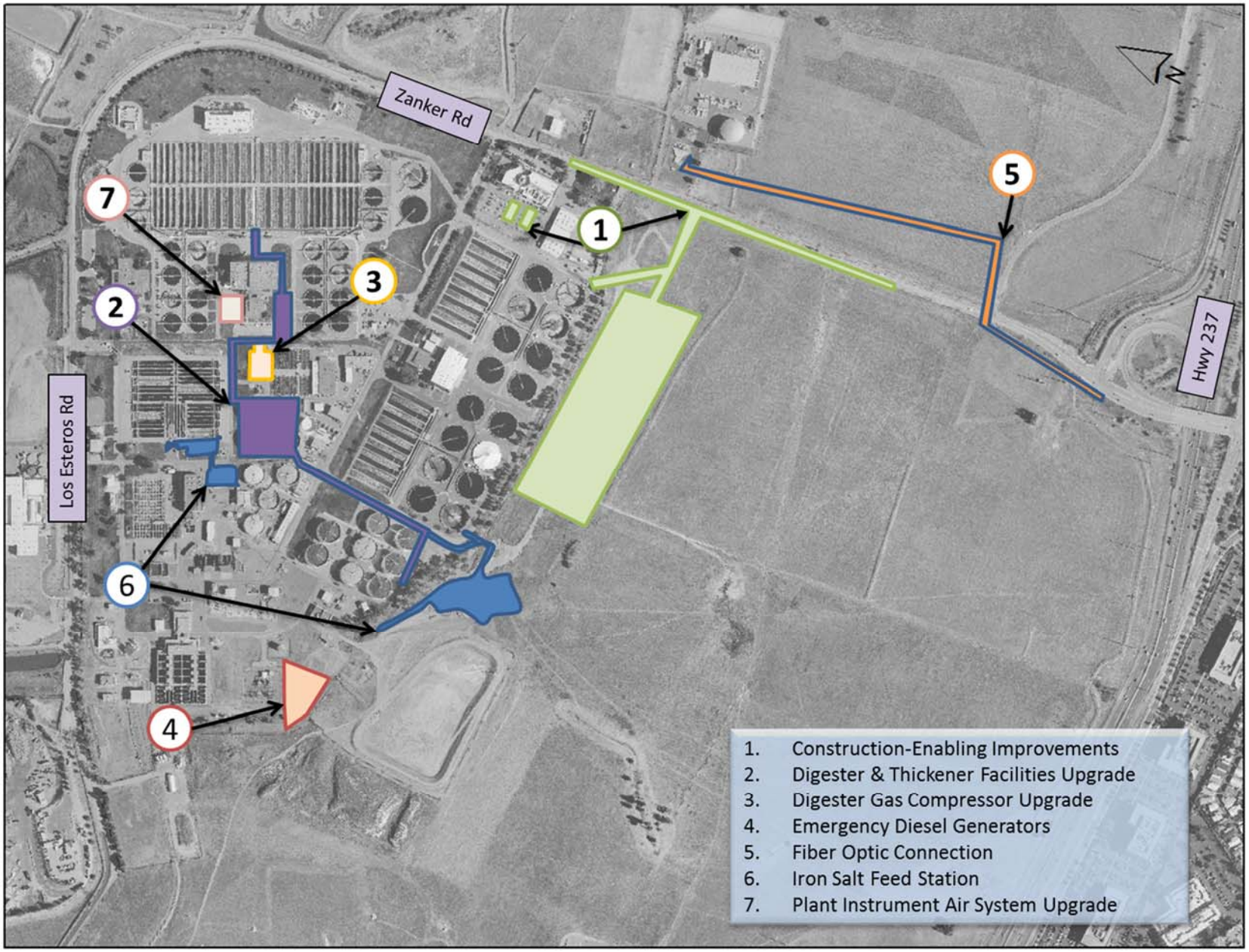


Figure 10 – Active Construction Projects

T&E AGENDA: 5/01/2017
ITEM: d (4)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
Barry Ng

SUBJECT: SEE BELOW

DATE: April 12, 2017

Approved D. DSyL Date 4/18/17

SUBJECT: SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY CAPITAL IMPROVEMENT PROGRAM SEMI-ANNUAL STATUS REPORT

RECOMMENDATION

Accept the semiannual status report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period of July 2016 through December 2016.

OUTCOME

The purpose of this semiannual status report is to provide an update on the implementation of the Capital Improvement Program (CIP) at the San José-Santa Clara Regional Wastewater Facility[1] (RWF) by highlighting key accomplishments during the first half of fiscal year 2016-2017 to the Transportation and Environment Committee (T&E), the Treatment Plant Advisory Committee (TPAC), and Council.

BACKGROUND

The San José and Santa Clara City Councils adopted the Plant Master Plan (PMP) in November 2013 and December 2013, respectively. The PMP identified more than 100 capital improvement projects totaling over $2.1 billion to be implemented at the RWF over the next 30 years. A validation process was completed in early 2014 to update and prioritize the recommended PMP projects and additional gap projects into 33 projects to be initiated over 10 years. Beginning in

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

fiscal year 2014-2015, the validation process was used to inform the five-year CIP and ten-year funding strategy. The 2017-2021 adopted CIP includes funding in the amount of $971 million, of which approximately $825 million is for construction. To provide visibility and accountability for this significant CIP effort, staff began providing formal semiannual status reports to T&E, TPAC, and Council in spring 2013.

The first semiannual status report was published in April 2013 and it focused on progress and activities from July 2012 through December 2012. Three subsequent semiannual reports were published in October 2013, April 2014, and October 2014. With the establishment of the MWH/Carollo program management team, CIP staff created a new monthly CIP status report to provide more frequent and time-relevant updates. The first CIP monthly status report was issued in April 2014 and 33 monthly reports were issued through December 2016. This semiannual status report is provided to highlight key program and project accomplishments from July 2016 through December 2016 and serves to complement the monthly reports. Copies of the monthly reports are available at http://www.sanjoseca.gov/Archive.aspx?AMID=190.

ANALYSIS

Significant progress was made in several program areas from July 2016 through December 2016.

A. *Owner-Controlled Insurance Program (OCIP)*
In December 2016, Council approved a master consultant agreement with Alliant Insurance Services, Inc. for broker, administrative, and claim services to evaluate and implement an OCIP for the RWF CIP. An OCIP will enable the City to centrally procure and manage insurance for CIP projects, and offers an opportunity for savings, risk control, and additional safety features. Preliminary estimates indicate that implementing an OCIP may result in a savings ranging from $300,000 to $3 million, however, actual savings will need to be re-evaluated after staff obtains actual quotes from insurance providers and makes a final selection on the insurance policies. Alliant will assist staff with preparing a package to market the program and procure quotes for coverage from prospective insurance carriers in early 2017. Staff anticipates bringing a recommendation to implement an OCIP at the RWF to Council for approval in spring 2017.

B. *Recruitments*
Filling vacant engineering and technical support positions to help deliver the CIP continues to be high priority for the program. Between July 2016 and December 2016, staff filled 10 positions—four associate engineers, two sanitary engineers, an engineer, one senior engineering technician, an engineering technician, and a staff specialist. While staff has been successful in filling many of the entry to mid-level positions, it has been more difficult to attract seasoned wastewater professionals at the senior engineer level, and above. This can be attributed to the highly competitive job market and the limited pool of wastewater professionals that are in high demand both in the public and private sector.

C. *Procurements*
Between July 2016 and December 2016, Council awarded a master consultant agreement for as-needed third-party audit services for CIP projects, awarded two project-specific master consultant agreements and a construction contract as discussed further below. In addition, staff prequalified a company for system integration services and advertised a Request for Qualifications (RFQ) for program-wide industrial hygienist services.

Other notable achievements during this reporting period include the following.

- The Design and Construction Management System (DCMS) was successfully configured and launched. More than 100 City, contractor, and consultant staff have begun using the system to effectively manage Requests for Information (RFIs), submittals, change orders, etc. on two projects. As more projects advance into the construction phase over the next few years, additional project teams will be trained to use the DCMS.
- In September 2016, the RWF received the Utility of the Future Today award from a consortium of leaders from water-sector organizations. The award was given to 61 utilities in the United States, Canada and Denmark for their exceptional performance while working toward more efficient operations.

On the project delivery front, 23 active projects progressed through various stages of the project delivery model.

A. *Feasibility/Development Highlights*
Thirteen projects were in the feasibility/development phase during the first half of fiscal year 2016-2017. Key activities completed during this period include the following.

- Scoping began for the **Tunnel Rehabilitation project**, which was initiated in July. The RWF has an extensive tunnel system that houses piping, equipment, valves pumps, and controls. Many of the tunnels date back to the 1960s and need structural repair, improved ventilation, and removal of obsolete pipelines.
- Condition assessments were completed and several alternative analysis workshops were held for the **Nitrification Clarifiers Rehabilitation**, **Filter Rehabilitation**, and **Advanced Facility Control** and **Meter Replacement projects**. Information from the assessments will help inform the project designs and reduce change orders during their construction.
- **Facility-wide Water Systems Improvements**: Council awarded a master consultant agreement for design services in September.
- **Digested Sludge Dewatering Facility**: Council awarded a master consultant agreement for owner's advisor and construction management services in October.
- **Blower Improvements**: Staff completed a triple bottom line plus (TBL+) analysis in July and the conceptual design in September. The design consultant began work on the preliminary design in November.
- **Headworks Improvements and New Headworks (progressive design-build)**: The project team held several technical workshops to complete the alternatives

analysis process in November and began developing the Basis of Design Report for the preferred project alternative in December.

B. *Design Highlights*

Three projects were in the design phase during the first half of fiscal year 2016-2017. Key activities completed during this period include the following.

- **Headworks Critical Improvements**: The consultant completed the plans and specifications in September. The City advertised the project for bid in November, and opened bids in December.
- **Cogeneration Facility (progressive design-build)**: The project team selected engines and a gas purification system in August after holding five workshops on topics such as gas treatment, emissions controls, heating and cooling loops, and landfill gas. After receiving the initial Basis of Design Report and preliminary cost estimate in September, staff conducted a value engineering session to reconfirm scope and functional requirements against available budget. The design-builder submitted a revised Basis of Design Report in December.

C. *Construction Highlights*

Seven projects totaling more than $146 million were in construction (see Attachment A). Two of the seven projects are being delivered using the low-bid design-build method, with the remaining five projects being delivered using the conventional design-bid-build delivery method. Key activities completed during this period include the following.

- **Digester and Thickener Facilities Upgrade**: The City held a groundbreaking ceremony on August 24 for the project, the largest CIP project to begin construction thus far. Through December, the project team received more than 250 submittals, 200 requests for information, and 50 process shutdown requests from the contractor. The contractor completed demolition work, including abatement of lead paint, cleaning of the digester structures, and excavation for the sludge processing facility. In October, two major process shutdowns were carried out to investigate pipeline conditions and plan process bypass options revealed major structural damage to a critical 78-inch reinforced concrete effluent pipe and associated concrete chambers. Further investigations will be necessary to determine the amount of necessary repairs and design modifications. Through December, construction was 7.5 percent complete. The project is expected to reach beneficial use in spring 2020.
- **Emergency Diesel Generators (low bid design-build)**: In August, the City's Fire Department approved the pressure test for the fuel tanks, belly tanks, and double containment piping, which allowed the filling of the tanks with fuel. Through December, the contractor completed synchronization of the new generators, scheduled PG&E witness testing, and had completed 94 percent of the construction. The project is expected to reach beneficial use in spring 2017.
- **Digester Gas Compressor Upgrade (low bid design-build)**: The contractor successfully tested the cooling tower system in October. In November, a process shutdown allowed the contractor to make final tie-in connections of the new

compressor building's gas inlet and discharge pipe to the existing digester gas system. In December, the contractor successfully completed testing of the new compressor and had completed 97 percent of the construction. The project is expected to reach beneficial use in spring 2017.

- **Iron Salt Feed Station**: The contractor completed the site excavation work, subgrade preparation, relocated underground utilities, and constructed form for concrete footings, slabs and walls. The contractor began the concrete pour work on the containment walls in December. Through December, construction was 20 percent complete. The project is expected to reach beneficial use in summer 2017.
- **Construction-Enabling Improvements**: Construction began in August. Through December, the contractor completed the clearing, grading, earthwork, and perimeter fencing. The contractor also completed pavement repairs on Zanker Road. The project is expected to reach beneficial use in spring 2017.
- **Plant Instrument Air System Upgrade**: The project team held a kickoff meeting on October 27. The project is expected to reach beneficial use in spring 2018.
- **Fiber Optic Connection**: Construction began in September. After verifying the conduit path and placing pull boxes, the contractor pulled, spliced, and terminated the fiber optic cable. Acceptance testing was performed in December.

There were no reportable incidents to the State's Division of Occupational Safety and Health (Cal/OSHA) during the first half of fiscal year 2016-2017.

Staff expects to achieve the following during the latter half of fiscal year 2016-2017.

- Evaluate bids for the Headworks Critical Improvement project and obtain Council approval to award the construction contract.
- Continue design and design-build work on five projects: Cogeneration Facility; Blower Improvements; Advanced Facility Control and Meter Replacement; Headworks Improvements and New Headworks; Nitrification Clarifiers Rehabilitation.
- Obtain Council approval to award master consultant agreements for the Support Building Improvements project and program-wide industrial hygienist services.
- Advertise two RFQs to procure an owner's advisor for the Yard Piping and Road Improvements project and a design engineer for the Tunnel Rehabilitation project.
- Advertise an RFQ to prequalify additional firms to provide system integration services.
- Advertise an RFQ to procure a design-builder for the Headworks Improvements and New Headworks project.
- Procure an on-call contractor to perform urgent or unscheduled rehabilitation and/or repair work at the RWF.
- Obtain Council approval to proceed with implementing an OCIP for the RWF CIP.
- Update the Ten-Year Funding Strategy, including for a status update on the availability of Clean Water State Revolving Fund loans.
- Amend the master consultant agreement with MWH for program management services.
- Continue to develop the five-year CIP staffing and transition plan.

- Continue recruitment activities to fill CIP vacancies.

EVALUATION AND FOLLOW-UP

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

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the May 1, 2017 T&E agenda.

COORDINATION

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

COMMISSION RECOMMENDATION

This item is scheduled to be heard at the May 18, 2017 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended May 23, 2017 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
KERRIE ROMANOW
Director, Environmental Services

/s/
BARRY NG
Director, Public Works

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

Attachment A – Projects in Construction: July 2016 – December 2016

T&E AGENDA: 5/1/2017
ITEM: d (4)
ATTACHMENT A

Attachment A – Projects in Construction: July 2016 – December 2016

#	Project Name	Contractor	Amount Awarded	Date Awarded	Estimated Beneficial Use
1	7100 – Digester Gas Compressor Upgrade	Anderson Pacific Engineering Construction, Inc.	Base Contract: $11,316,000 Contingency: $1,697,400	5/20/2014	Spring 2017
2	7394 – Emergency Diesel Generators	Anderson Pacific Engineering Construction, Inc.	Base Contract: $15,310,000 Contingency: $1,531,000	6/17/2014	Spring 2017
3	6717 – Iron Salt Feed Station	Anderson Pacific Engineering Construction, Inc.	Base Contract: $5,205,000 Contingency: $780,750	1/26/2016	Summer 2017
4	6970 – Fiber Optic Connection	Aegis ITS, Inc.	Base Contract: $271,692 Contingency: $40,754	5/24/2016	Winter 2016
5	7382 – Digester and Thickener Facilities Upgrade	Walsh Construction Company II, LLC	Base Contract: $107,925,000 Contingency: $13,490,625	5/24/2016	Spring 2020
6	7987 – Construction-Enabling Improvements	Teichert Construction, Inc.	Base Contract: $3,135,910 Contingency: $314,000	6/21/2016	Spring 2017
7	7617 – Plant Instrument Air System Upgrade	Anderson Pacific Engineering Construction, Inc.	Base Contract: $2,848,000 Contingency: $427,200	8/23/2016	Spring 2018

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE

FROM: Kerrie Romanow

SUBJECT: **FIVE-YEAR 2018-2022 PROPOSED CAPITAL IMPROVEMENT PROGRAM**

DATE: May 12, 2017

Approved D·D Syl Date 5/12/17

This memorandum serves to transmit the San José/Santa Clara Regional Wastewater Facility (RWF) Proposed Five-Year 2018-2022 Capital Improvement Program (CIP). The RWF is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José Environmental Services Department. As a regional-serving facility, the RWF provides wastewater treatment services to other cities and sanitary districts in the South Bay including: City of Milpitas, Cupertino Sanitary District, West Valley Sanitation District (representing cities of Campbell, Los Gatos, Monte Sereno, and Saratoga), County Sanitation District 2-3, and Burbank Sanitary District. The Proposed Five-Year CIP is provided to the Treatment Plant Advisory Committee's review and for a recommendation to the San José City Council for approval.

Included with this packet as Attachment A is a ten-year (2017-2018 through 2026-2027) forecast of CIP allocations based on the assumption that all agencies will fund their respective share of capital costs through cash contributions.

If you should have any questions, please contact Ashwini Kantak at 408-975-2553.

/s/
KERRIE ROMANOW
Director, Environmental Services

Attachment

PROPOSED

SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San Jose, California 95134

Five-Year 2018-2022 Capital Improvement Program

Submitted by

Kerrie Romanow, Director

Environmental Services Department

City of San Jose

TO: Treatment Plant Advisory Committee

Sam Liccardo	(Chair) Mayor, City of San Jose
Pat Kolstad	(Vice-Chair), City of Santa Clara
Marsha Grilli	Vice Mayor, City of Milpitas
Steven Leonardis	Boardmember, West Valley Sanitation District
John M. Gatto	Boardmember, Cupertino Sanitary District
David Sykes	Assistant City Manager, City of San Jose
Lan Diep	Councilmember, City of San Jose
Dev Davis	Councilmember, City of San Jose
Debi Davis	Councilmember, City of Santa Clara

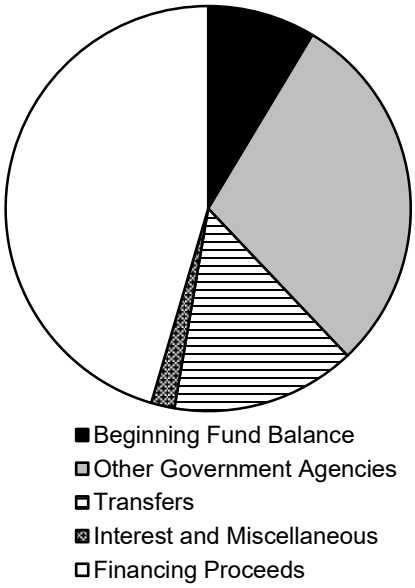
2017-2018 Capital Budget

2018-2022 Capital Improvement Program

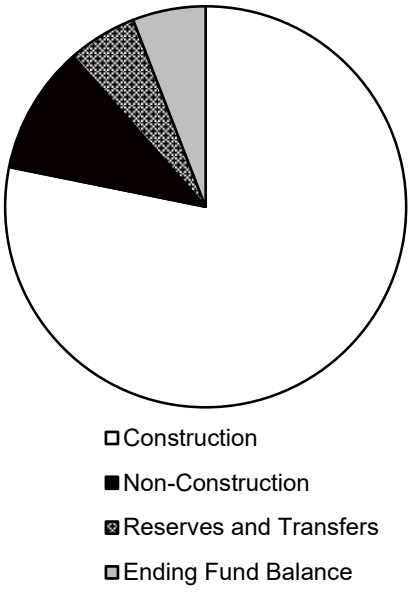
Water Pollution Control

WATER POLLUTION CONTROL
2018-2022 Capital Improvement Program

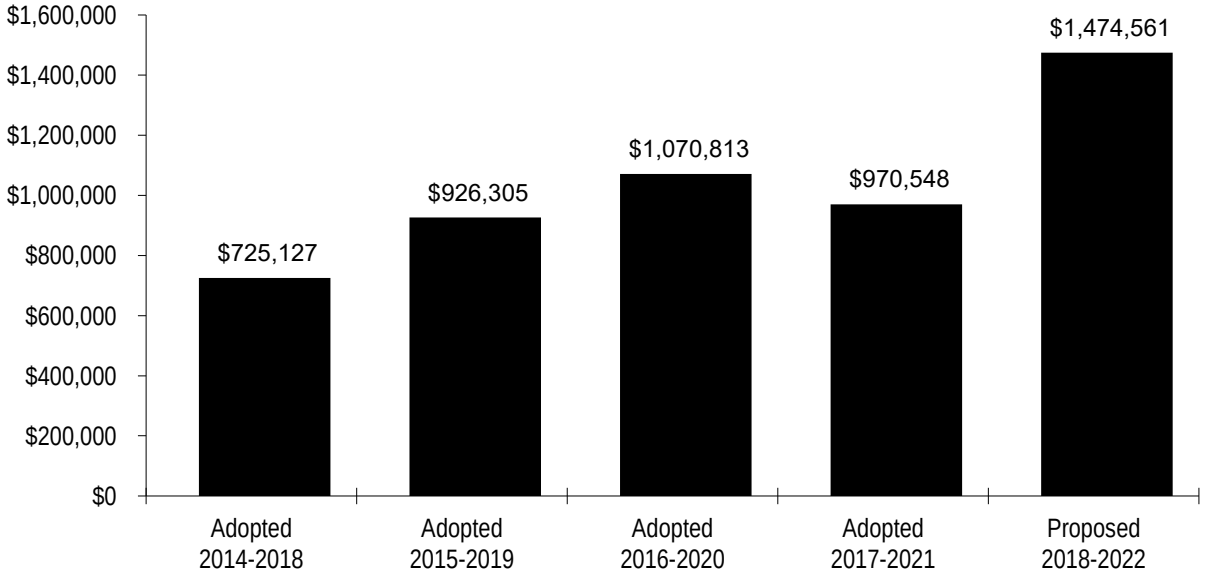
2017-2018 Proposed Source of Funds



2017-2018 Proposed Use of Funds



CIP History



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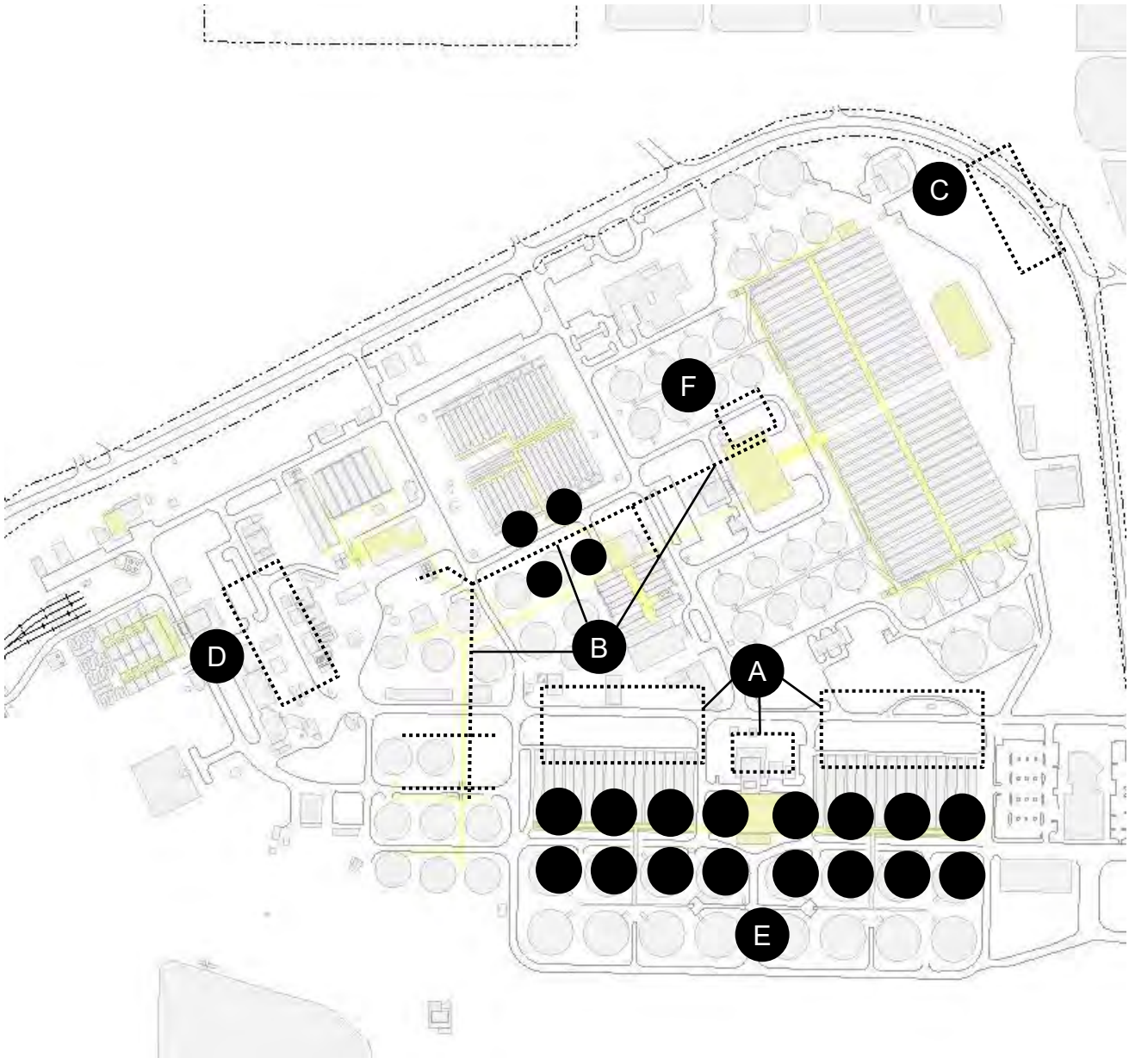
Water Pollution Control

2018-2022 Proposed Capital Improvement Program*

A) Aeration Tanks and Blower Rehabilitation
B) Digester and Thickener Facilities Upgrade
C) Energy Generation Imp.
D) Headworks Imp. and New Headworks
E) Nitrification Clarifier Rehabilitation
F) Plant Instrument Air System Upgrade



* Includes only the first set of projects to be in construction at the Plant. Please see the Source & Use for a full listing.

