

SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

SAM LICCARDO, CHAIR
PAT KOLSTAD, VICE CHAIR
LAN DIEP, MEMBER
DAVID SYKES, MEMBER
DEV DAVIS, MEMBER

MARSHA GRILLI, MEMBER
DEBI DAVIS, MEMBER
STEVEN LEONARDIS, MEMBER
JOHN GATTO, MEMBER

AMENDED AGENDA/TPAC

4:00 p.m.

September 13, 2018

Room 1734

1. **ROLL CALL**

2. **APPROVAL OF MINUTES**

A. June 14, 2018

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

4. **DIRECTOR'S REPORT**

A. Director's Report (verbal)

- Monthly Progress Reports for the months of May, June and July.

5. **AGREEMENTS/ACTION ITEMS**

A. Purchase of California Carbon Allowances

Staff Recommendation:

Adopt a Resolution authorizing the City Manager to negotiate and execute an agreement between the City of San José and Vitol, Inc., for the purchase of California Carbon Allowances for the San José-Santa Clara Regional Wastewater Facility (RWF) to fulfill the compliance obligation under the California Cap-and-Trade Program, for an amount of \$295,728.00.

This item is scheduled for consideration by the City Council on September 25, 2018.

B. Actions Related to Purchase Orders for Hazardous Fluid Waste Recycling, Disposal, and Related Services

Staff Recommendation:

Adopt a resolution authorizing the City Manager to:

1. Execute two Purchase Orders with Safety-Kleen Systems, Inc. (Norwell, MA) for hazardous fluid waste recycling, disposal, and related services, including all labor, material, and equipment necessary to perform such services, for the Departments of Public Works and Environmental Services for an initial twelve-month period beginning on or about September 19, 2018 and ending September 30, 2019 in a combined amount not to exceed of \$145,000;
2. Approve a contingency of \$30,000 to amend purchase orders as required during the initial term in the event actual service needs exceed estimates, subject to the appropriation of funds; and
3. Execute purchase orders for up to four additional one-year option terms to extend the services through September 30, 2023, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on September 18, 2018.

C. Approval of Citywide Insurance Renewals

Staff Recommendation:

Adopt a resolution authorizing the Director of Finance to select and purchase City property and liability insurance policies for the period October 1, 2018 to October 1, 2019, at a total cost not to exceed \$1,850,000, including a 15% contingency for additional property or assets scheduled, with the following insurance carriers:

(1) Factory Mutual Insurance Company for Property Insurance, including Boiler & Machinery

(2) Old Republic Aerospace, Phoenix Aviation Managers, for Airport Owners and Operators Liability including War Risks & Extended Perils Coverage (including Excess Automobile and Employers' Liability) and Police Aircraft Hull & Liability including War Risks & Extended Perils Coverage.

(3) The Travelers Indemnity Company of Connecticut for Automobile Liability (Airport fleet vehicles including Shuttle Buses, Regional Wastewater Facility fleet vehicles, and Airport Shuttle Bus physical damage).

(4) QBE Specialty Insurance Company for Secondary Employment Law Enforcement Professional Liability.

(5) National Union Fire Insurance Company of Pittsburg, PA for Accidental Death, Accidental Dismemberment, and Paralysis Policy for the Police Air Support Unit.

(6) Berkley Regional Insurance Company for Government Fidelity/Crime Coverage.

This item is scheduled for consideration by the City Council on September 18, 2018.

D. Wildlife Habitat at the San José- Santa Clara Regional Wastewater Facility

Staff Recommendation:

Accept this report highlighting established wildlife habitat at the San José-Santa Clara Regional Wastewater Facility, and ongoing habitat management activities for the Western Burrowing Owl.

This item will be considered by the Transportation and Environment Committee on September 10, 2018, and is scheduled to be considered by the City Council at a later date.

E. Master Service Agreement with HydroScience Engineers, Inc. for Engineering Support and Services for the San José/Santa Clara Regional Wastewater Facility

Staff Recommendation:

1. Approval of Master Service Agreement with HydroScience Engineers, Inc. for engineering support and services for the San José/Santa Clara Regional Wastewater Facility (Facility) for various operation and maintenance (O&M) projects requiring engineering support and services on an as-needed basis for an initial term starting from the date of execution to June 30, 2019, for a maximum compensation of \$500,000 during the initial term, subject to the annual appropriation of funds.
2. Adoption of a resolution authorizing the City Manager to exercise up to three twelve-month options to extend the term through June 30, 2022, for an amount not to exceed \$500,000 for each option term; and to amend the Agreement to adjust the compensation to reflect changes in support service needs, provided the total aggregate amount does not exceed \$2,000,000 for the full term, subject to the annual appropriation of funds.

This item is scheduled for consideration by the City Council on September 25, 2018.

6. **OTHER BUSINESS/CORRESPONDENCE**

- A. Information Memo on Amended and Restated Design-Build Contract for Design and Construction of the Cogeneration Facility at the San José-Santa Clara Regional Wastewater Facility.

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

- A. 8753 – Master Consultant Agreements With Construction Testing Services, Inc.; Signet Testing Labs, Inc.; And Consolidated Engineering Labs For Special Inspection And Materials Testing Services For The San José-Santa Clara Regional

Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve Master Consultant Agreements with Construction Testing Services, Inc.; Signet Testing Labs, Inc.; and Consolidated Engineering Labs for special inspection and materials testing services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility, from the date of execution through December 31, 2023, in a total amount not to exceed \$3,000,000 for each agreement, subject to the appropriation of funds.

The proposed recommendation was approved by the City Council on June 19, 2018.

B. Recycling Program Approval of A Design-Build Contract With Ch2m Hill Engineers, Inc. For The Headworks Project At The San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

1. Adopt a resolution adopting the Addendum to the Environmental Impact Report for the San José-Santa Clara Regional Wastewater Facility in accordance with the California Environmental Quality Act (CEQA), as amended, and adopting a related Mitigation Monitoring and Reporting Program.
2. Approve the design-build contract with CH2M Hill Engineers, Inc. for the Headworks Project at the San José-Santa Clara Regional Wastewater Facility in an amount not to exceed \$5,666,354 for the performance of preliminary services under the contract.
3. Approve a design contingency in the amount of \$566,635 for City-approved changes to the scope of preliminary services.
4. Adopt a resolution authorizing the City Manager or his designee to:
 - a. Negotiate and execute a separate amendment to the contract to allow CH2M Hill Engineers, Inc. to proceed with subsurface investigations prior to the City's execution of the definitive contract amendment in an amount not to exceed \$1,000,000;
 - b. Approve a construction contingency in the amount of \$1,000,000 for City-approved changes to the scope of the subsurface investigations.
 - c. Execute change orders in excess of \$100,000 up to the amount of the approved contingency for changes to the scope of the preliminary services work or subsurface investigations.

The proposed recommendation was approved by the City Council on June 19, 2018.

C. Report On Bids And Award Of Contract For 8684– Pond A18 South Gate Levee Repair

Staff Recommendation:

Report on bids and award of a construction contract for 8684 Pond A18 South Gate Levee Repair to the apparent low bidder Sweetwater Construction, Inc. for the base bid in the amount of \$217,493 and approval of a construction contingency of 15 percent in the amount of \$32,624.40.

The proposed recommendation was approved by the City Council on June 19, 2018.

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 \$1.17 million and of services between \$100,000 and \$290,000 for the months of June, July and August.

9. MISCELLANEOUS

A. The next monthly TPAC Meeting is on **October 11, 2018, at 4:00 p.m.**, City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

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

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please contact Eva Roa (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 bod

**MINUTES OF THE SAN
JOSÉ/SANTA CLARA
TREATMENT PLANT ADVISORY COMMITTEE**

San José City Hall, T-1734
Thursday, June 14, 2018 at 4:00 p.m.

1. ROLL CALL

Minutes of the Treatment Plant Advisory Committee convened this date at 4:03p.m. Roll call was taken with the following members in attendance:

Committee Members: Debi Davis, Dev Davis, Lan Diep, John Gatto, Steven Leonardis, Dave Sykes, Kathy Watanabe (alternate), Marsha Grilli (4:06 p.m.), Sam Liccardo (4:10 p.m.)

Due to Chairman Liccardo's and Vice-Chair Kolstad's absence, Committee Member Debi Davis was Chair until Chairman Liccardo was present at 4:10p.m.

2. APPROVAL OF MINUTES

A. May 17, 2018

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

Ayes – 6 (Debi Davis, Dev Davis, Lan Diep, Steven Leonardis, Dave Sykes, Kathy Watanabe (alternate))

Nays – 0

Absent – 2 (Liccardo, Grilli)

Abstain – 1 (Gatto)

B. June 4, 2018

Item 2.B. was approved to note and file.

Ayes – 6 (Debi Davis, Lan Diep, John Gatto, Steven Leonardis, Dave Sykes, Kathy Watanabe (alternate))

Nays – 0

Absent – 2 (Liccardo, Grilli)

Abstain – 1 (Dev Davis)

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. **DIRECTOR'S REPORT**

A. Director's Report (verbal)

- Monthly Progress Report

Assistant Director Napp Fukuda was introduced to the Committee by Committee Member Dave Sykes and was present for any questions regarding the included Monthly Report included in the TPAC packet.

5. **AGREEMENTS/ACTION ITEMS**

A. 8753 – Master Consultant Agreements With Construction Testing Services, Inc.; Signet Testing Labs, Inc.; And Consolidated Engineering Labs For Special Inspection And Materials Testing Services For The San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve Master Consultant Agreements with Construction Testing Services, Inc.; Signet Testing Labs, Inc.; and Consolidated Engineering Labs for special inspection and materials testing services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility, from the date of execution through December 31, 2023, in a total amount not to exceed \$3,000,000 for each agreement, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on June 19, 2018.

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

Ayes – 8 (Debi Davis, Dev Davis, Lan Diep, Marsha Grilli, Steven Leonardis, Sam Liccardo, Dave Sykes, Kathy Watanabe (alternate))

Nayes – 0

Absent – 1 (Liccardo)

Abstain – 1 (Gatto)

B. Approval of A Design-Build Contract With Ch2m Hill Engineers, Inc. For The Headworks Project At The San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

1. Adopt a resolution adopting the Addendum to the Environmental Impact Report for the San José-Santa Clara Regional Wastewater Facility in accordance with the California Environmental Quality Act (CEQA), as amended, and adopting a related Mitigation Monitoring and Reporting Program.
2. Approve the design-build contract with CH2M Hill Engineers, Inc. for the Headworks Project at the San José-Santa Clara Regional Wastewater Facility in an amount not to exceed \$5,666,354 for the performance of preliminary services under the contract.
3. Approve a design contingency in the amount of \$566,635 for City-approved changes to the scope of preliminary services.
4. Adopt a resolution authorizing the City Manager or his designee to:
 - a. Negotiate and execute a separate amendment to the contract to allow CH2M Hill Engineers, Inc. to proceed with subsurface investigations prior to the City's execution of the definitive contract amendment in an amount not to exceed \$1,000,000;
 - b. Approve a construction contingency in the amount of \$1,000,000 for City-approved changes to the scope of the subsurface investigations.
 - c. Execute change orders in excess of \$100,000 up to the amount of the approved contingency for changes to the scope of the preliminary services work or subsurface investigations.

This item is scheduled for consideration by the City Council on June 19, 2018.

Program Manager Colin Page presented.

Committee Member Gatto had a question regarding the process which Colin then answered.

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

Ayes – 9 (Debi Davis, Dev Davis, Lan Diep, John Gatto, Marsha Grilli, Steven Leonardis, Sam Liccardo, Dave Sykes, Kathy Watanabe(alternate))
Nayes – 0

C. Report On Bids And Award Of Contract For 8684– Pond A18 South Gate Levee Repair

Staff Recommendation:

Report on bids and award of a construction contract for 8684 Pond A18 South Gate Levee Repair to the apparent low bidder Sweetwater Construction, Inc. for the base bid in the amount of \$217,493 and approval of a construction contingency of 15 percent in the amount of \$32,624.40.

This item is scheduled for consideration by the City Council on June 19, 2018.

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

Ayes – 9 (Debi Davis, Dev Davis, Lan Diep, John Gatto, Marsha Grilli, Steven Leonardis, Sam Liccardo, Dave Sykes, Kathy Watanabe(alternate))
Nayes – 0

6. OTHER BUSINESS/CORRESPONDENCE

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

- A. Report On Bids And Award Of Construction Contract For 7757 – Advanced Facility Control And Meter Replacement - Phase 1 Project At The San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

- (a) Report on bids and award of a construction contract for 7757- Advanced Facility Control and Meter Replacement - Phase 1 Project to the low bidder, C. Overaa & Co., for the base bid and Add Alternate Nos. 1 to 4, in the amount of \$5,790,000, and approve a 20 percent construction contingency in the amount of \$1,158,000.

- (b) 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.

The proposed recommendation was approved by the City Council on May 22, 2018.

B. Five- Year 2019-2023 Proposed Capital Improvement Program

Staff Recommendation:

Staff Recommendation: TPAC approval of the San José/Santa Clara Regional Wastewater Facility Proposed Five-Year 2019-2023 Capital Improvement Program.

The proposed recommendation was approved by Council on May 22, 2018 and adopted on June 19, 2018.

C. 8641– South Bay Water Recycling Pump Station HVAC Project

Staff Recommendation:

Report on bids and award of contract for the 8641 - South Bay Water Recycling Pump Station Heating, Ventilation, and Air Conditioning Project to the low bidder, Blocka Construction Inc., in the amount of \$406,000 and approve a contingency in the amount of \$40,600.

The proposed recommendation was approved by the City Council on May 22, 2018.

D. Discharge Regulations and Future Impacts on the San José- Santa Clara Regional Wastewater Facility

Staff Recommendation:

Accept the 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 May 7, 2018, and is scheduled to be considered by the City Council at a date to be determined.

E. 2018-2019 Proposed Operating Budget

Staff Recommendation:

TPAC approval of the San José/Santa Clara Regional Wastewater Facility Proposed Operating Budget.

The proposed recommendation was approved by the City Council on June 12, 2018 and adopted on June 19, 2018.

F. Construction Contingency Increase for the 7382- Digester and Thickener Facilities Upgrade Project at the San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

- (a) Approve a \$25,000,000 increase to the construction contingency amount of \$28,490,625 for a revised total contingency amount of \$53,490,625 and increasing the contract not-to-exceed amount from \$136,415,625 to a total revised contract amount not-to-exceed \$161,415,625 for the 7382 – Digester and Thickener Facilities Upgrade Project.
- (b) Adopt the following 2017-2018 Appropriation Ordinance Amendments in the San José- Santa Clara Treatment Plant Capital Fund:
 - (1) Decrease the Aeration Tanks and Blower Rehabilitation appropriation to the Environmental Services Department by \$18,000,000;
 - (2) Decrease the Urgent and Unscheduled Treatment Plant Rehabilitation appropriation to the Environmental Services Department by \$4,500,000;
 - (3) Decrease the Advanced Facility Control and Meter Replacement appropriation to the Environmental Services Department by \$4,000,000; and
 - (4) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department by \$26,500,000.

The proposed recommendation was approved by the City Council on June 12, 2018.

Items 7.A., 7.B., 7.C., 7.D., 7.E. and 7.F. were approved to note and file.

Ayes – 9 (Debi Davis, Dev Davis, Lan Diep, John Gatto, Marsha Grilli, Steven Leonardis, Sam Liccardo, Dave Sykes, Kathy Watanabe(alternate))

Nays – 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 \$1.17 million and of services between \$100,000 and \$290,000.

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

Ayes – 9 (Debi Davis, Dev Davis, Lan Diep, John Gatto, Marsha Grilli, Steven Leonardis, Sam Liccardo, Dave Sykes, Kathy Watanabe(alternate))

Nays – 0

9. MISCELLANEOUS

A. The next TPAC Meeting is on **August 9, 2018, at 4:00 p.m.**, City Hall, Room 1734.

10. OPEN FORUM

Mr. Dean Stanford spoke regarding a proposal for a Zero-Emission Multi-Use Public Park Project. He passed out a handout that gave information regarding the project. Chairman Liccardo asked that at a future TPAC meeting, staff provide an update on the land use constraints of the Facility bufferlands. Committee Alternate Watanabe stated she had spoken to Mr. Stanford and was supportive and interested in learning more. Chairman Liccardo interjected and stated that TPAC could not discuss this item since it was not on the Agenda, and to have further discussion would require putting this item on a future Agenda.

11. ADJOURNMENT

A. The Treatment Plant Advisory Committee adjourned at 4:16 p.m.

Sam Liccardo, Chair

TREATMENT PLANT ADVISORY COMMITTEE



San José-Santa Clara
Regional Wastewater Facility

Capital Improvement Program Monthly Status Report: May 2018

July 5, 2018

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for May 2018.

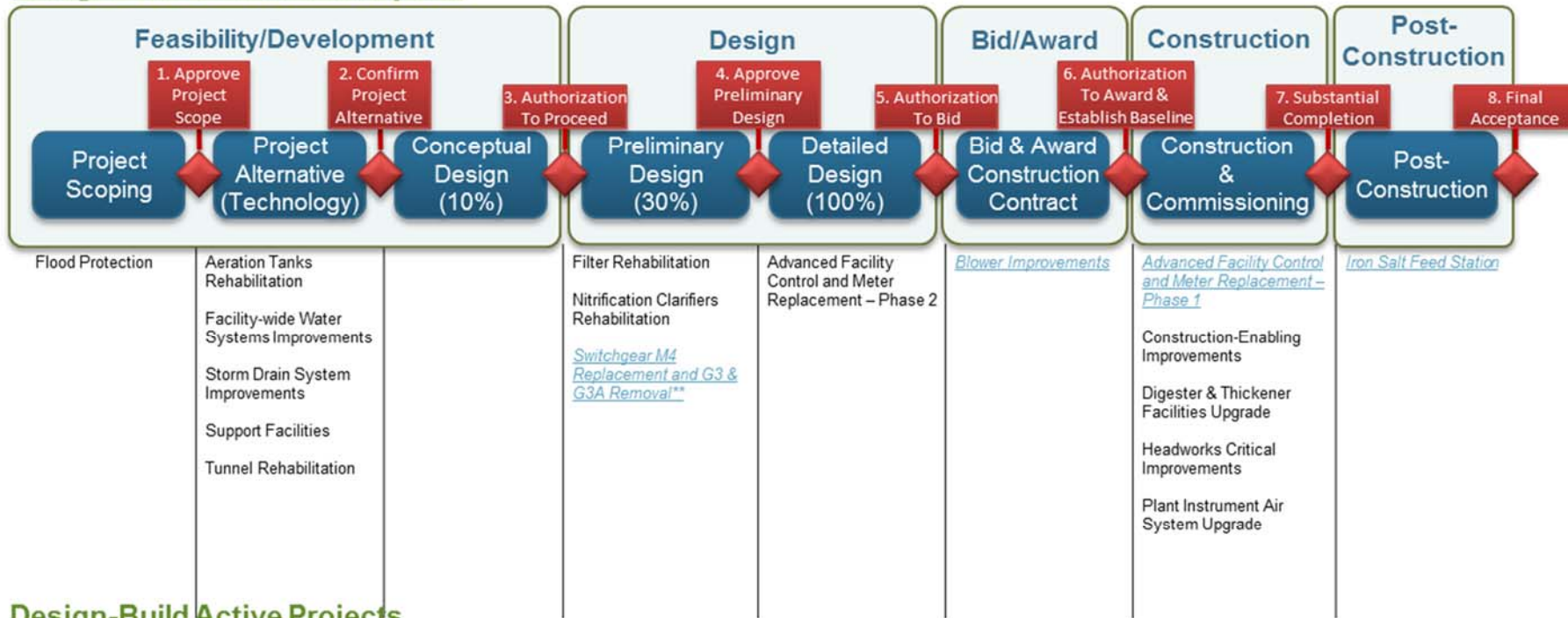
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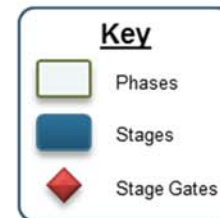
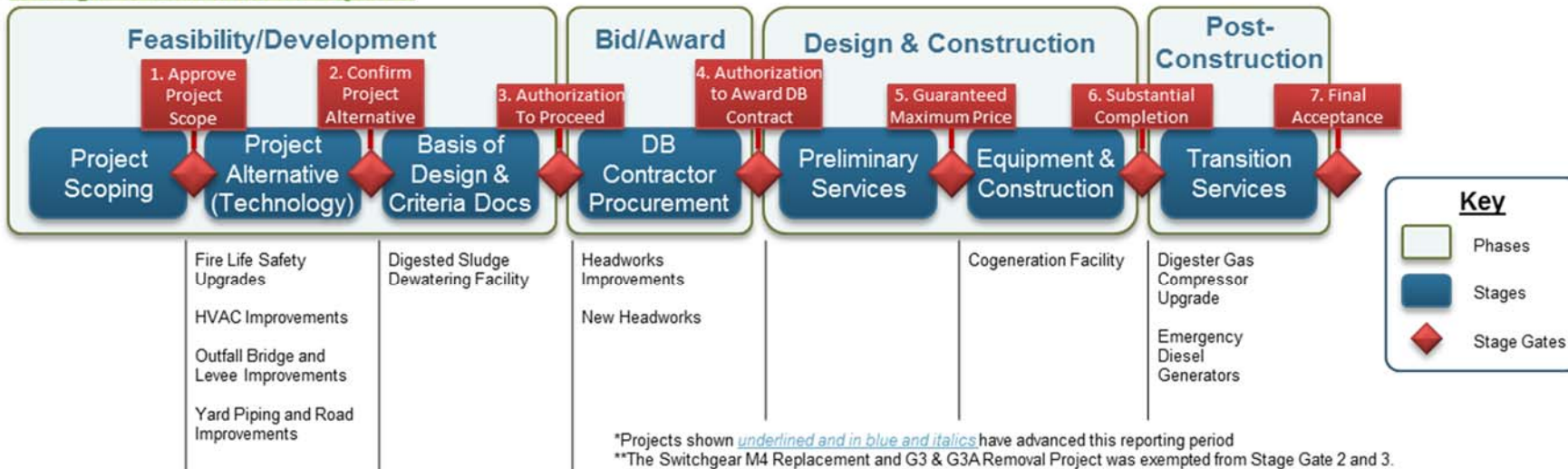


Project Delivery Model

Design-Bid-Build Active Projects



Design-Build Active Projects



Program Summary

May 2018

In May, the City advanced the Blower Improvements Project through the Project Delivery Model (PDM) stage gate process (Stage Gate 5 – Authorization To Bid) and anticipates issuing construction bid documents for this project in June 2018. The City also received Statements of Qualifications (SOQs) for the Digested Sludge Dewatering Facility Project. In addition, the Treatment Plant Advisory Committee (TPAC) and City Council (Council) approved award of the Advanced Facility Control and Meter Replacement – Phase 1 Project construction contract and accepted an annual update report on Discharge Regulations and Future Impacts on the RWF. The City also executed the Definitive Contract Amendment (DCA) for the Cogeneration Facility Project, which represents a major milestone for the CIP's first progressive design-build project. The project is profiled on page 13 of this report.

The City completed the condition assessment of the outfall flowmeters, bridge, and weir structures at the RWF and commenced evaluating alternative project solutions as part of the Outfall Bridge and Levee Improvements Project. The City also completed hazardous materials testing for the Filter Rehabilitation Project and will reach the 30% design milestone on this project in June 2018.

The Iron Salt Feed Station Project contractor successfully completed operational testing of the new ferric chloride and polymer dosing facilities and achieved Beneficial Use. The Headworks Critical Improvements Project contractor successfully completed operational testing of the new headworks bar screens and Emergency Basin Overflow Structure facilities. The contractor will now complete all outstanding work associated with the headworks electrical disconnections before achieving Beneficial Use. The Plant Instrument Air System Upgrade Project contractor completed all connections and initial testing of the new air compressor system and will commence full operational testing in June 2018. The Cogeneration Facility Project design-builder continued early site work, completing sections of the new foundation slabs and under-slab electrical duct banks, and continued to develop the design past the 90 percent design milestone reached last month. The Digester and Thickener Facilities Upgrade Project contractor started full-time operation of a temporary pumping and pipeline system to allow the replacement of the corroded 78-inch settled sewage pipeline to begin. Construction also continued on the sludge screening building, dissolved air flotation thickeners, above-ground pipe-rack, and digester tanks and construction progress is now approximately 50% complete for the entire project.

Look Ahead

The following key activities are forecast for June and July of 2018:

- The project team will seek stage gate approval for the Aeration Tanks Rehabilitation Project: Stage Gate 2: Confirm Project Alternative;
- The City will shortlist design-build (DB) entities for the Digested Sludge Dewatering Facility Project;
- The Cogeneration Facility Project design-builder will conduct factory acceptance testing of the new cogeneration engines;
- The Filter Rehabilitation Project and Nitrification Clarifiers Rehabilitation Project teams will complete the 30 percent design and perform a value engineering study;
- The Headworks Critical Improvements, Plant Instrument Air System Upgrade, and Construction-Enabling Improvements projects will reach Beneficial Use; and
- Staff will make the following recommendations to TPAC and Council: (1) approve and adopt the Proposed 2019-2023 CIP; (2) award three special inspection master consulting agreements for various CIP projects; (3) award the Headworks Project design-build contract; and (4) approve the Digester & Thickener Facilities Upgrade Project construction contingency increase.



Program Highlight – Process Engineering

The Process Engineering (PE) group is based at the RWF and consists of one senior engineer, three associate engineers and three sanitary engineers. The PE group serves two important roles at the RWF. The first of these roles is to provide engineering support to Operations and Maintenance (O&M) in the form of process monitoring, optimization, troubleshooting, evaluation, and reporting. The second role is to support the CIP implementation by providing support to project managers in the form of design reviews, process data support, process piloting, and start-up/post-construction verification. Figure 1 illustrates these dual roles. Below are some examples of the support PE provides.