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INTRODUCTION

PLANT INFRASTRUCTURE	
ACRES OF LAND	2,684
AVERAGE DRY WEATHER INFLUENT CAPACITY (MILLIONS OF GALLONS PER DAY)	167
AVERAGE DRY WEATHER INFLUENT FLOW (MILLIONS OF GALLONS PER DAY)	101
DRY METRIC TONS OF BIOSOLIDS HAULED EACH YEAR	50,000
AVERAGE MEGAWATTS PRODUCED	9.8

The San José-Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight South Bay cities and four special districts including: San José, Santa Clara, Milpitas, Cupertino Sanitary District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno, and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated). The Plant is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José's Environmental Services Department (ESD). ESD is also responsible for planning, designing, and constructing capital improvements at the Plant, including water reuse facilities. On March 26, 2013, the City Council approved to change the name of the Plant to the San José-Santa Clara Regional Wastewater Facility (RWF) for use in public communications and outreach.

The 2018-2022 Proposed Capital Improvement Program (CIP) provides funding of $1.47 billion, of which $198.0 million is allocated in 2017-2018. The five-year CIP is developed by City staff, reviewed by the Treatment Plant Advisory Committee (TPAC), and approved by the San José City Council. The budgeted costs are allocated to each agency based on its contracted-for capacity in the Plant. Each agency is responsible for its allocated share of Plant costs, as well as the operation, maintenance, and capital costs of its own sewage collection system; debt service on bonds issued by the agency for sewer purposes; and any other sewer service related costs. Each agency is also responsible for establishing and collecting its respective sewer service and use charges, connection fees, or other charges for sewer service.

This program is part of the Environmental and Utility Services City Service Area (CSA) and supports the following outcomes: *Reliable Utility Infrastructure* and *Healthy Streams, Rivers, Marsh, and Bay.*

PROGRAM PRIORITIES AND OBJECTIVES

The 2018-2022 Proposed CIP is consistent with the goals and policies outlined in the City's Envision San José 2040 General Plan. These include maintaining adequate operational capacity for wastewater treatment to accommodate the City's economic and population growth; adopting and implementing new technologies for wastewater to achieve greater safety, energy efficiency, and environmental benefit; and maintaining and operating the Plant in compliance with all applicable local, state, and federal regulatory requirements.

PROGRAM PRIORITIES AND OBJECTIVES

The development of this Proposed CIP is guided by the Plant Master Plan (PMP), a 30-year planning-level document focused on long-term rehabilitation and modernization of the Plant. On April 19, 2011, the City Council approved a preferred alternative for the Draft PMP and directed staff to proceed with a program-level environmental review of the preferred alternative. In November 2013, the City Council approved the PMP and certified the final Environmental Impact Report. In December 2013, Santa Clara's City Council took similar actions.

San José-Santa Clara Regional Wastewater Facility

The PMP recommends more than 114 capital improvement projects to be implemented over a 30-year planning period at an estimated investment level of approximately $2 billion. The PMP assumed an implementation schedule of 2010 through 2040.

On September 24, 2013, the City Council approved a multi-year master services agreement with MWH Americas, Inc. for program management consultant services to assist with managing and implementing the RWF CIP[1]. By February 2014, the consultant program management team, along with City staff, completed a project validation process that included a review and prioritization of PMP projects, along with gap projects identified through discussions with Operations and Maintenance staff. The projects included with this Proposed CIP are based on the outcome of that project validation and the completion of various programmatic studies.

Program priorities for the near term include: continuing to pursue Clean Water State Revolving Funds (SRF) subject to funding availability; obtaining short-term and long-term financing (for San José only), including building operating reserves needed for bond issuance; continuing to prioritize projects based on criticality and staffing resources; and actively managing project risks and variables to inform timing and amount of major encumbrances.

In addition, as several large projects have moved from the design phase into construction, a key priority will be to implement the program's construction management plan and an Owner Controlled Insurance Program (OCIP). Another significant priority for this CIP is to obtain Council approval to extend consultant program management services through 2023.

[1] Effective January 1, 2017, MWH Americas, Inc. was acquired and merged with Stantec Inc.

PROGRAM PRIORITIES AND OBJECTIVES

Program Funding: Since early 2014, staff has been working with representatives from the City of Santa Clara and the tributary agencies to develop a ten-year funding strategy for the CIP. On May 14, 2015, TPAC recommended approval of, and on June 2, 2015, the City Council approved the Ten-Year Funding Strategy. An update on the Ten-Year Funding Strategy was recommended for approval by TPAC on December 10, 2015 and approved by City Council on January 12, 2016. The staff reports are available online.[2]

Although the tributary agencies expressed initial interest in short-term financing and SRF loans, they did not enter into an Amended and Restated Master Agreement by the required dates. As a result, San José and Santa Clara continued the SRF application process on behalf of the co-owners only. SRF loan applications have been submitted for the Digester and Thickener Facilities Upgrade and Cogeneration Facility projects. Staff expected to receive a final SRF financing agreement for the Digester and Thickener Facilities Upgrade project by fall 2016; however, in September 2016, the State Water Resources Control Board (SWRCB) issued an Intended Use Plan (IUP) report with a financing forecast that showed significant demand and competition for the low-cost SRF loans[3]. The report also indicated that funding priority would be given to small and/or disadvantaged communities and projects promoting recycled water use, conservation, and low impact development. Staff will continue to advocate that SRF funding be awarded to the Digester and Thickener Facilities Upgrade project and will return to the City Council in May 2017 with a status update on SRF funding and the Ten-Year Funding Strategy.

In order to provide sufficient funding capacity to enter into multi-year construction contracts, staff is proceeding with establishing a short-term, variable-rate financing program (e.g., commercial paper) in addition to planning for long-term bond financing for San José to support ongoing external third party capital costs. The 2018-2022 Proposed CIP assumes the establishment of a commercial paper program by fall 2017 and the issuance of commercial paper notes to finance external third-party capital costs in advance of the periodic issuance of bonds to pay down the commercial paper notes and fix-out the term and interest rate on the debt. The timing and amount of the issuance of debt financing will depend upon the approval and availability of SRF funding.

Program/Project Delivery and Implementation: Successful delivery of this large, multi-disciplinary CIP requires an integrated team of City staff, outside consultants, and contractors. The program continues to operate under an integrated project delivery model using a combination of City staff and consultants. The program is being delivered using a mix of City staff from Environmental Services, Public Works, Planning, Finance, and the City Attorney's Office, as well as staff from program management consultant staff and various other consultant firms.

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[2] June 2, 2015 Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516433
January 12, 2016 Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=2118&meta_id=550326

[3] Clean Water State Revolving Fund, Small Community Grant, and Water Recycling Funding Programs: Updated Financial Outlook and Financing Forecast – September 2016: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/fy1617/september_%202016_cwsrf_iup_update.pdf

PROGRAM PRIORITIES AND OBJECTIVES

As several large projects have entered into the construction phase, Public Works is leading the construction management program using both city staff and third-party construction management services. Several significant construction milestones for this CIP include establishing an OCIP by spring 2017, completing the Construction-Enabling Improvements project to provide for a centralized construction staging area, launching the design and construction management document system (EADOC), and fully rolling out the Building Official Program.

With more than two dozen large projects moving through the feasibility/development and design development phases, the program will need to continue to draw from the professional consultant and/or contractor community for program management, project management, subject-matter technical expertise, engineering design, and construction management services. A significant priority for the program with this CIP is to obtain City Council approval to continue with consultant program management services through 2023. These services are necessary to ensure successful delivery of 21 large projects totaling an estimated one billion dollars over the next five years. The continuation services will include program management, controls, reporting, project management, and subject matter expertise services.

Program/Project Delivery Variables: Building on the program start-up activities, which concluded in June 2014, the program team will continue to develop and refine project schedules and budgets and implement regular reporting and centralized document management systems for consistent and efficient program and project delivery. The program team continues to work on developing standardized project delivery tools, design standards and specifications, control system and integration strategies, startup, commissioning, and training.

On the project delivery front, it is important to recognize that many projects in the Proposed CIP are in the feasibility/development phase. Staff will continue to develop and refine project scope, schedules, and budgets as the projects progress through scoping, preliminary engineering, detailed design, and bid award. To the extent possible, staff will continue to monitor and implement mitigation measures to minimize impacts to project delivery schedule and cost caused by various factors such as changes in project delivery staffing resources, long lead time items, external permit reviews and approvals, and construction bidding climate.

A number of program tools and resources will be used to counter potential impacts to the overall program delivery; these include employing a program risk and interface manager, obtaining local professional cost estimating services, scheduling regular meetings with regulatory and permitting entities, and continuing to implement the CIP Program Delivery Model (PDM) stage gate approvals.

Revenues for the 2018-2022 Proposed CIP are derived from several sources: transfers from the City of San José Sewer Service and Use Charge (SSUC) Fund and Sewage Treatment Plant Connection Fee Fund; contributions from the City of Santa Clara and other tributary agencies; interest earnings; Calpine Metcalf Energy Center Facilities repayments; a federal grant from the U.S. Bureau of Reclamation; and debt-financing proceeds.

SOURCES OF FUNDING

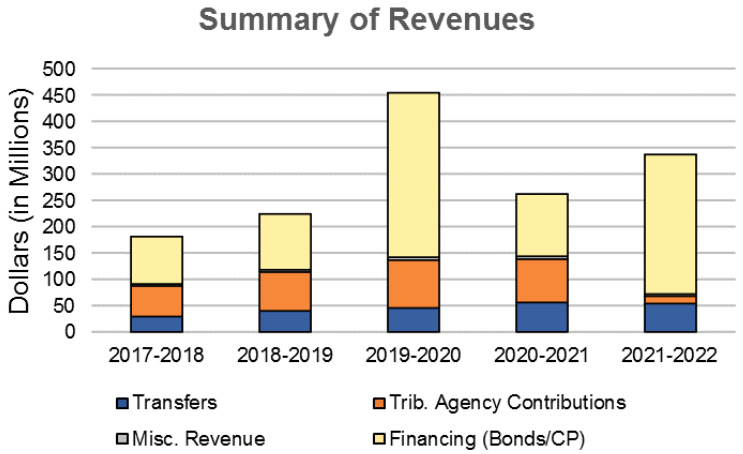
The SSUC Fund derives its revenues from fees imposed on San José users of the residential, commercial, and industrial sanitary sewer system. Transfers from this fund to the Plant CIP over the five years total $220.0 million, with no change as compared to the 2017-2021 Adopted CIP.

Contributions from the City of Santa Clara and other agencies are determined according to agreements with the participating agencies, based on financing plans, anticipated Plant expenditures, and the amount and characteristics of flows from each agency's connections to the Plant. These contributions reimburse the City for actual project expenditures. In this Proposed CIP, contributions from the City of Santa Clara and other agencies total $318.9 million, which represents a $30.4 million (10.5%) increase compared to the 2017-2021 Adopted CIP, due to a significant increase in the size of the CIP.

To accommodate project costs for San José, commercial paper proceeds and bond proceeds totaling $891.0 million are assumed in the Proposed CIP. The establishment of a commercial paper program ($455.0 million) starting in 2017-2018 will provide short-term funding until bonds are issued. Associated commercial paper repayments are also included in the CIP. Periodic fixed-rate bond issuances ($436.0 million) beginning in 2019-2020 to refinance variable-rate commercial paper notes, provide planned debt financing, and begin amortizing the amounts borrowed are also programmed in this CIP. Approximate debt service on the debt is estimated to be $3.4 million in 2017-2018, $5.2 million in 2018-2019, $12.0 million in 2019-2020, $19.4 million in 2020-2021, and $22.8 million in 2021-2022. The estimated size of the debt financings and the related debt service are scheduled to cover external third-party capital costs programmed in the 2018-2022 Proposed CIP while avoiding large rate increases that would be required to fund the PMP in a "pay-as-you-go" scenario. City of San José staff costs will be cash-funded and not included in either the commercial paper program or long-term debt financing. Additional debt financing will likely be needed to fund project costs beyond the Proposed CIP.

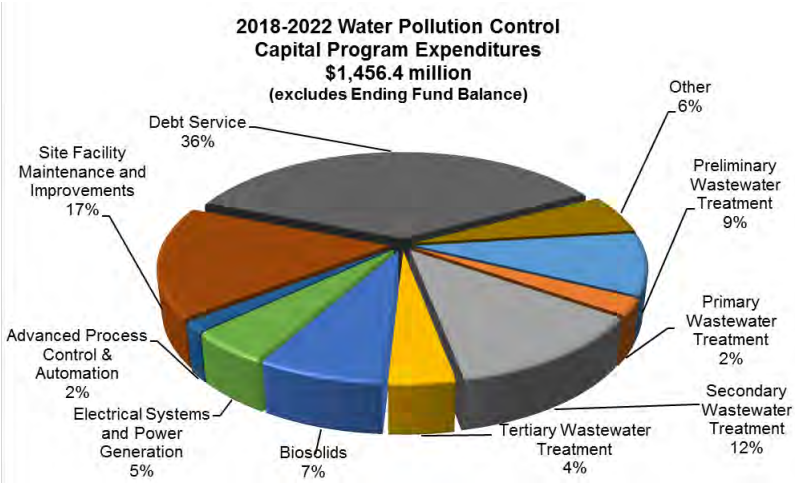
Staff is currently pursuing SRF funding for some projects; however, due to uncertainty of the availability of this funding; it has not been factored into the CIP as a source of funding.

SOURCES OF FUNDING



PROGRAM HIGHLIGHTS

The Water Pollution Control Capital Program's expenditures are organized to show the use of funds in several categories. The following highlights the major projects in the program. For further information on the program's individual projects, please refer to the Detail Pages.



PROGRAM HIGHLIGHTS

New Headworks

The headworks facilities at the Plant provide the first step of treatment, also known as preliminary treatment, by removing large inorganic material, such as sticks, stones, grit, and sand, from the influent wastewater stream before it impacts downstream treatment units. This initial treatment protects and reduces wear on the downstream process equipment, minimizes plugging and clogging of pipes, and enhances overall process performance.

The Plant has two headworks facilities. The original headworks facility, known as Headworks 1, was built in the mid-1950s and expanded in the 1960s, and serves as the Plant's duty headworks. It includes mechanical bar screens, aerated grit tanks, detritors, screenings and grit handling facilities, and a pump station.

Headworks 1 Bar Screens

A second headworks facility, known as Headworks 2, was commissioned in 2008 to operate in parallel with Headworks 1 and handle peak wet weather flows. Headworks 2 includes mechanical bar screens, vortex grit removal units, screenings and grit handling facilities, and a pump station.

Due to extensive rehabilitation work required to maintain Headworks 1, the PMP recommended decommissioning it and constructing a new headworks facility to meet current and future flows. At an estimated total cost of $122.8 million, the New Headworks project will replace the aging Headworks 1. This project includes new mechanical bar screens, grit removal equipment, screenings and grit handling facilities, pump station, odor control, and miscellaneous piping enhancements. The project also rehabilitates and expands the existing emergency overflow basin, and consolidates influent piping.

Proposed Site for New Headworks

This project will be designed in conjunction with the Headworks Improvements project, which will improve the reliability of Headworks 2 and relocate pipelines to reroute flows from Headworks 1 to Headworks 2 and the new headworks in preparation for the decommissioning of Headworks 1.

PROGRAM HIGHLIGHTS

The 2018-2022 Proposed CIP allocates $117.0 million for design, construction, contingency, and project management costs. Award of the design-build contract is expected in summer 2018, though costs for contract actions are anticipated across multiple fiscal years, and construction completion is anticipated in 2022-2023.

Blower Improvements

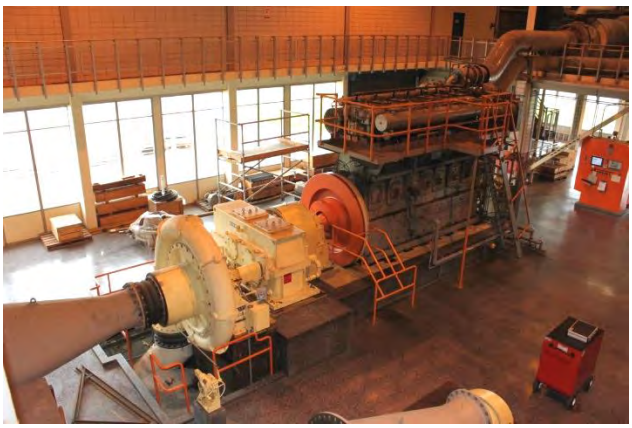
The Plant's secondary treatment process consists of two separate parallel biological nutrient removal (BNR) systems. The systems include aeration tanks and blowers that were built in phases between the 1960s and 1980s. The blowers provide process air to the aeration tanks to enable the biodegradation of organic material from the incoming primary effluent.

Electric Blowers in Building 40

The Plant has three sets of blowers:

- Six engine-driven blowers in the Secondary Blower Building;
- Three electric blowers in Building 40; and
- Five electric blowers in the Tertiary Blower Building.

Key components of the electric blowers have aged beyond their useful lives and require rehabilitation to ensure long-term operability while minimizing maintenance requirements. In addition, the engine-driven blowers operate on a blend of digester and natural gas. Once the Plant's new cogeneration facility is constructed, it will use all of the available digester gas. Due to Title V air permit restrictions on total allowable gas emissions, these blowers will not be able to operate once the cogeneration facility comes online.



Engine-driven Blower in Secondary Blower Building

At an estimated $43.5 million, this project will rehabilitate the existing electric blowers, convert two engine-driven blowers to electric blowers, and decommission the remaining engine-driven blowers.

PROGRAM HIGHLIGHTS

Improvements include installing new motors, variable frequency drives, instrumentation, controls, and electrical equipment. This project will modify the existing blower system to accommodate the Plant's long-term air demands and improve the reliability of the electric blowers.

The 2018-2022 Proposed CIP allocates $31.9 million for design, construction, and post-construction costs. Construction award is expected in summer 2018 and construction completion is anticipated in 2019-2020.

MAJOR CHANGES FROM THE 2017-2021 ADOPTED CIP

The overall size of the Water Pollution Control CIP has increased by $504.0 million from $970.5 million in the 2017-2021 Adopted CIP to $1.47 billion in the 2018-2022 Proposed CIP. The following table outlines the most significant changes to project budgets, including new/augmented allocations and reduced/eliminated allocations.

Project Name	Incr/(Decr)
New Headworks	$24.2 million
Various Infrastructure Decommissioning	$22.2 million
Program Management	$21.0 million
Tunnel Rehabilitation	$17.3 million
Owner Controlled Insurance Program	$14.8 million
Additional Digester Upgrades	$10.5 million
Stormwater Improvements	$10.2 million
Energy Generation Improvements	($28.7 million)
Lagoons and Drying Beds Retirement	($10.9 million)

With this Proposed CIP, staff is recommending that the Water Pollution Control CIP be exempted from the one-percent Public Art allocation. The City Council is currently scheduled to consider this recommendation at its May 9, 2017 meeting. If the recommendation is not approved by the City Council, then adjustments will need to be made to the Proposed CIP prior to final City Council adoption of the CIP.

OPERATING BUDGET IMPACT

Several projects in this Proposed CIP are expected to introduce new operating costs to the Operating Budget. These include: Digester and Thickener Facilities Upgrade, Energy Generation Improvements, and Iron Salt Feed Station. The operation and maintenance impacts are due to chemical costs, labor, and maintenance consumables (e.g. parts, oil).

A new Cogeneration Facility (part of the Energy Generation Improvements project) is expected to come online in summer 2019 that will introduce a new generator building, new engine generators, a gas treatment system, boilers, chillers, and other ancillary equipment. In addition, a new chilled water system pump station may be incorporated as part of the project. A more detailed analysis of current and future operating and maintenance costs will be available in spring 2017 after completion of preliminary design services (i.e. basis of design, equipment selection, and operating modes). Additionally, depending on the timing of when new facilities come online and existing facilities are decommissioned, there may be a temporary increase in operating costs due to the dual operations.

The estimated net operating impact of the Digester and Thickener Facilities Upgrade project may be adjusted in the future after additional analysis is performed to determine required staffing levels to operate and maintain the facilities. The estimate also assumes that all power and heating needs will be provided by the Cogeneration Facility.

The table below summarizes the operating and maintenance impact to the Sewer Service and Use Charge Fund for several projects.

Net Operating Budget Impact Summary

	2018-2019	2019-2020	2020-2021	2021-2022
Digester and Thickener Facilities Upgrade		$1,500,000	$1,560,000	$1,622,000
Energy Generation Improvements	$82,000	$84,000	$87,000	$89,000
	$82,000	$1,584,000	$1,647,000	$1,711,000

Note: The estimated operating costs have been provided by the Environmental Services Department and have not yet been fully analyzed by the City Manager's Budget Office. That analysis may result in different costs when the actual budget for the year in question is developed.

Water Pollution Capital Program
2018-2022 Proposed Capital Improvement Program
Attachment A - Operating Budget Impact

	2018-2019	2019-2020	2020-2021	2021-2022
Water Pollution Capital Program				
Digester and Thickener Facilities Upgrade		$1,500,000	$1,560,000	$1,622,000
Energy Generation Improvements	$82,000	$84,000	$87,000	$89,000
Total Water Pollution Capital Program	**$82,000**	**$1,584,000**	**$1,647,000**	**$1,711,000**

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2017-2018 Capital Budget

2018-2022 Capital Improvement Program

Water Pollution Control

Source and Use of Funds Statements

Source of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund							
Beginning Balance	66,901,138	17,043,723	11,655,723	11,518,723	14,953,723	9,930,723	17,043,723
Reserve for Encumbrance	151,905,586						
Transfers							
Transfer for 2009 Debt Service from the Sewer Service and Use Charge Fund (541)	5,717,000	5,716,000	5,369,000	5,372,000	5,371,000		21,828,000
Transfer for Plant CIP Debt Service from Sewer Service and Use Charge Fund (541)		3,363,000	5,165,000	12,040,000	19,445,000	22,782,000	62,795,000
Transfer for Capital Projects from Sewer Service and Use Charge Fund (541)	30,000,000	17,000,000	27,000,000	27,000,000	30,000,000	30,000,000	131,000,000
Transfer for Equipment Replacement from Sewer Service and Use Charge Fund (541)			1,083,000	1,083,000	1,083,000	1,083,000	4,332,000
Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,090,000	3,090,000	1,249,000				4,339,000
TOTAL Transfers	**38,807,000**	**29,169,000**	**39,866,000**	**45,495,000**	**55,899,000**	**53,865,000**	**224,294,000**
Revenue from Use of Money and Property							
Interest Income	1,863,000	3,065,000	3,761,000	4,980,000	4,978,000	3,357,000	20,141,000
TOTAL Revenue from Use of Money and Property	**1,863,000**	**3,065,000**	**3,761,000**	**4,980,000**	**4,978,000**	**3,357,000**	**20,141,000**
Revenue from Local Agencies							
2005 Bond Debt Repayment	1,027,000						
2009 Bond Debt Repayment	43,000	165,000	155,000	155,000	155,000		630,000
State Revolving Fund - Loan Repayment	1,374,000	1,374,000	555,000				1,929,000
WPCP Projects and Equipment Replacement	30,167,000	56,526,000	72,956,000	90,642,000	82,077,000	14,090,000	316,291,000
TOTAL Revenue from Local Agencies	**32,611,000**	**58,065,000**	**73,666,000**	**90,797,000**	**82,232,000**	**14,090,000**	**318,850,000**
Revenue from the Federal Government							
U.S. Bureau of Reclamation Grant	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000

Water Pollution Control

2018-2022 Proposed Capital Improvement Program

Source of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
TOTAL Revenue from the Federal Government	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**1,250,000**
Other Revenue							
South Bay Water System Capacity Improvement Fee	496,000						
Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
TOTAL Other Revenue	**885,000**	**389,000**	**389,000**	**389,000**	**389,000**	**389,000**	**1,945,000**
Financing Proceeds							
Commercial Paper - RWF Capital Program		90,000,000	106,000,000	141,000,000	118,000,000		455,000,000
Bond Proceeds				171,104,000		264,933,000	436,037,000
TOTAL Financing Proceeds		**90,000,000**	**106,000,000**	**312,104,000**	**118,000,000**	**264,933,000**	**891,037,000**
Total San José-Santa Clara Treatment Plant Capital Fund	**293,222,724**	**197,981,723**	**235,587,723**	**465,533,723**	**276,701,723**	**346,814,723**	**1,474,560,723**
TOTAL SOURCES	**293,222,724**	**197,981,723**	**235,587,723**	**465,533,723**	**276,701,723**	**346,814,723**	**1,474,560,723**