Operations and Maintenance Support

An example of PE operations support is the bench-scale and full-scale Nitrifier Survival Study. Nitrifiers are microorganisms that transform ammonia in wastewater into nitrate. Ammonia is toxic to fish, but this is not the case for nitrate. The RWF's National Pollutant Discharge Elimination System (NPDES) permit requires removal of ammonia to below 3 mg/L. Repairs to aeration process equipment sometimes require temporary shutdown of the aeration reactors, which convert ammonia to nitrate. For the aforementioned reasons, it was needed to know whether such a temporary shutdown would impact the nitrifiers' survival and the ammonia-to-nitrate conversion process. Through bench-scale and full-scale studies, PE found that it would be possible to shut down the aerators for up to six hours without negatively impacting nitrifier survival and NPDES regulatory compliance.

CIP Support

The Filter Column Pilot Study, now underway, is an example of PE's CIP support. As part of the Filter Rehabilitation Project, the PE group was tasked with conducting a study to identify an optimal filter media configuration for the full-scale rehabilitated filters. The desired configuration will improve tertiary filtration efficiency by extending the filter runtime and increasing the filtered water production per filter run, while also producing excellent quality filter effluent. PE designed the study set-up, worked with RWF Maintenance to build the pilot set-up and will work with RWF Operations to conduct the pilot study. Study results will be used for the project's filter media replacement work. This is a good example of a project where many groups at the RWF collaborate for the success of the project.

Another example would be the introduction of a Chemically Enhanced Primary Treatment (CEPT) process in which small doses of chemical compounds are added to wastewater in order to increase the operating efficiency of sedimentation basins. The environmentally safe chemicals cause the suspended particles to clump together via the processes of coagulation and flocculation. PE conducted a series of jar tests in 2009 and then completed a full-scale CEPT study in 2011 demonstrating multiple performance and cost benefits. The findings and experience gained during the 2011 study were used in the design of the Iron Salt Feed Station Project. Now that the Iron Salt Feed Station is operational, PE will conduct a one-year study to monitor and optimize the CEPT system performance.

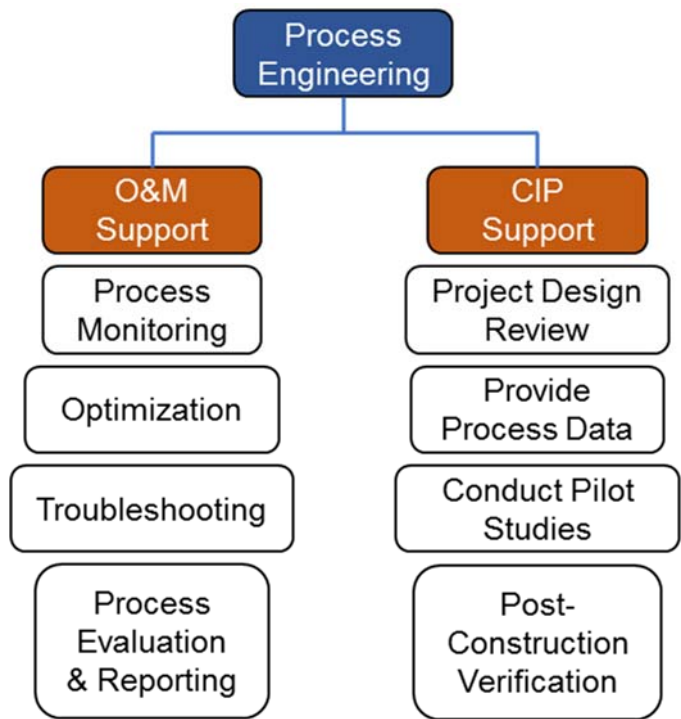


Figure 1: PE support to O&M and CIP

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 that best reflect the current program will be selected and measured. KPIs have been reset for the current fiscal year.

Program Key Performance Indicators – Fiscal Year 2017-2018

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	80%	100%			100%		
		16/16 ¹			16/16 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%	0%			0%		
		0/2 ³			0/2 ⁴		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. ⁵ Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	67%			67%		
		2/3			2/3 ⁶		
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. ⁵ Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure	\$247M	\$200M			\$308M ⁷		
Measurement: CIP FY17-18 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of \$354M = \$247M. Therefore Green: >=\$247M; Amber: \$194M to \$247M; Red: < \$194M							
Procurement	80%	100%			100%		
		3/3			4/4		
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							
Staffing⁸	80%	100%			100%		
		15/15			15/15		
Measurement: Number of planned positions filled for the fiscal year. Target: Green: >= 80%; Amber: 70% to 79%; Red: < 70%							

Notes

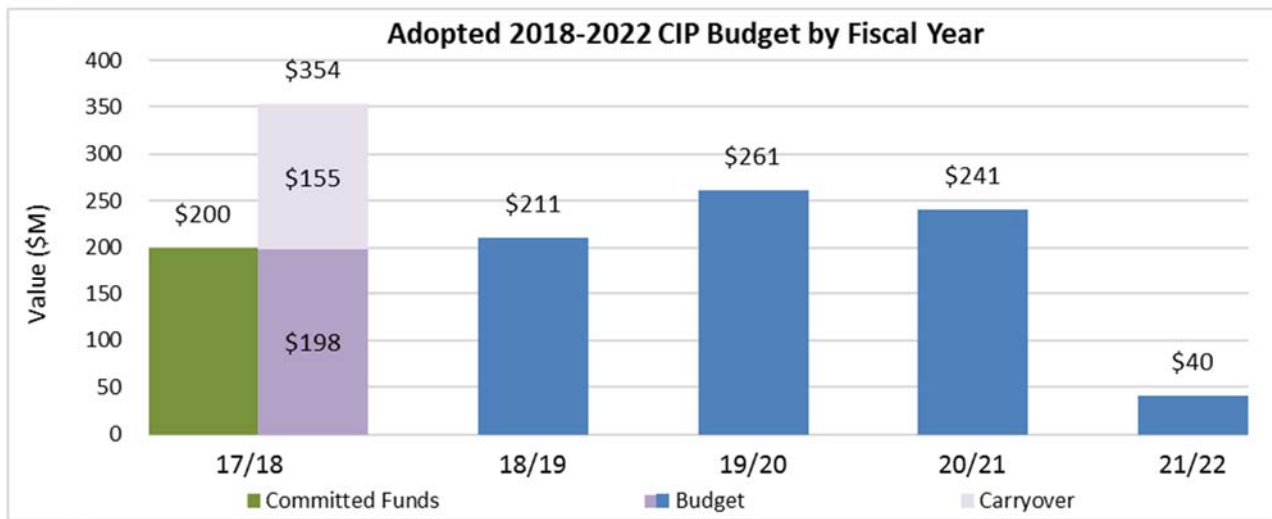
1. The Blower Improvements Project successfully completed Stage Gate 5: Authorization to Bid.
2. The fiscal year-end count has been updated to reflect a decrease in the number of planned stage gates due to project schedule revisions.
3. The Iron Salt Feed Station Project reached Beneficial Use, but was more than two months late compared to the baseline.
4. The Headworks Critical Improvements and Plant Instrument Air System Upgrade projects are no longer anticipated to achieve Beneficial Use this fiscal year and have been removed from this fiscal year's Schedule KPI.
5. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
6. The Headworks Critical Improvements Project is no longer anticipated to reach Project Acceptance this fiscal year and has been removed from this fiscal year's Budget KPI.
7. The fiscal year-end expenditure forecast decreased by approximately \$1 million due to revised encumbrance estimates.
8. The staffing KPI is measured quarterly and represents CIP recruitments planned for the fiscal year. The KPI was last updated in March 2018. This KPI measurement does not account for staff turnover throughout the fiscal year.



Program Budget Performance Summary

This section summarizes the cumulative monthly budget performance for fiscal year (FY)17-18 based on the 2018-2022 CIP.

Adopted 2018-2022 CIP Expenditure and Encumbrances



Notes

Committed Funds: Total of expenditures and encumbrances.

Expenditure: Actual cost expended, either by check to a vendor or through the City's financial system, for expenses such as payroll or for 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.

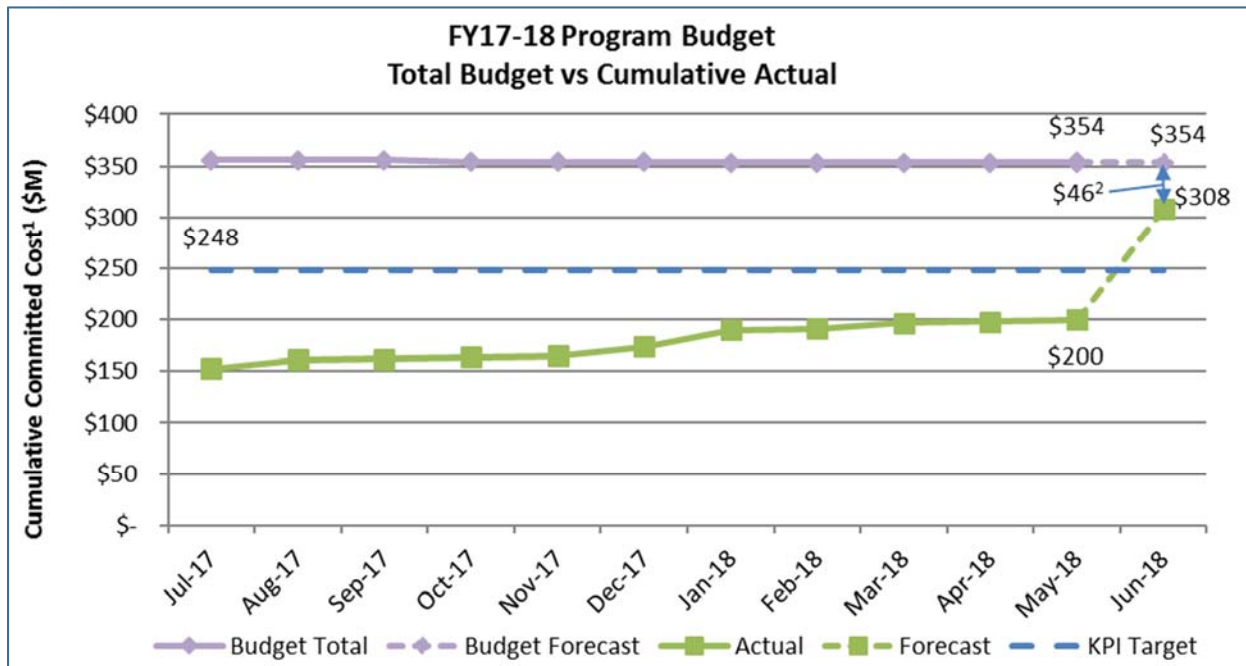
The FY17-18 budget is \$238 million, which consists of \$198 million in new funds and \$40 million in rebudgets. For purposes of this monthly report, the adopted FY17-18 budget is adjusted from \$238 million to \$198 million due to the exclusion of certain appropriations that are not measured as part of the expenditure KPI. Excluded appropriations include Urgent and Unscheduled Treatment Plant Rehabilitation; SBWR Extension; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Public Art; State Revolving Fund Loan Repayment; City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Equipment Replacement Reserve; and Ending Fund Balance. Similar adjustments have been made to the budgets for FY18-19 through FY 21-22. In October, the fall cleanup action increased the FY17-18 budget by \$3 million.

Carryover: Encumbrance balances at the end of the previous fiscal year are automatically carried forward to the current fiscal year as carryover funding to pay invoices for approved construction contracts and consultant agreements.



Fiscal Year 2017-2018 Program Budget Performance

The FY17-18 budget is comprised of approximately \$198 million in new funds plus encumbrance carryover of \$155 million for a total of \$354 million. This excludes Reserves, Ending Fund Balance, Debt Service, 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 variance between forecasted budget and forecasted commitments can be primarily attributed to the following factors:
 - a. Construction contracts that are not expected to be awarded in FY17-18:
 - i. Blower Improvements Project
 - ii. Fire Life Safety Upgrades Project
 - b. Several consultant service orders planned for award in FY17-18 are now expected to be awarded in FY18-19:
 - i. Filter Rehabilitation Project – detailed design work
 - ii. Facility-wide Water Systems Improvements Project - preliminary and detailed design work
 - iii. Tunnel Rehabilitation Project – feasibility/development work
 - c. Several other minor encumbrances for consultant services are either lower than budgeted or are anticipated to be awarded in FY18-19.
 - d. Several authorized positions remain vacant, resulting in lower predicted personal services expenses than budgeted.
3. The FY17-18 budget includes three recurring appropriations (Preliminary Engineering, Equipment Replacement, and Plant Infrastructure Improvements) that total approximately \$3.66 million. These appropriations are included in the budget to implement minor capital improvement projects that may be needed during the fiscal year. No major expenditures or encumbrances are currently planned against these appropriations.



Project Performance Summary

There are currently seven active projects in the construction phase and an additional 18 projects in feasibility/development, design, or bid and award 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.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹	Cost Performance ²	Schedule Performance ²
1. Iron Salt Feed Station	Construction	May 2018 ³	●	◆
2. Construction-Enabling Improvements	Construction	Jul 2018	●	◆
3. Headworks Critical Improvements	Construction	Jul 2018	●	●
4. Plant Instrument Air System Upgrade	Construction	Jul 2018	●	◆
5. Cogeneration Facility	Design & Construction	Mar 2020 ⁴	●	●
6. Advanced Facility Control & Meter Replacement - Phase 1	Construction	Dec 2020 ⁴	●	●
7. Digester and Thickener Facilities Upgrade	Construction	Jul 2021	◆	◆

KEY:

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

Notes

- Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
- An explanation of cost and schedule variances on specific projects identified in this table is provided on page 11 and 12.
- Actual Beneficial Use date.
- The project construction Beneficial Use date will be baselined once the contractor submits their construction schedule.



Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹
1. Headworks Improvements	Bid and Award	Sep 2022
2. New Headworks	Bid and Award	Sep 2022
3. Blower Improvements	Design	Nov 2021
4. Filter Rehabilitation	Design	Oct 2022
5. Advanced Facility Control & Meter Replacement Phase 2	Design	Dec 2022
6. Nitrification Clarifiers Rehabilitation	Design	Dec 2023
7. Outfall Bridge and Levee Improvements	Feasibility/Development	Dec 2020
8. Switchgear M4 Replacement and G3 & G3A Removal	Feasibility/Development	Jan 2022
9. Fire Life Safety Upgrades	Feasibility/Development	Sep 2022
10. Storm Drain System Improvements	Feasibility/Development	Sep 2022
11. Digested Sludge Dewatering Facility	Feasibility/Development	Oct 2022
12. Flood Protection	Feasibility/Development	Oct 2022
13. HVAC Improvements	Feasibility/Development	Mar 2023
14. Facility-wide Water Systems Improvements	Feasibility/Development	Sep 2023
15. Aeration Tanks Rehabilitation	Feasibility/Development	Oct 2025
16. Support Facilities	Feasibility/Development	Dec 2026
17. Yard Piping and Road Improvements	Feasibility/Development	Jan 2027
18. Tunnel Rehabilitation	Feasibility/Development	Feb 2027

Notes

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



Significant Accomplishments

Biosolids Package

Digester Thickener and Facilities Upgrade

- The settled sludge re-route became operational, successfully re-routing up to 100 million gallons of flow a day.
- Contractor Walsh Construction continued structural work at the sludge screening building; excavation of the 78-inch pipe and wye structure; and excavation for structural work around digesters 5 and 8, including handling and disposal of PCB contaminated soils.

Digested Sludge Dewatering Facility

- Design-build firms submitted SOQs. Next, the Technical Evaluation Panel will short-list the qualified firms.

Facilities Package

Cogeneration Facility

- The City executed the DCA and issued the Notice to Proceed (NTP) for final design and construction. The project is anticipated to achieve Beneficial Use in summer 2020.

Facility-wide Water Systems Improvements

- The project team confirmed project alternatives and defined the triple bottom line plus (TBL+) criteria and weighted values. Next month, the project team will conduct an alternative analysis scoring workshop with stakeholders to select a preferred project alternative for each water system.

Outfall Bridge and Levee Improvements

- Design consultant AECOM completed an underwater condition assessment, a topographical survey, and a geotechnical investigation, and submitted the draft condition assessment report. Next, the project team will review the report and begin the project alternative analysis process.

Liquids Package

Advanced Facility Control and Meter Replacement – Phase 1

- TPAC and Council approved the award of the construction contract to Overaa Construction. The project team expects to issue the NTP in July 2018.

Aeration Tank Rehabilitation

- Design consultant Brown and Caldwell held an alternative analysis workshop to select the project alternatives.

Blower Improvements

- Design consultant Brown and Caldwell submitted the 100 percent plans and specifications.
- The project team successfully completed Stage Gate 5: Authorization to Bid. The team expects to advertise the construction contract in June and open bids in August 2018.

Filter Rehabilitation

- Design consultant Kennedy/Jenks completed the hazardous materials sample collection and fieldwork for the Hazardous Materials Study.

Headworks Critical Improvements

- Contractor Overaa Construction successfully completed the 28-day operational test on the new bar screens. Beneficial Use is anticipated in July 2018.

Power and Energy Package

Plant Instrument Air System Upgrade

- Each of the three new plant instrument air compressors were tested and connected to the plant instrument air system.
- The plant instrument air controls are being monitored from the RWF distributed control system. The project team will confirm all monitoring points during a 28-day commissioning test starting in July.

Switchgear M4 Replacement and G3 & G3A Removal

- The City issued the NTP to the design consultant Brown and Caldwell. Final design is anticipated to be completed in the summer 2019.



Explanation of Project Performance Issues

Construction-Enabling Improvements

This project was originally scheduled to be substantially complete by mid-February 2017. Due to the extremely wet 2016-17 winter season, contractor Teichert Construction was unable to perform site work for several weeks from October 2016 through April 2017. Teichert was granted 47 extra work days for weather-related delays. Teichert was also granted additional time to remove and replace asphalt pavement in damaged areas of Zanker Road; install traffic-rated pull boxes for the streetlight system; install underground conduits for the fiber optic system; and make additional changes.

Delays in completing the installation of the project's portable trailers continue to impact the schedule. Installation of the utilities and canopy systems is underway. Teichert estimates that it could take several more weeks to obtain required materials and schedule necessary subcontractors, which could result in another five to seven weeks to complete the installation and setup of the trailers. These delays would place the Beneficial Use date in July 2018. The City notified Teichert that the number of contract work days has been exceeded and that liquidated damages are in effect. By the end of this reporting month, liquidated damages were \$238,000.

Digester and Thickener Facilities Upgrade

This project encountered numerous unforeseen conditions including required design modifications to address seismic forces and the discovery of hazardous materials.

These unforeseen conditions are impacting the project schedule and cost. The City negotiated contract change orders for the following conditions, resulting in an estimated six-month delay to the Beneficial Use date:

- Major corrosion of a below-ground, 78-inch settled sewage pipeline and junction structure is impacting the dissolved air flotation tank piping connections, two new pressurization flow boxes, and utility relocation work. The contractor had postponed all repairs until a temporary pumping and pipeline system could be safely installed to enable replacement of the pipeline in the 2018 dry season. In May, the contractor started full-time operation of this temporary pumping and pipeline system and commenced replacement of the 78-inch settled sewage pipeline.
- A 36-inch biochemical oxygen demand pipe was obstructing the new sludge screen building foundation. The contractor removed this pipe and relocated several gas drain vaults and associated piping.
- Multiple conflicts between contract work and existing water, natural gas, digester gas, landfill gas, storm drains, and sanitary sewer pipelines require numerous relocations. The contractor completed necessary relocations and modifications, including rerouting and other design changes to the new digester gas pipe rack footings.
- Bay Area Air Quality Management District (BAAQMD) venting restrictions have delayed digester work by approximately six months. The contractor completed the temporary digester gas connections and the system is now operational.

In November 2017, Council approved a contingency increase of \$15 million. The City issued change orders against the increased contingency for delays associated with the above conditions, including an increase of 140 working days to the project schedule.

The following outstanding issues are currently being evaluated and are expected to result in additional costs and delays:

- Digester structural redesign. The design consultant completed the revised structural drawings to address seismic issues. The contractor provided a cost proposal associated with the revised structural drawings for the City's review.
- Hazardous material mitigation. Testing of soils and concrete for PCBs is complete. The consultant prepared a hazardous material survey report summarizing the results. In addition, the project team determined disposal options. The contractor completed excavation and removal of PCB-contaminated soil at digester 5 and is in the process of completing the same work for digesters 6, 7, and 8. The contractor completed the installation of the bottom post tension cables at digester 5.

A second contingency increase is pending Council approval in June for additional costs associated with the seismic redesign, hazardous material remediation, and schedule delays.

Based on the contractor's latest submittal, an estimated delay of 276 working days is now reflected in the revised Beneficial Use date of July 2021. City staff is evaluating this estimated delay.

Iron Salt Feed Station

Project construction has been delayed by eight months due to a combination of heavy winter rain in 2016-17; longer than anticipated time to fabricate the double containment pipeline and leak detection system; piping modifications to resolve a pump operational issue at the ferric chloride station; and the installation of additional piping to allow O&M staff to temporarily dose polymer at an alternate location. In addition, operational testing and commissioning of the new equipment has taken longer than anticipated. Specifically, fine-tuning the control program; identifying and resolving pump operational issues; and addressing issues with the new flow meter and level sensor have taken additional time.

The project team resolved all issues and completed the commissioning test in May 2018. Beneficial Use was achieved on May 14, 2018.



Plant Instrument Air System Upgrade

Project construction has been delayed by three months due to several issues. Firstly, it was discovered that the planned construction site access route crossed a large settled sludge pipeline, requiring an alternative access route to be developed. Secondly, the contractor was temporarily unable to install a section of the conduit from the Sludge Control Building to the new compressor building due to other work being performed in the area by a different contractor. Finally, the commissioning test standard operating procedure is still being finalized and is required to perform the 28-day commissioning test. The project is expected to achieve Beneficial Use this summer.



Project Profile – Cogeneration Facility

The City completed an Energy Management Strategic Plan (part of the Plant Master Plan) in 2012 that identified the need to upgrade and improve the RWF's aging power generation equipment, some of which dates back to the 1960s. The strategic plan's overarching goals included the use of modern and efficient technology to meet the RWF's power and heat demands in the future while moving towards energy self-sufficiency. Power and heat demands are expected to rise as population increases drive flows and loads higher and as new treatment processes are brought online. Another consideration was to thoroughly utilize all of the existing and future digester biogas production to reduce or eliminate reliance on natural gas while greatly improving air emissions.



Figure 2: Aerial View of Cogeneration Facility, Rendering by CH2M

On April 24, 2016 the City entered into its first major progressive DB contract at the RWF. The City selected CH2M Hill Engineers (CH2M) as the progressive design-build lead in concert with their designated prime general contractor, C. Overaa Co. Both entities have extensive experience in DB contracting at wastewater facilities and with the local construction market. The DB contractor began the preliminary services phase, which included design and competitive procurement of lean-burn, high efficiency, low-emission engine-generators specifically engineered to provide maximum output on biogas fuel. The design and procurement included four units, with the ability to expand to five, that would produce up to 12.5 megawatts of power while providing heat output in the form of 3,000 gal/min of 185-degree hot water. The selected engines are manufactured by Caterpillar Company, and the biogas purification system is manufactured by UNISON Corporation. A key feature of the DB process allows early procurement of these important and long-lead-time items, while the balance of the design is being completed. Execution of this early work package provided price certainty and ensured early delivery of key elements of the project.

Throughout the preliminary services design phase, the DB contractor and City staff worked together to develop the design within budget and achieve compliance with BAAQMD air emissions requirements. Since the new cogeneration building will be prominent and visible from Zanker Road, they also engaged in the City's Public Arts program.

In early 2018, the City approved a second early work package to install the civil and infrastructure work necessary to place the engine-generators once they arrived on site. This was accomplished with the concurrence of BAAQMD after review of the progressive design-build approach, more than 90 days in advance of BAAQMD's formal authority to construct permit.

In May 2018, the City and DB contractor negotiated the guaranteed maximum price for the Cogeneration Facility, and executed an amended and restated contract agreement that defined the maximum project price, technical requirements, and milestones, paving the way to finalize the 100 percent design effort in the summer of 2018. This milestone also allows for construction to begin on the balance of the project designed during earlier phases.



Figure 3: Owner's Inspection of Manufacturer's Facilities and Constructed Engine Generators

In the two years since the initial contract was structured, two early work packages have been approved and 90 percent design status has been achieved on a highly technical project. The City and DB contractor have overcome many technical challenges and remain within the project budget amount of \$110 million. The project team anticipates achieving substantial completion by the summer of 2020. Through it all, the progressive DB process has enabled the City and design build contractor to successfully manage the scope, schedule, and budget of this highly complex and important facility.