2018-2022 Proposed Capital Improvement Program

Use of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
Water Pollution Control							
Headworks Improvements	4,117,000	1,217,000	14,403,000	387,000	342,000	52,000	16,401,000
New Headworks	4,040,000	5,924,000	25,122,000	84,058,000	938,000	944,000	116,986,000
Preliminary Wastewater Treatment	**8,156,999**	**7,141,000**	**39,525,000**	**84,445,000**	**1,280,000**	**996,000**	**133,387,000**
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	280,000		2,296,000	10,546,000	22,176,000	686,000	35,704,000
Iron Salt Feed Station	7,235,000	79,000					79,000
Primary Wastewater Treatment	**7,515,000**	**79,000**	**2,296,000**	**10,546,000**	**22,176,000**	**686,000**	**35,783,000**
Aeration Tanks and Blower Rehabilitation	16,612,000	31,542,000	8,952,000	1,085,000	60,007,000	1,110,000	102,696,000
Nitrification Clarifier Rehabilitation	4,914,000	715,000	43,167,000	421,000	388,000	392,000	45,083,000
Secondary Clarifier Rehabilitation	104,000		565,000	4,003,000	21,209,000	159,000	25,936,000
Aeration Basin Future Modifications				846,000	4,274,000	770,000	5,890,000
Secondary Wastewater Treatment	**21,630,000**	**32,257,000**	**52,684,000**	**6,355,000**	**85,878,000**	**2,431,000**	**179,605,000**
Filter Rehabilitation	2,477,000	3,255,000	28,899,000	396,000	405,000	404,000	33,359,000
Outfall Bridge and Levee Improvements	1,393,000	974,000	786,000	155,000	4,495,000	917,000	7,327,000
Final Effluent Pump Station & Stormwater Channel Improvements				902,000	5,999,000	1,104,000	8,005,000
New Disinfection Facilities			63,000	889,000	6,179,000	722,000	7,853,000
Tertiary Wastewater Treatment	**3,870,000**	**4,229,000**	**29,748,000**	**2,342,000**	**17,078,000**	**3,147,000**	**56,544,000**
Digested Sludge Dewatering Facility	3,341,000	2,275,000	9,081,000	80,205,000	1,064,000	656,000	93,281,000
Additional Digester Upgrades				1,191,000	8,031,000	1,298,000	10,520,000
Digester and Thickener Facilities Upgrade	132,410,000	1,348,000	1,432,000	774,000			3,554,000
Lagoons and Drying Beds Retirement	96,000						
Biosolids	**135,847,000**	**3,623,000**	**10,513,000**	**82,170,000**	**9,095,000**	**1,954,000**	**107,355,000**
Combined Heat and Power Equipment Repair and Rehabilitation	3,160,000						

Water Pollution Control

2018-2022 Proposed Capital Improvement Program

Use of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
Energy Generation Improvements	44,513,000	63,161,000	1,478,000				64,639,000
Plant Electrical Reliability	1,985,000	565,000	4,229,000	357,000	31,000		5,182,000
Electrical Systems and Power Generation	**49,658,000**	**63,726,000**	**5,707,000**	**357,000**	**31,000**		**69,821,000**
Advanced Facility Control and Meter Replacement	3,072,000	12,192,000	821,000	5,017,000	758,000	243,000	19,031,000
Treatment Plant Distributed Control System	1,086,000	1,025,000	1,025,000	575,000			2,625,000
Advanced Process Control & Automation	**4,158,000**	**13,217,000**	**1,846,000**	**5,592,000**	**758,000**	**243,000**	**21,656,000**
Stormwater Improvements		1,600,000	170,000	8,125,000	300,000		10,195,000
Flood Protection		2,223,000	130,000	6,393,000	390,000		9,136,000
Construction-Enabling Improvements	4,185,000						
Equipment Replacement	1,694,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	8,315,000
Facility Wide Water Systems Improvements	2,163,000	1,117,000	480,000	11,949,000	490,000	503,000	14,539,000
Plant Infrastructure Improvements	1,838,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Plant Instrument Air System Upgrade	4,108,000	290,000					290,000
Support Building Improvements	2,511,000	4,935,000	14,326,000	2,917,000	30,202,000	1,296,000	53,676,000
Tunnel Rehabilitation	100,000	1,120,000	3,160,000	238,000	21,607,000	260,000	26,385,000
Urgent and Unscheduled Treatment Plant Rehabilitation	1,500,000	5,500,000	500,000	500,000	500,000	500,000	7,500,000
Yard Piping and Road Improvements	1,105,000	11,057,000	16,088,000	22,004,000	18,111,000	15,325,000	82,585,000
Treatment Plant Engine Rebuild	14,000						
Various Infrastructure Decommissioning			469,000	2,590,000	18,470,000	691,000	22,220,000
Site Facility Maintenance and Improvements	**19,218,000**	**30,505,000**	**37,986,000**	**57,379,000**	**92,733,000**	**21,238,000**	**239,841,000**
SBWR Extension	3,780,000						
SBWR Reservoir Facility	90,000						
South Bay Water Recycling	**3,870,000**						
Water Pollution Control - Construction	**253,923,000**	**154,777,000**	**180,305,000**	**249,186,000**	**229,029,000**	**30,695,000**	**843,992,000**
Owner Controlled Insurance Program		2,731,000	5,023,000	2,834,000	2,834,000	1,399,000	14,821,000

Water Pollution Control

2018-2022 Proposed Capital Improvement Program

Use of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
Preliminary Engineering - Water Pollution Control	1,537,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Program Management - Water Pollution Control	11,585,000	7,967,000	8,055,000	7,096,000	7,284,000	7,278,000	37,680,000
Record Drawings	250,000	71,000	12,930,000	162,000	164,000	163,000	13,490,000
Master Plan Updates			3,000,000				3,000,000
SBWR Master Plan	6,000						
SBWR Recycling Master Plan Reimbursement							
Debt Service Repayment for Plant Capital Improvement Projects		3,363,000	5,165,000	183,144,000	19,445,000	287,715,000	498,832,000
General Non-Construction - Water Pollution Control	**13,378,000**	**15,132,000**	**35,173,000**	**194,236,000**	**30,727,000**	**297,555,000**	**572,823,000**
Water Pollution Control - Non Construction	**13,378,000**	**15,132,000**	**35,173,000**	**194,236,000**	**30,727,000**	**297,555,000**	**572,823,000**
Public Art Allocation	521,000						
Public Art Projects	**521,000**						
Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
State Revolving Fund Loan Repayment	4,464,000	4,464,000	1,804,000				6,268,000
Capital Program and Public Works Department Support Service Costs	856,000	877,000	1,052,000	1,420,000	1,278,000	192,000	4,819,000
Allocations	**5,325,000**	**5,346,000**	**2,861,000**	**1,425,000**	**1,283,000**	**197,000**	**11,112,000**
City Hall Debt Service Fund	172,000	190,000	206,000	206,000	206,000	206,000	1,014,000
Clean Water Financing Authority Debt Service Payment Fund	1,562,000	5,881,000	5,524,000	5,527,000	5,526,000		22,458,000
Transfers to Special Funds	**1,734,000**	**6,071,000**	**5,730,000**	**5,733,000**	**5,732,000**	**206,000**	**23,472,000**
General Fund - Human Resources/Payroll/ Budget Systems Upgrade	6,000						
Transfers to the General Fund	**6,000**						
Transfers Expense	**1,740,000**	**6,071,000**	**5,730,000**	**5,733,000**	**5,732,000**	**206,000**	**23,472,000**
2009A Bonds Reserve Fund - Trustee	1,292,000						
Equipment Replacement Reserve		5,000,000					5,000,000
Expense Reserves - Non Construction	**1,292,000**	**5,000,000**					**5,000,000**
Total Expenditures	**276,179,001**	**186,326,000**	**224,069,000**	**450,580,000**	**266,771,000**	**328,653,000**	**1,456,399,000**
Ending Fund Balance	17,043,723	11,655,723	11,518,723	14,953,723	9,930,723	18,161,723	18,161,723
TOTAL	**293,222,724**	**197,981,723**	**235,587,723**	**465,533,723**	**276,701,723**	**346,814,723**	**1,474,560,723**

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2017-2018 Capital Budget

2018-2022 Capital Improvement Program

Water Pollution Control

Detail of Projects

Advanced Facility Control and Meter Replacement

CSA	Environmental and Utility Services
CSA Outcome	Reliable Utility Infrastructure
Department	Environmental Services
Location	Water Pollution Control Plant
Council Districts	4
Appropriation	A7224

Initial Start Date	3rd Qtr. 2010
Initial End Date	2nd Qtr. 2014
Revised Start Date	
Revised End Date	2nd Qtr. 2022
Initial Project Budget	$11,000,000
FY Initiated	2010-2011

Description This project will develop a Plant-wide automation master plan, replace existing flow meters and actuators, and upgrade sensors, controls, and monitoring equipment throughout the Plant.

Justification The Plant currently has hundreds of meters measuring liquid, sludge, and gas streams. Many existing sensors, actuators, and flow meters are inaccurate or unreliable. Due to their age, it is more cost effective to replace them with modern equipment to ensure performance reliability and assure that needed components are available for ongoing maintenance. This project will allow the Plant to move towards improved data capture, resulting in greater operational reliability and flexibility.

Notes This project corresponds to Plant Master Plan No. 90 and Validation Project PA-01. Prior to the 2015-2019 CIP, this project was titled "Advanced Process Control and Automation". The schedule was revised during the 2015-2019 project validation process.

Major Cost Changes
2012-2016 CIP - decrease of $5.9 million due to decreased scope.
2013-2017 CIP - decrease of $2.1 million due to the establishment of the Treatment Plant Distributed Control System project as part of the approval of the 2011-2012 Mid-Year Budget Review.
2014-2018 CIP - increase of $500,000 due to updated cost estimate.
2015-2019 CIP - increase of $30.4 million due to revised scope, addition of meter replacement scope, and project validation cost estimate.
2016-2020 CIP - decrease of $823,000 due to reduction of project scope.
2017-2021 CIP - decrease of $5.2 million due to decreased project scope.
2018-2022 CIP - decrease of $3.8 million due to reduction of scope.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	1,471	1,361	352	245				597		3,429
Design	46	1,661								1,707
Bid & Award		50		13	76			89		139
Construction	183		11,840	563	4,941	691	190	18,225		18,408
Post Construction						67	53	120		120
Total	**1,700**	**3,072**	**12,192**	**821**	**5,017**	**758**	**243**	**19,031**		**23,803**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	1,700	3,072	12,192	821	5,017	758	243	19,031		23,803
Total	**1,700**	**3,072**	**12,192**	**821**	**5,017**	**758**	**243**	**19,031**		**23,803**
Annual Operating Budget Impact (000s)										
Total										

Aeration Tanks and Blower Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2015
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	3rd Qtr. 2025
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2026
Council Districts	4	**Initial Project Budget**	$114,880,000
Appropriation	A7677	**FY Initiated**	2014-2015

Description This project rehabilitates the secondary and nitrification aeration tanks including structural, mechanical, electrical, and instrumentation upgrades. It also replaces the remaining existing coarse bubble diffusers with fine bubble diffusers; installs partition walls and reconfigures air piping to optimize process treatment capabilities; repairs concrete and applies coatings; installs Variable Frequency Drives (VFDs), new motors, new Motor Control Centers (MCC), and new controls to the electric driven blowers in Building 40 and Tertiary Blower Building; decommissions the engine driven blowers in the Secondary Blower Building; and replaces the S11 switchgear. A condition assessment study and process conversion analysis will be completed to inform the ultimate project scope.

Justification The secondary and nitrification aeration tanks were constructed in phases between the 1960s and 1980s. Due to their age and the aggressive and corrosive environment they operate in, extensive rehabilitation is required. Conversion to fine bubble diffusers will increase the oxygen transfer efficiency and decrease energy requirements. Installing VFDs will minimize the impact of starting current on the blowers when the Plant is run on emergency power. Lastly, the S11 switchgear and MCCs are outdated and need to be upgraded to be compatible with the new VFDs.

Notes This project corresponds to Plant Master Plan Project Nos. 20, 24, and 85 and Validation Project PLS-01.

Major Cost Changes 2016-2020 CIP - increase of $4.4 million due to escalation of construction costs.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	867	5,469	931					931		7,267
Design	1	3,645	857	7,885				8,742		12,388
Bid & Award		149	118	217	319			654		803
Construction		7,349	29,504	850	725	59,553	1,110	91,742	3,338	102,429
Post Construction			132		41	454		627	256	883
Total	**867**	**16,612**	**31,542**	**8,952**	**1,085**	**60,007**	**1,110**	**102,696**	**3,594**	**123,769**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	867	16,612	31,542	8,952	1,085	60,007	1,110	102,696	3,594	123,769
Total	**867**	**16,612**	**31,542**	**8,952**	**1,085**	**60,007**	**1,110**	**102,696**	**3,594**	**123,769**
Annual Operating Budget Impact (000s)										
Total										

Digested Sludge Dewatering Facility

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2014
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2022
Council Districts	4	**Initial Project Budget**	$1,000,000
Appropriation	A7452	**FY Initiated**	2012-2013

Description This project will construct a new mechanical dewatering facility and support systems to replace the existing sludge storage lagoons and open air solar drying beds. All new mechanical dewatering units, feed tank, storage, conveyance, and chemical dosing facilities will be housed in an odor-controlled building.

Justification This project responds to a recommendation in the adopted Plant Master Plan to consolidate the Plant's operational area by reducing the biosolids process footprint. It also provides greater flexibility in biosolids disposal options in anticipation of the potential Newby Island landfill closure in 2025, responds to stricter regulations for landfilling and alternative daily cover, and addresses odor, noise, and aesthetics concerns from the operations of the lagoons and sludge drying beds.

Notes This project corresponds to Plant Master Plan Project Nos. 44, 54, 57-60, and 64 and Validation Project PS-03. Prior to 2015-2019, this project was titled "New Biosolids Facility". The schedule was revised during the 2015-2019 project validation process.

Major Cost Changes
2014-2018 CIP - increase of $325.0 million due to accelerated project start and compressed implementation schedule.
2015-2019 CIP - decrease of $256.8 million due to creation of separate biosolids projects through project validation.
2016-2020 CIP - increase of $1.6 million due to escalation of construction costs.
2017-2021 CIP - increase of $28.1 milion due to increased scope and revised cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	2,394	2,997	1,199					1,199		6,590
Design	10			9,081	212			9,293		9,303
Bid & Award		344	1,076					1,076		1,420
Construction					79,993	1,064	548	81,605		81,605
Post Construction							108	108		108
Total	**2,404**	**3,341**	**2,275**	**9,081**	**80,205**	**1,064**	**656**	**93,281**		**99,026**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	2,404	3,341	2,275	9,081	80,205	1,064	656	93,281		99,026
Total	**2,404**	**3,341**	**2,275**	**9,081**	**80,205**	**1,064**	**656**	**93,281**		**99,026**
Annual Operating Budget Impact (000s)										
Total										

Digester and Thickener Facilities Upgrade

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2006
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2008
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	4th Qtr. 2019
Council Districts	4	**Initial Project Budget**	$1,000,000
Appropriation	A4127	**FY Initiated**	2006-2007

Description This project rehabilitates four digesters and modifies the system to operate as a two-phase Temperature Phased Anaerobic Digestion (TPAD) system. The project also rehabilitates and modifies six dissolved air flotation units for sludge co-thickening, pressure saturation tanks, pipes, pumps, and ancillary equipment. A new odor control system, primary sludge screening facility, heat exchangers, biogas flare, and polymer dosing facility will be constructed. A new rack mounted digester gas conveyance system will also be constructed above grade to replace existing piping in the digester tunnels.

Justification The Plant has 16 anaerobic digesters constructed between 1956 and 1983, of which six are permanently out of service. This project is needed to ensure safe and reliable operation of the digester facilities including the gas conveyance system. The upgrade to TPAD provides the facility with the ability to increase biogas production and produce Class A biosolids (if required by future regulations).

Notes This project corresponds to Plant Master Plan Project Nos. 45 - 53 and Validation Project PS-01. This project is planned to be completed in two phases. Prior to 2015-2019, this project was titled "Digester Rehabilitation".

Major Cost Changes 2008-2012 CIP through 2014-2018 CIP - increase of $121.5M due to increased scope and realignment of project. 2015-2019 CIP - increase of $18.3M due to revised project validation cost estimate. 2016-2020 CIP - increase of $31.4M due to conversion to thermophilic digestion and inclusion of scope from other projects. 2017-2021 CIP - increase of $41.0M: $19.0M due to revised cost estimates and $22.0M due to bids that came in higher than projected construction costs. 2018-2022 CIP - decrease of $65M due to Phase 2 scope moved into separate project (Additional Digester Upgrades).

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	706	17								723
Design	11,767	4,312								16,079
Bid & Award	124									124
Construction	35	128,081	1,348	1,338	96			2,782		130,898
Post Construction				94	678			772		772
Total	**12,632**	**132,410**	**1,348**	**1,432**	**774**			**3,554**		**148,596**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	12,632	132,410	1,348	1,432	774			3,554		148,596
Total	**12,632**	**132,410**	**1,348**	**1,432**	**774**			**3,554**		**148,596**

Annual Operating Budget Impact (000s)			
Operating	1,200	1,248	1,298
Maintenance	300	312	324
Total	**1,500**	**1,560**	**1,622**

East Primary Rehabilitation, Seismic Retrofit, and Odor Control

CSA	Environmental and Utility Services
CSA Outcome	Reliable Utility Infrastructure
Department	Environmental Services
Location	Water Pollution Control Plant
Council Districts	4
Appropriation	A7226

Initial Start Date	3rd Qtr. 2009
Initial End Date	4th Qtr. 2012
Revised Start Date	3rd Qtr. 2010
Revised End Date	4th Qtr. 2027
Initial Project Budget	$3,605,000
FY Initiated	2010-2011

Description This project rehabilitates the existing primary clarifiers, including the coating of concrete and replacement of clarifier mechanisms with corrosion resistant materials. It also includes structural retrofits to allow new covers to be installed over a portion or all of the primary treatment area to contain odors. A new odor extraction and treatment system will also be constructed.

Justification This project restores the mechanical and structural integrity of the aging clarifiers and provides odor control measures.

Notes This project corresponds to Plant Master Plan Project Nos. 9, 10, and 11 and Validation Project PLP-02. The schedule was revised during the 2015-2019 project validation process.

Major Cost Changes
2012-2016 CIP - increase of $80.1 million; $16.626 million due to increase of scope to incorporate master planning recommendations for seismic upgrades and odor control measures; $63.52 million reflects the addition of the Beyond 5-Year expense not previously programmed.
2013-2017 CIP - decrease of $1.7 million due to revised cost estimate.
2015-2019 CIP - increase of $27.5 million due to revised project validation cost estimate.
2016-2020 CIP - increase of $3.6 million due to escalation of construction costs.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	80	280		2,296	25			2,321		2,681
Design	30				9,386	1,211		10,597		10,627
Bid & Award					138	70		208		208
Construction					997	20,895	686	22,578	75,977	98,555
Post Construction									1,167	1,167
Total	**110**	**280**		**2,296**	**10,546**	**22,176**	**686**	**35,704**	**77,144**	**113,238**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	110	280		2,296	10,546	22,176	686	35,704	77,144	113,238
Total	**110**	**280**		**2,296**	**10,546**	**22,176**	**686**	**35,704**	**77,144**	**113,238**
Annual Operating Budget Impact (000s)										
Operating										
Total										

Energy Generation Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Pant	**Revised End Date**	2nd Qtr. 2019
Council Districts	4	**Initial Project Budget**	$1,300,000
Appropriation	A7454	**FY Initiated**	2012-2013

Description This project will install new, lower-emission engine-generators to replace the aged existing engine-generators and allow the aged engine-driven blowers to be retired. It includes a new generator building, gas cleaning and blending systems, piping, control system, and motor control centers. This project will also install emergency diesel generators and storage tanks to provide backup power in the event of an extended PG&E power outage.

Justification Energy generation capacity and operational reliability are significant issues at the Plant. The outdated engine-generators are increasingly difficult to maintain. Moreover, while the existing systems meet current air regulations, they will not meet the stricter regulations anticipated in the future. Replacing these facilities with new lower-emission engine-generators will reduce the risk of operational failure and permit violations while providing reliable energy generating facilities to power the Plant for decades.

Notes This project corresponds to Plant Master Plan Nos. 74, 75, and 76 and Validation Projects PE-01 and PE-02. Prior to 2014-2018, this project was titled "Combined Heat and Power Technology Evaluation".

Major Cost Changes 2014-2018 CIP - increase of $100.0 million due to acceleration of the implementation schedule. 2015-2019 CIP - increase of $24.5 million due to revised program validation cost estimate. 2016-2020 CIP - decrease of $10.4 million due to reduction of project scope and revised cost estimate. 2017-2021 CIP - increase of $4.9 million due to revised cost estimate. 2018-2022 increase of $7.5 million due to revised construction cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	2,161	113								2,274
Design	1,683	9,264								10,947
Bid & Award	917	351								1,268
Construction	13,900	34,495	63,161	1,269				64,430		112,825
Post Construction		290		209				209		499
Total	**18,661**	**44,513**	**63,161**	**1,478**				**64,639**		**127,813**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	18,661	44,513	63,161	1,478				64,639		127,813
Total	**18,661**	**44,513**	**63,161**	**1,478**				**64,639**		**127,813**
Annual Operating Budget Impact (000s)										
Operating Maintenance				82	84	87	89			
Total				**82**	**84**	**87**	**89**			

Facility Wide Water Systems Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	1st Qtr. 2022
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2022
Council Districts	4	**Initial Project Budget**	$14,130,000
Appropriation	A7679	**FY Initiated**	2014-2015

Description This project rehabilitates, replaces, and/or extends the Plant's four water systems including piping, valves, pumps, controls, and other ancillary equipment. The scope of work will be based on hydraulic modeling and study of existing and future water demands at the Plant. The project may be constructed in phases based on the outcome of the study and priority of needs.

Justification The Plant's four water systems include potable water, groundwater, process/fire protection water, and recycled water. These were constructed over time with various Plant expansions and are in need of rehabilitation and upgrade due to age, condition, worker safety, plant reliability, and code compliance requirements. In addition, changes to water uses and demands have not all been addressed over time. An updated hydraulic model and assessment of current and future water demands will allow for the proper sizing of these systems to improve current and future performance and reduce risk of damage to pumping equipment.

Notes This project corresponds to Plant Master Plan Project No. 105 and Validation Project PF-06. This project will have close-out costs only in 2022-2023.

Major Cost Changes 2016-2020 CIP - increase of $1.6 million due to escalation of construction costs.
2018-2022 CIP - increase of $2.1 million due to revised project delivery cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	534	1,195	571					571		2,300
Design		943	546	480				1,026		1,969
Bid & Award	6	25			139			139		170
Construction					11,810	490	503	12,803	366	13,169
Post Construction									70	70
Total	**540**	**2,163**	**1,117**	**480**	**11,949**	**490**	**503**	**14,539**	**436**	**17,678**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	540	2,163	1,117	480	11,949	490	503	14,539	436	17,678
Total	**540**	**2,163**	**1,117**	**480**	**11,949**	**490**	**503**	**14,539**	**436**	**17,678**
Annual Operating Budget Impact (000s)										
Total										

Filter Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2011
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2013
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2022
Council Districts	4	**Initial Project Budget**	$3,506,000
Appropriation	A7227	**FY Initiated**	2010-2011

Description This project will replace filter media and potentially underdrain systems for all filters. It will also include valve replacements, electrical control replacements, air scouring equipment and piping additions, and concrete repairs. The extent of rehabilitation will depend on the results of a detailed condition assessment, which will determine whether to fully refurbish the filter facility or keep it operational until a new filter complex is built. If an evaluation of different filtration technologies from what the Plant currently uses is triggered, pilot testing and verification of an alternative filtration technology will be included in the project.

Justification The existing filter complex was constructed in the 1970s and requires significant refurbishment. The filter media, consisting of anthracite and sand, needs to be replaced and some of the mechanical and electrical components need to be upgraded. These potentially interim improvements are needed to ensure continued regulatory compliance and operational reliability. In addition, pilot testing may be needed to determine the most suitable technology for the Plant's long-term tertiary treatment needs.

Notes This project corresponds to Plant Master Plan Project Nos. 31, 32, and 33 as well as Validation Project PLF-01 and PLF-02. Prior to 2015-2019, this project was titled "Filter Improvements". The schedule was revised during the 2015-2019 project validation process.

Major Cost Changes 2014-2018 CIP - decrease of $2.7 million due to the removal of scope that is dependent on the evaluation of the demonstration project. 2015-2019 CIP - increase of $26.9 million due to revised scope and project validation cost estimate. 2016-2020 CIP - increase of $6.5 million due to revised cost estimate and escalation of construction costs. 2017-2021 CIP - increase of $2.5 million due to increased project scope.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	408	2,477								2,885
Design	133		3,180	198				3,378		3,511
Bid & Award	2		75	184				259		261
Construction	227			28,417	396	405	404	29,622		29,849
Post Construction				100				100	96	196
Total	**770**	**2,477**	**3,255**	**28,899**	**396**	**405**	**404**	**33,359**	**96**	**36,702**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	770	2,477	3,255	28,899	396	405	404	33,359	96	36,702
Total	**770**	**2,477**	**3,255**	**28,899**	**396**	**405**	**404**	**33,359**	**96**	**36,702**
Annual Operating Budget Impact (000s)										
Total										

Flood Protection

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2017
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2021
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts		**Initial Project Budget**	$9,136,000
Appropriation	TEMP_123	**FY Initiated**	2017-2018

Description This project provides 100-year flood protection for the Plant by constructing engineered earthen berms on the northern and eastern sides of the Plant.

Justification The Plant is a critical facility located within a Federal Emergency Management Agency (FEMA) defined flood zone and will experience significant flooding during a 100-year flood event. Until the South Bay Shoreline Project is completed by the US Army Corps of Engineers, the Plant remains at risk of flooding. This project will provide immediate protection from a 100-year flood event.

Notes

Major Cost Changes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design			2,223	100				2,323		2,323
Bid & Award				30				30		30
Construction					6,393	300		6,693		6,693
Post Construction						90		90		90
Total			**2,223**	**130**	**6,393**	**390**		**9,136**		**9,136**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund			2,223	130	6,393	390		9,136		9,136
Total			**2,223**	**130**	**6,393**	**390**		**9,136**		**9,136**
Annual Operating Budget Impact (000s)										
Total										

Headworks Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2015
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2021
Council Districts	4	**Initial Project Budget**	$5,975,000
Appropriation	A7448	**FY Initiated**	2012-2013

Description This project will modify Headworks No. 2 (HW2) to accommodate all dry weather flow. Improvements include re-routing some inlet and recycle flow piping, new storm water pump stations, and other mechanical enhancements to improve reliability and operation performance.

Justification HW1 was built in the mid-1950s and early 1960s and is the Plant's duty headworks. HW2 was built in 2008 and designed to operate in parallel with HW1 to handle peak hour wet weather flow. This project will improve the functional reliability of HW2.

Notes This project corresponds to Plant Master Plan Project Nos. 1, 2, and 7 and Validation Project PLH-01. Prior to 2015-2019, this project was titled "Headworks No. 1 Repair and Rehabilitation". The schedule was revised during the 2015-2019 project validation process.

Major Cost Changes 2015-2019 CIP - increase of $23.7 million due to incorporation of a portion of Headworks No. 2 Enhancement project.
2016-2020 CIP - increase of $863,000 due to revised cost estimate.
2018-2022 CIP - decrease of $9.0 million due to reduction of scope to eliminate a condition assessment of Headworks No. 1.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	694	1,113	54					54		1,861
Design	185	514	766	490				1,256		1,955
Bid & Award	3	258	295	29				324		585
Construction	10	2,232	38	13,773	387	342		14,540		16,782
Post Construction			64	111			52	227		227
Total	**891**	**4,117**	**1,217**	**14,403**	**387**	**342**	**52**	**16,401**		**21,409**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	891	4,117	1,217	14,403	387	342	52	16,401		21,409
Total	**891**	**4,117**	**1,217**	**14,403**	**387**	**342**	**52**	**16,401**		**21,409**
Annual Operating Budget Impact (000s)										
Total										

New Headworks

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2023
Council Districts	4	**Initial Project Budget**	$79,400,000
Appropriation	A7449	**FY Initiated**	2012-2013

Description This project will construct a new headworks to serve as the Plant's duty headworks. It also involves potentially increasing the equalization basin volume and installing lining and spraydown systems to facilitate cleaning. The project will also be tasked with odor control over select areas, such as junction boxes and grit collection. This project will need to be coordinated with the modifications made to the Headworks 2 hydraulics and the eventual decommissioning of Headworks 1.

Justification Headworks No. 1 was built in the mid-1950s and further expanded in the 1960s. Due to its age and condition, extensive structural rehabilitation and mechanical rehabilitation would be needed to operate it as the Plant's long-term duty headworks. Based on previous studies, building a new duty headworks facility would be more cost effective and provide greater operational reliability and enhanced treatment, potentially piping and hydraulic simplification, addressing some of the operational issues currently experienced at the Plant, such as the deposition of grit in downstream processes.

Notes This project corresponds to Plant Master Plan Project Nos. 1, 3, 4, 5, and 8 and Validation Project PLH-02. Prior to 2015-2019, this project was titled "Headworks No. 2 Expansion". The schedule was revised during the 2015-2019 project validation process. This project will have close-out costs only in 2022-2023.

Major Cost Changes
2015-2019 CIP - increase of $11.8 million due to incorporation of a portion of Headworks No. 2 Enhancement project.
2016-2020 CIP - increase of $4.8 million due to revised cost estimate.
2018-2022 CIP - increase of $27.0 million due to revised project cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	1,476	2,969	115					115		4,560
Design		732	4,633	720	320			5,673		6,405
Bid & Award		339	1,176		57			1,233		1,572
Construction				24,402	83,681	938	944	109,965	281	110,246
Post Construction									65	65
Total	**1,476**	**4,040**	**5,924**	**25,122**	**84,058**	**938**	**944**	**116,986**	**346**	**122,848**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	1,476	4,040	5,924	25,122	84,058	938	944	116,986	346	122,848
Total	**1,476**	**4,040**	**5,924**	**25,122**	**84,058**	**938**	**944**	**116,986**	**346**	**122,848**
Annual Operating Budget Impact (000s)										
Total										

Nitrification Clarifier Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2009
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2024
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2023
Council Districts	4	**Initial Project Budget**	$26,701,000
Appropriation	A7074	**FY Initiated**	2009-2010

Description This project includes phased rehabilitation of the 16 nitrification clarifiers. Structural improvements may include concrete repairs and coating, new clarifier mechanisms and baffle installations, pipe support and meter vault replacements, and walkway improvements. Mechanical improvements may include piping, valve and actuator replacements, spray water system replacements, scum skimmer system upgrades, and return activated sludge piping lining. Electrical and instrumentation improvements may include motor control center replacements, new wiring, and other electrical equipment upgrades. Other incidental work may include grouting, painting, coating, and other surface treatments.

Justification The Plant's 16 nitrification clarifiers have been in service for 30 to 40 years depending on the year of construction. A condition assessment study, completed in 2011, recommended phased rehabilitation of the nitrification clarifiers. The improvements are needed to address structural, mechanical, electrical, and instrumentation deficiencies and will extend the useful life of the clarifier assets for an additional 30 years.

Notes This project corresponds to Plant Master Plan Project Nos. 21 and Validation Project PLS-02. This project is planned to be completed in multiple phases. Prior to 2016-2020, this project was titled "Secondary and Nitrification Clarifier Rehabilitation".

Major Cost Changes 2014-2018 CIP - increase of $13.0 million due to revised estimate. 2015-2019 CIP - increase of $22.0 million due to revised project validation cost estimate. 2016-2020 CIP - decrease of $8.5 million due to revised scope and cost estimate. 2017-2021 CIP - decrease of $1.6 million due to revised cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	1,466	2,114								3,580
Design	18	2,750	715	182				897		3,665
Bid & Award		50		85				85		135
Construction				42,800	421	388	392	44,001	57	44,058
Post Construction				100				100	96	196
Total	**1,484**	**4,914**	**715**	**43,167**	**421**	**388**	**392**	**45,083**	**153**	**51,634**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	1,484	4,914	715	43,167	421	388	392	45,083	153	51,634
Total	**1,484**	**4,914**	**715**	**43,167**	**421**	**388**	**392**	**45,083**	**153**	**51,634**

Annual Operating Budget Impact (000s)

Total

Outfall Bridge and Levee Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2019
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2022
Council Districts	4	**Initial Project Budget**	$8,120,000
Appropriation	A7678	**FY Initiated**	2014-2015

Description This project includes a condition assessment, bridge repairs or replacement, levee and levee gate repairs, and electrical transformer refurbishment.

Justification The existing outfall bridge and instrumentation supports are in poor condition. In addition, the west-side levee of Pond A-18 is experiencing significant erosion. This project will improve the aging facilities to ensure reliability at the outfall compliance point.

Notes This project corresponds to Validation Project PLD-02.

Major Cost Changes 2016-2020 CIP - increase of $1.7 million due to escalation of construction costs.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	76	1,393	274					274		1,743
Design	2			786	155	63		1,004		1,006
Bid & Award						100		100		100
Construction			700			4,332	917	5,949	192	6,141
Post Construction									66	66
Total	**78**	**1,393**	**974**	**786**	**155**	**4,495**	**917**	**7,327**	**258**	**9,056**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	78	1,393	974	786	155	4,495	917	7,327	258	9,056
Total	**78**	**1,393**	**974**	**786**	**155**	**4,495**	**917**	**7,327**	**258**	**9,056**
Annual Operating Budget Impact (000s)										
Total										

Plant Electrical Reliability

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2003
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2014
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2021
Council Districts	4	**Initial Project Budget**	$7,671,000
Appropriation	A4341	**FY Initiated**	2003-2004

Description This project replaces substations and switches, modifies power distribution buses and cabling, and provides backup systems to enhance the overall safety and reliability of the Plant electrical systems. The project includes a multi-phase construction schedule based upon a study completed in 2004.

Justification The current power distribution network has grown in a patched manner over the years, and many electrical system components have reached the end of their service life. This project addresses immediate safety needs and provides for future reliability needs.

Notes This project replaces a formerly ongoing allocation titled "Electrical System Improvements".

Major Cost Changes
2005-2009 CIP - increase of $33.5 million to fund construction/rehabilitation costs due to increased project scope.
2007-2011 CIP - increase of $15.6 million to fund construction/rehabilitation costs due to increased project scope.
2008-2012 CIP - increase of $26.5 million to fund construction/rehabilitation costs due to increased project scope.
2009-2013 CIP - decrease of $3.0 million to reflect a project scope change.
2011-2015 CIP - increase of $11.4 million due to increased project scope.
2013-2017 CIP - decrease of $64.7 million due to removal of the Gas Turbine/Internal Combustion Engine project scope, which is being refined and will be included as part of the Energy Generation Improvements project.
2014-2018 CIP - decrease of $1.4 million due to decreased project scope.
2015-2019 CIP - increase of $6.0 million due to revised project validation cost estimate.
2017-2021 CIP - decrease of $1.2 million due to revised project scope.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	553	90								643
Design	1,146	1,871	46	4	4			54		3,071
Bid & Award	49	24	1					1		74
Construction	20,512		518	4,225	304			5,047		25,559
Post Construction	23				49	31		80		103
Total	**22,284**	**1,985**	**565**	**4,229**	**357**	**31**		**5,182**		**29,451**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	22,284	1,985	565	4,229	357	31		5,182		29,451
Total	**22,284**	**1,985**	**565**	**4,229**	**357**	**31**		**5,182**		**29,451**
Annual Operating Budget Impact (000s)										
Total										

Plant Instrument Air System Upgrade

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	1st Qtr. 2019
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2018
Council Districts	4	**Initial Project Budget**	$9,100,000
Appropriation	A7680	**FY Initiated**	2014-2015

Description This project replaces the existing high-pressure Plant instrument air supply system with a new above-grade distributed system. This project also makes electrical upgrades to provide for power and redundancy improvements to the Plant air supply system.

Justification The instrument air supply system plays a critical role by providing high pressure air for pneumatic operations and controls of valves and instruments located throughout the Plant process areas. The existing system is outdated and its location in the basement of the Secondary Blower Building makes it vulnerable to flooding. The existing system also lacks an independent power source and sufficient reservoirs for maintaining operations during an extended power failure. Replacement of the system will improve operational reliability and minimize interruptions to critical operations.

Notes This project corresponds to Validation Project PF-07.

Major Cost Changes 2017-2021 CIP - decrease of $4.2 million due to a refined scope and revised cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	57	71								128
Design	535	299								834
Bid & Award	8	10								18
Construction	6	3,728	251					251		3,985
Post Construction	0		39					39		39
Total	**607**	**4,108**	**290**					**290**		**5,005**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	607	4,108	290					290		5,005
Total	**607**	**4,108**	**290**					**290**		**5,005**
Annual Operating Budget Impact (000s)										
Total										

Secondary Clarifier Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2017
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2024
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	4th Qtr. 2024
Council Districts	4	**Initial Project Budget**	$26,559,000
Appropriation	A7803	**FY Initiated**	2016-2017

Description The Plant has 26 secondary clarifiers configured with peripheral mix liquor feed channel, and either central or peripheral launders. The first phase of this project rehabilitates one secondary (BNR1) clarifier and retrofits it to receive a new baffle configuration based on computational fluid dynamic (CFD) modeling results. The new configuration is expected to improve clarifier performance and efficiency. The subsequent phases of the project will rehabilitate and convert the remaining 25 clarifiers based on the results of the first phase. Rehabilitation will include structural, mechanical, electrical, and instrumentation improvements.

Justification The Plant's 26 secondary clarifiers have been in service for 30 to 50 years depending on the year of construction. A condition assessment study, completed in 2012, recommended phased rehabilitation of the secondary clarifiers. The improvements are needed to address structural, mechanical, electrical, and instrumentation deficiencies and will extend the useful life of the clarifier assets for an additional 30 years. The study also recommended the replacement of central effluent launders with a new peripheral launders to improve clarifier performance and efficiency. The pilot is needed to confirm modeling results before converting the remaining 25 clarifiers to new peripheral launders.

Notes This project corresponds to Plant Master Plan Project No. 22 and 23 and Validation Project PLS-04. This project is planned to be completed in multiple phases.

Major Cost Changes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development		104		565	19			584		688
Design					2,773			2,773		2,773
Bid & Award					41	14		55		55
Construction					1,017	21,195	159	22,371	404	22,775
Post Construction					153			153	115	268
Total		**104**		**565**	**4,003**	**21,209**	**159**	**25,936**	**519**	**26,559**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund		104		565	4,003	21,209	159	25,936	519	26,559
Total		**104**		**565**	**4,003**	**21,209**	**159**	**25,936**	**519**	**26,559**
Annual Operating Budget Impact (000s)										
Total										

Stormwater Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2017
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2021
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	$10,195,000
Appropriation	TEMP_124	**FY Initiated**	2017-2018

Description This project upgrades the existing Plant stormwater drainage system to meet current City standards. The project includes modifying existing drainage facilities and constructing new storm system facilities to meet the City's 10-year design standard.

Justification The Plant's stormwater drainage facilities do not meet the City's 10-year storm event standard. Upgrades to the existing systems are needed to prevent stormwater flooding in and around the Plant's operational area.

Notes

Major Cost Changes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design			1,600	140				1,740		1,740
Bid & Award				30				30		30
Construction					8,125	220		8,345		8,345
Post Construction						80		80		80
Total			**1,600**	**170**	**8,125**	**300**		**10,195**		**10,195**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund			1,600	170	8,125	300		10,195		10,195
Total			**1,600**	**170**	**8,125**	**300**		**10,195**		**10,195**
Annual Operating Budget Impact (000s)										
Total										

Support Building Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2015
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	3rd Qtr. 2023
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2015
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2023
Council Districts	4	**Initial Project Budget**	$55,590,000
Appropriation	A7681	**FY Initiated**	2014-2015

Description This project constructs various tenant improvements to the administration, operations, engineering, and other support buildings located throughout the Plant. It may include floor, ceiling, wall, partition, plumbing, heating, ventilation and air conditioning upgrades, fire protection, and security improvements, as well as ancillary landscaping improvements. It also constructs new warehousing facilities and an electronic warehouse management system which may include new computers, a central database, barcode scanners, mobile tablets, and other technology improvements. This project will be constructed in phases based on a detailed tenant improvement study, warehouse design study, and priority of needs.

Justification Most of the buildings at the Plant are between 30 and 50 years old and are in need of refurbishment to improve worker health, safety, and environment. The tenant improvements are also needed to bring the buildings into compliance with current building and safety codes. The new warehousing facility and warehouse management system will improve operational efficiency through better control of the movement and storage of materials, including shipping, receiving, material stocking, use, and distribution.

Notes This project corresponds to Plant Master Plan Project Nos. 94, 95, 96, 98, 106, and 107 and Validation Project PF-02.

Major Cost Changes 2016-2020 CIP - decrease of $856,000 due to revised cost estimate. 2018-2022 CIP - increase of $2.2 million due to revised project delivery cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	333	1,913	969	903	113			1,985		4,231
Design		598	1,399	2,622	767	223	58	5,069		5,667
Bid & Award			129	161	157	23	30	500		500
Construction			2,438	10,580	1,834	29,876	907	45,635	346	45,981
Post Construction				60	46	80	301	487	145	632
Equipment, Materials and Supplies	345									345
Total	**679**	**2,511**	**4,935**	**14,326**	**2,917**	**30,202**	**1,296**	**53,676**	**491**	**57,357**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	679	2,511	4,935	14,326	2,917	30,202	1,296	53,676	491	57,357
Total	**679**	**2,511**	**4,935**	**14,326**	**2,917**	**30,202**	**1,296**	**53,676**	**491**	**57,357**
Annual Operating Budget Impact (000s)										
Total										

Treatment Plant Distributed Control System

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2016
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2019
Council Districts	4	**Initial Project Budget**	$4,065,000
Appropriation	A7394	**FY Initiated**	2012-2013

Description This project will upgrade and convert the existing Distributed Control System (DCS) at the Plant. The system is composed of a network of field controllers, workstations, and servers that control most aspects of Plant operations. This project consists of three phases. Phase I is completed and ensured that the system was upgraded and will be supported by the vendor. The wiring and replacement of field communication hardware will be done in Phase II, and a new controller and programming will be added in Phase III.

Justification Upgrading this system is vital to maintaining efficient operations and improving monitoring capabilities.

Notes

Major Cost Changes
2014-2018 CIP - increase of $499,000 due to higher than expected consultant costs.
2015-2019 CIP - decrease of $163,000 due to lower than expected construction costs.
2016-2020 CIP - increase of $894,000 due to inclusion of an additional project phase that will convert and configure the hardware for 18 distributed control unit controllers.
2017-2021 CIP - increase of $1.6 million due to revised cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design	320									320
Construction	2,888	1,086	1,025	1,025	575			2,625		6,599
Total	**3,208**	**1,086**	**1,025**	**1,025**	**575**			**2,625**		**6,919**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	3,208	1,086	1,025	1,025	575			2,625		6,919
Total	**3,208**	**1,086**	**1,025**	**1,025**	**575**			**2,625**		**6,919**
Annual Operating Budget Impact (000s)										
Total										

Tunnel Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	2nt Qtr. 2015
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	4th Qtr. 2024
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2016
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2026
Council Districts	4	**Initial Project Budget**	$25,550,000
Appropriation	A7698	**FY Initiated**	2014-2015

Description This project will rehabilitate and make safety improvements to the tunnel system throughout the Plant. The work may include structural, mechanical, electrical, ventilation, fire safety, and coating improvements and will be completed in phases based on a detailed condition assessment, physical testing, and prioritization of needs.

Justification The Plant has an extensive tunnel system that houses piping, valves, pumps, controls, and other equipment. Many of these tunnels were built more than 50 years ago and need to be rehabilitated and upgraded to ensure compliance with safety requirements. To the extent practical, obsolete piping in the tunnels will also be removed to improve maintenance access and make room for new process piping.

Notes This project corresponds to Plant Master Plan Project Nos. 12, 13, 46, 103, and 104 and Validation Project PF-01.

Major Cost Changes 2016-2020 CIP - increase of $2.2 million due to escalation of construction costs.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development		100	1,051	103				1,154		1,254
Design			69	2,026	193			2,288		2,288
Bid & Award				50				50		50
Construction				981	45	21,607	260	22,893	1,080	23,973
Post Construction									144	144
Total		**100**	**1,120**	**3,160**	**238**	**21,607**	**260**	**26,385**	**1,224**	**27,709**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund		100	1,120	3,160	238	21,607	260	26,385	1,224	27,709
Total		**100**	**1,120**	**3,160**	**238**	**21,607**	**260**	**26,385**	**1,224**	**27,709**
Annual Operating Budget Impact (000s)										
Total										

Yard Piping and Road Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2011
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	4th Qtr. 2026
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	
Appropriation	A7396	**FY Initiated**	2011-2012

Description This project will rehabilitate and/or replace process piping systems, valves, and related appurtenances throughout the Plant. The work will be completed in phases based on the outcome of a detailed condition assessment, physical testing, and prioritization of needs. This project will also make roadway and drainage-related improvements throughout the Plant's main operations and residual management areas.

Justification The Plant has approximately 300,000 linear feet of piping along with associated valves and related appurtenances. The pipes range in diameter from 8 inches to 144 inches and carry gas, liquids, sludge, air, steam, and other process streams to and from the various treatment areas. The pipes vary in age, material, condition, reliability, and redundancy. Over 70 percent of the piping was installed more than 25 years ago and is in need of rehabilitation or replacement due to age, failure, and/or excessive maintenance. The Plant also has an extensive roadway network, nearly 40,000 linear feet of paved surfaces, that needs rehabilitation and/or replacement due to excessive wear, heavy vehicle traffic, and drainage issues.

Notes This project corresponds to Plant Master Plan Project Nos. 98 and 100 and Validation Project PF-04. Prior to 2015-2019, this project was titled "Treatment Plant Street Rehabilitation". Prior to 2018-2022, this project was ongoing in nature; it has since become a finite project.

Major Cost Changes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	390	1,105	837					837		2,332
Design	154		1,600	2,999	2,995	2,501	2,416	12,511	5,395	18,060
Bid & Award	35		620	500				1,120		1,155
Construction	935		8,000	12,589	19,009	15,610	12,909	68,117	44,415	113,467
Post Construction									618	618
Total	**1,514**	**1,105**	**11,057**	**16,088**	**22,004**	**18,111**	**15,325**	**82,585**	**50,428**	**135,632**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	1,514	1,105	11,057	16,088	22,004	18,111	15,325	82,585	50,428	135,632
Total	**1,514**	**1,105**	**11,057**	**16,088**	**22,004**	**18,111**	**15,325**	**82,585**	**50,428**	**135,632**
Annual Operating Budget Impact (000s)										
Total										

Equipment Replacement

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	
Appropriation	A4332		

Description This allocation provides for the urgent replacement of equipment at the Plant that is not identified in any other project.

Justification The replacement and rehabilitation of Plant equipment are necessary as a result of wear or obsolescence and will ensure continued efficient operation of the Plant facilities.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development							
Design							
Construction							
Post Construction							
Equipment, Materials and Supplies							
Maintenance, Repairs, Other	1,694	1,663	1,663	1,663	1,663	1,663	8,315
Total	**1,694**	**1,663**	**1,663**	**1,663**	**1,663**	**1,663**	**8,315**

Funding Source Schedule (000s)							
San José-Santa Clara Treatment Plant Capital Fund	1,694	1,663	1,663	1,663	1,663	1,663	8,315
Total	**1,694**	**1,663**	**1,663**	**1,663**	**1,663**	**1,663**	**8,315**

Annual Operating Budget Impact (000s)	
Total	

Plant Infrastructure Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	
Appropriation	A5690		

Description This allocation provides for improvements, rehabilitation, or replacement of existing Plant infrastructure. Examples of the ongoing replacement and rehabilitation work include handrail replacement, concrete repairs, telecommunication systems upgrade, and Plant support system improvements.

Justification Many mechanical, electrical, and structural assets at the Plant are in poor condition due to age and wear. Rehabilitation, improvements, and replacement of capital infrastructure are necessary to maintain process viability and to ensure regulatory compliance, structural integrity, reliability, functionality, and safety of Plant buildings and process facilities.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration							
Project Feasibility Development	17						
Design	12						
Bid & Award							
Construction	1,809	1,000	1,000	1,000	1,000	1,000	5,000
Post Construction							
Total	**1,838**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**
Funding Source Schedule (000s)							
San José-Santa Clara Treatment Plant Capital Fund	1,838	1,000	1,000	1,000	1,000	1,000	5,000
Total	**1,838**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**
Annual Operating Budget Impact (000s)							
Total							

Urgent and Unscheduled Treatment Plant Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	
Appropriation	A7395		

Description This ongoing allocation is used to investigate, prioritize, and rehabilitate structures and systems at the Water Pollution Control Plant. This funding will be used to respond to the Plant's urgent maintenance and rehabilitation needs that cannot be programmed during the annual CIP budget process.

Justification This allocation is required due to the deterioration of structures and systems at the Plant.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development							
Design							
Bid & Award							
Construction	1,500	5,500	500	500	500	500	7,500
Post Construction							
Total	**1,500**	**5,500**	**500**	**500**	**500**	**500**	**7,500**
Funding Source Schedule (000s)							
San José-Santa Clara Treatment Plant Capital Fund	1,500	5,500	500	500	500	500	7,500
Total	**1,500**	**5,500**	**500**	**500**	**500**	**500**	**7,500**
Annual Operating Budget Impact (000s)							
Total							

Record Drawings

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 4
Appropriation A7683

Description This project develops a document management system and standards for electronically capturing, indexing, storing, retrieving, distributing, and versioning master drawings, specifications, and other final design documents. It also involves inventorying, developing, updating, and integrating existing records and field drawings.

Notes This project corresponds to Plant Master Plan Project No. 114 and Validation Project PF-05. Funding in 2017-2018 is for consultant services and some staff costs; the remaining years fund staff costs necessary to complete the project.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development		250	71					71		321
Design				12,930	162	164	163	13,419	462	13,881
Construction									62	62
Total		**250**	**71**	**12,930**	**162**	**164**	**163**	**13,490**	**524**	**14,264**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund		250	71	12,930	162	164	163	13,490	524	14,264
Total		**250**	**71**	**12,930**	**162**	**164**	**163**	**13,490**	**524**	**14,264**

Owner Controlled Insurance Program

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts N/A
Appropriation TEMP_125

Description This allocation provides funding for a centrally managed insurance and risk control program for construction projects in the Water Pollution Control CIP.