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

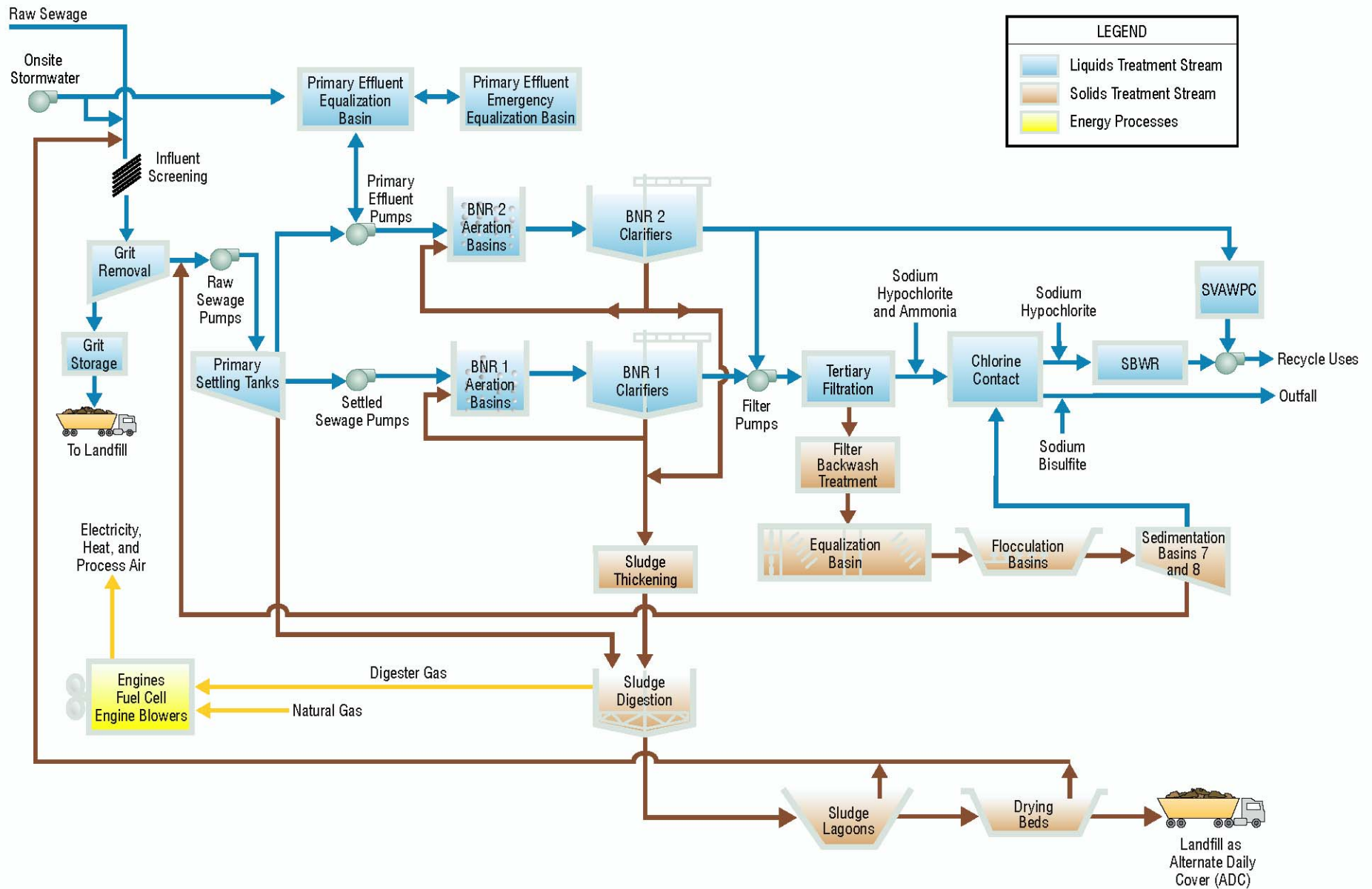


Figure 4 – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

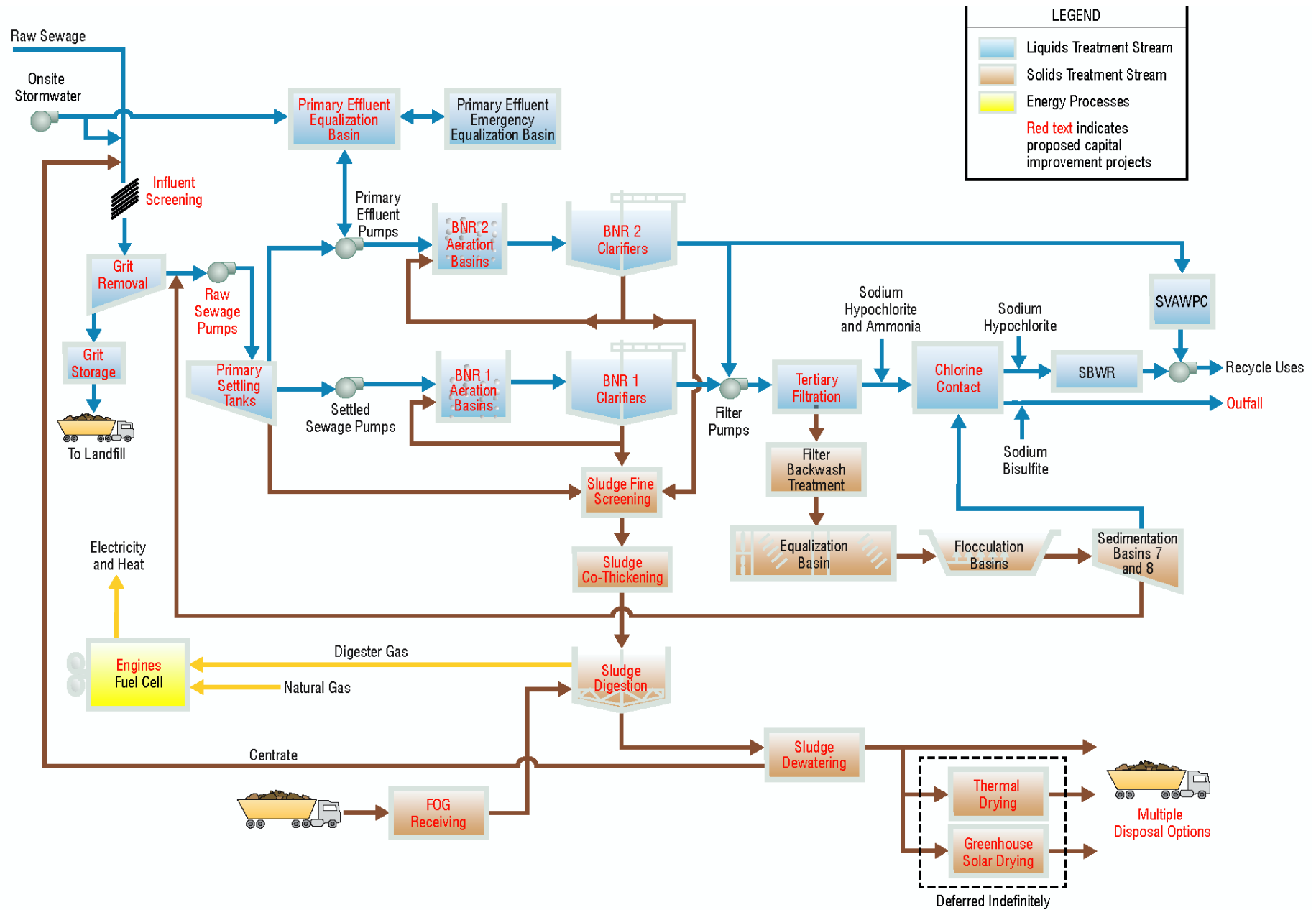


Figure 5 – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

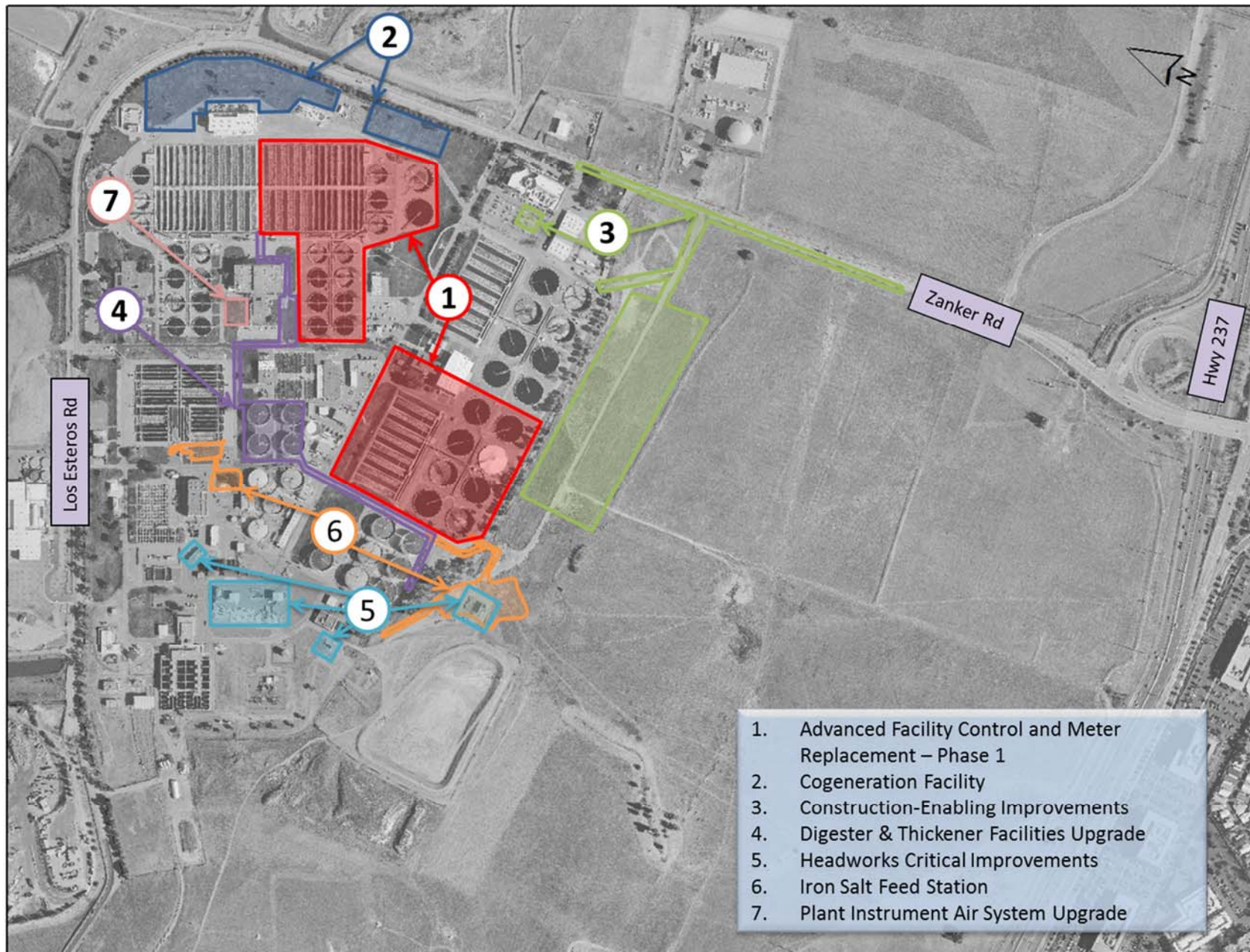


Figure 6: Active Construction Projects





Capital Improvement Program Monthly Status Report: June 2018

August 2, 2018

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for June 2018.

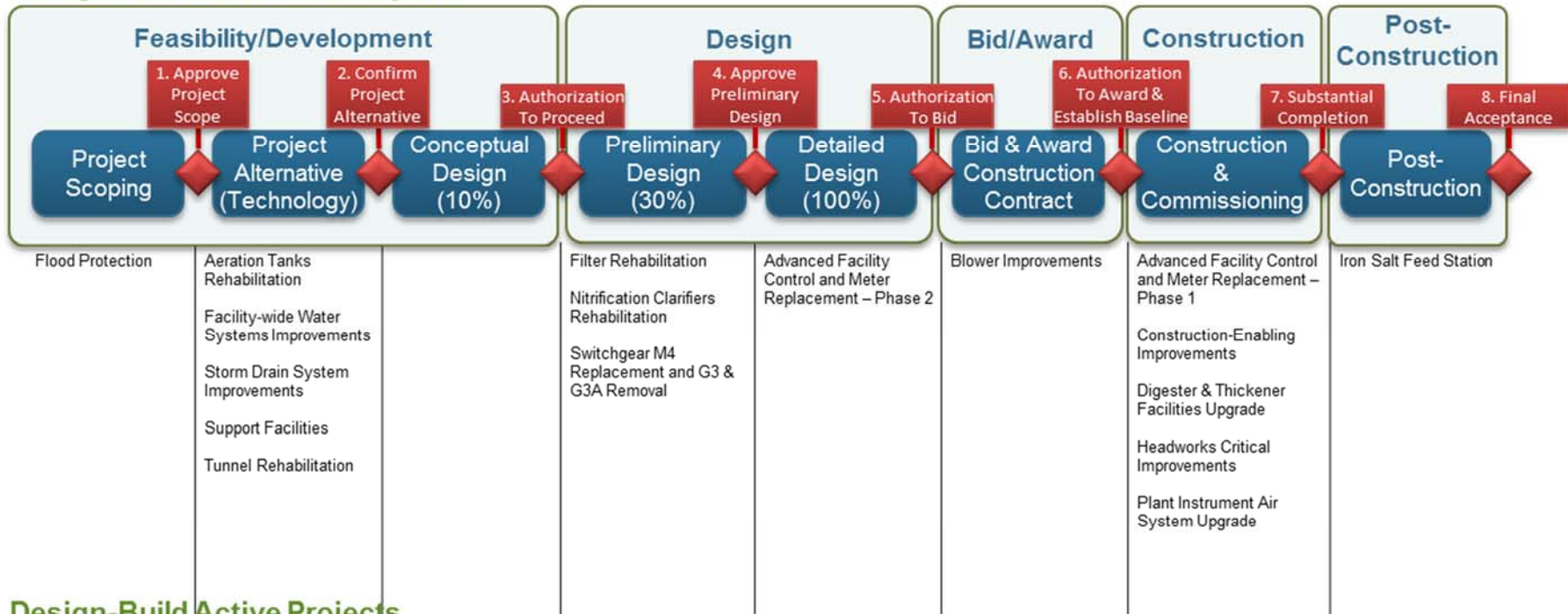
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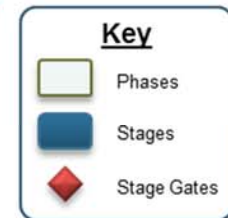
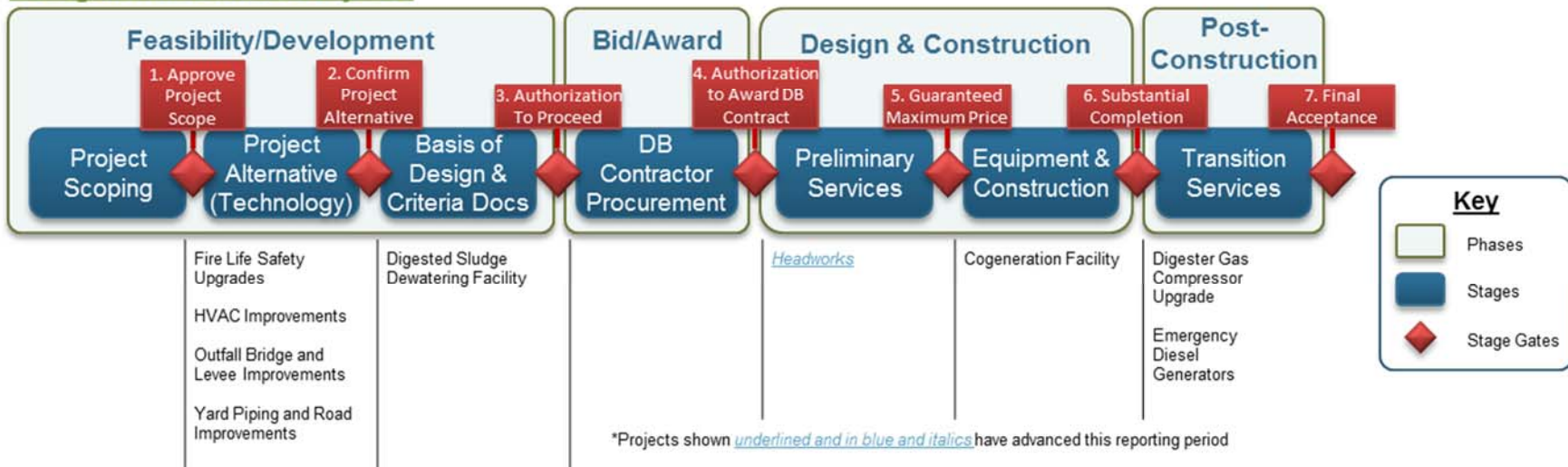


Project Delivery Model

Design-Bid-Build Active Projects



Design-Build Active Projects



Program Summary

June 2018

This month, the Treatment Plant Advisory Committee (TPAC) and San José City Council (Council) approved three items:

- A design-build (DB) contract for preliminary services for the Headworks Improvements and New Headworks projects, referred to jointly as the Headworks Project;
- Three master consultant agreements for special inspection and materials testing services for various capital improvement projects at the RWF; and
- A \$25 million increase to the Digester and Thickener Facilities Upgrade Project construction contingency to address the seismic redesign and polychlorinated biphenyl (PCB) mitigation issues, and associated delay costs.

The Facility Wide Water Systems Improvements Project team selected a preferred alternative for each of the four water systems and the design consultant began drafting the alternatives analysis report documenting the process and resulting recommendations.

The Filter Rehabilitation Project design consultant submitted the draft preliminary design report and cost estimate. The project team completed a value engineering (VE) study.

The City advertised the construction contract for the Blower Improvements Project. Bids are due in August and construction award is anticipated in November. The City also shortlisted four design-build contractors for the Digested Sludge Dewatering Facility Project and anticipates issuing the Request for Proposals (RFP) this fall.

The City executed the construction contract for the Advanced Facility Control and Meter Replacement Phase 1 Project. This project will replace flow meters, valves and actuators, and sensors in the secondary battery B and nitrification battery B areas to improve equipment and data reliability and integrity. The project is anticipated to reach Beneficial Use in December 2020.

The City participated in factory acceptance testing of the four new cogeneration engines for the Cogeneration Facility Project. The purpose was to confirm that the engines' performance met contract specifications prior to shipping. All tests were successfully completed, and the engines are expected to be delivered to the RWF by mid-September.

The Digester and Thickener Facilities Upgrade Project contractor made progress on the sludge screening building, pipe rack, and digester tanks, and continued to remove PCB-contaminated soils and replace the deteriorated 78-inch settled sludge line.

Look Ahead

The following key activities are forecast for July and August of 2018:

- The Headworks Project design-builder and the Yard Piping and Road Improvements Project owner's advisor will hold project kickoff meetings.
- The project teams for the Facility Wide Water Systems Improvements and Outfall Bridge and Levee Improvements projects anticipate receiving final Alternative Analysis Reports.
- The Aeration Tanks Rehabilitation Project team will seek Stage Gate 2: Confirm Project Alternative approval
- The Nitrification Clarifiers Rehabilitation Project team will receive the draft preliminary design report and cost estimate and perform a VE study.
- The Filter Rehabilitation Project consultant will submit the final preliminary design report and cost estimate.;
- The City will issue the Notice to Proceed (NTP) to Overaa Construction for the Advanced Facility Control and Meter Replacement Phase 1 Project; and
- The Headworks Critical Improvements, Plant Instrument Air System Upgrade, and Construction-Enabling Improvements projects will reach Beneficial Use.



Program Highlight – Drones

The CIP team continuously looks for opportunities to implement innovative solutions to deliver the program's 30-plus projects. One recent solution has been the use of drones to record ongoing construction activity, collect survey data, and perform condition assessments.

Over the last few years, drones have become increasingly popular and affordable; however, their use at the RWF presents unique challenges which needed to be addressed before they could be used. The operational nature of the facility combined with multiple active CIP projects in construction requires a flightpath to be flown that does not impact either construction or operations and is also safe for all personnel working at ground level. Another consideration is the use of a drone capable of providing a high level of control and accuracy for survey-grade work, piloted by an experienced and qualified drone operator. In addition, because the RWF is situated under the Norman Y. Mineta San José International Airport flightpath, a Certificate of Waiver or Authorization is required from the Federal Aviation Authority (FAA) before a drone can be flown over the RWF.

Leveraging the expertise of CIP program management consultant, Stantec, two experts qualified and licensed to fly drones were brought in to assist with planning the flightpath, selecting the right equipment, and obtaining FAA clearance. A Certificate of Waiver or Authorization was successfully obtained, and an initial drone flight was arranged in April 2018.



Figure 1: Drone in flight



Figure 2: Photograph of digesters taken by the drone

underway. Following this successful trial, the CIP will be performing drone flights on a bimonthly basis. The photographs and videos will be used for monitoring construction progress and reporting purposes.

In addition, the CIP program recently approved the use of drones to perform condition assessment work on the Aeration Tanks Rehabilitation Project. The design consultant successfully used drones to complete a detailed condition assessment of the aeration tanks; the consultant was able to complete the work faster and avoided the need for confined space entry and complex shutdowns, thereby saving time and cost. (Figure 4).

The initial visit had two objectives: first, to test flightpaths to best capture photographs and videos of the ongoing construction work; and second, to demonstrate how drones could be used to collect survey data. Drone flights were conducted over two days with the cooperation of the Construction Management team, Operations, and construction contractors. Figure 1 shows the pilot controlling the drone in flight, and Figures 2 and 3 show drone photographs of the digesters currently being rehabilitated under the Digester and Thickener Facilities Upgrade Project.

The initial visit confirmed that RWF drone operations can be performed safely and effectively. The drone photographs, videos, and survey data provide a unique perspective of CIP projects now

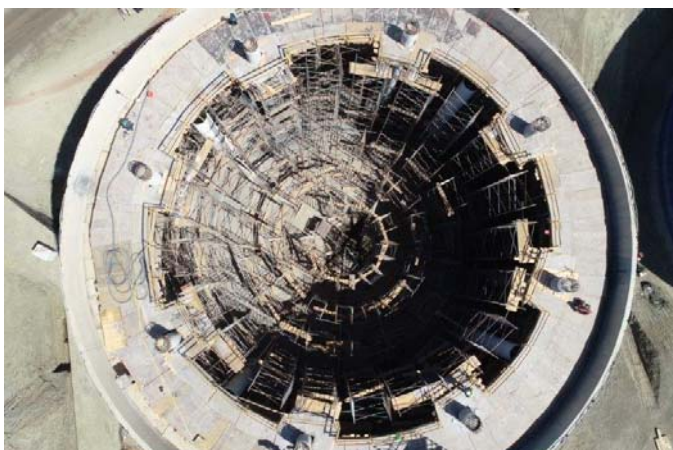


Figure 3: Photograph of digesters taken by the drone



Figure 4: Drone inspection of Aeration Tanks

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 that best reflect the current program will be selected and measured. KPIs have been reset for the current fiscal year.

Program Key Performance Indicators – Fiscal Year 2017-2018

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	80%	100% 16/16			100% 16/16		
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%	0% 0/2			0% 0/2		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. ¹ Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	67% 2/3			67% 2/3		
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. ¹ Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure	\$251M ²	\$306M			\$306M ³		
Measurement: CIP FY17-18 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of \$358M = \$251M. Therefore Green: >=\$251M; Amber: \$197M to \$251M; Red: < \$197M							
Procurement	80%	100% 4/4 ⁴			100% 4/4		
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							
Staffing⁵	80%	113% 17/15 ⁶			113% 17/15		
Measurement: Number of planned positions filled for the fiscal year. Target: Green: >= 80%; Amber: 70% to 79%; Red: < 70%							

Notes

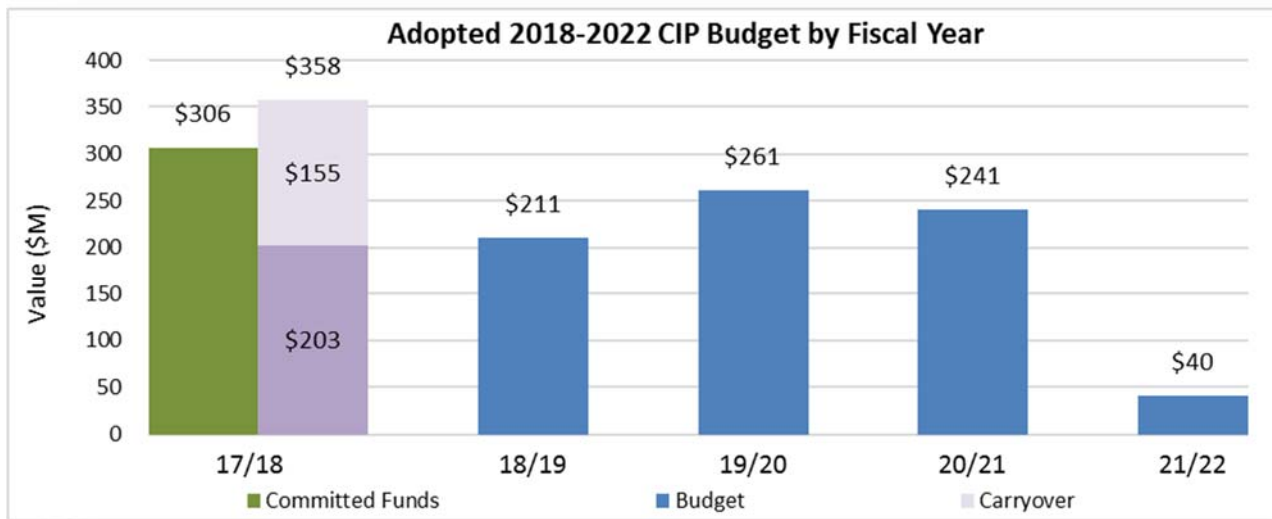
1. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
2. The fiscal year budget and resulting target were increased due to Council's approval to transfer funds for the Digester and Thickener Facilities Upgrade Project's construction contingency increase.
3. The fiscal year-end actual was reduced \$2 million primarily due to a lower than anticipated debt services repayment this fiscal year.
4. The City advertised the construction contract for the Blower Improvements Project.
5. The staffing KPI is measured quarterly and represents CIP recruitments for the fiscal year.
6. The program was successful in filling two more vacancies than originally planned for the fiscal year: one principal engineer and one senior engineer were added in the fourth quarter.



Program Budget Performance Summary

This section summarizes the cumulative monthly budget performance for fiscal year (FY)17-18 based on the 2018-2022 CIP.

Adopted 2018-2022 CIP Expenditure and Encumbrances



Notes

Committed Funds: Total of expenditures and encumbrances.