Notes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration			2,731	5,023	2,834	2,834	1,399	14,821	1,264	16,085
Total			**2,731**	**5,023**	**2,834**	**2,834**	**1,399**	**14,821**	**1,264**	**16,085**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund			2,731	5,023	2,834	2,834	1,399	14,821	1,264	16,085
Total			**2,731**	**5,023**	**2,834**	**2,834**	**1,399**	**14,821**	**1,264**	**16,085**

Debt Service Repayment for Plant Capital Improvement Projects

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts N/A
Appropriation TEMP_127

Description This allocation provides for the repayment of financing proceeds, including short-term commercial paper loans and long-term bonds, drawn for the Plant Capital Improvement Projects.

Notes The first draw for which repayment is scheduled is planned to be a commercial paper loan in 2017-2018.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration			3,363	5,165	183,144	19,445	287,715	498,832		498,832
Total			**3,363**	**5,165**	**183,144**	**19,445**	**287,715**	**498,832**		**498,832**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund			3,363	5,165	183,144	19,445	287,715	498,832		498,832
Total			**3,363**	**5,165**	**183,144**	**19,445**	**287,715**	**498,832**		**498,832**

State Revolving Fund Loan Repayment

CSA Environmental and Utility Services
CSA Outcome Healthy Streams, Rivers, Marsh and Bay
Department Environmental Services
Council Districts N/A
Appropriation A6590

Description This allocation provides for the repayment of low interest State loans awarded for South Bay Water Recycling projects.

Notes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration	76,497	4,464	4,464	1,804				6,268		87,229
Total	**76,497**	**4,464**	**4,464**	**1,804**				**6,268**		**87,229**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund	76,497	4,464	4,464	1,804				6,268		87,229
Total	**76,497**	**4,464**	**4,464**	**1,804**				**6,268**		**87,229**

Payment for Clean Water Financing Authority Trustee

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 4
Appropriation A6584

Description This allocation provides for administrative costs of the San José/Santa Clara Clean Water Financing Authority related to bond issuances.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	5	5	5	5	5	5	25
Bid & Award							
Total	**5**	**5**	**5**	**5**	**5**	**5**	**25**
Funding Source Schedule (000s)							
San José-Santa Clara Treatment Plant Capital Fund	5	5	5	5	5	5	25
Total	**5**	**5**	**5**	**5**	**5**	**5**	**25**

Preliminary Engineering - Water Pollution Control

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 4
Appropriation A7456

Description This allocation provides funding to support preliminary engineering for Plant-related projects, including studies, pilots, and field verifications to evaluate impacts on operations.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	1,537	1,000	1,000	1,000	1,000	1,000	5,000
Total	**1,537**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**

Funding Source Schedule (000s)							
San José-Santa Clara Treatment Plant Capital Fund	1,537	1,000	1,000	1,000	1,000	1,000	5,000
Total	**1,537**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**

Program Management - Water Pollution Control

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 4
Appropriation A7481

Description This allocation funds the administration and management of the Water Pollution Control CIP.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	11,556	7,967	8,055	7,096	7,284	7,278	37,680
Project Feasibility Development	29						
Total	**11,585**	**7,967**	**8,055**	**7,096**	**7,284**	**7,278**	**37,680**
Funding Source Schedule (000s)							
San José-Santa Clara Treatment Plant Capital Fund	11,585	7,967	8,055	7,096	7,284	7,278	37,680
Total	**11,585**	**7,967**	**8,055**	**7,096**	**7,284**	**7,278**	**37,680**

Summary of Projects that Start After 2017-2018

Project Name	Additional Digester Upgrades	**Initial Start Date**	3rd Qtr. 2019
5-Yr CIP Budget	$ 10,520,000	**Initial End Date**	3rd Qtr. 2025
Total Budget	$ 64,475,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This project will rehabilitate up to six existing anaerobic digesters, including installation of new covers and mixers, upgrades the existing sludge distribution piping, and upgrades the digester heat supply system. The project may also include the installation of batch tanks to produce Class A biosolids (if required by future regulations).

Project Name	Aeration Basin Future Modifications	**Initial Start Date**	3rd Qtr. 2019
5-Yr CIP Budget	$ 5,890,000	**Initial End Date**	4th Qtr. 2030
Total Budget	$ 50,277,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This project modifies the existing step-feed aeration basins to a Modified Ludzack-Ettinger (MLE) process, which would involve structural modifications to existing tanks and new mixers, pumps, fine bubble diffusers, and methanol feed systems.

Project Name	Final Effluent Pump Station & Stormwater Channel Improvements	**Initial Start Date**	3rd Qtr. 2019
5-Yr CIP Budget	$ 8,005,000	**Initial End Date**	3rd Qtr. 2025
Total Budget	$ 47,358,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This project constructs a new pump station to hydraulically push the Plant's final treated effluent to the Coyote Creek. Additionally, it will improve the existing stormwater channel by rehabilitating the flapper gates and embankments.

Project Name	Master Plan Updates	**Initial Start Date**	3rd Qtr. 2018
5-Yr CIP Budget	$ 3,000,000	**Initial End Date**	4th Qtr. 2020
Total Budget	$ 3,000,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This project will periodically review and update the Plant Master Plan to ensure program goals and objectives are being met and incorporate any major changes that may be triggered by operational, regulatory, technological, and economic conditions.

Project Name	New Disinfection Facilities	**Initial Start Date**	2nd Qtr. 2019
5-Yr CIP Budget	$ 7,853,000	**Initial End Date**	4th Qtr. 2027
Total Budget	$ 56,977,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This project constructs a new disinfection facility (currently assumed to be based on ultraviolet (UV) technology) to replace the existing sodium hypochlorite disinfection facility. It may also expand the existing chlorine contact basins to accommodate future peak hour wet weather flows and construct a new on-site hypochlorite generation facility. This project would only be triggered if new regulations concerning emerging contaminants are issued by the Regional Water Board within the next two to three NPDES permit cycles, and additional studies confirm future flow projections.

Water Pollution Capital Program

2018-2022 Proposed Capital Improvement Program

Summary of Projects that Start After 2017-2018

Project Name	Various Infrastructure Decommissioning	**Initial Start Date**	3rd Qtr. 2018
5-Yr CIP Budget	$ 22,220,000	**Initial End Date**	2nd Qtr. 2022
Total Budget	$ 22,220,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This project will decommission and remove equipment, structures, and piping located in Building 40, Pump and Engine Building, Sludge Control Building, digester campus, and tunnels.

Water Pollution Capital Program

2018-2022 Proposed Capital Improvement Program

Summary of Projects with Close-Out Costs Only in 2017-2018

Project Name	Iron Salt Feed Station	**Initial Start Date**	3rd Qtr. 2010
5-Yr CIP Budget	$ 79,000	**Initial End Date**	2nd Qtr. 2012
Total Budget	$ 8,855,850	**Revised Start Date**	1st Qtr. 2012
Council Districts	4	**Revised End Date**	4th Qtr. 2017
Description	This project constructs a permanent ferric chloride feed station and a polymer feed station, including chemical storage tanks, pumps, concrete containment structures, ancillary equipment, piping, electrical, instrumentation and control to deliver chemical solution to incoming wastewater.		

Water Pollution Capital Program

2018-2022 Proposed Capital Improvement Program

Summary of Reserves

Project Name	Equipment Replacement Reserve	**Initial Start Date**	N/A
5-Yr CIP Budget	$ 5,000,000	**Initial End Date**	N/A
Total Budget	$ 5,000,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	

Description This reserve provides for unforeseen replacement and rehabilitation of equipment that, due to age, wear, or obsolescence, must be replaced for the efficient operation of the Plant.

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Explanation of Funds

Revenues and expenditures for the operation and maintenance of the San José-Santa Clara Water Pollution Control Plant (Plant) are accounted for by the City of San José, as the administering agency, through the San José-Santa Clara Treatment Plant Operating Fund (Operating Fund) and the San José-Santa Clara Treatment Plant Capital Fund (Capital Fund).

Revenues from tributary agencies of the San José-Santa Clara Water Pollution Control Plant are recorded directly into the Operating and Capital Funds. The tributary agencies include the City of Milpitas, City of Cupertino, Burbank Sanitary District, County Sanitation District No. 2-3, and West Valley Sanitation District.

Tributary agencies are assessed for their share of annual operation, maintenance, equipment, and facilities replacement and capital costs, based on their respective flow and strength of sewage conveyed to the Plant.

The San José Sewer Service and Use Charge Fund was established in the San José Municipal Code Section 15.12.640 in August 1959. This fund is the depository of revenues from Sewer Service and Use Charges received from residential, commercial, and industrial users of the sanitary sewer system. A portion of these monies is transferred to the Operating and Capital Funds to pay for the City of San José's share of operating and capital costs of the Plant.

The Santa Clara Sewer Revenue Fund was established by Resolution Number 916 of the City Council of Santa Clara in October 1960. Like the City of San José, revenues from this fund are transferred directly to the Operating and Capital Funds.

The Capital Fund provides all monies used for capital projects. Included in this fund is the Treatment Plant Renewal and Replacement Fund. This fund was established to satisfy the Plant's federal and State grant agreements as well as to comply with bond covenants.

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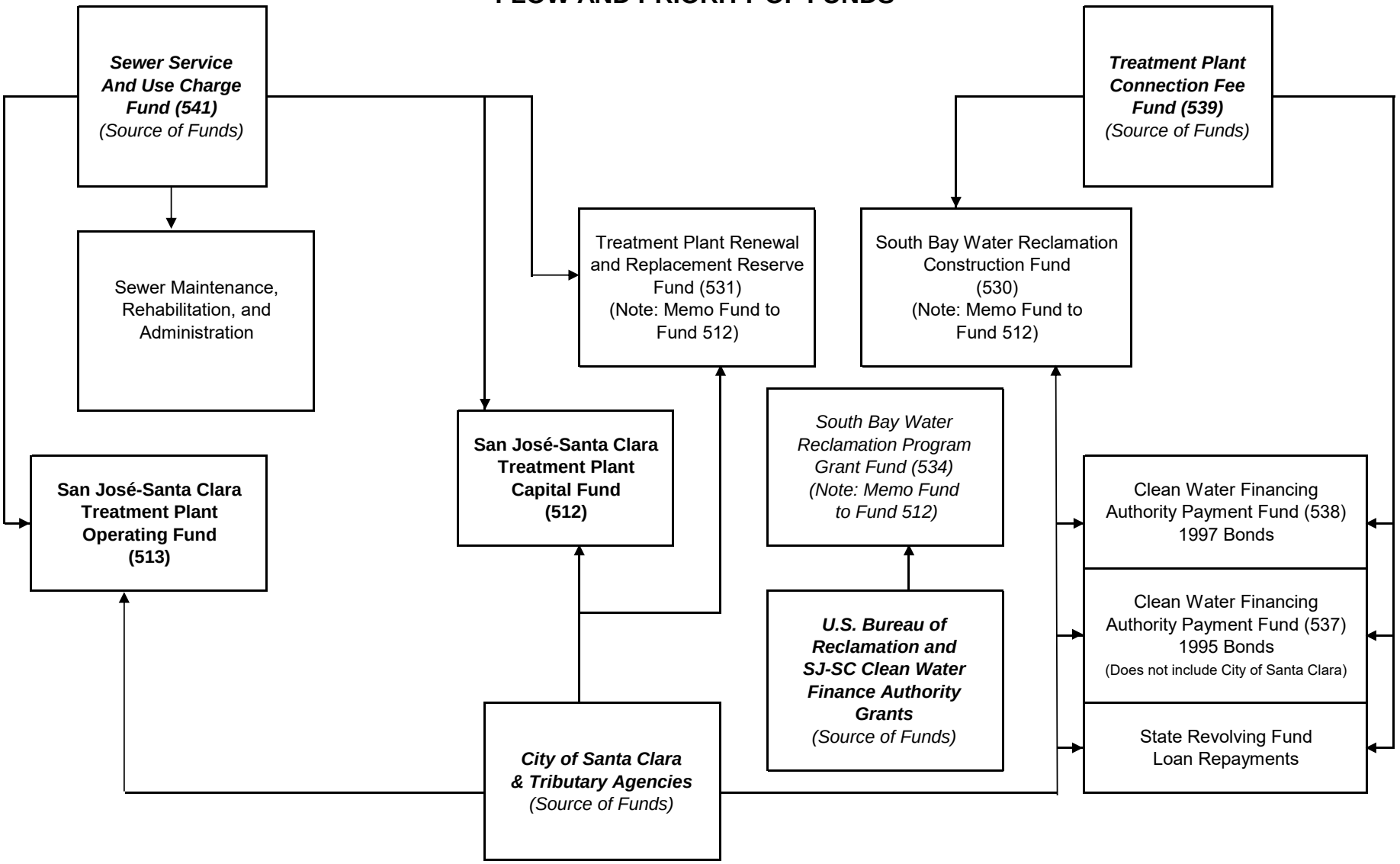
WATER POLLUTION CONTROL PLANT
FLOW AND PRIORITY OF FUNDS



The arrows indicate the flow of funds from each of the various sources to the fund in which the revenues are expended.

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ATTACHMENT A
CIP AGENCY ALLOCATIONS - TEN YEAR FORECAST

		17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	5-Year Total	10-Year Total
Santa Clara													
WPCP Projects		25,526,152	32,091,462	39,718,510	37,021,353	5,972,478	18,372,617	15,844,573	8,848,921	6,986,481	4,168,132	140,329,955	194,550,680
Equipment Replacement		0	229,976	229,976	229,976	229,976	229,976	229,976	229,976	229,976	229,976	919,904	2,069,784
SRF Loan Annual Repayment		687,858	277,978	0	0	0	0	0	0	0	0	965,836	965,836
CWFA Debt Service Payment		0	0	0	0	0	0	0	0	0	0	0	0
	Total	26,214,010	32,599,416	39,948,486	37,251,329	6,202,454	18,602,593	16,074,549	9,078,897	7,216,457	4,398,108	142,215,695	197,586,300
West Valley													
WPCP Projects		10,633,825	13,727,420	17,121,034	15,286,004	2,565,271	7,917,967	6,825,945	3,807,451	3,012,700	1,799,211	59,333,553	82,696,827
Equipment Replacement		0	144,565	144,565	144,565	144,565	144,565	144,565	144,565	144,565	144,565	578,260	1,301,085
SRF Loan Annual Repayment		377,119	152,402	0	0	0	0	0	0	0	0	529,521	529,521
CWFA Debt Service Payment		0	0	0	0	0	0	0	0	0	0	0	0
	Total	11,010,944	14,024,387	17,265,599	15,430,569	2,709,836	8,062,532	6,970,510	3,952,016	3,157,265	1,943,776	60,441,334	84,527,433
Cupertino													
WPCP Projects		6,993,625	9,059,342	11,311,740	10,048,310	1,694,423	5,232,137	4,510,870	2,515,524	1,990,779	1,189,101	39,107,441	54,545,850
Equipment Replacement		0	85,262	85,262	85,262	85,262	85,262	85,262	85,262	85,262	85,262	341,048	767,358
SRF Loan Annual Repayment		226,816	91,661	0	0	0	0	0	0	0	0	318,477	318,477
CWFA Debt Service Payment		0	0	0	0	0	0	0	0	0	0	0	0
	Total	7,220,441	9,236,265	11,397,002	10,133,572	1,779,685	5,317,399	4,596,132	2,600,786	2,076,041	1,274,363	39,766,966	55,631,685
Milpitas													
WPCP Projects		12,104,160	15,870,626	19,882,658	17,311,022	2,973,151	9,194,127	7,926,435	4,417,222	3,499,873	2,091,300	68,141,617	95,270,574
Equipment Replacement		0	98,882	98,882	98,882	98,882	98,882	98,882	98,882	98,882	98,882	395,528	889,938
SRF Loan Annual Repayment		21,695	8,767	0	0	0	0	0	0	0	0	30,462	30,462
CWFA Debt Service Payment		45,751	42,974	43,001	42,994	0	0	0	0	0	0	174,720	174,720
	Total	12,171,606	16,021,249	20,024,541	17,452,897	3,072,033	9,293,009	8,025,317	4,516,104	3,598,755	2,190,182	68,742,327	96,365,694
CSD 2/3													
WPCP Projects		866,951	1,126,127	1,406,816	1,245,242	210,582	650,709	561,136	312,703	247,475	147,955	4,855,718	6,775,697
Equipment Replacement		0	15,965	15,965	15,965	15,965	15,965	15,965	15,965	15,965	15,965	63,860	143,685
SRF Loan Annual Repayment		48,747	19,700	0	0	0	0	0	0	0	0	68,447	68,447
CWFA Debt Service Payment		102,146	95,946	96,006	95,990	0	0	0	0	0	0	390,087	390,087
	Total	1,017,844	1,257,738	1,518,787	1,357,197	226,547	666,674	577,101	328,668	263,440	163,920	5,378,112	7,377,916
Burbank													
WPCP Projects		401,151	501,200	621,496	585,432	93,766	287,467	247,896	138,400	109,328	65,242	2,203,044	3,051,377
Equipment Replacement		0	4,623	4,623	4,623	4,623	4,623	4,623	4,623	4,623	4,623	18,492	41,607
SRF Loan Annual Repayment		11,562	4,672	0	0	0	0	0	0	0	0	16,234	16,234
CWFA Debt Service Payment		16,877	15,853	15,863	15,860	0	0	0	0	0	0	64,453	64,453
	Total	429,591	526,348	641,981	605,915	98,389	292,090	252,519	143,023	113,951	69,865	2,302,223	3,173,671
San Jose													
WPCP Projects (Eligible for Financing)		97,802,190	123,074,303	155,869,803	145,504,376	14,806,735	78,623,977	67,805,146	37,867,778	29,897,364	17,837,059	537,057,407	769,088,730
WPCP Projects (Ineligible for Financing)		11,436,945	14,256,520	14,107,944	12,929,261	10,752,596						63,483,266	63,483,266
Total WPCP Projects		109,239,135	137,330,823	169,977,746	158,433,637	25,559,330	78,623,977	67,805,146	37,867,778	29,897,364	17,837,059	600,540,672	832,571,996
Equipment Replacement		0	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	4,334,908	9,753,543
SRF Loan Annual Repayment		3,090,204	1,248,819	0	0	0	0	0	0	0	0	4,339,023	4,339,023
HR/Payroll/Budget System Upgrade		0	0	0	0	0	0	0	0	0	0	0	0
City Hall Debt Service		190,000	206,000	206,000	206,000	206,000	206,000	206,000	206,000	206,000	206,000	1,014,000	2,044,000
New Debt Service 2017-18		3,363,000	5,165,000	183,144,000	19,445,000	287,715,000	28,438,000	28,438,000	28,438,000	28,438,000	28,438,000	498,832,000	641,022,000
CWFA Debt Service Payment		5,715,813	5,368,889	5,372,219	5,371,356	0	0	0	0	0	0	21,828,277	21,828,277
	Total	121,598,152	150,403,259	359,783,692	184,539,720	314,564,057	108,351,704	97,532,873	67,595,505	59,625,091	47,564,786	1,130,888,881	1,511,558,839

ATTACHMENT A
CIP AGENCY ALLOCATIONS - TEN YEAR FORECAST

	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	5-Year Total	10-Year Total
TOTAL												
WPCP Projects	165,765,000	209,707,000	260,040,000	239,931,000	39,069,000	120,279,000	103,722,000	57,908,000	45,744,000	27,298,000	914,512,000	1,269,463,000
Equipment Replacement	0	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	6,652,000	14,967,000
SRF Loan Annual Repmnt	4,464,000	1,804,000	0	0	0	0	0	0	0	0	6,268,000	6,268,000
HR/Payroll/Budget System Upgrade	0	0	0	0	0	0	0	0	0	0	0	0
City Hall Debt Service	190,000	206,000	206,000	206,000	206,000	206,000	206,000	206,000	206,000	206,000	1,014,000	2,044,000
New Debt Service 2017-18	3,363,000	5,165,000	183,144,000	19,445,000	287,715,000	28,438,000	28,438,000	28,438,000	28,438,000	28,438,000	498,832,000	641,022,000
CWFA Debt Service Repayment	5,880,588	5,523,663	5,527,088	5,526,200	0	0	0	0	0	0	22,457,538	22,457,538
	179,662,588	224,068,663	450,580,088	266,771,200	328,653,000	150,586,000	134,029,000	88,215,000	76,051,000	57,605,000	1,449,735,538	1,956,221,538

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE

FROM: Kerrie Romanow

SUBJECT: **2017-2018 PROPOSED OPERATING BUDGET**

DATE: May 12, 2017

Approved D.D.S.L Date 5/12/17

This memorandum serves to transmit the San José/Santa Clara Regional Wastewater Facility (RWF) Proposed 2017-2018 Operating and Maintenance Budget. The RWF is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José Environmental Services Department. As a regional-serving facility, the RWF provides wastewater treatment services to other cities and sanitary districts in the South Bay including: City of Milpitas, Cupertino Sanitary District, West Valley Sanitation District (representing cities of Campbell, Los Gatos, Monte Sereno, and Saratoga), County Sanitation District 2-3, and Burbank Sanitary District. The Proposed Operating and Maintenance Budget is provided to the Treatment Plant Advisory Committee's review and for a recommendation to the San José City Council for approval.

If you should have any questions, please contact Ashwini Kantak at 408-975-2553.

/s/
KERRIE ROMANOW
Director, Environmental Services

Attachment

PROPOSED

SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

2017-2018

Operating & Maintenance Budget

Submitted by
Kerrie Romanow, Director
Environmental Services Department
City of San José

TO: Treatment Plant Advisory Committee

Sam Liccardo	(Chair) Mayor, City of San José
Pat Kolstad	(Vice-Chair) Council Member, City of Santa Clara
Marsha Grilli	Vice Mayor, City of Milpitas
Steven Leonardis	Board Member, West Valley Sanitation District
John M. Gatto	Board Member, Cupertino Sanitary District
David Sykes	Assistant City Manager, City of San José
Dev Davis	Council Member, City of San José
Lan Diep	Council Member, City of San José
Debi Davis	Council Member, City of Santa Clara

SAN JOSE / SANTA CLARA

WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

2017-2018

PROPOSED

Operating & Maintenance Budget

Environmental Services Department
City of San José

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

Page No.

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

BUDGET SUMMARY

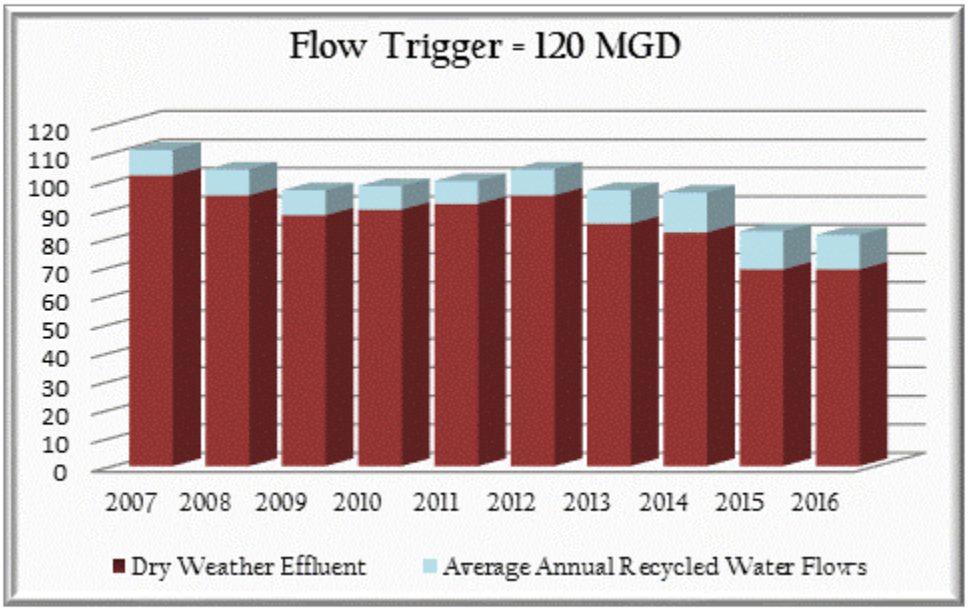
	Adopted 16-17	Proposed 17-18	% Change
Treatment Plant Operating Fund Budget	97,287,719	104,035,693	6.9%
ESD Authorized Positions	366.93	359.30	(2.1%)

BUDGET HIGHLIGHTS 2017-2018

- Additional staffing resources are recommended to provide adequate wastewater treatment operational coordination with Plant Capital Improvement Program project construction and commissioning activities.
- Additional funding is recommended to support a preventative maintenance project.
- Additional funding is recommended to support an expanded maintenance program and engineering services related to South Bay Water Recycling.
- Elimination of the Fats, Oils, and Grease Commercial Inspection program for Food Service Establishments in the Treatment Plant service area is recommended.

Budget Byte

10 year History of Average Dry Weather Flow (in millions of gallons per day)



San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

TREATMENT PLANT OPERATING FUND
BUDGET SUMMARY

Budget Summary	2015-2016 Actual Expenses	2016-2017 Adopted Budget	2017-2018 Base Budget	2017-2018 Proposed Budget
Personal Services	48,541,494	54,770,465	58,108,390	56,877,511
Non-personal Expenses	23,842,972	29,379,019	29,464,519	33,227,019
Equipment	291,452	1,060,000	906,000	946,000
Inventory	355,739	400,000	400,000	400,000
Department Expenses	**73,031,657**	**85,609,484**	**88,878,909**	**91,450,530**
Overhead	7,478,318	8,903,376	9,687,081	9,687,081
City Hall Debt Service	1,121,240	1,118,437	1,175,345	1,175,345
Workers' Compensation	401,017	645,000	675,000	675,000
City Services	1,439,219	1,011,422	1,047,737	1,047,737
City Expenses	**10,439,794**	**11,678,235**	**12,585,163**	**12,585,163**
TOTAL EXPENSES	**$ 83,471,451**	**$ 97,287,719**	**$ 101,464,072**	**$ 104,035,693**

ESTIMATED COST DISTRIBUTION

2017-2018 Estimated Total Gallons Treated (MG)	(1) Percent of Total Sewage Treated	City / District	2017-2018 Proposed
24,683.449	63.544	City of San Jose	$66,108,441
4,740.928	14.848	City of Santa Clara	$15,447,220
29,424.377	78.392	Sub-Total	$81,555,660
3,450.251	9.258	West Valley Sanitation District	$9,631,624
1,870.734	5.355	Cupertino Sanitary District	$5,571,111
2,144.324	5.817	City of Milpitas	$6,051,756
346.020	0.945	Sanitation District # 2 - 3	$983,137
85.783	0.233	Burbank Sanitary District	$242,403
7,897.112	21.608	Sub-Total	$22,480,033
37,321.489	**100.0**	**TOTAL**	**$ 104,035,693**

(1) Composite of four parameters (flow, BOD, SS, ammonia). Source: 2017-2018 Revenue Program.

OVERVIEW

This year's Water Pollution Control Plant Operating Budget recommends a 6.9% increase over the 2016-2017 Adopted Budget which represents an increase of nearly $6.7 million. The increase is due primarily to base salary related increases, such as pensions and overhead, totaling more than $3 million and additional funding proposals of nearly $4 million. Of these proposals, two proposals constitute the majority and are related to South Bay Water Recycling Program reliability improvements and additional chemicals required during the wastewater treatment process. The cost of these proposed additions is partially offset by the proposal to eliminate the Fats, Oils, and Grease Commercial Inspection Program from the Treatment Plant Operating and Maintenance budget.

An increase in the South Bay Water Recycling (SBWR) Program maintenance budget is proposed to support the implementation of reliability improvements for existing system infrastructure, as recommended in the Program's 2010 Condition Assessment and 2014 Strategic Master Plan. The maintenance budget will fund projects that maintain the structural integrity of recycled water infrastructure assets, minimize emergency repair costs and service disruptions, and maximize system efficiency. The proposed increase to the SBWR Program maintenance budget will be funded entirely from wholesale recycled water revenue. Included with the Proposed 2017-2018 Operating & Maintenance budget is a Source & Use Statement for the SBWR Program that provides information on the estimated level of SBWR revenues and expenditures for 2017-2018. This new Source and Use Statement highlights the full cost recovery nature of the SBWR Program.

An increase to the Treatment Plant's chemical budget is also proposed for 2017-2018 to reflect the initial estimate for the expanded use of ferric-chloride and polymer chemicals in association with the full implementation of the Iron Salt Dosing Station. The actual dosage of these chemicals will be analyzed during this initial year and re-evaluated as part of the base-budget process for future years.

An evaluation of the Fats, Oils, and Grease Commercial Inspection Program in 2016-2017 concluded that the program has minimal benefit to the Wastewater Facility, but rather is of significant benefit to the sanitary sewer collection system. As such, a proposed budget action would eliminate the program from the Treatment Plant Operating Fund.

As detailed in the 2016-2017 Treatment Plant Operating Budget, the size and complexity of the Treatment Plant Capital Improvement Program (CIP) has placed a significant time demand on Operations and Maintenance (O&M) staff. The proposed addition of three operators is part of a multi-year strategy to increase staffing levels to support these demands. For the Operations group, the majority of these demands has been met through the use of overtime, and additional staff would help alleviate the use of overtime for this purpose while ensuring that more experienced staff are available to address actions such as construction coordination and commissioning activities for CIP projects.

OVERVIEW (cont'd)

In addition to proposals, an increase in the base budget for pension costs and overhead was higher than projected. Retirement (Pension) costs continue to rise on an annual basis, as detailed in the City's 2018-2022 Five-Year Economic Forecast and Revenue Projections. Retirement contributions for Tier 1 plan members reflect the full annual required contributions recommended by the Retirement Board's actuary. The increase of membership in the lower cost Tier 2 plans is expected to begin offsetting retirement costs over time. For 2017-2018, retirement costs in the Treatment Plant Operating Fund reflect an increase of 12.1% over the 2016-2017 Adopted Budget.

The Plant and the Environmental Services Department continue to focus significant efforts on attracting qualified technical and engineering professionals to fill key O&M vacancies and to support the implementation of the CIP. The Plant has seen steady improvements in the vacancy rate for several key groups. For example, the vacancy rate for the approximately 215 positions in the Wastewater O&M group has improved from 27% in September 2013 to 17% as of April 2017.

The following sections provide the budget proposal descriptions and a breakdown by program of all associated expenditures that make up the Treatment Plant Operating and Maintenance budget.

OVERVIEW CONTINUED

DEPARTMENT BUDGET SUMMARY

Budget Summary	2015-2016 Actual 1	2016-2017 Adopted 2	2017-2018 Base 3	2017-2018 Proposed 4	% Change (2 to 4)
Dollars by Program					
Treatment Plant O&M	49,413,514	56,769,524	59,305,568	60,786,370	7.1%
WatershedProtection	9,264,668	10,577,815	10,789,656	9,337,278	(11.7%)
South Bay Water Recycling	3,457,803	4,510,874	4,674,918	7,054,916	56.4%
CIP-Engineering Services	2,624,885	4,631,700	4,800,732	4,895,594	5.7%
Mgmt & Admin Svcs	4,814,338	5,167,784	5,423,355	5,423,355	4.9%
Envmtl Compliance & Safety	1,844,445	2,111,609	2,077,082	2,157,082	2.2%
Office of Sustainability	1,036,722	1,093,005	1,063,634	1,051,971	(3.8%)
Communications	575,281	747,173	743,964	743,964	(0.4%)
Total	**$ 73,031,657**	**$ 85,609,484**	**$ 88,878,909**	**$ 91,450,530**	**6.8%**
Dollars by Category					
Personal Services					
Salaries	27,331,697	31,523,032	32,074,841	31,374,139	(0.5%)
Pension	15,639,064	17,924,300	20,530,530	20,094,404	12.1%
Medical	3,958,688	4,671,467	4,851,353	4,757,302	1.8%
Overtime	1,612,045	651,666	651,666	651,666	0.0%
Subtotal	$ 48,541,494	$ 54,770,465	$ 58,108,390	$ 56,877,511	3.8%
Non-Personal/Equipment					
Energy	5,299,099	6,425,000	6,439,000	6,439,000	0.2%
Supplies & Materials	4,769,628	5,108,853	5,108,928	5,308,928	3.9%
Chemicals	1,895,506	1,836,000	1,836,000	2,717,000	48.0%
Contractual Services	8,320,045	11,918,318	11,918,318	14,598,318	22.5%
All Others	4,205,885	5,550,848	5,468,273	5,509,773	(0.7%)
Subtotal	$ 24,490,163	$ 30,839,019	$ 30,770,519	$ 34,573,019	12.1%
Total	**$ 73,031,657**	**$ 85,609,484**	**$ 88,878,909**	**$ 91,450,530**	**6.8%**
Authorized Positions	363.1	366.93	364.43	359.3	(2.08%)

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

Budget Proposals

Proposed Program Changes	Positions	Treatment Plant Appropriations
1. Capital Improvement Program Staffing	**2.50**	**215,665**

This action adds 0.5 of a Principal Engineer position to Capital Improvement Program Engineering Division to support the delivery of the $1.4 billion 10-year capital improvement program. This position will provide technical leadership and direct oversight of the Facilities Package, which consists of several large infrastructure projects with a combined total estimate of $250 million. Projects to be completed under this package will improve operational reliability, efficiency, and flexibility; reduce maintenance and emergency repair burdens on operations and maintenance staff; enhance worker environment and safety; and protect the environment. These projects are essential for efficient and safe operations at the San José-Santa Clara Water Pollution Control Plant (Plant), and serve to provide important connectivity between the various unit treatment processes and support virtually every area operational area at the Plant.

Also, this action adds 3.0 Wastewater Operator III positions and deletes 1.0 Wastewater Mechanical Supervisor II position for construction and commissioning activities for various capital improvement projects. These positions are necessary to carry out projects included in the Plant Master Plan, which identified more than 100 major capital improvement projects to be implemented at the Plant over a 30-year planning period to address aging infrastructure, future regulatory requirements, population growth, sea-level rise, and treatment process improvements. (Ongoing costs: $337,856)

2. Fats, Oils, and Grease Commercial Inspection Program Funding Shift	**-8.50**	**-1,452,377**

This action eliminates funding for 6.0 Environmental Inspector I/II, 1.0 Assistant Environmental Inspector, 1.0 Senior Environmental Inspector, and 0.5 Environmental Services Program Manager positions that support the Fats, Oils, and Grease (FOG) Commercial Inspection Program for Food Service Establishments (FSEs) at the Plant from the San José-Santa Clara Treatment Plant Operating Fund. An evaluation of the FOG Program in 2016-2017 concluded that it has minimal benefit to the Plant, but rather is of significant benefit to the sanitary sewer collection system. As a result, it is recommended that the FOG Program as it relates to the Plant (including the City of Santa Clara and the tributary agencies) be discontinued. (Ongoing costs: $0)

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations
3. Filter Maintenance		**400,000**

This action provides funding to rehabilitate up to four of the 16 tertiary filters used in the normal course of wastewater treatment and recycled water production as part of a multi-year effort. Replacing the filter media in these large specialized filters are critical in the sewage treatment process, as they remove any remaining suspended solids before the disinfection process and subsequent discharge to the San Francisco Bay. These dual media filters require replacement every ten years; the first group of four filters was approved to be replaced in 2015-2016. (Ongoing costs: $0)

4. Geographic Information System Staffing	**0.50**	**38,998**

This action adds 0.50 Geographic Systems Specialist position to provide Geographic Information System (GIS) support to the Water Pollution Control Plant. This position will provide continued support for data migration and will be required to integrate, store, edit, analyze, share, and display geographic information for informed decision making. The position will also support ongoing data management, provide coordination with planners and development staff, perform quality control and assurance, disseminate data over the internet, and provide key support for GIS data migration. (Ongoing costs: $38,998)

5. Iron Salt Dosing Station		**881,000**

This action provides ongoing funding for the purchase of ferric chloride and polymer year-round, needed for continuous dosing of raw sewage to control the emission of hydrogen sulfide in digester gas, which will improve the primary treatment process, and as regulated per Title V (Clean Air Act) and monitored by Bay Area Air Quality Management. These chemicals will be used at the Iron Salt and Polymer Dosing Station at the Plant, which is currently under construction and scheduled to be operational in July 2017. (Ongoing costs: $881,000)

6. Nine Par Landfill Groundwater Remediation		**80,000**

This action provides funding to retain an environmental consultant to implement the first year of a full-scale remediation of the contaminated groundwater at the former Nine Par Landfill. During the redevelopment of the former Nine Par Landfill for construction of the Zero Waste to Energy Development (ZWED) Facility, groundwater contaminated with solvents was discovered on the northern portion of the landfill in 2011. The contamination was reported to the State Regional Water Quality Control Board (RWQCB), which then asked the City to remediate the contamination. For the past several years, the Environmental Services Department has performed investigations to determine the extent of contamination and piloted a remediation study to determine effective cleanup technology. Over the next five years, the Department plans to implement full-scale remediation of the contaminated groundwater. The

Proposed Program Changes	Positions	Treatment Plant Appropriations

full-scale remediation will include installation of approximately 30 to 60 groundwater wells where the organic substrate will be injected and then monitored for efficiency. In 2017-2018, funds will be used for pre-remediation investigations and to develop a work plan; funding for future work efforts will be brought forward when estimates for those years are better known. (Ongoing cost: $0)

7. Program Management Staffing Reduction -0.13 -11,663

This action eliminates funding for 0.13 Environmental Services Program Manager position from the Treatment Plant Operating Fund. In recent years, this positon had supported the evaluation of alternative energy sources at the Plant. (Ongoing savings: $11,663)

8. South Bay Water Recycling System Infrastructure Improvements 2,400,000

This action provides one-time funding of $2.4 million for SBWR infrastructure projects, which are needed to implement reliability improvements for existing system infrastructure, as recommended in the 2010 Condition Assessment and 2014 Strategic Master Plan (Master Plan). These analyses provided the recommendations for infrastructure reliability improvements that will maintain the structural integrity of Recycled Water Infrastructure Assets, minimize emergency repair and service disruption, and maximize system efficiency. This additional funding will be sourced solely from recycled water revenue, and will allow implementation of key Master Plan recommendations including, but not limited to, Valve Repair and Replacement, Communications and Control Upgrades, and Pump Station Retrofits. (Ongoing costs: $0)

9. South Bay Water Recycling Program Staffing .50 -20,002

This action provides funding for 1.0 Senior Engineer to lead the SBWR engineering team. The SBWR Strategic Plan and Condition Assessment identified approximately $45 million in infrastructure and reliability improvements. Due to the range and complexity of the identified projects, a Senior Engineer is required to lead the SBWR engineering team; the position will provide support to operations and maintenance, inspections, and capital improvement teams, and development-related services that ensure optimum operation of existing infrastructure.

This action also eliminates funding for 0.50 Environmental Services Program Manager position in the SBWR Program. This position will continue to provide programmatic and policy support to SBWR albeit at a reduced level. (Ongoing costs: $1,679)

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations
10. Vehicle Lease Buy-Outs		**40,000**
This action provides funding for the Plant Capital Improvement Program (CIP) and Operations and Maintenance (O&M) Divisions to buy out four electric vehicle leases currently set to expire in June 2017, which is a less expensive option than purchasing new cars. The four electric vehicles have been assigned to the Plant on a pilot basis since 2014 and currently serve as pool vehicles among staff located there. These vehicles support CIP and O&M staff day-to-day engineering, field, and administration work and provide staff with a readily available vehicle to attend meetings at various offsite locations, such as City Hall and the Central Service Yard, as well as perform field work and participate in field construction meetings in and around the Plant's operational area. (Ongoing costs: $0)		
2017-2018 Total Department Proposals	**-5.13**	**2,571,621**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: TREATMENT PLANT O&M
RESPONSIBLE MANAGER: AMIT MUTSUDDY

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for the technologically advanced and cost-effective treatment of an average wastewater flow of over 100 million gallons per day. With a management focus on three primary areas: operations and maintenance; compliance with the Facility's three permits – National Pollution Discharge Elimination System (NPDES), and Air (Bay Area Air Quality Management); and equipment reliability, the Plant is able to produce an effluent that regularly meets or exceeds all NPDES permit conditions and represents the City's largest asset and critical public health service. The end results are a high quality effluent discharge to the Bay, and user rates that reflect a commitment to cost-efficient operations.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Air Conditioning Mech	3.00	3.00	3.00	3.00
Analyst II C	1.00	1.00	1.00	1.00
Assist Hvy Dsl Eq Op Mech	1.00	1.00	1.00	1.00
Assoc Engineer	1.00	1.00	1.00	1.00
Assoc Engineering Tech	2.90	3.00	3.00	3.00
Deputy Dir U	1.00	1.00	1.00	1.00
Division Manager	3.00	3.00	3.00	3.00
Engineerg Technician II	1.85	1.85	1.85	1.85
Geographic Systms Spec II	2.00	2.00	2.00	2.50
Groundsworker	0.95	0.95	0.95	0.95
Heavy Equip Oper	5.00	5.00	5.00	5.00
Industrial Electrician Supervisor	1.00	1.00	1.00	1.00
Industrial Process Cntrl Senr	2.00	3.00		
Industrial Process Cntrl Spec I-III	1.00	1.00	4.00	4.00
Industrial Electrician	7.20	8.60	8.60	8.60
Instrument Control Supvr	0.90	0.90	0.90	0.90
Instrument Control Technician I-III	7.50	9.50	11.30	11.30
Maintenance Assistant	1.00		1.00	1.00
Maintenance Worker I	1.00	1.00		
Maintenance Superintend	0.95			
Maintenance Supervisor				
Network Engineer	1.00	1.00	1.00	1.00
Office Specialist II	2.00	2.00	2.00	2.00
Painter Supvr WPCP	1.00	1.00	1.00	1.00
Painter WPCP	6.00	6.00	6.00	6.00

PERSONNEL SUMMARY (continued)				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Prin Office Specialist	1.00	1.00	1.00	1.00
Secretary	1.00			
Senr Air Cond Mechanic	1.00	1.00	1.00	1.00
Senr Analyst	1.00	1.00	1.00	1.00
Senr Engineer	2.00	2.00	2.00	2.00
Senr Engineering Tech	3.00	3.00	3.00	3.00
Senr Geographic Syst Spec	1.00	1.00	1.00	1.00
Senr Hvy Equipment Oper	2.00	2.00	2.00	2.00
Senior Industrial Electrician	1.80	1.90	1.90	1.90
Senr Maintenance Worker	0.95	0.95	0.95	0.95
Senr Office Specialist		1.00	1.00	1.00
Senr Painter	1.00	1.00	1.00	1.00
Senr Warehouse Worker	0.88	0.89	0.89	0.89
Supervg Applicat Analyst	1.00	1.00	1.00	1.00
Supply Clerk	1.00	1.00	1.00	1.00
Senr Instrument Control Tech	1.80	1.80		
Warehouse Supervisor	0.88	0.89	0.89	0.89
Warehouse Worker I/II	2.64	2.67	2.67	2.67
Wastewater Attendant	18.00	19.00	19.00	19.00
Wastewater Maintenance Supt	1.90	2.85	2.85	2.85
Wastewater Mechanic I	4.85	5.85	6.00	6.00
Wastewater Mechanic II	25.90	24.90	24.75	24.75
Wastewater Mechanical Supvr I	1.00		1.00	1.00
Wastewater Mechanical Supvr II	6.00	7.00	6.00	5.00
Wastewater Operations Supt I-II	7.00	7.00	7.00	7.00
Wastewater Operator I		1.00	1.00	4.00
Wastewater Operator II	11.00	10.00	11.00	11.00
Wastewater Operator III	21.00	22.00	21.00	21.00
Wastewater Ops Foreperson I/II	20.00	20.00	20.00	20.00
Wastewater Senior Mechanic I/II	11.00	11.00	11.00	11.00
Total Full-Time Positions	206.85	212.50	212.50	215.00

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2015-2016	2016-2017	2017-2018	2017-2018
Detail/Category	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	15,575,239	18,065,965	18,665,290	18,764,643
Salaries-Reg-Part Time	101,725			
Salaries - Overtime	1,538,852	599,573	599,573	599,573
Other Personnel				
Benefits: Retirement Contrib	9,151,629	10,317,332	12,145,592	12,210,242
Other Fringe Benefits	2,447,258	2,866,079	2,967,932	2,983,730
Sub Total	**$ 28,814,702**	**$ 31,848,949**	**$ 34,378,386**	**$ 34,558,188**
Utilities: Gas	1,326,368	2,200,000	2,200,000	2,200,000
Utilities: Electricity	3,280,327	3,500,000	3,512,000	3,512,000
Supplies and Materials	4,039,781	4,327,450	4,352,662	4,352,662
Stores Fund - Stores	29			
Comm Expnse: Telephne-Telegrph	85,105	43,805	43,805	43,805
Comm Expnse: Postage	1,568	6,000	6,000	6,000
Print/Adv-Outside Vendors	4,034	5,750	5,750	5,750
Utilities: Other	204,538	139,000	139,000	139,000
Chemicals	1,895,506	1,836,000	1,836,000	2,717,000
Rent: Equipment & Vehicles	281,786	341,395	340,546	340,546
Trans/Travel: In County	1,310	14,144	14,144	14,144
Trans/Travel: Out of County	459	28,395	28,395	28,395
Trans/Travel: Out of State	11,487	51,069	51,069	51,069
Training	136,191	135,460	139,404	139,404
Mileage Reimbursement	337	150	150	150
Vehicle Operating Costs	591,446	584,273	650,573	650,573
Dues & Subscriptions	1,170,983	1,124,973	1,124,973	1,124,973
Computer Data Processing	408,176	354,000	354,000	354,000
Prof & Consultant Svcs	6,449,875	8,814,119	8,814,119	9,214,119
Insurance	118,033	564,592	564,592	564,592
Taxes	343,472			
Machnry/Equipmt: Machinery	248,002	850,000	750,000	770,000
Sub Total	**$ 20,598,812**	**$ 24,920,575**	**$ 24,927,182**	**$ 26,228,182**
Combined Totals	**$ 49,413,514**	**$ 56,769,524**	**$ 59,305,568**	**$ 60,786,370**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: WATERSHED PROTECTION
RESPONSIBLE MANAGER: NAPP FUKUDA

PROGRAM PURPOSE AND DESCRIPTION

Provides environmental enforcement and technical support functions to support Department programs, enforce Federal, State, and local regulations pertaining to industrial and commercial waste discharges to the sanitary system. The Source Control/Pretreatment Program provides engineering evaluation, permitting, inspection, and monitoring of industrial waste dischargers and ensures that industrial discharges to the SJ/SC Water Pollution Control Plant comply with all applicable industrial waste ordinances within San José and the tributary agencies. The Laboratory Services Program provides analytical support to monitor wastewater treatment processes and NPDES compliance and support related special projects.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	0.75	0.75	0.75	0.75
Aquatic Toxicologist	1.00			
Assoc Engineer	1.00	1.00	1.00	1.00
Biologist	1.00	1.00	1.00	1.00
Chemist	9.00	9.00	9.00	9.00
Deputy Dir U	0.75	0.75	0.75	0.75
Environment Insp, Assistant	4.00	4.00	4.00	3.00
Environment Inspector I/II	20.00	20.00	18.00	12.00
Environment Inspector, Sr	2.00	3.00	3.00	2.00
Environment Serv Prog Mgr	1.50	1.50	1.50	1.00
Environment Serv Spec	2.00			
Environmental Laboratory Mgr	1.00	1.00	1.00	1.00
Environmental Laboratory Supvr	2.00	3.00	3.00	3.00
Laboratory Tech I/ II	13.00	13.00	13.00	13.00
Microbiologist	1.00	1.00	1.00	1.00
Office Specialist II	2.28	2.28	2.28	2.28
Prin Office Specialist	0.85	0.85	0.85	0.85
Sanitary Engineer	3.00	3.00	3.00	3.00
Senr Office Specialist	1.52	1.52	1.52	1.52
Staff Specialist	0.76	0.76	0.76	0.76
Supervg Environ Serv Spec	1.00			
Total Full-Time Positions	69.41	67.41	65.41	56.91

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2015-2016	2016-2017	2017-2018	2017-2018
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	4,837,771	5,390,598	5,287,913	4,461,027
Compensated Absence	3,875			
Salaries-Reg-Part Time				
Salaries - Overtime	22,137	27,733	27,733	27,733
Other Personnel	524			
Benefits: Retirement Contrib	2,635,694	2,969,619	3,267,482	2,756,536
Other Fringe Benefits	657,387	717,953	732,515	617,970
Sub Total	**$ 8,157,389**	**$ 9,105,903**	**$ 9,315,644**	**$ 7,863,266**
Supplies and Materials	448,124	540,823	540,823	540,823
Comm Expnse: Telephne-Telegrph	22,439	34,550	34,550	34,550
Comm Expnse: Postage	988	11,500	11,500	11,500
Print/Adv-Outside Vendors	5,505	15,000	15,000	15,000
Rent: Land & Buildings		315	315	315
Rent: Equipment & Vehicles	26,262	35,000	35,000	35,000
Trans/Travel: In County	94	10,700	10,700	10,700
Trans/Travel: Out of County	2,960	26,234	26,234	26,234
Trans/Travel: Out of State		30,200	30,200	30,200
Training	13,457	41,430	41,430	41,430
Mileage Reimbursement	868	4,825	4,825	4,825
Vehicle Operating Costs	24,094	25,052	28,652	28,652
Dues & Subscriptions	16,474	21,227	21,227	21,227
Computer Data Processing	38,848	65,875	64,375	64,375
Prof & Consultant Svcs	462,362	459,181	459,181	459,181
PW CAP Support Charge	1,354			
Machnry/Equimt: Machinery	43,450	150,000	150,000	150,000
Sub Total	**$ 1,107,279**	**$ 1,471,912**	**$ 1,474,012**	**$ 1,474,012**
Combined Totals	**$ 9,264,668**	**$ 10,577,815**	**$ 10,789,656**	**$ 9,337,278**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: SOUTH BAY WATER RECYCLING
RESPONSIBLE MANAGER: JEFF PROVENZANO