Expenditure: Actual cost expended, either by check to a vendor or through the City's financial system, for expenses such as payroll or for 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.

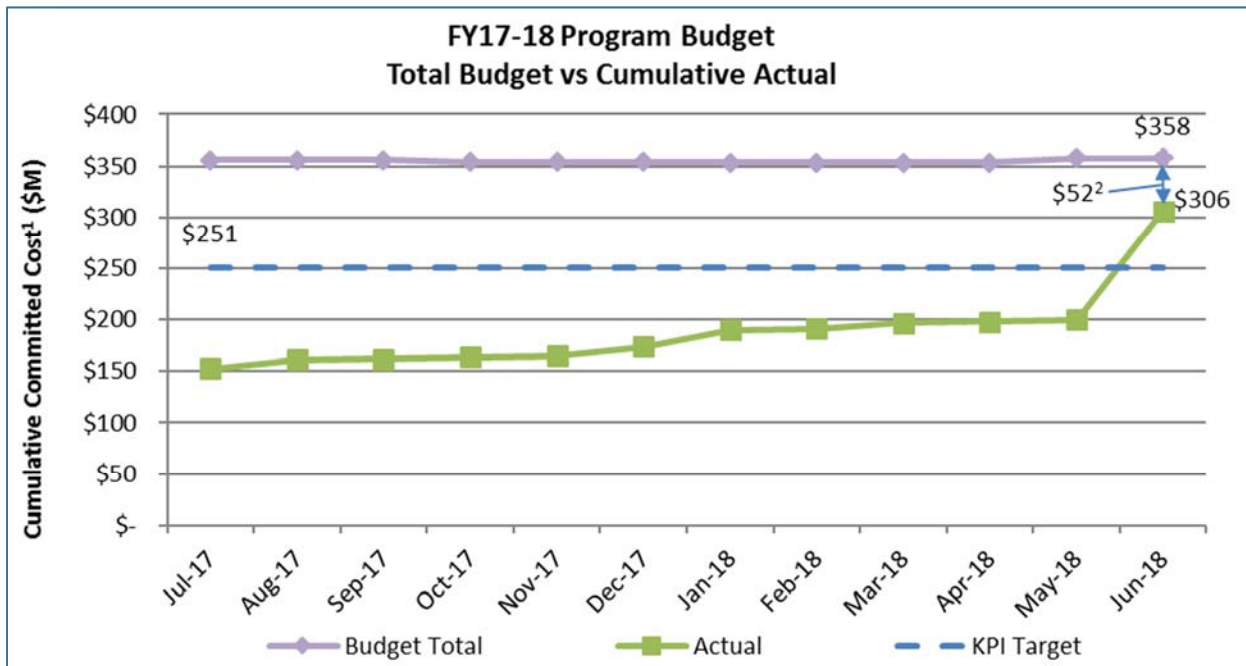
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Carryover: Encumbrance balances at the end of the previous fiscal year are automatically carried forward to the current fiscal year as carryover funding to pay invoices for approved construction contracts and consultant agreements.



Fiscal Year 2017-2018 Program Budget Performance

The FY17-18 budget is comprised of approximately \$198 million in new funds plus encumbrance carryover of \$155 million for a total of \$354 million. This excludes Reserves, Ending Fund Balance, Debt Service, 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 variance between forecasted budget and forecasted commitments can be attributed to the following factors:
 - a. Construction contracts and associated construction services agreements that were not awarded in FY17-18:
 - i. Blower Improvements Project
 - ii. Fire Life Safety Upgrades Project
 - b. Consultant service orders that were not awarded in FY17-18:
 - i. Aeration Tanks Rehabilitation – conceptual design
 - ii. Filter Rehabilitation Project – detailed design work
 - iii. Facility-wide Water Systems Improvements Project - preliminary and detailed design work
 - iv. Support Facilities – feasibility/development work
 - v. Tunnel Rehabilitation Project – feasibility/development work
 - c. Several other minor encumbrances for consultant services are either lower than budgeted or were not awarded in FY17-18.
 - d. Several authorized positions remain vacant, resulting in lower personal services expenses than budgeted.
3. The FY17-18 budget includes three recurring appropriations (Preliminary Engineering, Equipment Replacement, and Plant Infrastructure Improvements) that total approximately \$3.66 million. These appropriations are included in the budget to implement minor capital improvement projects that may be needed during the fiscal year. No major expenditures or encumbrances were made against these appropriations.







Project Performance Summary

There are currently seven active projects in the construction phase and an additional 17 projects in feasibility/development, design, or bid and award 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.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹	Cost Performance ²	Schedule Performance ²
1. Iron Salt Feed Station	Post-Construction	May 2018 ³		
2. Construction-Enabling Improvements	Construction	Jul 2018		
3. Headworks Critical Improvements	Construction	Jul 2018		
4. Plant Instrument Air System Upgrade	Construction	Aug 2018		
5. Cogeneration Facility	Design & Construction	Mar 2020 ⁴		
6. Digester and Thickener Facilities Upgrade	Construction	Jan 2021 ⁶		
7. Advanced Facility Control & Meter Replacement - Phase 1	Construction	May 2021 ⁵		

KEY:

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

Notes

- Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
- An explanation of cost and schedule variances on specific projects identified in this table is provided on page 11 and 12.
- Actual Beneficial Use date.
- The project construction Beneficial Use date will be baselined once the City accepts the contractor's construction schedule.
- The project construction Beneficial Use date has been updated following the incorporation of the contractor's baseline schedule.
- The City authorized schedule mitigation efforts that are expected to shorten the overall construction schedule by approximately six months.



Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹
1. Headworks ²	Bid and Award	Sep 2022
2. Blower Improvements	Design	Nov 2021
3. Filter Rehabilitation	Design	Oct 2022
4. Advanced Facility Control & Meter Replacement Phase 2	Design	Dec 2022
5. Nitrification Clarifiers Rehabilitation	Design	Dec 2023
6. Outfall Bridge and Levee Improvements	Feasibility/Development	Dec 2020
7. Switchgear M4 Replacement and G3 & G3A Removal	Feasibility/Development	Jan 2022
8. Fire Life Safety Upgrades	Feasibility/Development	Sep 2022
9. Storm Drain System Improvements	Feasibility/Development	Sep 2022
10. Digested Sludge Dewatering Facility	Feasibility/Development	Oct 2022
11. Flood Protection	Feasibility/Development	Nov 2022
12. HVAC Improvements	Feasibility/Development	Mar 2023
13. Facility-wide Water Systems Improvements	Feasibility/Development	Sep 2023
14. Aeration Tanks Rehabilitation	Feasibility/Development	Feb 2026
15. Support Facilities	Feasibility/Development	Dec 2026
16. Yard Piping and Road Improvements	Feasibility/Development	Jan 2027
17. Tunnel Rehabilitation	Feasibility/Development	Mar 2027

Notes

1. Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
2. The Headworks Improvements and New Headworks projects are reported as the single Headworks Project.



Significant Accomplishments

Biosolids Package

Digested Sludge Dewatering Facility

- The City short-listed four qualified firms for the design-build contractor procurement and will issue an RFP in fall 2018.

Digester Thickener and Facilities Upgrade

- Contractor Walsh Construction completed installation of the foundation for the odor control equipment; lights and conduit on 28 pipe rack supports; the first-floor deck falsework for the sludge building; and the subgrade for the polymer area. They continued to excavate and dispose of the PCB-contaminated soils around the digesters; post-tension the digester cables and install shotcrete; and replace the deteriorated 78-inch settled sludge line.

Facilities Package

Cogeneration Facility

- The project team attended the factory acceptance testing of the four new cogeneration engines. The testing was successful, and the engines will be shipped in July 2018.
- Design-build contractor CH2M Hill Engineers, Inc (CH2M) is continuing to install underground conduits and piping before pouring the concrete pad in August.

Facility Wide Water Systems Improvements

- The project team completed the alternative analysis scoring workshop with the stakeholders and selected a preferred alternative for each of the four water systems for further development.

HVAC Improvements

- Design consultant Kennedy/Jenks conducted a condition assessment workshop to review findings and recommendations. The project team anticipates the final condition assessment technical memorandum in August.

Storm Drain System Improvements

- The project team and design consultant AECOM conducted a kickoff meeting for the condition assessment and conceptual design work. The condition assessment is anticipated to conclude in October 2018.

Liquids Package

Aeration Tank Rehabilitation

- Design consultant Brown and Caldwell submitted the final alternatives report. The findings will be presented as part of Stage Gate 2: Confirm Project Alternatives in July.

Blower Improvements

- The City advertised the construction contract and bids are due in August. The project team anticipates awarding the construction contract in November 2018.

Filter Rehabilitation

- Design consultant Kennedy/Jenks conducted a preliminary design workshop. Next, the project team will finalize the preliminary design report and opinion of probable construction cost and prepare for Stage Gate 3: Authorization to Proceed.
- VE consultant Hazen and Sawyer completed the VE study this month.

Headworks

- Council approved the design-build contract with CH2M for the performance of preliminary services and subsurface investigations. The City issued a NTP to CH2M, authorizing work on the condition assessment, basis of design report, and 30 percent design.

Nitrification Clarifiers Rehabilitation

- Design consultant HDR Engineering, Inc. completed the hazardous material inspection field work. Staff expects to receive the final report next month.



Explanation of Project Performance Issues

Construction-Enabling Improvements

This project was originally scheduled to be substantially complete by mid-February 2017. Due to the extremely wet 2016-17 winter season, contractor Teichert Construction was unable to perform site work efficiently from October 2016 through April 2017. Teichert was granted 47 extra work days for weather-related delays. Teichert was also granted additional time to remove and replace asphalt pavement in damaged areas of Zanker Road; install traffic-rated pull boxes for the streetlight system; install underground conduits for the fiber optic system; and make additional changes.

Delays in completing the installation of the project's portable trailers continue to impact the schedule. The contractor has completed installation of the canopy and is continuing to install the trailer utilities. The contractor is also working to obtain required materials and to schedule necessary subcontractors to complete trailer installation and setup. Schedule delays now place the Beneficial Use date in July 2018. The City has notified Teichert that the number of contract work days has been exceeded and that liquidated damages are in effect. By the end of this reporting month, liquidated damages were \$259,000.

Digester and Thickener Facilities Upgrade

This project encountered numerous unforeseen conditions, including required design modifications to address seismic risks and the discovery of hazardous materials.

These unforeseen conditions are impacting the project schedule and cost. The City negotiated contract change orders for the following conditions, resulting in an estimated six-month delay to the Beneficial Use date:

- Major corrosion of a below-ground, 78-inch settled sewage pipeline and junction structure is impacting the dissolved air flotation tank piping connections, two new pressurization flow boxes, and utility relocation work. The contractor had postponed all repairs until a temporary pumping and pipeline system could be safely installed to enable replacement of the pipeline in the 2018 dry season. In May, the contractor started full-time operation of this temporary pumping and pipeline system and commenced replacement of the 78-inch settled sewage pipeline.
- A 36-inch biochemical oxygen demand pipe was obstructing the new sludge screen building foundation. The contractor removed this pipe and relocated several gas drain vaults and associated piping.
- Multiple conflicts between contract work and existing water, natural gas, digester gas, landfill gas, storm drains, and sanitary sewer pipelines require numerous relocations. The contractor completed necessary relocations and modifications, including rerouting and other design changes to the new digester gas pipe rack footings.
- Bay Area Air Quality Management District (BAAQMD) venting restrictions delayed digester work by approximately six months. The contractor completed the temporary digester gas connections and the system is now operational.

In November 2017, Council approved a contingency increase of \$15 million. The City issued change orders against the increased contingency for delays associated with the above conditions, including an increase of 140 working days to the project schedule.

The following outstanding issues are currently being evaluated and are expected to result in additional costs and delays:

- Digester structural redesign: The design consultant completed the revised structural drawings to address seismic issues. The contractor provided a cost proposal associated with the revised structural drawings for the City's review.
- Hazardous material mitigation: Testing of soils and concrete for PCBs is complete. The consultant prepared a hazardous material survey report summarizing the results. In addition, the project team determined disposal options. The contractor completed excavation and removal of PCB-contaminated soil at digester 5 and is in the process of completing the same work for digesters 6, 7, and 8. The contractor completed the installation of the bottom post tension cables at digester 5.

Council approved a second contingency increase of \$25 million for additional costs associated with the seismic redesign, hazardous material remediation, and extended construction duration.

Based on the contractor's latest submittal incorporating City authorized schedule mitigation efforts, an updated estimated delay of approximately 145 additional working days is now reflected in the revised Beneficial Use date of January 2021. City staff is evaluating the updated schedule.

Iron Salt Feed Station

Project construction has been delayed by eight months due to a combination of heavy winter rain in 2016-17; longer than anticipated time to fabricate the double containment pipeline and leak detection system; piping modifications to resolve a pump operational issue at the ferric chloride station; and installation of additional piping to allow O&M staff to temporarily dose polymer at an alternate location. In addition, fine-tuning the control program; identifying and resolving pump operational issues; and addressing issues with the new flow meter and level sensor have taken additional time.

The project team resolved all issues and completed the commissioning test in May 2018. Beneficial Use was achieved on May 14, 2018.



Plant Instrument Air System Upgrade

Project construction has been delayed by three months due to three issues: (1) Staff discovered that the planned construction site access route crossed a large settled sludge pipeline, requiring an alternative access route to be developed; (2) the contractor was temporarily unable to install a section of the conduit from the sludge control building to the new compressor building due to other work being performed in the area by a different contractor; and (3) the commissioning test standard operating procedure that is required for the contractor to perform the 28-day commissioning test is still being finalized. The project is expected to achieve Beneficial Use in August 2018.



Project Profile – Construction-Enabling Improvements

The increased volume in CIP construction activity at the RWF over the next ten years requires dedicated contractor staging areas. The \$3.8 million Construction-Enabling Improvements Project, which is anticipated to reach Beneficial Use in July 2018, includes improvements to handle these demands. The project, which features a new dedicated construction entrance, staging area, contractor parking area, and additional construction management office space, will minimize impacts to ongoing facility operations while helping staff coordinate traffic, security, and space needs.

The new dedicated construction entrance is located south of the Environmental Services Building. This new entrance will allow construction staff and truck traffic to enter the RWF more safely and efficiently from Highway 237, without disrupting daily operations or the normal flow of traffic at the main entrance site. In addition, a dedicated left-turn lane will assist construction-related vehicles entering the site, while an acceleration lane will aid trucks exiting the site, allowing them to safely merge back onto Zanker Road. The entrance guard shack will implement security, safety, and environmental protocols specific to CIP consultants and construction contractors.

New fencing along the southern border of the site secures the illuminated staging area that consists of eight acres of improved surface for storage and staging of equipment and material, parking for personal vehicles, and up to 12 temporary contractor trailers. Power and potable water connections have been installed in the locations identified for the temporary construction trailers.

A new construction management trailer has been installed north of the existing temporary construction management trailer adjacent to the Environmental Services Building. It will provide office space and meeting room for an additional 15 staff.

The City's Public Works staff designed the project along with GHD, a local electrical consultant. The project is being constructed by Teichert Construction.