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for coordinating the operations, maintenance and capital improvements of the water recycling system in the three cities it serves; providing customer support and Site Supervisor training; planning and implementing SBWR system improvements; facilitating compliance with local and State regulations; coordinating with regional agencies; and implementing practices to increase water reuse in order to achieve maximum revenue with existing infrastructure and continued wastewater diversion.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	0.30	0.30	0.30	0.30
Assoc Construction Insp	0.70	0.70	0.70	0.70
Assoc Engineer	2.15	3.15	3.15	3.15
Assoc Engineering Tech	1.10	1.00	1.00	1.00
Asst Water Systems Operator			0.15	0.15
Cross Connection Spec	0.30	0.30	0.30	0.30
Deputy Dir	0.20	0.35	0.35	0.35
Engineer I/II	0.20	0.20	0.20	0.20
Engineerg Technician II	0.40	0.40	0.40	0.40
Environmental Inspector II		0.50	0.50	0.50
Environment Serv Prog Mgr	1.00	1.00	1.00	0.50
Environment Serv Spec	1.00	1.00	1.00	1.00
Groundsworker	0.05	0.05	0.05	0.05
Industrial Electrician	0.80	0.40	0.40	0.40
Instrument Control Supvr	0.10	0.10	0.10	0.10
Instrument Control Technician I-III	0.50	0.70	0.70	0.70
Maintenance Superintend	0.15	0.10		
Maintenance Supervisor	0.20	0.20		
Prin Construction Inspect	0.30	0.30	0.30	0.30
Senior Industrial Electrician	0.20	0.10		
Senr Construction Insp	0.30	0.30	0.30	0.30
Senr Engineer	0.40	0.40	0.40	1.40
Senr Engineering Tech	1.00	1.00	1.00	1.00
Senr Industrial Electrician			0.10	0.10
Senr Instrument Control Tech	0.20			
Senr Maintenance Worker	0.05	0.05	0.05	0.05
Senr Water Systems Tech	0.15	0.15		
Supervg Environ Serv Spec	1.00			
Wastewater Maintenance Supt	0.10	0.15	0.15	0.15
Wastewater Mechanic I/II	0.25	0.25	0.25	0.25
Water Syst Op Foreperson I/II			0.15	0.15
Water Systems Operator II			0.50	0.50
Water Syt Op Superindent I			0.20	0.20
Water Syt Operations Manager			0.10	0.10
Water Meter Reader	0.15	0.15		
Water Systems Technician	0.50	0.50		
Total Full-Time Positions	13.75	13.80	13.80	14.30

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2015-2016	2016-2017	2017-2018	2017-2018
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	893,107	1,264,920	1,319,538	1,308,624
Compensated Absence	5,580			
Salaries-Reg-Part Time	5,829			
Salaries - Overtime	17,722	12,217	12,217	12,217
Benefits: Retirement Contrib	552,774	757,958	892,150	884,771
Other Fringe Benefits	141,566	180,541	206,851	205,140
Sub Total	**$ 1,616,576**	**$ 2,215,636**	**$ 2,430,755**	**$ 2,410,753**
Utilities: Electricity	692,404	725,000	727,000	727,000
Supplies and Materials	222,125	82,575	80,575	280,575
Comm Expnse: Telephne-Telegrph	2,154	10,700	10,700	10,700
Comm Expnse: Postage	63	2,000	2,000	2,000
Print/Adv-Outside Vendors	33	11,720	11,720	11,720
Utilities: Other	3,692	500		
Rent: Equipment & Vehicles	303	3,000	3,000	3,000
Trans/Travel: In County	112	3,500	3,500	3,500
Trans/Travel: Out of County	486	5,200	5,200	5,200
Trans/Travel: Out of State	2,428	7,000	7,000	7,000
Training	1,259	9,000	9,000	9,000
Mileage Reimbursement	1,679	2,400	2,400	2,400
Vehicle Operating Costs	1,399	36,675	40,100	40,100
Dues & Subscriptions	23,389	41,000	41,000	41,000
Computer Data Processing	20,711	16,200	16,200	16,200
Prof & Consultant Svcs	867,041	1,278,768	1,278,768	3,478,768
PW Capital Support Charge	1,950			
Capital Outlay				
Machnry/Equimt: Machinery		60,000	6,000	6,000
Sub Total	**$ 1,841,226**	**$ 2,295,238**	**$ 2,244,163**	**$ 4,644,163**
Combined Totals	**$ 3,457,803**	**$ 4,510,874**	**$ 4,674,918**	**$ 7,054,916**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: MGMT & ADMINISTRATIVE SERVICES
RESPONSIBLE MANAGER: LINDA CHARFAUROS

PROGRAM PURPOSE AND DESCRIPTION

Provides support services including: financial and accounting services, human resources, information technology services, contract administration, grant administration, capital improvements and operating budget management.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Account Clerk II	0.66	0.68	0.68	0.68
Accountant II	1.66	1.68	1.68	1.68
Accounting Tech	1.32	1.36	1.36	1.36
Administrative Assist C	0.66	0.68	0.68	0.68
Administrative Officer	0.66	0.68	0.68	0.68
Analyst I/ II C	2.64	2.72	2.72	2.72
Assist DirU	0.66	0.68	0.68	0.68
Dept Information Tech Mgr		0.65	0.65	0.65
Dir Environmental Serv U	0.66	0.68	0.68	0.68
Division Manger	0.83	0.83	0.83	0.83
Information Sys Analyst	1.25	1.25	1.25	1.25
Network Engineer		0.68	0.68	0.68
Network Technician II-III	1.36	1.36	1.36	1.36
Office Specialist II	1.32	1.36	1.36	1.36
Prin Accountant	0.66	0.68	0.68	0.68
Prin Office Specialist	1.32	1.36	1.36	1.36
Program Manager I	0.66	0.68	0.68	0.68
Senr Account Clerk	2.64	2.72	2.72	2.72
Senr Accountant	2.64	2.72	2.72	2.72
Senr Analyst	2.64	2.72	2.72	2.72
Senior Process & Syst Specialist	0.68			
Staff Specialist	0.66	1.36	2.04	2.04
Staff Technician	1.32	0.68		
Supervg Applicat Analyst	0.65			
Systems Apps Progmr II	1.25	1.25	1.25	1.25
Total Full-Time Positions	28.80	29.46	29.46	29.46

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2015-2016	2016-2017	2017-2018	2017-2018
Detail/Category	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	2,665,696	2,646,210	2,676,824	2,676,824
Salaries-Reg-Part Time	24,695			
Salaries - Overtime	24,210	12,143	12,143	12,143
Other Personnel	6,210			
Benefits: Retirement Contrib	1,587,503	1,834,776	2,097,121	2,097,121
Other Fringe Benefits	290,258	320,653	310,397	310,397
Sub Total	**$ 4,598,572**	**$ 4,813,782**	**$ 5,096,485**	**$ 5,096,485**
Supplies and Materials	26,630	58,567	35,430	35,430
Comm Expnse: Telephne-Telegrph	30,807	30,722	30,722	30,722
Comm Expnse: Postage	2,951	15,640	15,640	15,640
Print/Adv-Outside Vendors	22	4,591	4,591	4,591
Rent: Equipment & Vehicles	7,236	23,189	21,138	21,138
Trans/Travel: In County	945	1,370	1,370	1,370
Trans/Travel: Out of County	2,286	2,720	2,720	2,720
Trans/Travel: Out of State	11,101	2,040	2,040	2,040
Training	8,052	30,915	28,971	28,971
Mileage Reimbursement	673	1,803	1,803	1,803
Vehicle Operating Costs	1,196			
Dues & Subscriptions	11,188	8,331	8,331	8,331
Computer Data Processing	25,180	81,140	81,140	81,140
Prof & Consultant Svcs	87,501	92,974	92,974	92,974
Sub Total	**$ 215,766**	**$ 354,002**	**$ 326,870**	**$ 326,870**
Combined Totals	**$ 4,814,338**	**$ 5,167,784**	**$ 5,423,355**	**$ 5,423,355**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: CIP-ENGINEERING SVCS
RESPONSIBLE MANAGER: JULIA NGUYEN

PROGRAM PURPOSE AND DESCRIPTION

This program provides services for both capital project planning, design and construction of major projects as well as process engineering services within the Water Pollution Control Plant. With the adoption of the Plant Master Plan in 2013, which identified over $2.1 billion in long-term capital projects over the next thirty years, the group's primary responsibility is to deliver the projects to address critical aging infrastructure, future regulatory requirements, and improved performance needs. Additional responsibilities include troubleshooting and improving the treatment process, primarily through research and development projects, to ensure efficient and cost effective operations of the Plant.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	1.30	1.30	1.30	1.30
Assoc Engineer	6.40	5.50	5.50	5.50
Assoc Engineering Tech	1.50	1.50	1.50	1.50
Deputy DirU	1.00	1.00	1.00	1.00
Division Manager	1.00	1.00	1.00	1.00
Engineer II	0.60	0.60	0.60	0.60
Office Specialist II	1.00	1.00	1.00	1.00
Principal Engineer	1.30	1.30	1.30	1.80
Sanitary Engineer	3.50	3.30	3.30	3.30
Senr Engineer	4.50	4.50	4.50	4.50
Senr Engineering Tech	1.20	1.20	1.20	1.20
Staff Specialist	1.30	1.30	1.00	1.00
Staff Technician			0.30	0.30
Supervg Environ Serv Spe	0.30	0.30	0.30	0.30
Total Full-Time Positions	24.90	23.80	23.80	24.30

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2015-2016	2016-2017	2017-2018	2017-2018
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	1,452,952	2,320,562	2,307,264	2,352,122
Compensated Absence	4,416			
Salaries-Reg-Part Time	91			
Salaries - Overtime	950			
Benefits: Retirement Contrib	763,916	968,063	1,091,990	1,113,220
Other Fringe Benefits	177,415	316,444	374,147	381,421
Sub Total	**$ 2,399,739**	**$ 3,605,069**	**$ 3,773,401**	**$ 3,846,763**
Supplies and Materials	15,405	41,881	41,881	41,881
Comm Expnse: Telephne	23,113	3,500	3,500	3,500
Comm Expnse: Postage	57	1,000	1,000	1,000
Print/Adv-Outside Vendors	3,658	5,000	5,000	5,000
Rent: Land & Buildings	61,290			
Rent: Equipment & Vehicles	22,957	29,000	29,000	29,000
Trans/Travel: In County	505	3,500	3,500	3,500
Trans/Travel: Out of County	4,152	5,000	5,000	5,000
Trans/Travel: Out of State	5,747	9,000	9,000	9,000
Training	38,363	24,750	24,750	24,750
Mileage Reimbursement	335	2,000	2,000	2,000
Vehicle Operating Costs	3,225	5,000	5,700	5,700
Dues & Subscriptions	2,136	5,000	5,000	5,000
Computer Data Processing	35,113	42,000	42,000	43,500
Prof & Consultant Svcs	7,548	850,000	850,000	850,000
PW CAP Support Charge	1,543			20,000
Sub Total	**$ 225,146**	**$ 1,026,631**	**$ 1,027,331**	**$ 1,048,831**
Combined Totals	**$ 2,624,885**	**$ 4,631,700**	**$ 4,800,732**	**$ 4,895,594**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: ENVIRONMENTAL COMPLIANCE /SAFETY
RESPONSIBLE MANAGER: KEN DAVIES

PROGRAM PURPOSE AND DESCRIPTION

Provides general regulatory compliance (NPDES, Title V, OSHA, etc.) and environmental health and safety support (EH&S) to the Plant and the rest of the department, as needed, through a variety of programs as required by local, State, and Federal regulations. The desired outcome is to protect environmental and public health, create a safe working environment for employees, and maintain compliance with all local, State, and Federal regulations pertaining to environmental compliance and occupational safety.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
[redacted]	**Adopted**	**Adopted**	**Base**	**Proposed**
Assoc Engineer	0.30	0.30	0.30	0.30
Assoc Environ Serv Spec	1.00	1.00	1.30	1.30
Biologist	1.82	1.82	1.82	1.82
Environment Compl Officer	0.63	0.63	0.63	0.63
Environment Serv Prog Mgr	0.91	0.91	0.91	0.91
Environment Serv Spec	4.26	4.12	3.82	3.82
Senr Analyst				
Senr Engineer	1.00	1.00	1.00	1.00
Supervg Environ Serv Spec	0.91	0.91	0.91	0.91
Total Full-Time Positions	10.83	10.69	10.69	10.69

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2015-2016	2016-2017	2017-2018	2017-2018
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	911,767	997,854	1,003,766	1,003,766
Salaries-Reg-Part Time	12,074			
Salaries - Overtime	848			
Benefits: Retirement Contrib	513,382	639,358	616,988	616,988
Other Fringe Benefits	147,681	163,460	145,391	145,391
Sub Total	**$ 1,585,752**	**$ 1,800,672**	**$ 1,766,145**	**$ 1,766,145**
Supplies and Materials	7,234	25,575	25,575	25,575
Comm Expnse: Telephne-Telegrph	5,262	231	231	231
Comm Expnse: Postage	575	268	268	268
Print/Adv-Outside Vendors		225	225	225
Rent: Land & Buildings		210	210	210
Rent: Equipment & Vehicles		65	65	65
Trans/Travel: In County	1,605	518	518	518
Trans/Travel: Out of County	1,142	1,765	1,765	1,765
Trans/Travel: Out of State		3,685	3,685	3,685
Training	696	4,664	4,664	4,664
Mileage Reimbursement	2,234	939	939	939
Vehicle Operating Costs	2,657			
Dues & Subscriptions	432	51,318	51,318	51,318
Computer Data Processing	259	1,638	1,638	1,638
Prof & Consultant Svcs	235,126	219,836	219,836	299,836
Taxes	1,472			
Sub Total	**$ 258,694**	**$ 310,937**	**$ 310,937**	**$ 390,937**
Combined Totals	**$ 1,844,445**	**$ 2,111,609**	**$ 2,077,082**	**$ 2,157,082**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: OFFICE OF SUSTAINABILITY
RESPONSIBLE MANAGER: KEN DAVIES

PROGRAM PURPOSE AND DESCRIPTION

Provides support and technical expertise to the Water Pollution Control Plant to advance efforts related to renewable energy, zero waste, and wastewater reuse. In addition, staff focuses on supporting programs related to energy and water efficiency at the Plant, renewable energy technologies, and greenhouse gas emissions.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Actual	**Adopted**	**Base**	**Proposed**
Environment Serv Prog Mgr	0.42	0.35	0.35	0.22
Environment Serv Spec	2.42	2.51	2.51	2.51
Environmntl Sustainability Mgr	0.42	0.39	0.39	0.39
Planner III		1.00	1.00	1.00
Supervg Environ Serv Spec	1.65	1.46	1.46	1.46
Total Full-Time Positions	4.91	5.71	5.71	5.58

DETAILED PROGRAM BUDGET				
	2015-2016	**2016-2017**	**2017-2018**	**2017-2018**
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	556,726	544,829	548,441	541,327
Salaries-Reg-Part Time	8,707			
Salaries - Overtime	6,794			
Benefits: Retirement Contrib	324,259	317,593	283,810	280,128
Other Fringe Benefits	65,458	66,354	66,854	65,987
Sub Total	**$ 961,945**	**$ 928,776**	**$ 899,105**	**$ 887,442**
Supplies and Materials	905	7,187	7,187	7,187
Comm Expnse: Telephne-Telegrph	741	300	300	300
Comm Expnse: Postage	3	325	325	325
Print/Adv-Outside Vendors		17,149	17,149	17,149
Rent: Land & Buildings		935	935	935
Trans/Travel: In County	526	2,499	2,499	2,499
Trans/Travel: Out of County	551	4,057	4,057	4,057
Trans/Travel: Out of State	663	3,000	3,000	3,000
Training	502	6,099	6,099	6,099
Mileage Reimbursement	747	1,064	1,064	1,064
Vehicle Operating Costs		2,000	2,300	2,300
Dues & Subscriptions	4,408	13,716	13,716	13,716
Computer Data Processing	3,981	24,458	24,458	24,458
Prof & Consultant Svcs	61,750	81,440	81,440	81,440
Sub Total	**$ 74,778**	**$ 164,229**	**$ 164,529**	**$ 164,529**
Combined Totals	**$ 1,036,722**	**$ 1,093,005**	**$ 1,063,634**	**$ 1,051,971**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: COMMUNICATIONS
RESPONSIBLE MANAGER: JENNIE LOFT

PROGRAM PURPOSE AND DESCRIPTION

This program manages the media relations and public outreach needs for the San Jose/Santa Clara Water Pollution Control Plant, the wastewater pre-treatment, pollution prevention, and recycled water programs. This includes responding to media inquiries and seeking media coverage; managing and conducting public tours; directing outreach to neighbors and representing the Department in community meetings; developing and maintaining best management practice materials including information to regulated businesses; publicizing and conducting community events to collect pharmaceuticals, mercury thermometers, and fats/oils/grease; supporting outreach efforts, and providing information to recycled water customers.

PERSONNEL SUMMARY				
Full Time Positions	**2015-2016**	**2016-2017**	**2017-2018**	**2017-2018**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	0.35	0.34	0.34	0.34
Public Information Rep II	1.90	1.86	1.36	1.36
Public Information Mgr	0.35	0.34	0.34	0.34
Senr Public Information Rep	0.70	0.68	0.68	0.68
Staff Specialist	0.35	0.34	0.34	0.34
Total Full-Time Positions	3.65	3.56	3.06	3.06

DETAILED PROGRAM BUDGET				
	2015-2016	**2016-2017**	**2017-2018**	**2017-2018**
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	251,171	292,094	265,805	265,805
Salaries-Reg-Part Time	13,043			
Salaries - Overtime	532			
Other Personnel	500			
Benefits: Retirement Contrib	109,908	119,601	135,397	135,397
Other Fringe Benefits	31,665	39,983	47,266	47,266
Sub Total	**$ 406,819**	**$ 451,678**	**$ 448,469**	**$ 448,469**
Supplies and Materials	9,424	24,795	24,795	24,795
Comm Expnse: Telephne-Telegrph	576	222	222	222
Comm Expnse: Postage	420	14,000	14,000	14,000
Print/Adv-Outside Vendors	3,952	129,700	129,700	129,700
Trans/Travel: In County		463	463	463
Trans/Travel: Out of County	776	105	105	105
Trans/Travel: Out of State	1,038			
Training	175	2,349	2,349	2,349
Mileage Reibursement	125			
Dues & Subscriptions	1,969	467	467	467
Computer Data Processing	1,166	1,394	1,394	1,394
Prof & Consultant Svcs	148,842	122,000	122,000	122,000
Sub Total	**$ 168,462**	**$ 295,495**	**$ 295,495**	**$ 295,495**
Combined Totals	**$ 575,281**	**$ 747,173**	**$ 743,964**	**$ 743,964**

Performance Measures-Treatment Plant

Performance Measures

	2015-2016 Actual	2016-2017 Target	2016-2017 Estimated	2017-2018 Target
Millions of gallons per day discharged to the Bay during average dry weather season State order: 120 mgd or less[1]	69 mgd	<120 mgd	73 mgd	<120 mgd
% of time pollutant discharge requirements are met or surpassed	100%	100%	100%	100%
# of requirement violations				
-Pollutant discharge	0	0	0	0
-Air emissions	1	0	0	0
% of significant industrial facilities in consistent compliance with federal pretreatment requirements	91.85%	90.00%	93.00%	90.00%
Cost per million gallons treated	$1,375	$1,580	$1,517	$1,542

[1] Average dry weather season is defined as the lowest three-month continuous average between May and October, which during the fiscal year reporting period is July-September.

Activity and Workload Highlights

	2015-2016 Actual	2016-2017 Forecast	2016-2017 Estimated	2017-2018 Forecast
Average millions of gallons per day treated	94	93	100	100
Total population in service area[1]	1,452,122	1,461,033	1,469,252	1,486,603

[1] The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight South Bay cities and four sanitation districts including: San José, Santa Clara, Milpitas, Cupertino Sanitation District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated).

Performance Measures-Recycled Water

Performance Measures

	2015-2016 Actual	2016-2017 Target	2016-2017 Estimated	2017-2018 Target
Millions of gallons of recycled water delivered annually	4,451	4,509	4,668	4,953
% of time recycled water quality standards are met or surpassed	100%	100%	100%	100%
% of wastewater influent recycled for beneficial purposes during the dry weather period[1]	19%	19%	19%	19%
Cost per million gallons of recycled water Delivered	$1,396	$1,873	$1,817	$2,399
% of recycled water customers rating service as good or excellent based on reliability, water quality, and responsiveness***	78%	N/A [2]	N/A	80%

[1] Dry weather period is defined as the lowest continuous three-month average rainfall between May and October, which during the fiscal year reporting period is July-September.

[2] Data for this measure is collected on a biennial basis via survey. The next survey is scheduled for 2017-2018. No survey will be conducted in 2016-2017.

Activity and Workload Highlights

	2015-2016 Actual	2016-2017 Forecast	2016-2017 Estimated	2017-2018 Forecast
Total number of South Bay Water Recycling customers	818	840	855	865

Performance Measures-Conservation

Performance Measures

	2015-2016 Actual	2016-2017 Target	2016-2017 Estimated	2017-2018 Target
(Energy) % of energy used at the Water Pollution Control Plant that is renewable	39%	38%	39%	40%

Activity and Workload Highlights

	2015-2016 Actual	2016-2017 Forecast	2016-2017 Estimated	2017-2018 Forecast
City-Wide Renewable Energy Generation	31%	33%	33%	35%

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

SJ-SC TREATMENT PLANT OPERATING FUND (513)
SOUTH BAY WATER RECYCLING PROGRAM
STATEMENT OF SOURCE AND USE OF FUNDS

	FY15-16 Actual	FY16-17 Estimated	FY17-18 Estimated
SOURCE OF FUNDS			
Operating - Recycled Water Sales			
San Jose Water Co.	1,505,041	2,000,000	2,200,000
City of Milpitas	596,745	1,000,000	1,100,000
City of Santa Clara	2,632,145	3,000,000	3,000,000
San Jose Muni Water	3,088,508	4,200,000	4,700,000
Total Source of Funds	**7,822,438**	**10,200,000**	**11,000,000**
USE OF FUNDS			
Personal Services (APPN 0761)			
Mgmt & Admin Svcs	172,852	200,000	250,000
Environmental Compliance & Safety	32,554	40,000	40,000
Office of Sustainability	-	-	-
Treatment Plant CIP	-	-	-
SBWR	1,616,577	1,800,000	2,200,000
Watershed Protection	-	-	-
Communications	-	-	-
Treatment Plant O&M	1,189,432	1,200,000	1,500,000
Non-Personal Services (APPN 0762)			
Mgmt & Admin Svcs	10	3,000	3,200
Environmental Compliance & Safety	33	5,000	5,500
Office of Sustainability	-	-	-
Treatment Plant CIP	-	-	-
South Bay Water Recycling	1,841,228	1,110,000	4,400,000
Watershed Protection	87,219	95,000	100,000
Communications	-	-	-
Treatment Plant O&M	605,894	435,000	700,000
Overhead	526,605	600,000	750,000
Total Use of Funds	**6,072,404**	**5,488,000**	**9,948,700**

COUNCIL AGENDA: 5/23/17
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Barry Ng

SUBJECT: SEE BELOW

DATE: May 1, 2017

Approved D. D. Sykes   Date 5/9/17

SUBJECT: REPORT ON BIDS AND AWARD OF CONSTRUCTION CONTRACT FOR 8101 - HEADWORKS CRITICAL IMPROVEMENTS PROJECT - REBID AT THE SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Reject all bids received and opened on December 8, 2016, for the Headworks Critical Improvements Project.

(b) Report on bids and award of construction contract for 8101 – Headworks Critical Improvements Project – Rebid to the low bidder, C. Overaa & Co., in the amount of $1,499,000, and approve a 15 percent construction contingency in the amount of $224,850.

(c) Adopt a resolution authorizing the Director of Public Works to negotiate and execute one or more change orders in excess of $100,000 for the duration of the Project, not to exceed the total contingency amount approved for the project.

OUTCOME

Award of this construction contract to C. Overaa & Co. (Overaa), will allow for the construction of the Headworks Critical Improvements Project (Project), improving reliability at the San José-Santa Clara Regional Wastewater Facility[1] (RWF). Approval of a 15 percent contingency will provide funding for unanticipated work necessary for the proper and timely completion of the Project. Adoption of a resolution authorizing the Director of Public Works to negotiate and execute change orders up to the contingency amount will allow for implementation of changes required in the Project for completion as scheduled in the first quarter of 2018.

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

BACKGROUND

The point of entry for sanitary sewage entering a wastewater treatment facility is commonly known as a "headworks." This system of trash screens and grit removal equipment removes large material from the waste stream and is the first step in the wastewater treatment process. The headworks facilities at the RWF consist of Headworks 1 (HW1), Headworks 2 (HW2), and various influent structures. HW1 was built in the 1960's, while HW2 was completed in 2008 and was designed to operate in parallel with HW1, to handle wet weather flows. Based on recommendations from previous condition and operational assessments, the Capital Improvement Program (CIP) identified the need to replace the aging HW1 with a new headworks. To keep the headworks facilities operating reliably and safely until the new headworks is constructed, a number of critical improvements need to be implemented immediately.

This Project will replace two existing single-rake bar screens with two new multi-rake bar screens at HW2 and upgrade electrical disconnect switches. The Project will also replace existing gate actuators and nut/stem systems at the Emergency Basin Overflow Structure (EBOS) to improve operational reliability. Attachment A - Project Location Map shows the location of the main facilities impacted by this project.

The Project schedule allows for 195 working days. Construction is scheduled to begin in July 2017, with substantial completion in February 2018.