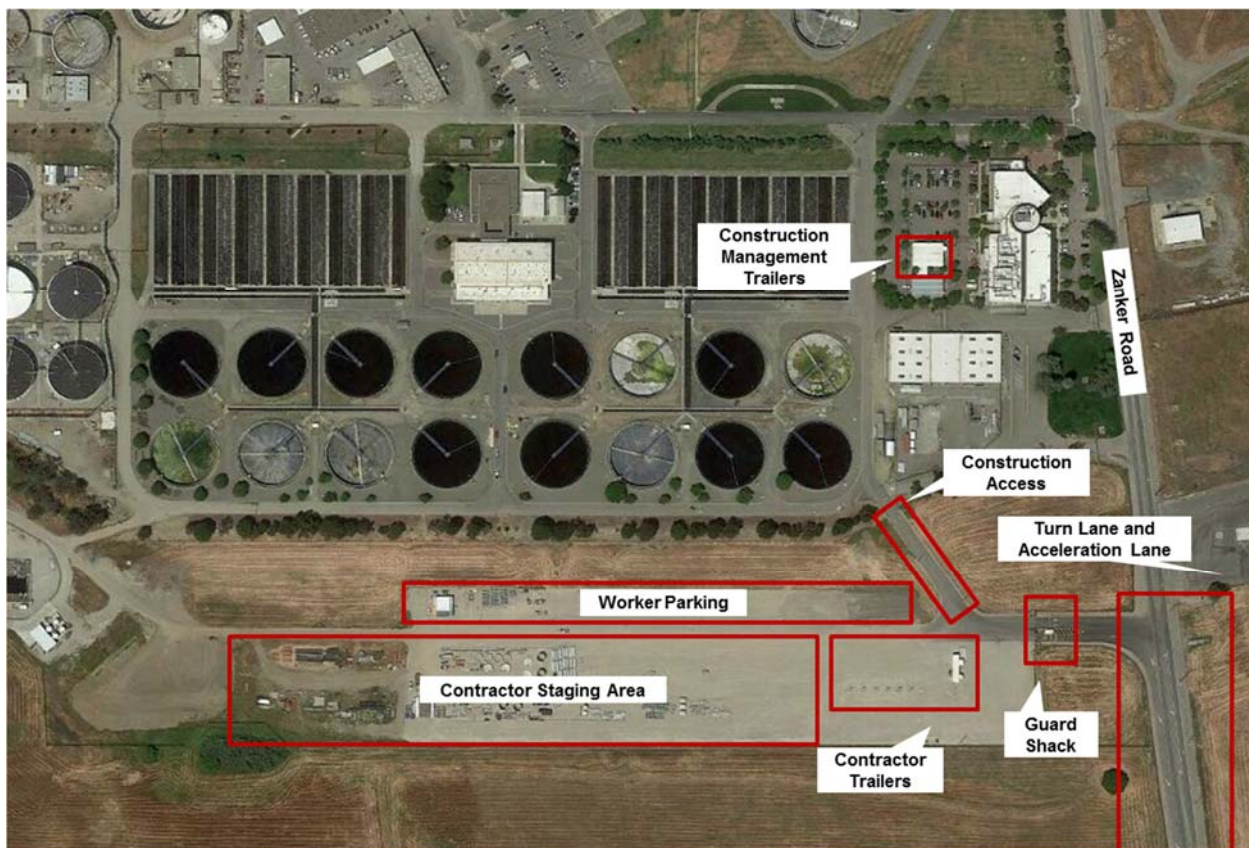


Figure 5: Construction-Enabling Improvements Project Site Layout

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

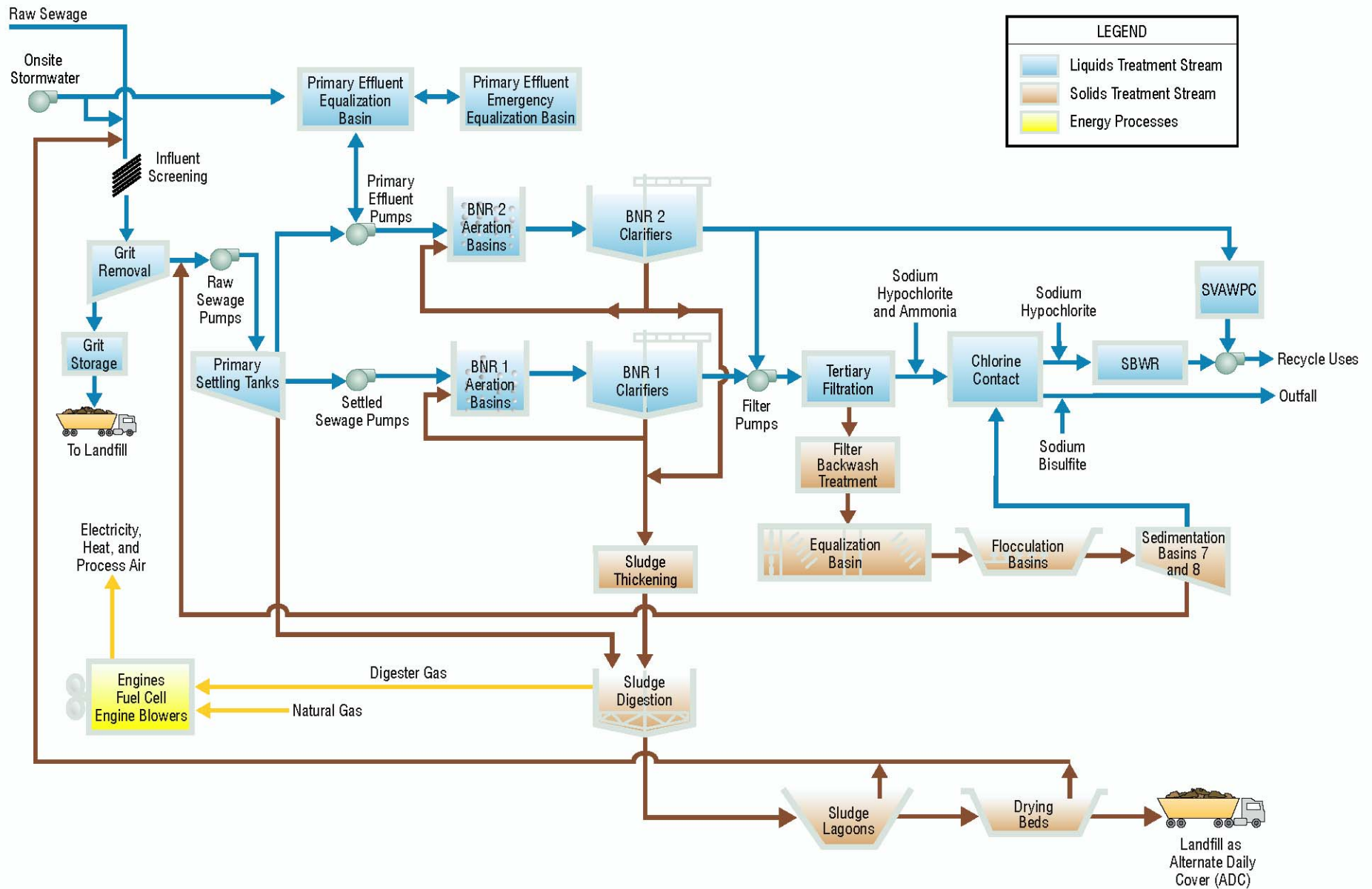


Figure 6 – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

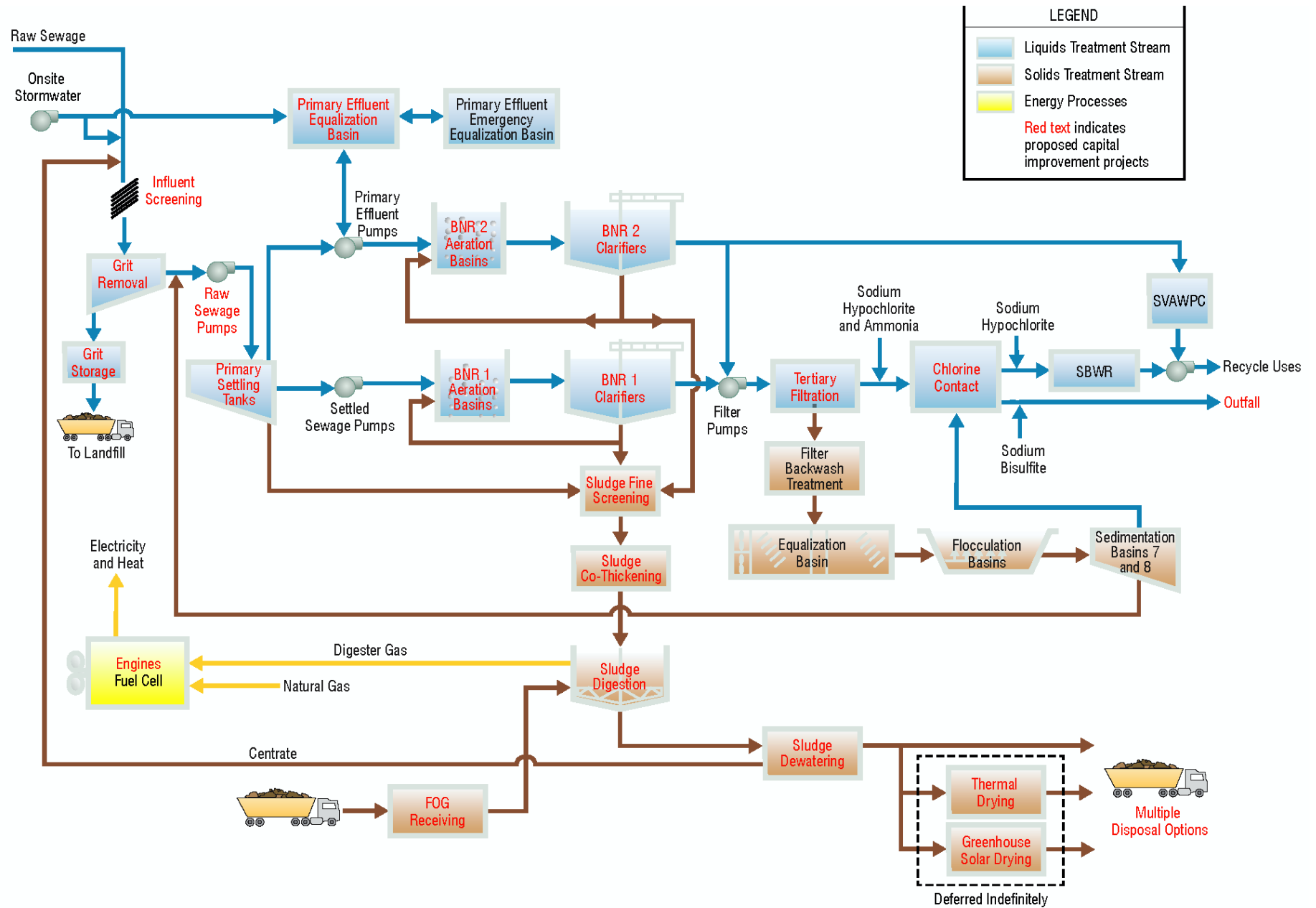


Figure 7 – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

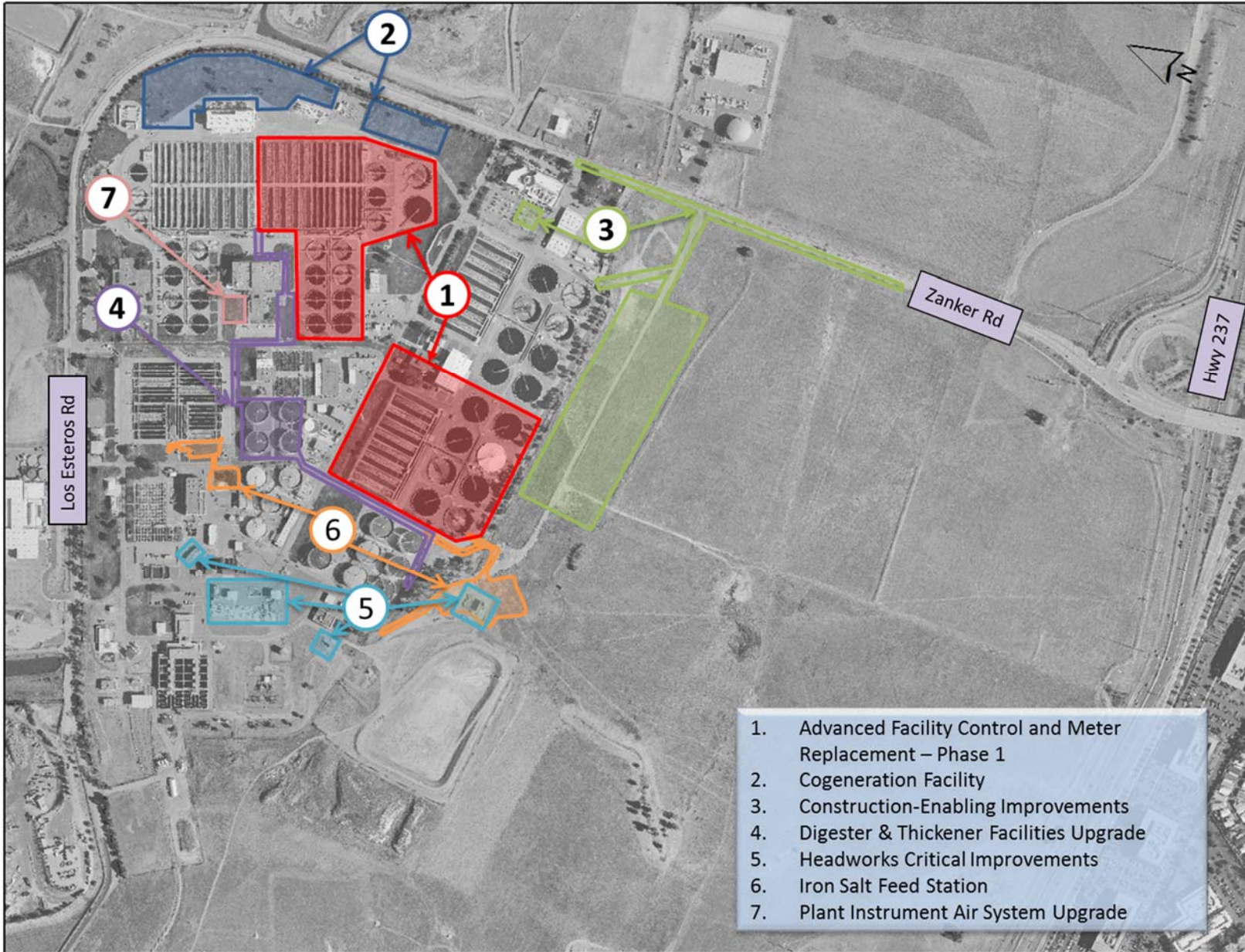


Figure 8: Active Construction Projects





San José-Santa Clara
Regional Wastewater Facility

Capital Improvement Program Monthly Status Report: July 2018

September 6, 2018

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for July 2018.

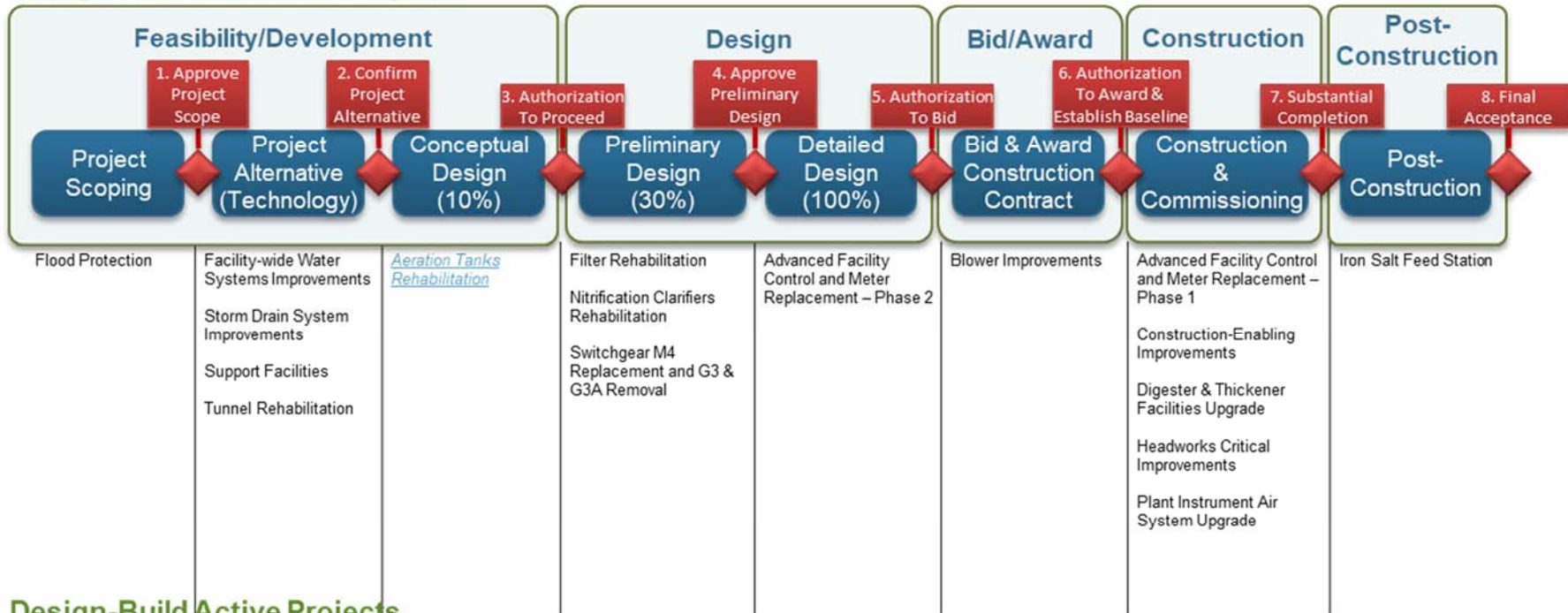
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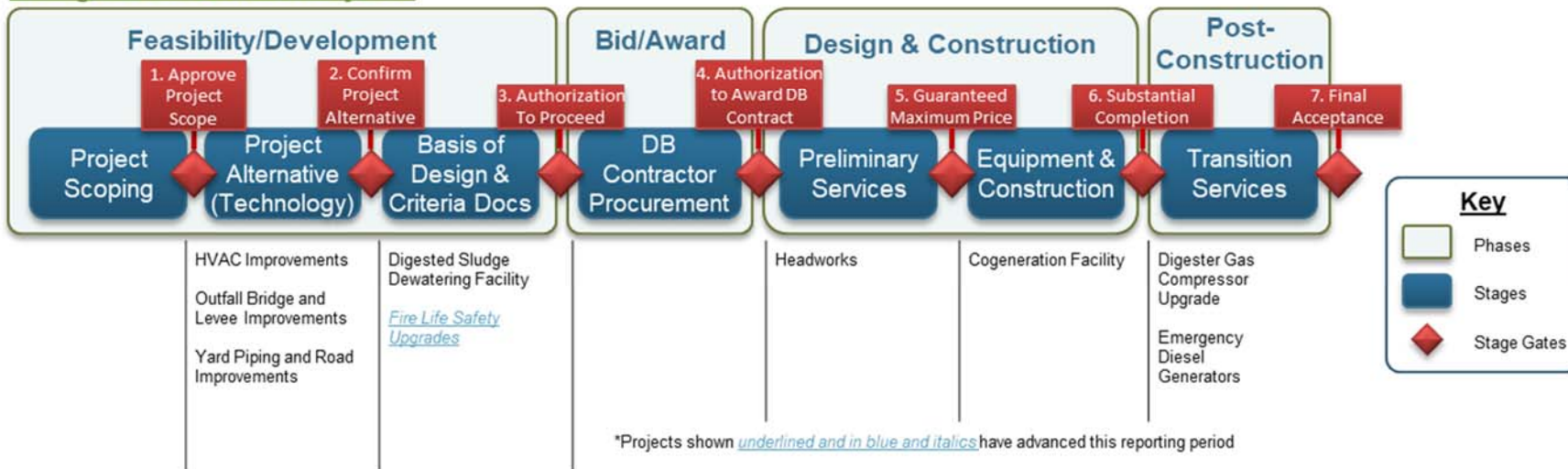


Project Delivery Model

Design-Bid-Build Active Projects



Design-Build Active Projects



Key

- Phases
- Stages
- Stage Gates



Program Summary

July 2018

In July, the City advanced the Aeration Tanks Rehabilitation Project through the Project Delivery Model (PDM) stage gate process (Stage Gate 2 – Confirm Project Alternative). The stage gate panel accepted the team's recommendation to limit the project scope to focus only on high priority rehabilitation needs at this time (e.g., concrete repairs, valve and gate replacements, pipe rehabilitation, electrical/instrumentation upgrades) based on the results of a detailed condition assessment, risk analysis, and cost updates. Lower priority rehabilitation items of work and process improvements related to future nutrient discharge requirements is being deferred until asset life and/or regulatory drivers warrant the need for these additional improvements. In the immediate term, the team will focus on completing the more critical Blower Improvements Project; conceptual and detailed design work on the Aeration Tanks Rehabilitation Project work was put on temporary hold until such time Council approval for additional funding and consultant design services can be obtained.

Following award of the design-build contract, the Headworks Project held its kick-off meeting and commenced preliminary services this month. Work to be included as part of the preliminary services include site selection for the new headworks by early October, preliminary design, and site investigation. The team expects to return to the Treatment Plant Advisory Committee (TPAC) and City Council (Council) with a guaranteed maximum price (GMP) not-to-exceed amount by early 2019. The Yard Piping and Road Improvements Project also held its kick-off meeting this month. The owner's advisor work will initially focus on completing condition assessment of high priority primary effluent and activated sludge pipelines this summer, developing a phased implementation plan, assisting with procurement of a design-builder, and preparing construction bid documents for a few high priority pipe segments. This project will use both design-bid-build and design-build project delivery methods with the first construction package anticipated in the summer of 2019.

The Fire Life Safety Upgrades Project design consultant submitted the final condition assessment technical memorandum to the City and began conceptual design work. The City also received a draft condition assessment report for the HVAC improvements Project, and approved a condition assessment plan for the Storm Drain System Improvements Project.

The Filter Rehabilitation Project team finalized the preliminary design report (PDR) and the value engineering (VE) evaluation of the design. The Nitrification Clarifiers Rehabilitation Project team also received a draft PDR this month, and will perform a VE evaluation in August.

The Blowers Improvement Project held a site walk for prospective bidders. The bid opening is scheduled for August. The project team anticipates recommending a contract award to TPAC and Council in November.

The City issued a Notice to Proceed (NTP) for the the Advanced Facility Control and Meter Replacement Phase 1 Project to C. Overaa & Co. on July 6. Final construction continued on the Headworks Critical Improvements Project and the Construction-Enabling Improvements Project. Both projects successfully passed operational testing and inspections. The Plant Instrument Air System Upgrade Project contractor completed all major construction work. The Cogeneration Facility Project design-builder continued installation of main building underground conduits, piping, and slab reinforcing steel.

The Digester and Thickener Facilities Upgrade Project contractor continued full-time operation of a temporary pumping and pipeline system to allow replacement of the corroded 78-inch settled sewage pipeline. Work on this critical repair is scheduled to be completed by mid-October in advance of the wet-weather season. Construction also continued on the sludge screening building, dissolved air flotation thickeners, above-ground pipe rack, and digester tanks.

Look Ahead

The following key activities are forecast for August and September of 2018:

- The project teams for the Facility Wide Water Systems Improvements and Outfall Bridge and Levee Improvements projects anticipate receiving final Alternative Analysis Reports, and will proceed to Stage Gate 2: Confirm Project Alternative approval.
- The project teams for the Yard Piping Improvements and Storm Drain Improvements Projects will begin condition assessment fieldwork.
- The Nitrification Clarifiers Rehabilitation Project team will perform a VE study and receive the final PDR.
- The Digated Sludge Dewatering Facility team will seek Stage Gate 3: Authorization to Proceed approval, and issue a Request for Proposals (RFP) for the design-build contract.
- The Filter Rehabilitation Project team will seek Stage Gate 4: Preliminary Design (30%) approval.
- The City will open construction bids for the Blower Improvements Project.
- The Cogeneration Facility Project engines will be delivered to the RWF and the factory acceptance test for the gas purification system will be performed.
- The Plant Instrument Air System Upgrade Project will commence full operational testing.
- The Headworks Critical Improvements, Iron Salt Feed Station, and Construction-Enabling Improvements projects will reach Beneficial Use and/or Stage Gate 7: Substantial Completion.



Program Highlight – Conceptual Design

During the Conceptual Design stage of the PDM (refer to Figure 1 below), designers establish the fundamental framework upon which the detailed design of each project is developed. This important stage follows condition assessments of existing facilities; evaluation of technology alternatives, including a Triple-Bottom-Line-Plus analysis; a Class 5 Opinion of Probable Construction Cost (OPCC); and initiation of environmental review studies.

The project team identifies those facilities and systems needed to achieve project and design goals. The team also defines the basic function and relationship of these systems to ensure satisfactory performance.

Key areas of focus during conceptual design include:

- Location – Identify site/footprint for the project. Minor adjustments may be made during detailed design.
- Piloting – Create and initiate a pilot program if process parameters need definition.
- Performance – Establish performance standards for the project.
- Operations – Integrate input from Operation and Maintenance (O&M) staff.
- Procurement – Decide upon the procurement strategy for major equipment.
- Interfaces – Identify interfaces with other CIP projects.
- Costs – Update the project OPCC and operating cost estimates based on information developed in this stage.
- Risks – Update existing threats and opportunities and identify any new risks.
- Constructability – Initial identification of potential construction methods and sequencing; identify constraints.
- Commissioning and Start-Up - Initiate discussions about requirements with designer and O&M.
- Codes – Identify all code and permitting requirements for the project.
- Permitting – Initiate the process for obtaining all required permits.
- Report – Prepare a Conceptual Design Report, recording all conclusions and findings.
- Schedule - Develop a high-level construction schedule.
- Environmental – Continue developing CEQA documents for the project.

The Conceptual Design Report serves as a foundational document for the project. For a design-bid-build delivery project, this document is prepared by the design consultant. In the case of a design-build project, the report is referred to as the Project Definition Report and is prepared by the Owner’s Advisor for use in the design-build contractor procurement.

To date, 15 projects have completed the Conceptual Design stage, with the Digested Sludge Dewatering Facility and Fire Life Safety Upgrades projects currently progressing through this stage.

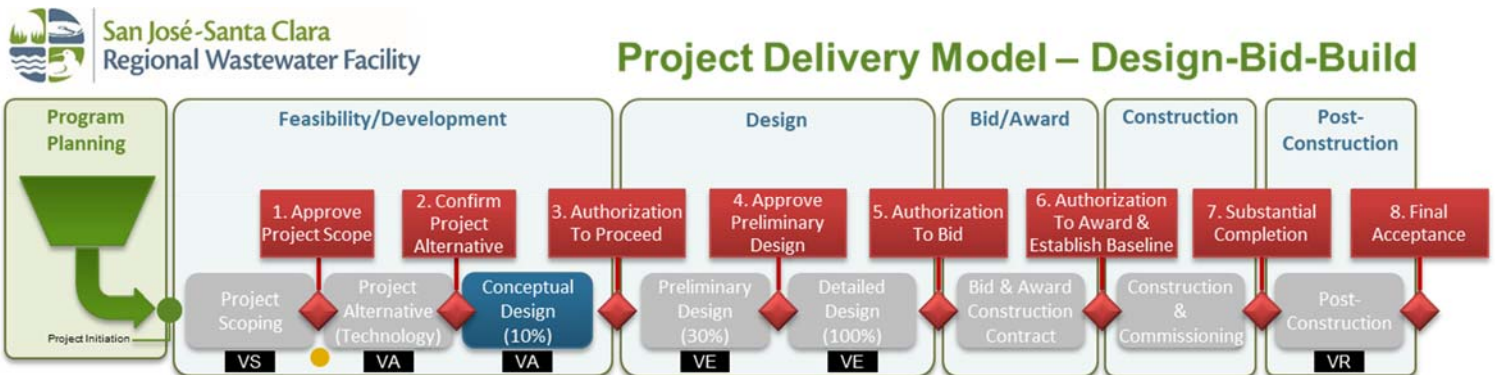


Figure 1: Design-bid-build PDM with Conceptual Design stage highlighted

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 that best reflect the current program will be selected and measured. KPIs have been reset for the current fiscal year; the report will no longer reflect the Procurement and Staffing KPIs due to significant progress made in these areas and reduced risk to program performance. A new KPI measuring vacancy rate for CIP staff has been added for Fiscal Year 2018-2019.

Program Key Performance Indicators – Fiscal Year 2018-2019

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	90%	100%			100%		
		1/1 ¹			19/19		
Measurement: Percentage of initiated projects and studies that successfully pass each stage gate on their first attempt. Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							
Schedule	90%	NA			33%		
		0/0			1/3		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. ² Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	NA			75%		
		0/0			3/4		
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. ² Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure³	\$252M	NA			\$M		
Measurement: CIP FY18-19 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of \$361M = \$252M. Therefore Green: >=\$252M; Amber: \$198M to \$252M; Red: < \$198M							
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							
Vacancy Rate⁴	10%	17%			6%		
		14/84			5/84		
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

Notes

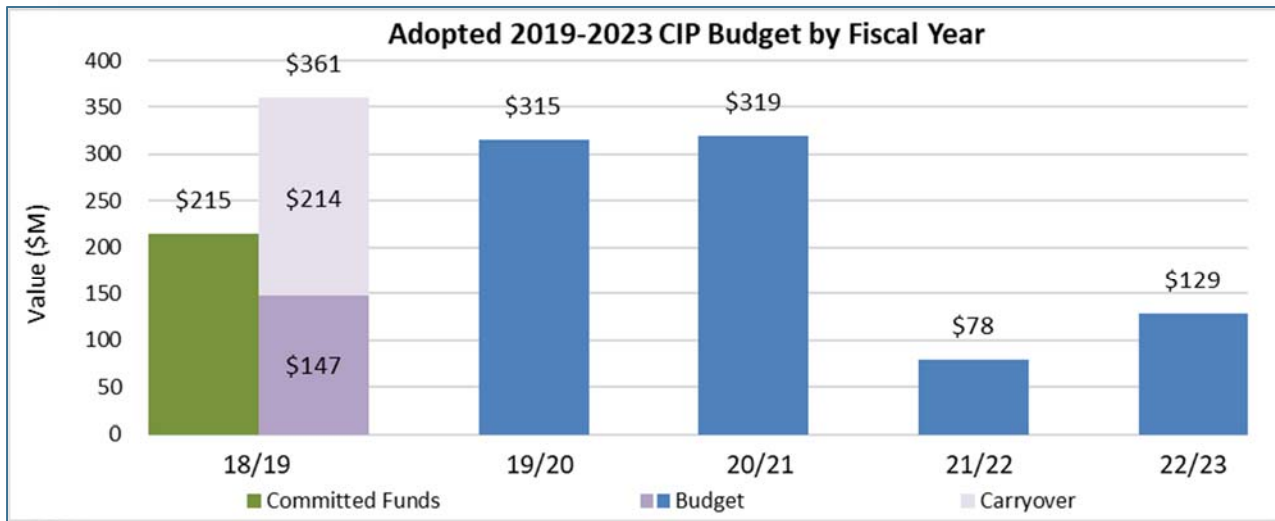
1. The Aeration Tanks Rehabilitation Project successfully completed Stage Gate 2: Confirm Project Alternative.
2. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
3. Due to reversal of 2017-2018 accruals, actual expenses in July are negative and are not stated in this report. These negative expenses will be offset when the 2017-2018 invoices are paid.
4. The Vacancy Rate KPI measures City CIP approved positions (ESD and Public Works) and program management consultant full-time staff.



Program Budget Performance Summary

This section summarizes the cumulative monthly budget performance for fiscal year (FY)18-19 based on the 2019-2023 CIP.

Adopted 2019-2023 CIP Expenditure and Encumbrances



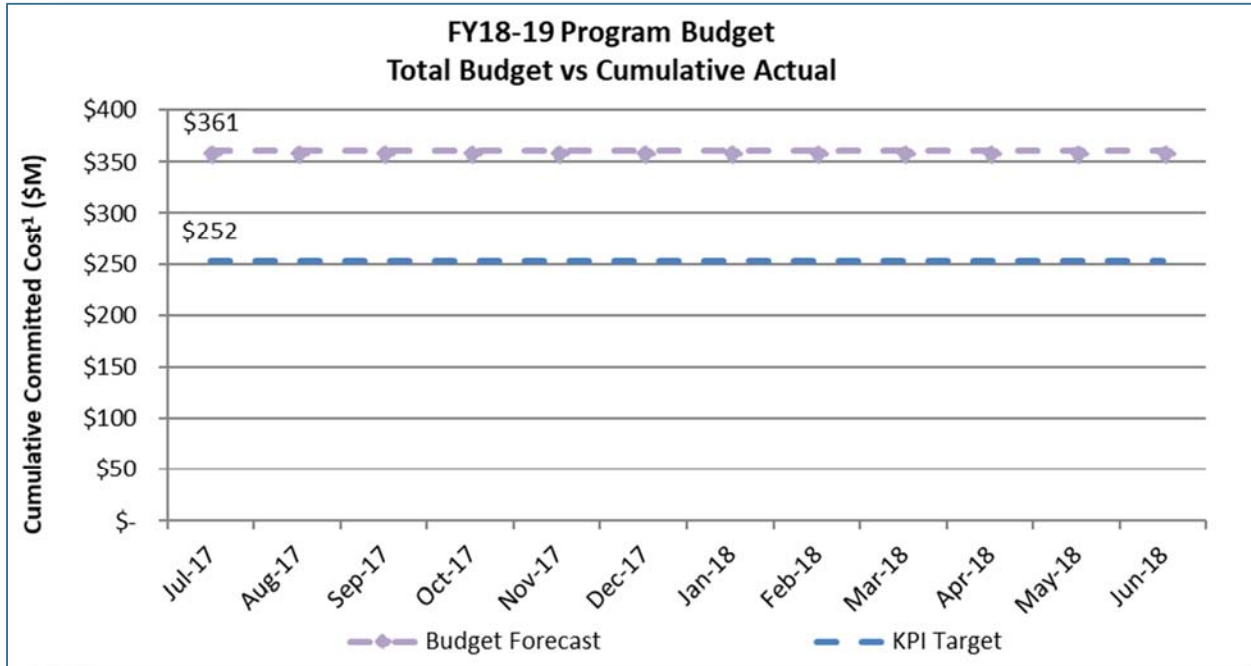
Notes

1. Due to the reversal of 2017-2018 accruals, actual expenses in July are negative. These negative expenses will be offset when the 2017-2018 invoices are paid.



Fiscal Year 2018-2019 Program Budget Performance

The committed costs forecast for Fiscal Year 2018-19 are currently being finalized and will be included in next month's report.



Notes















1. Committed costs are expenditures and encumbrance balances, including carryover (encumbrance balances from the previous fiscal year).







Project Performance Summary

There are currently seven active projects in the construction phase and an additional 17 projects in feasibility/development, design, or bid and award 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.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹	Cost Performance ²	Schedule Performance ²
1. Iron Salt Feed Station	Post-Construction	May 2018 ³		
2. Construction-Enabling Improvements	Construction	Aug 2018		
3. Headworks Critical Improvements	Construction	Aug 2018		
4. Plant Instrument Air System Upgrade	Construction	Oct 2018		
5. Cogeneration Facility	Design & Construction	Mar 2020 ⁴		
6. Digester and Thickener Facilities Upgrade	Construction	Jan 2021		
7. Advanced Facility Control & Meter Replacement - Phase 1	Construction	May 2021		

KEY:

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

Notes

- Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
- An explanation of cost and schedule variances on specific projects identified in this table is provided on page 12 and 13.
- Actual Beneficial Use date.
- The project construction Beneficial Use date will be baselined once the City accepts the design-builder's construction schedule.



Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹
1. Headworks Project	Design and Construction	Sep 2022
2. Blower Improvements	Bid and Award	Nov 2021
3. Switchgear M4 Replacement and G3 & G3A Removal	Design	Feb 2022
4. Filter Rehabilitation	Design	Oct 2022
5. Advanced Facility Control & Meter Replacement Phase 2	Design	Dec 2022
6. Nitrification Clarifiers Rehabilitation	Design	Dec 2023
7. Outfall Bridge and Levee Improvements	Feasibility/Development	Jan 2021
8. Fire Life Safety Upgrades	Feasibility/Development	Sep 2022
9. Storm Drain System Improvements	Feasibility/Development	Sep 2022
10. Digested Sludge Dewatering Facility	Feasibility/Development	Oct 2022
11. Flood Protection	Feasibility/Development	Jan 2023
12. HVAC Improvements	Feasibility/Development	Mar 2023
13. Facility-wide Water Systems Improvements	Feasibility/Development	Sep 2023
14. Aeration Tanks Rehabilitation	Feasibility/Development	Feb 2026
15. Yard Piping and Road Improvements	Feasibility/Development	Jan 2027
16. Support Facilities	Feasibility/Development	Mar 2027
17. Tunnel Rehabilitation	Feasibility/Development	Jun 2027

Notes

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



Significant Accomplishments

Biosolids Package

Digested Sludge Dewatering Facility

- The RFP for the design-builder is being prepared and is expected to be advertised in early October.
- The project team provided comments on the draft Project Definition Report to the owner's advisor, who will submit the final report next month.

Digester and Thickener Facilities Upgrade

- The settled sewage (SES) pipeline bypass continued to operate, allowing the contractor to replace the old, corroded 78" pipe and construction of a new 'Wye' structure. The work is expected to be finished in September, at which time the bypass can be retired and the original route for settled sludge returned to operation.
- Excavation for structural work around digesters 5 and 6 was completed. Work at digesters 7 and 8 continued, including removal and disposal of soils and concrete contaminated with PCBs.
- Contractor Walsh Construction completed the sludge screening building's first floor and began excavating the foundation for the new flare.

Facilities Package

Cogeneration Facility

- The cogeneration engines shipped from Belgium on July 10 and are expected to arrive onsite in late August.
- Design-builder CH2M continued installation of underground conduits, piping, and reinforcing steel. Next month, the concrete slab will be poured in readiness for the delivery of the cogeneration engines.

Fire Life Safety Upgrades

- Design consultant Kennedy/Jenks (K/J) submitted the final condition assessment technical memorandum to the City and began conceptual design.

HVAC Improvements

- The design consultant K/J submitted a draft condition assessment technical memorandum to the City for review.

Outfall Bridge and Levee Improvements

- The project team conducted an alternative analysis scoring workshop with stakeholders and selected a preferred alternative. Next month, the design consultant AECOM will complete and submit the alternative analysis report to the City.

Storm Drain System Improvements

- Design consultant AECOM submitted a condition assessment plan and will begin condition assessment fieldwork next month.

Yard Piping and Road Improvements

- Owner's advisor Black & Veatch submitted process shutdown requests for condition assessments of the 96-inch, 87-inch-by-136-inch, and secondary clarify return activated sludge (RAS) pipelines. Next month, condition assessment fieldwork will begin.

Liquids Package

Aeration Tanks Rehabilitation

- Stage Gate 2: Confirm Project Alternative was held. The stage gate panel accepted the team's recommendation to limit the project scope to focus only on high priority rehabilitation needs at this time (e.g., concrete repairs, valve and gate replacements, pipe rehabilitation, electrical/instrumentation upgrades) based on the results of a detailed condition assessment, risk analysis, and cost updates. Lower priority rehabilitation items of work and process improvements related to future nutrient discharge requirements is being deferred to a future date. Conceptual and detailed design work on the Aeration Tanks Rehabilitation Project work was put on temporary hold until such time Council approval for additional funding and consultant design services can be obtained.

Blower Improvements

- A second pre-bid meeting/site walk was held on July 11. Bids are due on August 16. The project team anticipates recommending contract award to TPAC and Council in November.



Filter Rehabilitation

- Design consultant Kennedy/Jenks and the project team finalized the PDR and OPCC.
- The VE consultant, Hazen and Sawyer, published the final draft value engineering report. Next month, the project team anticipates finalizing the project scope and completing negotiations with K/J for detailed design and bid support services.

Headworks

- Design-builder CH2M began preliminary services, with the initial focus on selection of the new headworks site by early October.

Nitrification Clarifiers Rehabilitation

- The design consultant, HDR Engineering, Inc., completed the draft PDR. Next month the project team will perform the VE evaluation using VE consultant, VMS.

Headworks Critical Improvements

- The contractor, Overaa Construction, completed the majority of the punch list work. Substantial Completion is anticipated to be issued next month.

Iron Salt Feed Station

- The contractor, Anderson Pacific, completed the punch list work for the project. Stage Gate 7: Substantial Completion will be held next month.

Power and Energy Package

Plant Instrument Air System Upgrade

- Staff completed the draft standard operating procedures for the functional and commissioning tests. These tests will commence next month.



Explanation of Project Performance Issues

Construction-Enabling Improvements

This project was originally scheduled to be substantially complete by mid-February 2017. Due to the extremely wet 2016-17 winter season, contractor Teichert Construction was unable to perform site work for several weeks from October 2016 through April 2017. Teichert was granted 47 extra work days for weather-related delays. Teichert was also granted additional time to remove and replace asphalt pavement in damaged areas of Zanker Road; install traffic-rated pull boxes for the streetlight system; install underground conduits for the fiber optic system; and make additional changes.

Delays in completing the installation of the project's portable trailers continue to impact the schedule. The contractor completed the installation of the canopy and continues to install the trailer utilities. Teichert continues to obtain required materials and schedule necessary subcontractors to complete the installation and setup of the trailers. These delays place the Beneficial Use date in August 2018. The City notified Teichert that the number of contract work days had been exceeded and that liquidated damages are in effect. By the end of this reporting month, liquidated damages were \$280,000.

Digester and Thickener Facilities Upgrade

This project encountered numerous unforeseen conditions at the beginning of construction in 2016, described below. In 2017, design modifications were required to address seismic risks, and discovery of hazardous materials required extensive cleanup. Delays for these conditions are still being discussed and evaluated.

The City has negotiated contract change orders for the following unforeseen conditions discovered in 2016:

- Major corrosion of a below-ground, 78-inch settled sewage pipeline and junction structure delayed the construction of dissolved air flotation tank piping connections, two new pressurization flow boxes, and utility relocation work. The contractor postponed all repairs until a temporary pumping and pipeline system could be designed and safely installed to enable replacement of the pipeline in the 2018 dry season. In May of 2018, the contractor started full-time operation of this temporary pumping and pipeline system. The contractor also began replacement of the 78-inch settled sewage pipeline, which is anticipated to be completed by late September 2018.
- A 36-inch biochemical oxygen demand pipe was found to be obstructing the new sludge screen building foundation. The contractor removed this pipe and relocated several gas drain vaults and associated piping before foundation construction began.
- Multiple conflicts between contract work and existing utilities required numerous relocations. They included water, natural gas, digester gas, landfill gas, storm drains, and sanitary sewer pipelines. The contractor completed necessary relocations and rerouting, especially near the new digester gas pipe rack footings. Many of these modifications also require design changes.
- Bay Area Air Quality Management District venting restrictions also delayed digester work. The contractor completed the temporary digester gas connections and the system became operational in February 2018.

The following outstanding issues are currently being evaluated and are expected to result in additional costs and delays:

- Digester structural redesign. The design consultant has completed the revised structural drawings to address seismic issues. The contractor has provided a cost proposal associated with the revised structural drawings for the City's review.
- Hazardous material mitigation. Testing of soils and concrete for PCBs was completed and the City's design consultant prepared a hazardous material survey report summarizing the results. The contractor has completed excavation and removal of all PCB-contaminated caulk and soil. They have now returned to the remaining excavation required for the larger digester foundations.

In November 2017, Council approved a contingency increase of \$15 million. The City issued change orders against the increased contingency for delays associated with the conditions discovered in 2016.

In June 2018, Council approved a second contingency increase of \$25 million for additional costs associated with the seismic redesign, hazardous material remediation, and extended construction duration.

An estimated delay of approximately 145 working days is currently reflected in the revised Beneficial Use date of January 2021.

Iron Salt Feed Station

Project construction has been delayed by eight months due to a combination of heavy winter rain in 2016-17; longer than anticipated time to fabricate the double containment pipeline and leak detection system; piping modifications to resolve a pump operational issue at the ferric chloride station; and installation of additional piping to allow O&M staff to temporarily dose polymer at an alternate location. In addition, operational testing and commissioning of the new equipment has taken longer than anticipated. Specifically, fine-tuning the control program; identifying and resolving pump operational issues;



and addressing problems with the new flow meter and level sensor have taken additional time.

The project team resolved all issues and completed the commissioning test in May 2018. Beneficial Use was achieved on May 14, 2018.

Plant Instrument Air System Upgrade

Project construction has been delayed by three months due to three issues: 1) Staff discovered that the planned construction site access route crossed a large settled sludge pipeline, requiring an alternative access route to be developed and constructed; 2) the contractor was temporarily unable to install a section of the conduit from the sludge control building to the new compressor building due to other work being performed in the area by a different contractor. Finally, the commissioning test SOP required for Anderson Pacific to perform the 28-day commissioning test is still being finalized. The project is expected to achieve Beneficial Use in October 2018.



Project Profile – Blower Improvements

The RWF's secondary treatment process consists of two separate biological nutrient removal systems, or BNRs, known as BNR-1 and BNR-2. These BNRs include a process that removes organics from the incoming primary effluent. The main system components include blowers and aeration tanks' air headers and diffusers. The blowers provide air that accelerates the biodegradation of organic material in the biological nutrient removal process.

BNR-1 and BNR-2 were originally constructed in 1961 and 1975, respectively. The 14 aeration blowers serving BNR-1 and BNR-2 are located in three separate buildings. The blower system has aged beyond its original design life and requires rehabilitation to ensure long-term operation while minimizing maintenance requirements.

The Blower Improvement Project's primary goal is to extend the useful life of RWF's aeration system by 30 years while also significantly improving the system's energy efficiency. An extensive condition assessment of the blower systems in all three buildings was performed in the spring of 2016 by the original blower manufacturer Howden-Roots. The assessment concluded that the blowers themselves are in excellent condition and do not need to be replaced; however, the majority of the auxiliary systems including variable frequency drives/soft starters, engines/motors, programmable logic controllers, and instrumentation/controls along with major process air valves/actuators require upgrading/replacement. The scope also includes decommissioning and removal of four of the six existing blowers in the Secondary Blower Building, which are no longer required. An additional challenge is to ensure operations continue to meet discharge permit requirements while project construction is ongoing, requiring extensive coordination with the O&M team.

Design consultant Brown and Caldwell completed the design in May 2018. The City advertised the project to five pre-qualified general contractors in mid-June 2018. Bids will be opened in mid-August. The project team is planning to recommend award of the construction contract to TPAC and City Council in November 2018. The construction NTP is scheduled for early January 2019 with beneficial use anticipated by December 2021. The total project budget is \$51 million.



Figure 2: B-2 Blower that will be converted to an electric motor under the project scope



Figure 3: Blower Generator Building 4,000 hp Aeration Blowers

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Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

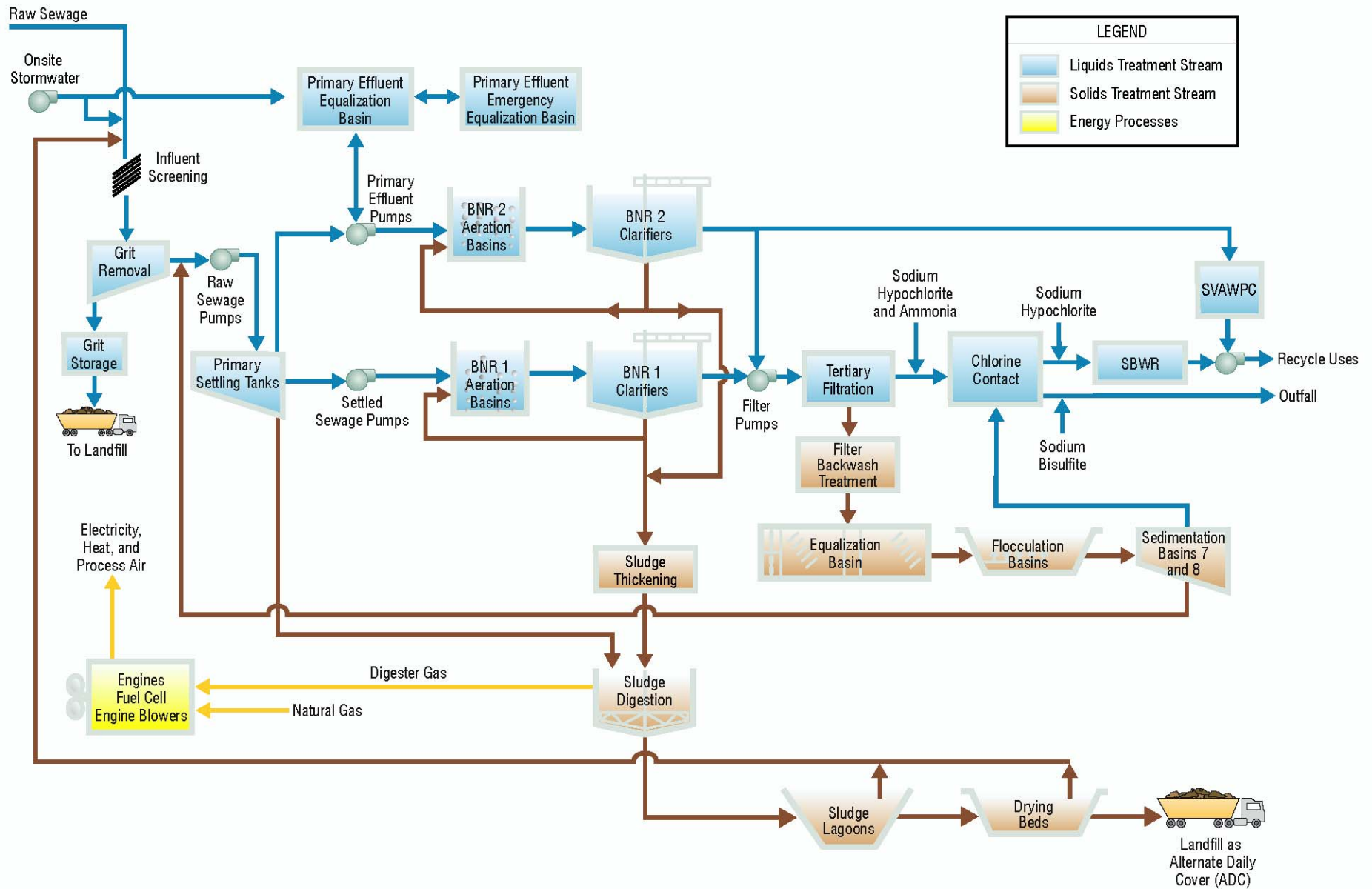


Figure 4 – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

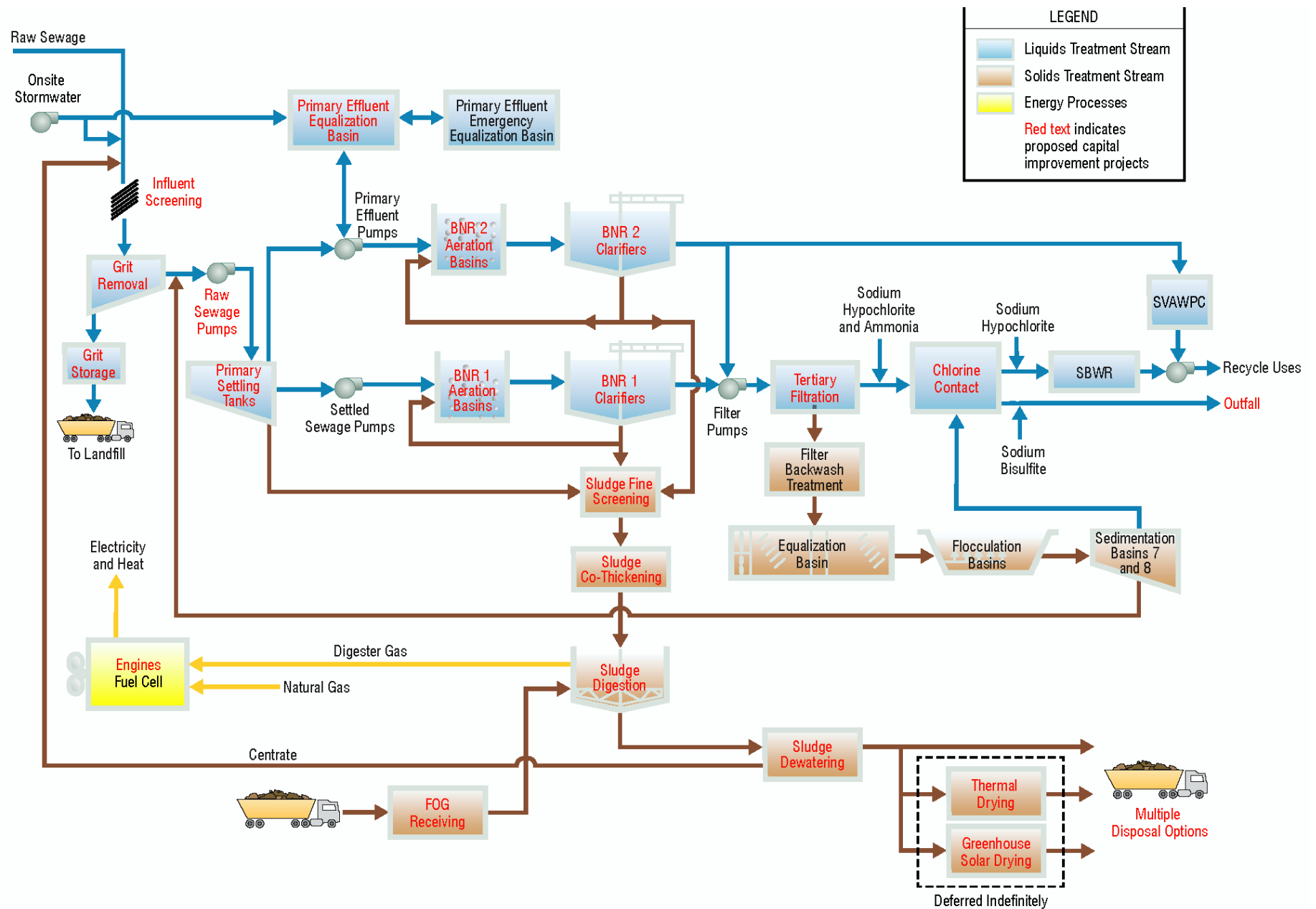


Figure 5 – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

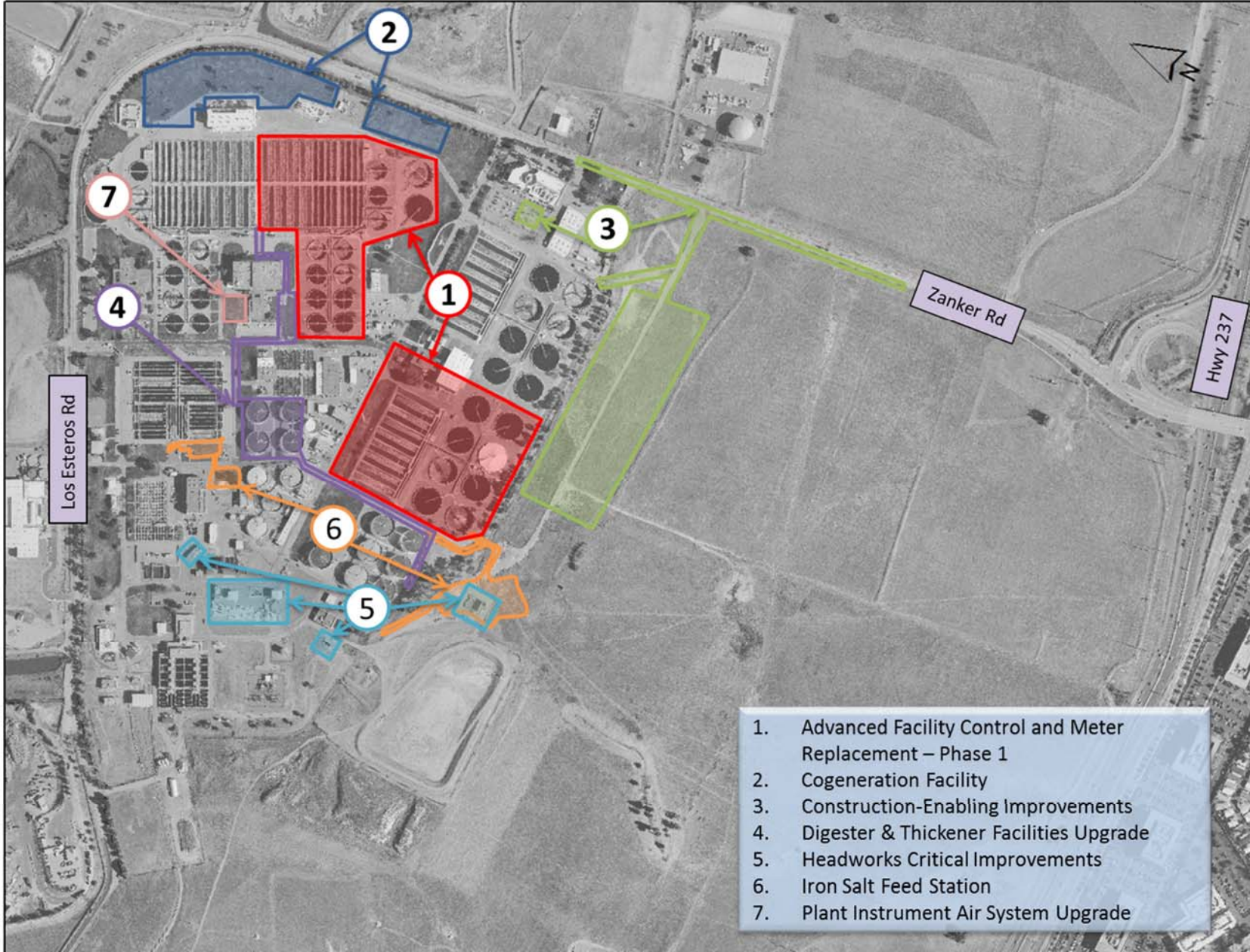


Figure 7: Active Construction Projects





COUNCIL AGENDA: 9/25/18

FILE:

ITEM:

Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

**SUBJECT: PURCHASE OF CALIFORNIA
CARBON ALLOWANCES**

DATE: September 4, 2018

Approved

Date

9-5-18

RECOMMENDATION

Adopt a resolution authorizing the City Manager to negotiate and execute an agreement between the City of San José and Vitol, Inc., for the purchase of California Carbon Allowances for the San José-Santa Clara Regional Wastewater Facility (RWF) to fulfill the compliance obligation under the California Cap-and-Trade Program, for an amount of \$295,728.

OUTCOME

Execution of this contract will allow the RWF to complete its regulatory compliance obligation under the California Cap-and-Trade Program through the purchase of California Carbon Allowances.

BACKGROUND

The Global Warming Solutions Act of 2006, or Assembly Bill (AB) 32, is a California State Law that fights climate change by establishing a comprehensive program to reduce greenhouse gas emissions from all sources throughout the state. AB 32 requires the California Air Resources Board (CARB) to develop regulations and market mechanisms to reduce California's greenhouse gas (GHG) emissions to 1990 levels by the year 2020. The target reduction represents a 25% reduction statewide. The market mechanism for reducing GHG emissions is California's Cap-and-Trade program (CATP) which includes an emissions cap for significant emissions sources beginning in 2012. GHGs include methane, nitrous oxide, and carbon dioxide. Emissions are presented in carbon dioxide equivalents (CO₂e), a standardized measure that allows the effect of different greenhouse gases to be compared using carbon dioxide as a standard unit for reference. The CO₂e measurement is given in metric tons per year for greenhouse gas reporting.

Facilities that emit more than 10,000 metric tons per year are subject to mandatory reporting. Facilities that emit 25,000 metric tons per year of CO₂e are required to participate in California's CATP.

CATP is a market-based regulation that is designed to reduce GHGs from multiple sources by creating a market to trade GHG emission credits among those facilities that are part of the program.

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

- 1st Compliance Period: 2013-2014
- 2nd Compliance Period: 2015-2017
- 3rd Compliance Period: 2018-2020

In 2013, the Regional Wastewater Facility (RWF) emitted 25,029 metric tons of CO₂e and entered the CATP. Prior to 2013, the RWF ran its engines on a blend of digester gas produced as part of the RWF's processes, landfill gas purchased from Republic Services' nearby landfill, and natural gas purchased from PG&E. Biomass fuel such as digester and landfill gas are exempt from the CATP. In 2013, the RWF increased its purchase of natural gas due to interruptions in the digester gas and landfill gas supplies. The increased demand for natural gas caused RWF emissions to exceed 25,000 metric tons of CO₂e. To comply with the CATP, the City entered into an agreement with Vitol Inc. to purchase CCAs for emissions from calendar years 2013 through 2016 as presented in the following table.

Emissions Year	Emissions (metric tons CO₂e)	Allowance Price	Total Allowance Cost
2013	25,029	12.25	\$306,605.25
2014	24,752	12.75	\$315,460.50
2015	24,433	12.93	\$303,692.00
2016	19,693	15.20	\$303,437.60

ANALYSIS

Once a facility enters the CATP, CCAs are surrendered each year irrespective of whether the emissions for each subsequent year are less than the 25,000-metric ton CO₂e threshold. The requirement to purchase CCAs is eliminated only after two compliance periods, during which the facility remains beneath the cap during each year of both compliance periods. The second compliance period of RWF emissions less than 25,000 MT per year ended in 2017. Thus, the RWF will be relieved of its obligation to purchase CCAs after surrendering CCAs for the 2017 emissions year.

RWF emitted an estimated 19,392 metric tons of CO₂e in 2017. This number has been reported to CARB, as required, and was verified by a Third-Party Verification Audit conducted by Rincon Associates.

CCAs are sold on the open market through mechanisms established by the California Air Resources Board. The RWF is working with an emissions broker and has again identified Vitol, Inc., as a seller of 2017 credits. Vitol, Inc. will contract with the City \$15.25 per CCA, which was determined by the market price for the credits. This is an increase compared to previous years and is a result of increased market demand. The final purchase agreement will be for \$295,728, which is slightly lower than last year's expenditure, due to a continued decrease in emissions from the RWF. The total cost to purchase CCAs for the second compliance period (years 2015 through 2017) is \$910,000.

The RWF has implemented a GHG emissions management program to stay under the 25,000 metric tons of CO₂e threshold, and has successfully done so since 2013, with 2017 being the lowest emissions total so far. Therefore, the RWF will exit the CATP after surrendering allowances for 2017 emissions. The upgraded Digester and Thickener Facilities and Cogeneration Facility projects are anticipated to come online in late 2019/early 2020 and will enable increased production and more efficient use of biogas. The effect of these upgrades on emissions and the provisions of the extended CATP, set to begin in 2021, are currently being evaluated to determine how to manage GHG emissions after 2019.

EVALUATION AND FOLLOW-UP

The RWF emitted less than the 25,000-metric ton threshold in 2017 and will therefore exit the cap and trade after surrendering allowances for 2017 emissions. The RWF will manage natural gas consumption to remain below the 25,000 MT cap and trade threshold through at least 2019. Options for energy supply and demand for energy following the ongoing facility upgrades are being evaluated. The potential on applicability of the extended cap and trade program will be presented in the future.

PUBLIC OUTREACH/INTEREST

This memorandum will be posted on the City's Council Agenda website for the September 25, 2018 City Council Meeting.

COORDINATION

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

COMMISSION RECOMMENDATION

This memorandum will be heard at the September 13, 2018 Treatment Plant Advisory Committee.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/AGREEMENT: \$ 295,728
2. SOURCE OF FUNDING: San José-Santa Clara Treatment Plant Operating Fund (513)
3. FISCAL IMPACT: No additional funding is necessary to approve this purchase.

BUDGET REFERENCE

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

Fund #	Appn. #	Appn. Name	Total Appn.	Amount Requested	2018-2019 Proposed Operating Budget* Page	Last Budget Action (Date, Ord. No.)
513	0762	NP/EQUIP-ENVIRONMENTAL SVCS	\$28,440,251	\$295,728	X-81	6/19/2018 30124

* The 2018-2019 Operating Budget was adopted on June 19, 2018


CEQA

Not a Project, File No. PP17-003, Agreements/Contracts (New or Amended) resulting in no physical changes to the environment.

/s/ Napp Fukuda for
KERRIE ROMANOW
Director, Environmental Services

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

CITY COUNCIL ACTION REQUEST

Department(s): Finance	CEQA: Not a Project, Public Project Number PP17-003,	Coordination: Department of Environmental Services,	Dept. Approval: /s/ Julia H. Cooper
Council District(s): Citywide	Agreements/Contracts (New or Amended) resulting in no physical changes to the environment	Department of Public Works, City Attorney's Office, City Manager's Budget Office	CMO Approval:  9-5-18

SUBJECT: ACTIONS RELATED TO PURCHASE ORDERS FOR HAZARDOUS FLUID WASTE RECYCLING, DISPOSAL, AND RELATED SERVICES

RECOMMENDATION:

Adopt a resolution authorizing the City Manager to:

1. Execute two Purchase Orders with Safety-Kleen Systems, Inc. (Norwell, MA) for hazardous fluid waste recycling, disposal, and related services, including all labor, material, and equipment necessary to perform such services, for the Departments of Public Works and Environmental Services for an initial twelve-month period beginning on or about September 19, 2018 and ending September 30, 2019 in a combined amount not to exceed of \$145,000;
2. Approve a contingency of \$30,000 to amend purchase orders as required during the initial term in the event actual service needs exceed estimates, subject to the appropriation of funds; and
3. Execute purchase orders for up to four additional one-year option terms to extend the services through September 30, 2023, subject to the appropriation of funds.

Desired Outcome: Ensure proper recycling and disposal of hazardous fluid waste to comply with applicable regulatory requirements.

BASIS FOR RECOMMENDATION:

The Departments of Environmental Services and Public Works require ongoing hazardous fluid waste recycling, disposal, and related services at various City locations such as the San José/Santa Clara Regional Wastewater Facility, the San José Police Department Fleet Garage, and the Norman Y. Mineta San José International Airport Fleet Garage. Hazardous fluid wastes include, but are not limited to, coolant, oil, oil filters, and aerosol cans and require proper disposal/recycling to meet regulatory requirements.

In May 2018, the Finance Department issued a Request for Bid (RFB) to procure hazardous fluid waste recycling, disposal, and related services. Two bids were received. Staff recommends award to Safety-Kleen Systems, Inc. as the lowest priced responsive and responsible bidder pursuant to the formal bidding procedures of the San José Municipal Code, Section 4.12.310B.

Commission Recommendation/Input: The Treatment Plant Advisory Committee (TPAC) will consider this item on September 13, 2018.

Office of Equality Assurance: Living Wage and Prevailing Wage are applicable to the work under these purchase orders.

This Council item is consistent with the City's 2018-2019 Operating Budget City Service Areas Delivery Framework to provide environmental leadership through policy development, program design, and reliable utility services resulting in "clean and sustainable" air, land, and energy.

COST AND FUNDING SOURCE:

Fund #	Appn #	Appn. Name	Total Appn	Amt. for Recommendation	2018-2019 Proposed Operating Budget Page*	Last Budget Action (Date, Ord. No)
513	0762	Non-Personal/Equipment	\$28,440,251	\$25,000	X-81	06/19/2018 30124
001	0572	Non-Personal/Equipment	\$13,661,064	\$120,000	VIII-300	06/19/2018 30124

* The 2018-2019 Proposed Operating Budget was adopted on June 12, 2018.

FOR QUESTIONS CONTACT: Jennifer Cheng, Deputy Director of Finance, at (408) 535-7059



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Julia H. Cooper

SUBJECT: SEE BELOW

DATE: September 6, 2018

Approved

D. D. S. L.

Date

9/7/18

SUBJECT: APPROVAL OF CITYWIDE INSURANCE RENEWALS

RECOMMENDATION

Adopt a resolution authorizing the Director of Finance to select and purchase City property and liability insurance policies for the period October 1, 2018 to October 1, 2019, at a total cost not to exceed \$1,850,000, including a 15% contingency for additional property or assets scheduled, with the following insurance carriers:

- (1) Factory Mutual Insurance Company for Property Insurance, including Boiler & Machinery
- (2) Old Republic Aerospace, Phoenix Aviation Managers, for Airport Owners and Operators Liability including War Risks & Extended Perils Coverage (including Excess Automobile and Employers' Liability) and Police Aircraft Hull & Liability including War Risks & Extended Perils Coverage.
- (3) The Travelers Indemnity Company of Connecticut for Automobile Liability (Airport fleet vehicles including Shuttle Buses, Regional Wastewater Facility fleet vehicles, and Airport Shuttle Bus physical damage).
- (4) QBE Specialty Insurance Company for Secondary Employment Law Enforcement Professional Liability.
- (5) National Union Fire Insurance Company of Pittsburg, PA for Accidental Death, Accidental Dismemberment, and Paralysis Policy for the Police Air Support Unit.
- (6) Berkley Regional Insurance Company for Government Fidelity/Crime Coverage.

OUTCOME

Approval of these insurance policies will ensure the City maintains appropriate insurance coverage to provide financial protection from certain types of catastrophic or financial loss.

EXECUTIVE SUMMARY

The recommended insurance policies will provide coverage to protect the City from loss or claims due to specified catastrophic events or financial losses. Annually, the Finance Department analyzes the City's insurance coverage with the City's Insurance Broker, Arthur J. Gallagher Insurance Services ("Gallagher").

Gallagher receives competitive quotes from the insurance market and presents the results to the City Administration for consideration. After reviewing the City's financial standing, the scope and cost of coverage, as well as the insurer's financial strength to pay claims and provide additional resources, the Finance Department determines the appropriate insurance coverage and recommends the most advantageous insurance policies.

The total cost of insurance premiums, broker costs, taxes, and fees is \$1,601,343. The annual premiums are subject to change during the term associated with changes to the City's insured property or assets.

BACKGROUND

Every year, the City of San José ("City") purchases insurance to protect the City against a catastrophic event or specified loss perils; this decision is based on many factors including but not limited to: when the frequency of events cannot be predicted, the severity of potential loss could seriously hamper operations, and when the cost of the insurance policy is not prohibitive.

To secure policies through "best practices," the City utilizes its insurance broker to review and analyze the insurance market, regional claims' history and exposures, the City's insurance needs, and the City's historical approach to insuring for potential losses. For this year's renewals, the City had high risk or complex claims on one policy. During renewals, the City notified carriers of improvements and considerations to reduce exposures from future events and to reduce rates. The City also added a new Fiduciary Liability Policy, effective January 1, 2018 for the City's administration of a Voluntary Employees' Beneficiary Association (VEBA) Health Savings Trust.

In addition, staff reviewed, with Arthur J. Gallagher's input, and again considered the viability of additional policies including Excess Liability Insurance, Earthquake Insurance, Program-Specific Excess Liability for Law Enforcement Liability and the Regional Wastewater Facility, and both an excess and a fully insured Workers' Compensation Insurance Program. The market conditions remain consistent with last year's renewal decisions. The City does not recommend any of these additional coverages at this time, based on several considerations including but not limited to: the products being cost prohibitive, the scope of coverage being too narrow considering the City's risk exposure, or, that the coverage was unavailable, inadequate, or excessive in cost due to the nature of the risk.

ANALYSIS

Annually, the Finance Department reviews the City's risk exposures with the City's insurance broker, Gallagher, and measures those exposures, recent City claims, insurance market trends, product availability, and the City's historical approach to insuring for losses. Gallagher's responsibilities include working with staff to analyze the City's exposures and presenting the City's risk portfolio to insurance carriers to obtain the best value insurance coverage.

Annually, Gallagher solicits competitive quotations from major insurance companies for all recommended products. The quotes are compared and evaluated with respect to scope of coverage, cost, the insurer's financial strength and reputation on paying claims, and the insurer's availability of resources to provide industry-related services such as property evaluations, safety training, risk-related engineering services, and loss control. Major claims related to the February 2017 flood event contributed to significant negative/unfavorable change to AIG's renewal terms.

Appendix A reflects the best value coverage, renewal premiums and insurance carriers presented for FY 2018-2019. The quoted renewal premiums may change with the addition or deletion of insurable property prior to binding coverage or during the policy term.

Appendix B provides a comparison of insurance premiums by fund and type of insurance. This comparison shows that the aggregate cost of insurance and brokers fees is \$1,601,343 which is \$13,849 less than last year's premium of \$1,615,192, a 0.87% decrease in total costs.

A. Insurance Coverage Recommended

1. All Risk Property including Boiler & Machinery Insurance

Provides coverage for City owned and leased real and personal property (including buildings, contents, business interruption, boiler and machinery, electronic data processing equipment and media, fine arts, loss of rents, expediting expenses, off premises services interruption, unnamed locations, transit, tunnels/bridges/roadways, animals, accounts receivable, valuable papers, data, rebuild with green upgrades, and other coverage as detailed in the policy forms subject to sub-limits as defined in the policy). This includes property previously owned by the Redevelopment Agency of the City of San José, which, because of the dissolution of the Redevelopment Agency on February 1, 2012, is now owned by the Successor Agency to the Redevelopment Agency ("Successor Agency").

Due to significant claims from the 2017 Floods, the City's current (incumbent) Property insurer AIG ("AIG"/Lexington) decided not to offer renewal terms on the same "paper" or for the same limits or favorable rates. Property insurer Factory Mutual ("FM") proposed a new program for this term. A summary of each proposal is provided below.

- AIG/Lexington's program structure changed significantly for the renewal quote. AIG/Lexington is only able to provide a \$250M primary limit, and an additional \$750M excess will be necessary for Arthur J. Gallagher to procure from other insurance companies to make up (fill in) the program to match the prior year's \$1 billion property limit. The estimated program cost increase for AIG is: 25% with 75% reduction in the limits that AIG can offer (\$1 billion down to \$250 million).
- Factory Mutual's program structure offers attractive rates, an increased property limit and more favorable coverage terms without giving up loss control engineering services. FM can provide \$1.5 billion in primary property policy limits for a better total premium/rate. Cost decrease of 4.6% with a 50% increase to blanket policy limit from \$1 billion to \$1.5 billion. The net annual premium savings (versus *estimated* AIG/Lexington) is: \$372,275.

Due to the favorable property renewal terms offered by FM, City recommends changing carriers from AIG to FM.

The property insurance limit being quoted by Factory Mutual Insurance Company is \$1.5 billion each occurrence with a \$100,000 deductible per occurrence. The City has additional coverage for the special loss peril of flood with \$25,000,000 in limits and a \$100,000 deductible per occurrence for properties not in flood zones and a \$1,000,000 or 5% total insured value of all locations per occurrence deductible for those properties located in flood zones. *FM has also included a flat, reduced deductible on the Airport, McEnery Convention Center, and the Water Treatment Plant. What would have been \$50M, \$28M, and \$15M deductibles will be reduced to a flat \$10M, \$10M, and \$5M.*

In addition to the insurance products procured, the City successfully utilized risk engineering services to evaluate the risk engineering at seven City-owned properties. Risk engineering services help identify common risks resulting in damage or destruction of property such as vandalism, fire, theft, flood, or other operational risks and are geared to finding solutions aimed to reduce property loss or disruption of use. The City also used additional appraisal services provided through the City's broker agreement, to survey and determine the total replacement value of eleven properties.

Total program costs decreased by \$57,820 or 4.6% from the previous fiscal renewal year. Three factors could have resulted in higher premiums: 1) property value inflations for the Santa Clara index, property values increased by approximately 1.5%; 2), additional properties acquired during FY 2017-18 resulting in an increase in the schedule's total replacement value; 3) City sustained property damage to scheduled properties because of the February 2017 storm and flood event. *NOTE: Due to recent reported losses, no carrier would offer a multiyear guaranteed rate.

Insurance Carrier: Factory Mutual Insurance Company

Annual Premium:	\$1,200,000 ¹
Broker Fees:	\$88,500
TRIA Coverage:	<u>Included</u>
Total Annual Premium:	\$1,288,500 (Net)

2. Airport Owners and Operators Liability including War Risks & Extended Perils Coverage

Provides coverage for those amounts that the City becomes legally obligated to pay as damages because of bodily injury, property damage and personal injury resulting from airport operations. Additionally, the program provides coverage for bodily injury or property damage caused by war and other perils.

In 2015, the airport liability insurance premium decreased by 47% as a result of aggressive product marketing, competitive industry market, and a favorable loss history. The City locked a three-year, guaranteed rate (which was again offered for the upcoming 2018-2019 policy period) which continues to be the best market rate as verified through a competitive process that was conducted this year.

Insurance Carrier: Old Republic Aerospace, Phoenix Aviation Managers

Annual Premium:	\$39,150
War/Extended Coverage:	\$ 3,915
TRIA Coverage:	<u>\$ 3,915</u>
Total Annual Premium:	\$46,980 (Net)

3. Secondary Employment Law Enforcement Professional Liability

Provides coverage for an actual or alleged error or omission, negligent act, neglect, or breach of duty that results in bodily injury, property damage, or personal injury by City police officers who have been approved to participate in the Secondary Employment program while conducting law enforcement activities on behalf of an approved third party secondary employer.

The City renewed at the same expiring rate of \$170.17 per Sworn Officer. Participating Sworn Officers all contribute \$128 per year to obtain coverage and the number of Sworn Officers decreased from 593 to 547 officers.

¹ This is a firm premium (FM) and includes a cost of \$8,020 that will be directly invoiced to the Successor Agency, for the Successor Agency's scheduled properties.

Insurance Carrier: QBE Specialty Insurance Company

Annual Premium:	\$90,198
Surplus Lines Tax:	<u>\$2,886</u>
Total Annual Premium:	\$93,084 (Net)

Total City Cost:	\$23,271
Total Officer Cost:	\$69,813

4. Automobile Liability for Airport Fleet & Shuttle Bus Fleet Physical Damage

Automobile liability provides coverage for bodily injury, property damage, and personal injury for claims arising out of the operation at the Airport. Airport Shuttle Bus Physical Damage coverage provides comprehensive physical damage (i.e. fire, theft, vandalism, malicious mischief) and collision damage subject to a \$25,000 deductible.

Total premium increased by \$4,020 or 7.71% because of an industry-wide increase in premium rates.

Insurance Carrier: The Travelers Indemnity Company of CT
Total Annual Premium: \$56,182 (Net)

5. Automobile Liability for Water Pollution Control Plant Fleet

Automobile liability provides coverage for bodily injury, property damage and personal injury for claims arising out of the operation at the Treatment Plant.

Total costs increased by \$8,842 or 29.93% because of an overall industry rate increase, seven newly acquired units and increased value of scheduled vehicles, and the large, complex claim filed against the policy in FY 2016-17.

Insurance Carrier: The Travelers Indemnity Company of CT
Total Annual Premium: \$38,377 (Net)

6. Police Aircraft Hull and Liability including War Risks & Extended Perils Coverage

Police aircraft hull and liability insurance provides coverage for those amounts that the City becomes legally obligated to pay as damages because of bodily injury (including passengers), property damage and hull coverage for scheduled aircraft including a Cessna 182, American Eurocopter EC 120B and a newly purchased Airbus H125. Additionally, this program provides coverage for bodily injury or property damage caused by war and other perils resulting from aviation operations.

Three aircraft are now on the schedule, N408DC, N2705 and N408PD with current hull values of \$1.75 million, \$275,000 and \$5,700,000 and aggregate liability limit of \$50 million. The newly purchased Airbus was added effective 7/24/2018.

Premium increased by \$43,060 from \$17,998 to \$61,048 due to addition of the newly purchased helicopter with \$5.7 million (281%) in Hull values for the San Jose Police Department.

The police aircraft hull and liability insurance premium has a locked rate reflecting savings from the 44% decrease in premium during the previous three years. FY 2017-18 was the third year of the three-year rate guarantee and the carrier has again offered a new three-year program with respect to the 2018-2019 term. Staff verified through the competitive process the rate guarantee remains a best rate.

Insurance Carrier: Old Republic Aerospace, Phoenix Aviation Managers
TRIA: Included
Total Annual Premium: \$61,048 (Net)

7. Government Crime Policy

Provides coverage to the City for financial losses arising from employee theft, forgery or alteration, robbery or safe burglary, computer fraud, funds transfer fraud, or money orders and counterfeit money fraud. A Government Crime policy was first procured in compliance with Section 905 of the City Charter which requires a bond for all officers and employees having custody or control of public funds. A Government Crime policy affords equal or greater scope of coverage than a bond and has the added benefit of not having to continually remove and add employees as would be required by a bond.

The City obtained a fixed rate (annual premium) of \$14,450 for both the FY2017-18 and the FY2018-19 renewal terms.

Insurance Carrier: Berkley Regional Insurance Company
Annual Premium: \$14,450 (Net)

8. Life/Accidental Death and Dismemberment Policy for Police Air Surveillance Unit

Provides an accidental death, accidental dismemberment, and paralysis benefit of \$250,000 per person for accident or injury of any member of the Police Air Support Unit as defined in Section 5.3.8 of the San José Police Officer's Association (POA) Memorandum of Agreement (MOA) subject to an aggregate limit of \$1,250,000 per accident. In 2016, the City added this insurance product to its annual renewal process with an 87% reduction in cost and a three-year policy product with total premium of \$8,165.25 and an annual rate guarantee of \$2,721.75 per year.

Insurance Carrier: National Union Fire Insurance Company of Pittsburgh, PA
Annual Premium (third year of three-year policy)²: \$2,721.75 per year

9. Terrorism Risk Insurance Act of 2002 (TRIA)

Terrorism Risk Insurance Act (TRIA) coverage provides an insurance mechanism (shared by private carrier and federal government) for losses arising from acts of terrorism as certified by the Secretary of Treasury and defined by the Terrorism Risk Insurance Act (TRIA). Coverage is currently provided through a temporary federal program for 85% of total aggregate loss up to \$100 billion in aggregate losses with total losses being no less than \$5 million. The cost of purchasing TRIA coverage is fully incorporated into the product cost analysis above.

B. Insurance Coverage Not Recommended

The insurance coverages listed below were again reviewed by staff with the assistance of the City's broker. The market conditions remain consistent with last year's renewal decisions. The City does not recommend any of these additional coverages now. The recommendation is based on multiple factors including but not limited to: the products being cost prohibitive, the scope of coverage being too narrow considering the City's risk exposure, or that the coverage was unavailable, limits too low, or excessive in cost due to the nature of the risk. Staff, in consultation with Gallagher, will continue to review the market on a periodic basis and make the appropriate recommendations to Council should circumstances change.

1. Workers' Compensation

Workers' compensation claims coverage provides costs for medical and temporary and permanent impairment to an employee for work-related injuries. Risk Management has previously gone to market for excess liability workers' compensation only, where the carrier is responsible for liabilities above a defined dollar threshold. Considering the City's claim cost history, high frequency of claims, and the high self-insured retentions and annual premiums, staff believes that purchase of excess workers' compensation insurance is not cost effective.

2. Excess Liability

Excess liability coverage is insurance for losses and cost of defense against third-party claims alleging bodily injury, property damage, and personal injury arising from City premises, operations, and vehicles above a defined dollar threshold. Coverage excludes

² The recommended policy is for three (3) years with an annual installment premium and the policy is subject to termination based on annual appropriation of funds and the City having the ongoing obligation to procure coverage per Section 5.3.8 of the San José Police Officer's Association (POA) Memorandum of Agreement (MOA).

losses the City has because of third parties' acts, grievances, appeals to City filed cases, regulatory matters, environmental liability claims, employment matters, professional liability matters, or contract disputes.

The City has historically been self-insured for liability claims, except for Airport Owners and Operators Liability Insurance and Aircraft Hull and Liability coverages. Effective January 1, 2018, the City added a new fiduciary liability policy to cover the VEBA plan.

NOTE: No third party carrier quoted for a policy with a self-insured retention below \$3 million dollars and, should the City elect to pursue a lower self-insured retention policy, the City would have to apply and join a public municipality pool of insurance.

For the ten years prior to FY2017-18, the City paid approximately \$2.7 million per year for costs associated with liability claims. However, in FY2017-18, the City paid over \$17 million in total claims, including some awards for attorneys' fees. The amount included a single large pending verdict which was settled for \$12 million. The City's 10-year average is now \$4.8 million. Statewide, areas of loss for public entities appear to mirror the City's exposures.

The largest compensable paid claim that an excess insurance policy may have partially covered was for \$12 million. Total claims value in FY2018-19, or the year thereafter, are budgeted for up to \$5 million. Overall, the City has been successful in mitigating costs associated with claims when compared to other public entities in California, but has seen increasing trends in claims values.

Considering the City's program, Risk Management currently recommends that the City continue to be self-insured and not purchase excess liability coverage. The self-insured retention would not include coverage for the most likely events and coverage would be capped for catastrophic events or losses.

The City evaluated the long-term cost of maintaining excess liability insurance compared to the City's current budget and reserves setting process. The City expects to review its current reserves and loss exposures in FY 2018-19 through a study to be completed by a consultant. The City recommends not purchasing this product now pending completion of the study. Funding to undertake this study was included in the FY 2017-18 Adopted Budget.

In the event the City experiences a catastrophic loss, options exist for payment of claim(s) which include the issuance of judgment bonds (no greater than 40-year term), as well as court-ordered installment payments (no greater than ten-year period). It should be noted that these options require either a successful validation action (for the first option) or court approval (for the second option).

3. Earthquake

Earthquake coverage is provided through a separate product procurement. Coverage is limited to direct damages caused by earth movement, which is excluded on the All Risk Property coverage policy. Coverage for sprinkler damage resulting from an earthquake is covered by the All Risk Property policy.

In previous years, the City has inquired into the total cost of earthquake insurance for the entire property schedule and the City found coverage to be cost prohibitive. The City's broker confirmed rates and overall market conditions have not improved or changed for FY2018-2019.

The insurance markets that underwrite catastrophic coverage (flood, wind, and earthquake) have reduced available capacity along with increasing insurance rates. This pricing level, the minimum deductible of 5% of the values at risk, the relatively low limits of coverage available, and potential concerns about solvency (ability to pay) of the insurers make it uneconomical to purchase coverage citywide.

C. Future Considerations: Insurance Coverage

1. Cyber Liability

Staff intends to begin working with the City's broker to consider reviewing and completing applications for Cyber Liability coverage quotes. Depending on market conditions, exposures, insurer coverage product types, limits, costs/premiums, and budget considerations, this *may* be a future optional new coverage to evaluate to determine if the City wishes to pursue recommending for purchase.

EVALUATION AND FOLLOW-UP

The City Council will be informed as to the status of these policies as part of the annual renewal process each September.

PUBLIC OUTREACH/INTEREST

This item will be posted to the City's website for the September 18, 2018 Council Agenda.

COORDINATION

This memo has been coordinated with the Airport, Transportation, Police, Housing, and Environmental Services Departments, as well as the City Manager’s Budget Office and the City Attorney’s Office.

COMMISSION RECOMMENDATION

This item is scheduled to be heard at the September 13, 2018 Treatment Plant Advisory Committee meeting.

COST SUMMARY/IMPLICATIONS

The funding associated with the recommendations in this memo was appropriated as part of the 2018-19 Adopted Operating Budget, approved by the City Council on June 19, 2018.

In addition to the appropriations listed on page 12 of this Memorandum, costs associated with insuring the remaining Successor Agency assets are estimated to be \$8,020 in 2018-2019. The anticipated payment of these costs associated with asset management for the Successor Agency is reflected on line 85 of the Recognized Obligation Payment Schedule (ROPS) as an enforceable obligation to maintain and protect the assets of the Successor Agency allowed under the dissolution law.