Prior Bid Opening

The Project was originally advertised for bid on November 9, 2016, and bids were opened on December 8, 2016. The apparent low bidder was Anderson Pacific Engineering Construction, Inc. (Anderson Pacific) with a bid amount of $1,497,100.

Upon review of Anderson Pacific's Statement of Bidder's Experience form, the City noted that one of the three projects that Anderson Pacific was required to list had a date of completion of February 2011, which fell outside the required 5-year time period for project completion. After consulting with the City Attorney's Office (CAO), staff deemed Anderson Pacific's bid non-responsive. CAO advised that staff either could reject Anderson Pacific's bid and award to the second lowest bidder, or reject all bids and re-bid the Project. In the interest of schedule, staff elected to deem Anderson Pacific's bid non-responsive and issued a Notice of Intent to Award (NOITA) to the second lowest bidder, Overaa, on December 21, 2016.

On December 28, 2016, the City received a written bid protest from Anderson Pacific protesting the NOITA. The Bid Protest was received within the allowable five-working day protest timeframe and included the argument that the Statement of Bidder's Experience form was unclear as to the exact dates of the five-year timeframe for project completion.

A letter regarding the Bid Protest was received from Overaa on January 9, 2017, recommending that the City reject the Bid Protest because, regardless of any ambiguity in the Statement of Bidder's Experience form, the date listed by Anderson Pacific clearly fell outside any reasonable interpretation of the five-year timeframe for project completion and the additional information Anderson Pacific provided about its prior projects was not provided in its bid as required by the bid documents.

Based on the Bid Protest and the confusion created by the Bidder's Experience form, staff recommended that all bids be rejected and the experience requirements listed in the project specifications be clarified. Specifically, the Bidder's Experience Form was modified to list exact dates within which project completion must have occurred, and the completion date was explicitly defined to be the date of substantial completion to clarify the City's original intent.

The project was re-advertised for bid on March 8, 2017.

ANALYSIS

The second set of bids for this project was opened on March 23, 2017 with the following results:

Contractor	Bid Amount	Variance Amount	Over/(Under) Percent
C. Overaa & Co. (Richmond)	$1,499,000	($761,584)	(34%)
Anderson Pacific Engineering Construction, Inc. (Santa Clara)	$1,513,100	($747,484)	(33%)
Myers and Sons Construction (Sacramento)	$1,900,000	($360,584)	(16%)
Engineer's Estimate	**$2,260,584**	---	---
Silman Construction (San Leandro)	$2,599,982	$339,398	15%

A total of four bids were received. The low bids may be attributed to the market adjustment factor that was added to the Engineer's Estimate to account for the current bidding climate in the Bay Area. The low bid submitted by Overaa is 34 percent under the Engineer's Estimate, which may reflect the lower mobilization and staffing costs they will incur as they have another upcoming project at RWF. Similarly, Anderson Pacific also has other projects ongoing at RWF.

Comparable Projects

To validate the bids, costs from other projects were compared to the bids for this project. As the largest component of this project is associated with the equipment costs for the bar screens, the proposed screen manufacturer (Duperon) was contacted to provide recent costs for similar equipment. As can be seen in Table 1, the bar screen costs for this project are comparable to other recent projects, including a previous bar screen replacement project at the RWF:

Table 1. Duperon Bar Screen Equipment Cost Information

Parameter	**Duperon Bar Screen Data**			
Project	San Jose, CA (2012 Project)	Willard, OH	Largo, FL	**San Jose, CA (This Project)**
Cost per Screen	$187,500	$204,000	$182,000	**$184,900**

An additional local data point on bar screen costs comes from East Bay Municipal Utility District's (EBMUD) Influent Screens Replacement Project, which purchased and installed five Duperon screens and washer compactors in 2013. On an adjusted per unit basis, the EBMUD project unit cost was approximately $354,000 per screen, including equipment, installation, and overhead costs, while the estimate for this Project is approximately $337,000 per screen on a total cost basis.

Staff Recommendation

Based on the above analysis, staff recommends award of contract to the low bidder, Overaa.

Construction contingencies for capital projects are established by Council Resolution No. 71319:

a. Five percent of the total contract amount for street, sidewalk or park projects;
b. 10 percent of the total contract amount for utilities and building projects;
c. 15 percent of the total contract amount for building renovation projects;
d. Such other amount as may be approved by the City Council for a particular project.

Staff recommends a 15 percent contingency for this Project to account for the challenge of maintaining continuous operations at the RWF during construction, in addition to complex project interfaces with existing electrical and process control facilities, potential utility conflicts, and other concurrent capital improvement projects underway by others.

Staff also recommends delegating authority to the Public Works Director to execute one or more change orders in excess of $100,000 for the duration of the Project, in a total not to exceed the contingency approved for the Project, and subject to other applicable limitations on the authority of the Director in the San José Municipal Code. Approval of these recommendations will provide funding for unanticipated work necessary for the proper and timely completion of the Project, and provide staff with the flexibility to efficiently respond to unforeseen or changed conditions for the duration of the Project.

EVALUATION AND FOLLOW-UP

No follow-up action with City Council is expected at this time. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee and the Council on a semiannual basis. Monthly progress reports of the RWF CIP will also be submitted to the Treatment Plant Advisory Committee (TPAC) and posted on the City's website.

PUBLIC OUTREACH

This Project was advertised on BidSync on March 8, 2017. This memorandum will be posted on the City's Council Agenda website for the May 23, 2017, City Council meeting.

COORDINATION

This Project and memorandum have been coordinated with the Departments of Planning, Building and Code Enforcement, Fire, and Finance, the City Attorney's Office, and the City Manager's Budget Office.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the May 18, 2017 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended May 23, 2017, City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the Council-approved focus on rehabilitating aging RWF infrastructure, improving efficiency, and reducing 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/COST OF PROJECT: $1,499,000

Project Delivery	$ 853,848*
Construction	1,499,000
Contingency (15%)	224,850
Total Project Costs	**$2,577,698**
Prior Year Expenditures	$197,240
Remaining Project Costs	**$2,380,458**

** Project delivery includes $393,617 for consultant design and construction support services, $83,942 for project management during feasibility and design, $43,000 for bid and award, $269,289 for construction management, and $64,000 for post construction and project closeout. The estimated project delivery cost is 57% of the construction cost and is in line with project delivery costs for capital projects in the range of $2 million at RWF and other wastewater facilities.*

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

   This is a lump sum contract. $1,499,000

3. SOURCE OF FUNDING: 512 – San José-Santa Clara Treatment Plant Capital Fund.

4. OPERATING COSTS: The annual costs to operate and maintain the upgraded facilities are not anticipated to impact the San José-Santa Clara Treatment Plant Operating Fund as this is an equipment replacement project, and therefore there will be no additional annual operations and maintenance costs.

5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the 2015-2016 Budget Adjustments for the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program memorandum, as approved by the City Council on March 22, 2016, the cost for this project, which falls under Preliminary Treatment, will be allocated 100 percent to Flow.

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contract recommended as part of this memorandum and remaining project costs, including project delivery, construction, and contingency costs. No additional funding sources are needed for this project.

Fund #	Appn #	Appn Name	Current Total Appn	Amt for Contract	2016-2017 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			$2,380,458			
Remaining Funding Available						
512	7448	Headworks Improvements	$3,577,000	$1,499,000	V – 153	10/18/2016, Ord. No. 29803

CEQA

Exempt, File No. PP13-039, CEQA Guidelines Section 15301, Existing Facilities. The San José-Santa Clara Regional Wastewater Facility Headworks Critical Improvements Project has received a Statement of Exemption because the work involves repair and/or replacement of mechanical equipment located within the fenced operations area of the RWF.

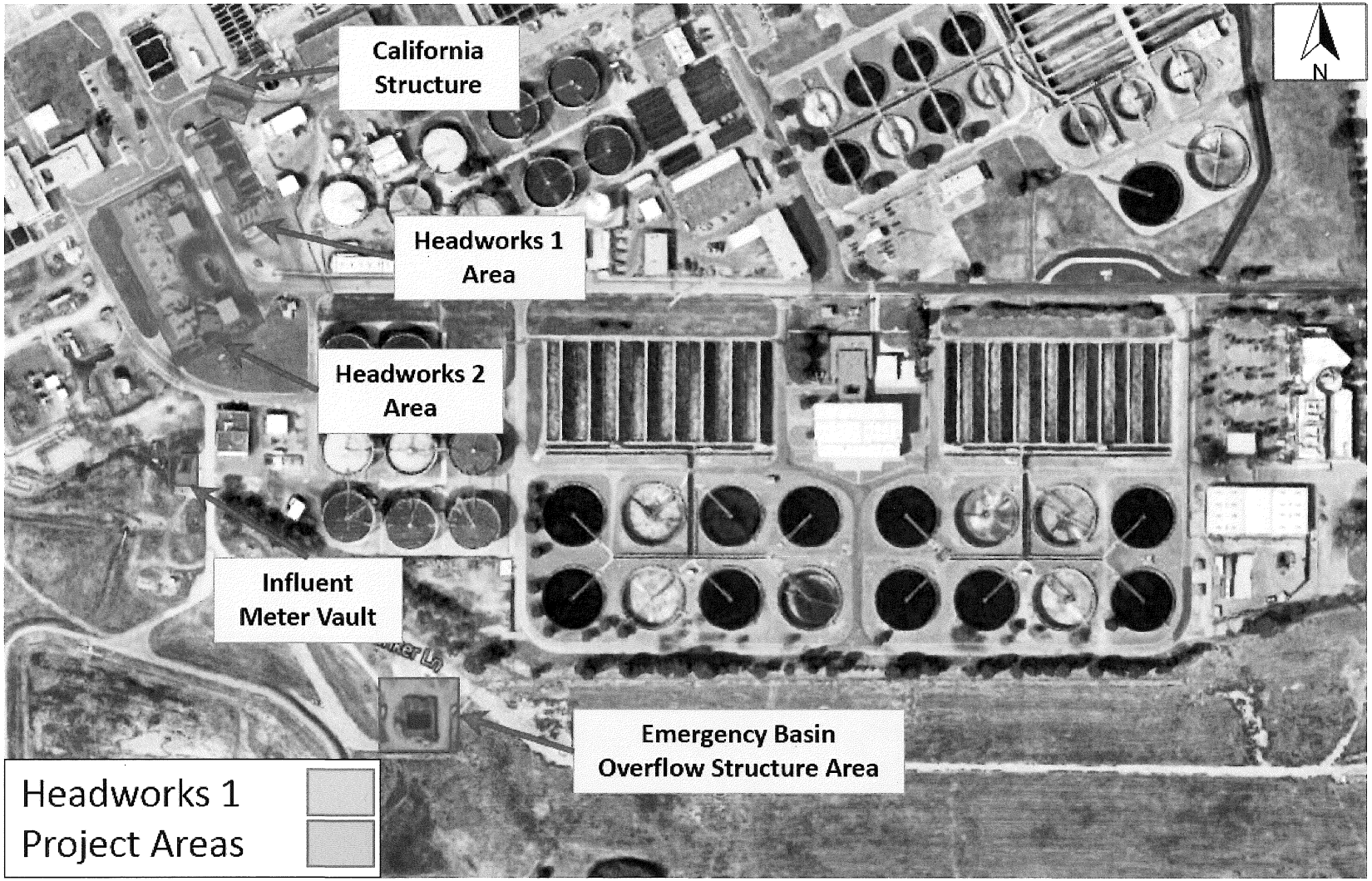
/s/
KERRIE ROMANOW
Director, Environmental Services Department

/s/
BARRY NG
Director, Public Works

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

Attachment A – Project Location Map

Attachment A
Headworks Critical Improvement Project
Location Map



San José-Santa Clara Regional Wastewater Facility

COUNCIL AGENDA: 05/23/17
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: April 26, 2017

Approved D-DSyL Date 5/11/17

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR 8332 – NITRIFICATION CLARIFIERS LIGHTING IMPROVEMENTS PROJECT RE-BID AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY.

RECOMMENDATION

(a) Reject all bids received and opened on February 2, 2017 for the Nitrification Clarifiers Lighting Improvements Project.

(b) Reports on bids and award of a construction contract for 8332 – Nitrification Clarifiers Lighting Improvements Project Re-bid to the sole bidder Boscacci, Inc. for the base bid in the amount of $500,000 and approval of a construction contingency of 15 percent in the amount of $75,000.

OUTCOME

Award of this construction contract will allow for the necessary work to complete the Nitrification Clarifiers Lighting Improvements Project (Project) at the San José-Santa Clara Regional Wastewater Facility[1]. Approval of a 15 percent contingency will provide funding for any unanticipated work necessary for the completion of the Project.

BACKGROUND

The walking area of the Nitrification Clarifiers at the San José-Santa Clara Regional Wastewater Facility (RWF) consists of walkways, sidewalks, and clarifier bridges. The existing nighttime

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

illumination, consisting of 30 pole-mounted luminaries is inadequate for worker safety in these areas.

In 2014-2015, a comprehensive assessment of the integrity of the light poles and bases was conducted, and various modification options for the lamp types and locations were analyzed. Based on photometric calculations and field assessments, it was determined that the existing illumination levels in the walking areas do not meet the levels required for adequate worker safety and proper working conditions at night. The results of the study indicated that Motion Activated Lighting (MAL) at each clarifier and Metal Halide (MH) lamps to provide brighter and more energy-efficient lighting at the stairs, walkways, and other areas of the clarifiers are needed.

Project Description

This Project will convert the existing High Pressure Sodium lamps to MH lamps, modify the existing light poles, and construct six new light poles. The improvements will result in a safer and more functional work environment.

Prior Bid Openings

The Nitrification Clarifiers Lighting Improvements Project was originally advertised for bid on January 4, 2017. A "Notice to Contractors" inviting qualified contractors to submit bids was posted on BidSync and San Jose Post Record. A total of four bid packages were received and opened on February 2, 2017.

The analysis of the bid packages indicated that three of the bidders submitted non-responsive bids which resulted in their rejection. The bid irregularities leading to the rejection included improper notarization of the non-collusion document; inadequate listing of previous completed projects; and missing required information in the schedule of quantities.

The only responsive and responsible bid package submitted came from the highest bidder, Blocka Construction, Inc. in the amount $974,600, which was 171 percent higher than the Engineer's Estimate, and deemed to be in excess of the reasonable cost analysis values.

Based on the above outcome, staff recommended that all bids be rejected. On March 8, 2017, a "Notice of Intent to Reject All Bids" was posted on BidSync notifying all the bidders about the results.

ANALYSIS

The Re-Bid process was initiated and a "Notice to Contractors" inviting qualified contractors to submit bids was posted on BidSync and San Jose Post Record on March 15, 2017. One bid package was received and opened on March 30, 2017 with the following results:

Contractor	City	Bid Amount	Variance Over / (Under) Amount	Percent
Engineer's Estimate	----	**$359,000**	----	-----
Boscacci, Inc.	Redwood City	$500,000	$141,000	39.3%

The only bid for this solicitation came from Boscacci, Inc. and is 39 percent higher than the Engineer's Estimate.

City staff analyzed the labor market and cost of materials of construction pertinent to this project. Market analysis is indicative of a historic boom in construction across Silicon Valley and the Bay Area. This is causing a major shortage of labor supply of skilled workers – especially the qualified electrical contractors. In addition, the prices of copper and copper products have shown a steady increase for the past 12 months.

City staff considers the amount of $500,000 reasonable for the work involved and recommends awarding the Nitrification Clarifiers Lighting Improvements Project to Boscacci, Inc.

Council policy provides for a standard contingency of 10 percent on public works projects of this nature to cover for unforeseen conditions that might be encountered during the actual work. Staff recommends for a contingency of 15 percent for this Project, due to the complications associated with the location, electrical conduits, and delicate processes that could be impacted by the shut-down required for the completion of the Project.

EVALUATION AND FOLLOW-UP

No subsequent Council action on this issue is necessary.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the Council Agenda of May 23, 2017. A public notice identifying the applicant was submitted to the City Clerk's Office in accordance with the San José Municipal Code section 9.10.1650.

COORDINATION

This project and memorandum have been coordinated with the Finance Department, the Public Works Department, the Planning, Building and Code Enforcement Department, the City Manager's Budget Office, and the City Attorney's Office.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the May 18, 2017 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended May 23, 2017 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

This project is consistent with the Council approved Budget Strategy to focus on rehabilitating aging Plant infrastructure and improving wastewater treatment efficiency. This Project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $500,000

Project Delivery	$138,859
Construction	$500,000
Contingency (15%)	$75,000
Total Project Costs	$713,859
Prior Year Expense	$80,044
Remaining Project Costs	$633,815

** Project delivery includes $49,044 for design, $31,000 for consultant construction support services, and $58,815 for construction management. The estimated project delivery cost is 28% of the construction cost, which is in line with project delivery costs for capital projects at other wastewater facilities.*

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

   This is a lump sum contract. $500,000

3. SOURCE OF FUNDING: 512 – San José-Santa Clara Treatment Plant Capital Fund.

4. OPERATING COSTS: This contract will have no additional impact on the San-José-Santa Clara Treatment Plant Operating Fund (Fund 513) or the General Fund.

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

BUDGET REFERENCE

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

Fund #	Appn #	Appn Name	Current Total Appn	Amt for Contract	2016-2017 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			**$633,815**			
512	5690	Plant Infrastructure Improvements	$1,368,000	$500,000	V – 172	06/21/2016 29762

CEQA

Exempt, File No. PP16-125, CEQA Guidelines Section 15301, Existing Facilites.

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

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

COUNCIL AGENDA: 05/23/17
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: April 26, 2017

Approved D-DSyL Date 5/9/17

SUBJECT: 8251 - MASTER CONSULTANT AGREEMENT WITH SCA ENVIRONMENTAL, INC. FOR INDUSTRIAL HYGIENIST SERVICES AT THE SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

Approve a Master Consultant Agreement with SCA Environmental, Inc. to provide industrial hygienist services for the Capital Improvement Program at the San José-Santa Clara Regional Wastewater Facility from the date of execution through June 30, 2024, in a total amount not to exceed $500,000, subject to the appropriation of funds.

OUTCOME

Approval of the master consultant agreement with SCA Environmental, Inc. (SCA) provides the City with the ability to obtain as-needed industrial hygienist services for projects in the Capital Improvement Program (CIP) at the San José-Santa Clara Regional Wastewater Facility[1] (RWF). Approval of this master consultant agreement will not result in any physical changes to the environment, as the City Council will need to take additional actions before construction commences on any project.

BACKGROUND

Staff wishes to engage an industrial hygienist consultant to provide hazard material investigation, testing and reporting for hazardous materials (asbestos, lead, mold, and industrial hygiene).

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[1] *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.*

The consultant is also needed to prepare specifications, design, implementation plan, cost estimates, and monitoring plans prior to project bidding, and monitor contractor compliance during construction for upcoming CIP projects.

To meet state and local assessment, construction, and remediation requirements, the industrial hygienist consultant is needed to provide extensive knowledge and experience with the California Air Resources Board's (CARB's) – Asbestos Airborne toxic Control Measure (ATCM) for construction, grading, quarrying, and surface mining operations and the Bay Area Air Quality Management District (BAAQMD) Rule 11 standards. These services will assist the City to meet compliance with federal, state, and local environmental protection regulations, and to reduce the risk of hazards to human health and the environment.

These services will need to be applied systematically and consistently across all CIP projects, and procurement of a specialist will allow this to happen efficiently and effectively. Two key CIP projects that will specifically benefit from these services include the Support Buildings Improvements Project and Tunnel Rehabilitation Project as described below.

Most of the buildings at the RWF are between 30 and 60 years old, and are in need of refurbishment, replacement, and/or upgrade. The buildings range in size from 1,440 square feet to 31,600 square feet with a combined total estimated floor area of approximately 180,000 square feet. Building components for the Support Building Improvements Project will need to be tested for hazardous materials before construction upgrades can begin. This includes the building walls, ceiling, flooring, roofing, wall paints, building equipment pipes and their insulation.

In addition, 70 percent of the pipes in the tunnels at the RWF are more than 25 years old, with some over 50 years of age. The pipes sizes range from 24 to 96 inches, and some of the coating may contain asbestos. It will be important to have a specialist that is able to test the existing conditions in the tunnels' pipes to verify that there is no exposure of hazardous materials during the Tunnel Rehabilitation Project.

ANALYSIS

On October 31, 2016, the City issued a Request for Qualifications (RFQs), seeking consultant services from firms qualified to provide industrial hygienist services for the RWF CIP. A non-mandatory pre-proposal conference and site tour was held on November 9, 2016. A total of six firms attended the event.

The City received two responsive Statements of Qualifications (SOQs) by the December 12, 2016 submittal deadline from the following firms:

- SCA Environmental, Inc. (SCA); and
- Millennium Consulting Associates. (Millennium)

A technical evaluation panel was established to review and score the SOQs, consisting of staff from the Department of Public Works and Environmental Services Department. Evaluations of the SOQs were based on the following criteria and scoring:

Description	Points
Responsiveness	Pass
Expertise	12.0
Experience	45.0
Approach	23.0
Cost Form	10.0
Local Business Enterprise (LBE)	8.0
Small Business Enterprise (SBE)	8.0
Interview	54.0
TOTAL	**160.0**

Based on the scoring of the SOQs, both firms were invited to an oral presentation and interview.

The final rankings and rounded points following the oral presentation and interviews are as follows.

Rank	Consultant	Expertise	Experience	Approach	Cost	LBE	SBE	Interview	Total
1	SCA	9.8	38.5	19.0	7.8	0.0	0.0	49	124.1
2	Millennium	10.3	34.5	19.3	10	0.0	0.0	49	123.1

In accordance with City policy, 10 percent of the total evaluation were assigned for local and small business enterprise status. Neither of the interviewed firms qualified for the LBE status or the SBE status.

Award Recommendation

Staff recommends awarding a master consultant agreement to the top-ranked firm, SCA, for the amount not to exceed $500,000. SCA offered a project team with depth and breadth of expertise, and with extensive experience in providing similar services at other industrial facilities and wastewater treatment facilities.

Professional services to be provided under this master agreement may include, but are not limited to:

- Assess existing conditions and test for hazardous materials
- Provide field testing services
- Prepare construction specifications; remediation, compliance, and safety plans
- Monitor contractor compliance with applicable procedures and disposal measures

Individual service orders for these services will be negotiated and authorized under the master consultant agreement.

SCA's compensation will be based on its employees' actual hourly wages (i.e., its direct labor cost) times a multiplier of 2.89. The multiplier will not change during the term of the master agreement. The multiplier is based on an independent auditor's financial report, and in addition to SCA's direct labor cost, covers all SCA's overhead (e.g., fringe benefits, payroll taxes, group insurance, building/rental expenses, etc.), associated project cost (e.g., computer equipment, network and telecommunications expenses, routine printing and copying, etc.), and profit, limited to 10 percent, under the master agreement.

The term of agreement will be from the date of execution through June 30, 2024.

EVALUATION AND FOLLOW-UP

No additional follow-up action with the City Council is expected at this time. All service orders issued under this master consultant agreement, over $100,000 in value, will be reported to the Treatment Plant Advisory Committee (TPAC) on the monthly summary of procurement and contract activity. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee and the City Council on a semiannual basis. Monthly progress reports of the RWF CIP will also be submitted to TPAC and posted on the City's website.

POLICY ALTERNATIVES

Alternative #1: Do not award the master consultant agreement and direct City Staff to provide the required services with in-house resources.
Pros: This project would give staff an opportunity to gain knowledge of buildings and tunnels component conditions of where the hazardous materials are located.
Cons: Staff does not have the certifications required to perform the work.
Reason for not recommending: This project requires specialized experience and expertise in field investigation, testing, reporting, and preparation of specifications, and abatement design and implementation, cost estimates of implementation, and monitoring plans for project prior of project biding, and monitor as a third party consultant during construction.

PUBLIC OUTREACH

The Request for Qualifications (RFQ) was advertised on BidSync on October 31, 2016. This memorandum will be posted on the City's website for the May 23, 2017 City Council Meeting Agenda. This item is scheduled to be heard at the May 18, 2017 TPAC meeting.

COORDINATION

This project and memorandum has been coordinated with the City Manager's Budget Office, the Finance Department, and the City Attorney's Office.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the May 18, 2017 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended May 23, 2017 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

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

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: $500,000

2. COST ELEMENTS OF MASTER AGREEMENT: The consultant's services are reimbursed on actual hourly wages times a multiplier, and will not change during the term of the master agreement. The firms are also compensated for pre-approved subcontractors, laboratories and vendors, as well as certain reimbursable expenses.

3. SOURCE OF FUNDING: 512 - San José-Santa Clara Treatment Plant Capital Fund.

4. FISCAL IMPACT: This project 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) or the General Fund.

5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), the cost for programmatic services will be allocated between the four billable parameters relative to the rolling weighted average distribution of all RWF assets. For services performed for a project, the cost will be allocated per the allocations for that project.

BUDGET REFERENCE

Services performed by the Consultant under this agreement will be authorized by service orders. An appropriation is not required for execution of this master consultant agreement, but is required for each service order authorized under this agreement. There is sufficient funding in the San José-Santa Clara Treatment Plant Capital Fund in the 2016-2017 Adopted Capital Budget across the various projects and appropriations to provide for any service orders that would be issued this fiscal year. 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. PP10-066(d), Agreements & Contracts, 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
Director, Environmental Services

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

Attachment: Project Map

ATTACHMENT: PROJECT MAP