BUDGET REFERENCE

The table below identifies the fund and appropriations recommended to fund the insurance premiums identified:

Fund #	Appn #	Appn. Name	Total Appn.	Amount for Premium*	2018-2019 Proposed Budget Page**	Last Budget Action (Date, Ord. No.)
001	2001	Insurance Premiums	\$704,000	\$569,164	IX-20	6/19/2018, Ord. No. 30124
001	2864	Police Officers’ Professional Liability Insurance	\$122,000	\$93,084	IX-18	6/19/2018, Ord. No. 30124
001	0502	Non-Personal (Police Department)	\$27,678,114	\$63,770	VIII-278	6/19/2018, Ord. No. 30124

Fund #	Appn #	Appn. Name	Total Appn.	Amount for Premium*	2018-2019 Proposed Budget Page**	Last Budget Action (Date, Ord. No.)
523	0802	Non-Personal (Airport)	\$41,215,297	\$439,115	X-3	6/19/2018, No. 30124
536	3405	Insurance Expenses (Convention Center)	\$245,000	\$236,335	X-28	6/19/2018, No. 30124
533	0512	Non-Personal (Department of Transportation)	\$7,946,496	\$47,271	X-44	6/19/2018, Ord. No. 30124
513	0762	Non-Personal (Environmental Services Department)	\$28,440,251	\$138,521	X-81	6/19/2018, Ord. No. 30124
515	0762	Non-Personal (Environmental Services Department)	\$36,202,244	\$5,720	X-94	6/19/2018, Ord. No. 30124
423	0762	Non-Personal (Environmental Services Department)	\$2,627,092	\$5,008	X-53	6/19/2018, Ord. No. 30124
346	0109	Loan Management (Housing Department)	\$225,000	\$3,355	X-55	6/19/2018, Ord. No. 30124
Totals			\$145,405,494	\$1,601,343		

* The amount for premium is subject to change up until the beginning date of the new insurance policy. Therefore, current estimates are lower than the recommended contract amount not to exceed \$1,850,000. SARA is billed separately for its share of broker fees and premium costs. Costs are budgeted in City general fund appropriation.

** The 2018-2019 Adopted Operating Budget was approved by the City Council on June 19, 2018.

CEQA

Not a Project, File No. PP 10-066 (a) Agreements and Contracts for purchase of insurance.

/s/
 JULIA H. COOPER
 Director of Finance

If you have questions, please contact Lenore Reed, Risk Manager, at (408) 975-1438.

Appendix A
 Appendix B

APPENDIX A

1. ALL RISK PROPERTY AND BOILER & MACHINERY INSURANCE

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	American Home Assurance Company (AIG)	Lexington Insurance Company (AIG)	Factory Mutual Insurance Company (FM)
Total Insurable Values	\$3,755,493,117	\$3,848,319,100	\$3,848,319,100
Limit of Liability	\$1,000,000,000 subject to a \$100,000 Deductible Per Occurrence	\$1,000,000,000 subject to a \$100,000 Deductible Per Occurrence	\$1,500,000,000 subject to a \$100,000 Deductible Per Occurrence
Boiler & Machinery	Included	Included	Included
Earthquake	Excluded. Relatively low limits available (\$25,000,000 per occurrence), 5% deductible, high premium-not recommended.	Excluded. Relatively low limits available (\$25,000,000 per occurrence), 5% deductible, high premium-not recommended.	Excluded. Relatively low limits available (\$25,000,000 per occurrence), 5% deductible, high premium-not recommended.
Flood	\$100,000,000 but not to exceed \$25,000,000 in Flood Zones, In flood zones, deductible is \$1,000,000 per occurrence or 5% of TIV of locations of loss, whichever is greater. Locations are specified in the statement of values on file in Risk Management.	\$100,000,000 but not to exceed \$25,000,000 in Flood Zones, In flood zones, deductible is \$1,000,000 per occurrence or 5% of TIV of locations of loss, whichever is greater. Locations are specified in the statement of values on file in Risk Management.	\$100,000,000 but not to exceed \$25,000,000 in Flood Zones, In flood zones, deductible is \$1,000,000 per occurrence or 5% of TIV of locations of loss, whichever is greater. Locations are specified in the statement of values on file in Risk Management. Airport, Convention Center, and Water Plant are given a better flat \$10M (Airport & Convention Center) & \$5M (Water Plant) Flood Deductible, rather than 5% (\$50M for Airport, \$28M for Convention Center, & \$15M for Water Treatment Plant).
Other Sub-limits	Other sub-limits as outlined in the insurance policy on file in Risk Management	Other sub-limits as outlined in the insurance policy on file in Risk Management	Other sub-limits as outlined in the insurance policy on file in Risk Management

1. ALL RISK PROPERTY AND BOILER & MACHINERY INSURANCE (CONT.)

	Current Program 10/01/2017-10/01/2018	Renewal Program 10/01/2018-10/01/2019	Renewal Program 10/01/2018-10/01/2019
Carrier	American Home Assurance Company (AIG)	Lexington Insurance Company (AIG)	Factory Mutual Insurance Company (FM)
Terrorism and Non Certified Act of Terrorism	\$22,204	\$25,414 (estimated)	Included
Average Rate per \$100 of Values	.0331 per \$100.00 of Insured Value	.0409 per \$100.00 of Insured Value	.0312 per \$100.00 of Insured Value
Annual Premium for City	\$1,235,616 Annual Premium \$ 22,204 Optional TRIA \$ 88,500 AJG Broker Fee \$1,346,320 Total Annual	\$1,544,028 ³ (estimated) Annual Premium \$ 28,247 Optional TRIA \$ 88,500 AJG Broker Fee ⁵ \$1,660,775 Total Annual	\$1,200,000 ⁴ Annual Premium TRIA Included \$ 88,500 AJG Broker Fee ⁶ \$1,288,500 Total Annual
Engineering Services	Included in coverage	Included in coverage	Included in coverage
Multiyear	Not Available	Not Available	Not Available

³ This includes an estimated premium, \$10,319 of which will be directly invoiced to the City as SARA.

⁴ This includes a firm premium, \$8,020 of which will be directly invoiced to the City as SARA.

⁵ This broker's fee is an annual fixed fee listed as a separate line item, and not included with the total premium.

⁶ This broker's fee is an annual fixed fee listed as a separate line item, and not included with the total premium.

2. AIRPORT OWNERS AND OPERATORS LIABILITY

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	Old Republic Aerospace (Phoenix Aviation Managers) Kenesaw, Georgia	Old Republic Aerospace (Phoenix Aviation Managers) Kenesaw, Georgia
Coverage and Deductible	Airport Liability - \$200,000,000 each occurrence combined single limit for bodily injury and property damage with a \$50,000,000 each occurrence limit for personal injury, war risk liability at \$150,000,000 each occurrence and in the annual aggregate and \$50,000,000 Excess Automobile and Excess Employers Liability. Deductible: \$0 each occurrence 3-Year Price Guarantee (see endorsement)	Airport Liability - \$200,000,000 each occurrence combined single limit for bodily injury and property damage with a \$50,000,000 each occurrence limit for personal injury, war risk liability at \$150,000,000 each occurrence and in the annual aggregate and \$50,000,000 Excess Automobile and Excess Employers Liability. Deductible: \$0 each occurrence 3-Year Price Guarantee (see endorsement)
Annual Premium	\$41,800	\$ 43,065 (incl. war premium)
Optional TRIA premium (recommended for purchase)	\$3,800	\$3,915
Total (Including Taxes/Fees)	\$45,600 (Net) ⁷	\$46,980 (Net) ⁸

⁷ Net cost does not include commission; whereas, gross cost includes commission. City is obligated for amounts designated as "net," where indicated, as Gallagher waives its proportionate share of fees per the terms and conditions of the City's brokerage agreement with Gallagher.

⁸ Net cost does not include commission; whereas, gross cost includes commission. City is obligated for amounts designated as "net," where indicated, as Gallagher waives its proportionate share of fees per the terms and conditions of the City's brokerage agreement with Gallagher.

3. SECONDARY EMPLOYMENT LAW ENFORCEMENT PROFESSIONAL LIABILITY

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	QBE Specialty Insurance Co. New York, New York	QBE Specialty Insurance Co. New York, New York
Limits of Insurance and Deductibles	\$2,000,000 Each Occurrence \$2,000,000 Annual Aggregate Subject to a \$100,000 Deductible including Loss Adjustment Expense (LAE) ⁹	\$2,000,000 Each Occurrence \$2,000,000 Annual Aggregate Subject to a \$100,000 Deductible including Loss Adjustment Expense (LAE) ¹⁰
Average Rate per Officer	\$170.17 (593 Sworn Officers at policy inception)	\$170.17 (547 Sworn Officers at policy inception)
Annual Premium	\$97,783(Net)	\$90,198 (Net)
Surplus Lines Taxes and Fees	\$3,129	\$2,886
Fees (if any)	None	None
Total (Including Taxes/Fees)	\$100,912 (Gross)	\$93,084 (Gross)

⁹ LAE includes staffing and legal costs for processing claims.

¹⁰ LAE includes staffing and legal costs for processing claims.

**4. AUTOMOBILE LIABILITY FOR THE AIRPORT FLEET & AIRPORT SHUTTLE
BUS FLEET PHYSICAL DAMAGE**

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	St. Paul/Travelers Hartford, CT	St. Paul/Travelers Hartford, CT
Coverage and Deductibles	Auto Liability-Fleet Only \$1,000,000 Combined Single Limit (Any Auto) \$1,000,000 UM/UIM (Owned Autos) Physical Damage-Buses Only Per Schedule Subject to \$10,000 Comp/\$25,000 Coll. Deductible \$500 Comp/Coll. Deductible for Hired Physical Damage	Auto Liability-Fleet Only \$1,000,000 Combined Single Limit (Any Auto) \$1,000,000 UM/UIM (Owned Autos) Physical Damage-Buses Only Per Schedule Subject to \$10,000 Comp/\$25,000 Coll. Deductible \$500 Comp/Coll. Deductible for Hired Physical Damage
Exposure	Number of Vehicles 83	Number of Vehicles 82
Average Rate Per Unit	\$628.46	\$685.15
Annual Premium	\$52,162 (Net)	\$56,182 (Net)

5. AUTOMOBILE LIABILITY-WATER POLLUTION CONTROL PLANT FLEET

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	St. Paul Travelers Hartford, CT	St. Paul/Travelers Hartford, CT
Coverage	\$1,000,000 Combined Single Limit (Any Auto) \$1,000,000 UM/UIM (Owned Autos) \$5,000 Medical Payments (Any Auto) \$3,500 Property Damage UM	\$1,000,000 Combined Single Limit (Any Auto) \$1,000,000 UM/UIM (Owned Autos) \$5,000 Medical Payments (Any Auto) \$3,500 Property Damage UM
Exposure	Number of Units 40	Number of Units 46
Average Rate Per Unit	\$738.41	\$816.55
Total	\$29,536 (Net)	\$38,377 (Net)

6. POLICE AIRCRAFT HULL AND LIABILITY

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	Old Republic Aerospace, Phoenix Aviation Managers	Old Republic Aerospace, Phoenix Aviation Managers
Coverage	Aircraft Hull and Liability- \$50,000,000 each occurrence for liability. Hull coverage: Cessna \$275,000 Eurocopter \$1,750,000 Deductibles: Liability – NIL Hull – NIL Extended Engine Physical Damage: \$10,000 per occurrence	Aircraft Hull and Liability- \$50,000,000 each occurrence for liability. Hull coverage: Cessna \$275,000 Eurocopter \$1,750,000 New: Airbus H125 \$5,700,000 Deductibles: Liability – NIL Hull - NIL Extended Engine Physical Damage: \$10,000 per occurrence
Annual Premium	\$17,998	\$61,048
Surplus Lines Taxes and Fees	NA	NA
War Liability & Hull--both aircraft	Included	Included
TRIA & War	Included on Both Hull & Liability	Included on Both Hull & Liability
Total	\$17,998	\$61,048¹¹

¹¹ Premium is up mainly due to the addition of a new Airbus Helicopter 125 aircraft, purchased by SJPD on 7/24/18 and effectively raising the Hull TIV by \$5.7 million or 281%.

7. GOVERNMENT CRIME

	CURRENT PROGRAM 12/18/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	Berkley Regional Insurance Company	Berkley Regional Insurance Company
Limits of Insurance and Deductibles	Employee Theft, Forgery, or Alteration and Inside the Premises- Theft of Money and Securities- \$5,000,000 per occurrence subject to a \$100,000 deductible per occurrence.	Employee Theft, Forgery, or Alteration and Inside the Premises- Theft of Money and Securities- \$5,000,000 per occurrence subject to a \$100,000 deductible per occurrence.
Sublimits of Insurance	Computer Fraud, Funds Transfer Fraud, and Money Orders and Counterfeit Money- \$1,000,000 per occurrence subject to a \$100,000 deductible per occurrence.	Computer Fraud, Funds Transfer Fraud, and Money Orders and Counterfeit Money- \$1,000,000 per occurrence subject to a \$100,000 deductible per occurrence.
Annual Premium	\$17,000	\$17,000
Surplus Lines Taxes and Fees	\$0	\$0
Total	\$14,450 (Net)	\$14,450 (Net)

8. LIFE AND ACCIDENTAL DEATH AND DISMEMBERMENT

	CURRENT PROGRAM 10/01/2017-10/01/2018	RENEWAL PROGRAM 10/01/2018-10/01/2019
Carrier	National Union Fire Insurance Company of Pittsburgh, PA	National Union Fire Insurance Company of Pittsburgh, PA
Limits of Insurance and Deductibles	Blanket Accident & Health Policy (Accident Only; Injury Only) Principal Sum (loss of Life): \$250,000; subject to an aggregate limit of \$1,250,000 per accident	Blanket Accident & Health Policy (Accident Only; Injury Only) Principal Sum (loss of Life): \$250,000; subject to an aggregate limit of \$1,250,000 per accident
Annual Premium	\$2,721.75	\$2,721.75
Surplus Lines Taxes and Fees	NA	NA
Total (Including Taxes/Fees)	\$2,721.75 per year (year 2 of three-year fixed rate)	\$2,721.75 per year (year 3 of three-year fixed rate)

APPENDIX B

Allocation of Insurance Premiums by Fund & Type of Insurance

	<u>FY 2017-18</u> <u>Premiums</u> <u>12 Month</u>	<u>FY2018-19</u> <u>Premiums (Est.)</u> <u>12 Month</u>	<u>Percentage</u> <u>Increase/</u> <u>Decrease</u>
General Fund-Fund 001			
Property Insurance ¹²	\$ 566,072	\$ 546,694	(3.54)%
Government Crime Policy	14,450 ¹³	14,450 ¹⁴	0.00%
AD&D	2,722	2,722	0.00%
Police Secondary	100,912	93,084	(7.76)%
Police Air Support (Hull & Liability)	<u>17,998</u>	<u>61,048</u>	<u>239.19%</u>
Subtotal	\$ 702,154	\$ 717,998	3.29%
Airport-Fund 523			
Property Insurance	\$ 350,455	\$ 335,953	(4.31)%
Liability Insurance	45,600	46,980	2.94%
Auto Liability/Property Insurance	<u>52,162</u>	<u>56,182</u>	<u>7.16%</u>
Subtotal	\$ 448,217	\$ 439,115	(2.07)%
ESD-Fund 513			
Property Insurance	\$ 105,016	\$ 100,144	(4.86)%
Auto Liability Insurance	<u>\$ 35,028</u>	<u>38,377</u>	<u>8.73%</u>
Subtotal	\$ 140,044	\$ 138,521	(1.10)%
ESD-Fund 515			
Property Insurance	\$ 6,113	\$ 5,720	(6.87)%
Subtotal	\$ 6,113	\$ 5,720	(6.87)%
ESD-Fund 423			
Property Insurance	\$ 5,207	\$ 5,008	(3.97)%
Subtotal	\$ 5,207	\$ 5,008	(3.97)%
Convention and Cultural Affairs-Fund 536			
Property Insurance	\$ 245,345	\$ 236,335	(3.81)%
Subtotal	\$ 245,345	\$ 236,335	(3.81)%
General Purpose Parking Fund 533			
Property Insurance	\$ 56,359	\$ 47,271	(19.23)%
Subtotal	\$ 56,359	\$ 47,271	(19.23)%
Successor Agency¹⁵			
Property Insurance	\$ 8,258	\$ 8,020	(2.89)%
Subtotal	\$ 8,258	\$ 8,020	(2.89)%
Housing -Fund 346			
Property Insurance	\$ 3,495	\$ 3,355	(4.00)%
Subtotal	\$ 3,495	\$ 3,916	(4.00)%
TOTAL:	<u>\$1,615,192</u>	<u>\$1,601,343</u>	<u>(0.87)%</u>

¹² Brokers' fees and TRIA costs are included in the total costs of this Appendix B.

¹³ As the previous policy was secured on a short policy term, actual cost of the policy is \$14,450.

¹⁴ Each Police Officer participating in the secondary employment program pays \$128 toward the premium cost. Renewal premium is based on 547 reported officers verses 593 officers enrolled at policy inception in 2017 to 2018.

¹⁵ The City as Successor Agency to the Redevelopment Agency has assumed operations previously performed by the Redevelopment Agency. Allocated premium will be directly invoiced to the City as Successor Agency.



T&E AGENDA: 09/10/2018
ITEM: d (3)

Memorandum

TO: TRANSPORTATION &
ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: August 22, 2018

Approved

Date

8-23-18

**SUBJECT: WILDLIFE HABITAT AT THE SAN JOSÉ – SANTA CLARA REGIONAL
WASTEWATER FACILITY**

RECOMMENDATION

Accept this report highlighting established wildlife habitat at the San José-Santa Clara Regional Wastewater Facility, and ongoing habitat management activities for the Western Burrowing Owl.

OUTCOME

Provide an update to the Transportation and Environment (T&E) Committee on established and managed wildlife habitat on San José-Santa Clara Regional Wastewater Facility¹ (RWF) bufferlands.

BACKGROUND

Prior to the development of major urban centers in the South Bay, marshes and grasslands surrounding the RWF's current location were known to be magnet habitat for migrating water birds, marine and freshwater fish, and Western Burrowing Owls.

Lower South San Francisco Bay, particularly the waters of Lower Coyote Creek and Alviso Slough, have long been identified as a productive nursery for marine and freshwater fish. Improved water quality, resulting from clean discharges from the RWF, combined with restored

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.

habitat made possible by the South Bay Salt Pond Restoration project, have improved the local ecosystem, as seen by increased fish and bird populations.

Likewise, Western Burrowing Owls, a Federal and State Species of Special Concern, have been documented to nest at the RWF bufferlands for the past decade; however, numbers had declined until the City and its partners initiated habitat improvements in 2012. City staff implemented activities based on the City's Interim Burrowing Owl Management Plan as temporary measures until the Plant Master Plan (PMP) was adopted in November 2013. As part of the PMP's goal to improve habitat and minimize impacts to the local and global environment, it designated 180 acres as Burrowing Owl habitat. In 2014, the City was granted title to a 21.4-acre parcel of land by Cisco Technologies, creating a total of 201-acres of Burrowing Owl habitat.

It is noteworthy that our regional wastewater facility, treating sewage from one-fifth of the Bay Area's population, has become a magnet for a remarkable diversity of creatures, from tiny minnow-sized fish to bald eagles.

ANALYSIS

The City's documentation of biological abundance and diversity in the vicinity of the RWF discharge indicates that the stability of the freshwater discharges from the RWF fosters an extremely robust local ecosystem that surpasses other regions of the Bay. By many measures (invertebrate and fish abundance being the most notable), environmental health near the RWF discharge surpasses even adjacent areas of the Lower South Bay that are also undergoing restoration but are further away from the RWF discharge.

The City and the South Bay Salt Pond Restoration Project have contracted with UC Davis fish researchers since 2010 to evaluate fish populations in this area. According to Dr. Jim Hobbs, the principal investigator, waters and marshes immediately downstream of the RWF are harboring some of the densest and most diverse populations of fishes seen in San Francisco Bay.

The RWF performs this monitoring and supplements the UC Davis fish monitoring with additional in-house monitoring of water quality and biological health to provide assurance to ratepayers and the general public that investment in wastewater treatment helps protect all beneficial and ecological uses of Lower Coyote Creek and the Bay. New results collected during the past year indicate that longfin smelt, a state threatened fish species, now spawn in the area. The longfin smelt requires specific environmental conditions such as high dissolved oxygen and an appropriate mix of freshwater and saltwater in order to achieve successful spawning. The highly oxygenated freshwater discharge from the RWF is believed to contribute to the recent success for the longfin smelt.

Fish abundance leads to bird abundance, and bird abundance and diversity is a key success metric for the Salt Pond Restoration effort. The number of gulls, a scavenger species that can also be destructive to more sensitive species' nesting areas, in the former salt ponds has declined dramatically, while duck abundance and diversity has increased since the ponds were opened to

the Bay in 2005. This shift in bird populations indicates a healthier system is being restored. The RWF continuously provides clean freshwater to the system, which helps algae, invertebrates, and fish thrive.

An additional component of the RWF monitoring is regular measurement of the abundance and diversity of microscopic algae known as phytoplankton. These algae are the building blocks of a healthy ecosystem, but some species of algae can be unhealthy or toxic to wildlife or people if they occur in large enough amounts. The RWF monitoring has detected almost exclusively healthy levels of good algae. However, for the first time, in September to December 2017, monitoring detected very low levels of *Microcystis*, a freshwater species that can produce harmful toxins under certain conditions. The presence of this toxin producing species is most likely due to the high freshwater flows associated with large storms in early 2017. These storms lowered the salinity in the entire system, creating fresher conditions that are favorable for *Microcystis* growth. The amounts of *Microcystis* measured during this period were below health advisory levels and no adverse effects to wildlife were ever observed. The RWF monitoring program continues to track the phytoplankton species, and *Microcystis* levels dropped even further below the already low levels.

The combination of responsible sewage treatment and stormwater practices, the restoration of the Coyote Creek Lagoon, Coyote Creek, Guadalupe River, and the Salt Pond Restoration Project, have all contributed to the improved habitat conditions observed today. So much wildlife resides at and around the RWF that predators, like Bald Eagles and Peregrine Falcons, have taken notice and established hunting grounds.

Burrowing Owls

The 201 acres of Burrowing Owl habitat in the in RWF bufferlands continues to be the most successful nesting site in the Bay Area. In 2016, the City partnered with the Santa Clara Valley Habitat Agency (SCVHA) to provide management activities for the Burrowing Owl habitat. The City's efforts have been paying off with the Burrowing Owl population experiencing significant growth and stability, while the overall trend across Santa Clara County have been showing a continued decline.

The SCVHA and the City finalized the Burrowing Owl Monitoring and Management Plan for the RWF bufferlands in 2017, which incorporates owl habitat management best practices and habitat enhancement measures recommended by Western Burrowing Owl specialists Dr. Lynn Trulio and Phil Higgins. SCVHA and the Santa Clara Valley Audubon Society bring in volunteers to conduct activities described in this Plan, such as maintaining proper vegetation height and weed control.

The most recent Burrowing Owl population surveys conducted identified a total of 28 owls with 11 adults and 17 chicks in July 2018. While recent years have shown an increasing trend in the population of owls in the RWF bufferlands, populations can fluctuate for various reasons, such as reaching a maximum population carrying capacity for a designated habitat area or observing

August 22, 2018

Subject: Wildlife Habitat at the RWF

Page 4

increased numbers of predators. Staff will continue to coordinate with SCVHA to manage the site and develop long-term conservation strategies.

EVALUATION AND FOLLOW UP

PBCE prepares quarterly memos to T&E to report on Mitigation Monitoring and Reporting Requirements for individual projects, including for burrowing owl mitigation parcels that are required as a condition of approval of development permits. ESD will continue to provide burrowing owl breeding season reports to PBCE.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the September 10, 2018 T&E agenda.

COORDINATION

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

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the September 13, 2018 Treatment Plant Advisory Committee meeting. A report with the committee's recommendation will be included in an upcoming City Council meeting agenda, date to be determined.

CEQA

File No. PP11-043, Environmental Impact Report for the San José/Santa Clara Water Pollution Control Plant Master Plan.

/s/

Napp Fukuda for
KERRIE ROMANOW
Director, Environmental Services



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: September 6, 2018

Approved

D. D. SyL

Date

9/6/18

SUBJECT: MASTER SERVICE AGREEMENT WITH HYDROSCIENCE ENGINEERS, INC. FOR ENGINEERING SUPPORT AND SERVICES FOR THE SAN JOSE/SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

- (a) Approve a Master Service Agreement with HydroScience Engineers, Inc. for engineering support and services for the San José/Santa Clara Regional Wastewater Facility (Facility) for various operation and maintenance (O&M) projects requiring engineering support and services on an as-needed basis for an initial term starting from the date of execution to June 30, 2019, for a maximum compensation of \$500,000 during the initial term, subject to the annual appropriation of funds.
- (b) Adopt a resolution authorizing the City Manager to exercise up to three twelve-month options to extend the term through June 30, 2022, for an amount not to exceed \$500,000 for each option term; and to amend the Agreement to adjust the compensation to reflect changes in support service needs, provided the total aggregate amount does not exceed \$2,000,000 for the full term, subject to the annual appropriation of funds.

OUTCOME

Approval of the Agreement with HydroScience Engineers, Inc. to provide engineering support and services for implementation of various O&M projects at the Facility, on an as-needed basis.

BACKGROUND

The Facility is an advanced wastewater treatment facility with an average dry weather flow design capacity of 167 million of gallons per day (MGD) and a peak wet weather flow design capacity of 271 MGD. The current average annual flow at the Facility is 125 MGD and the average dry weather flow is 114 MGD. Approximately 10% of the treated effluent is re-used for irrigation, agricultural use, and industrial sector consumption, through the South Bay Water Recycling Program (SBWR).

The City of San José's Environmental Services Department (ESD) is in the process of implementing the Facility's Master Plan for intermediate and long-term improvements, with the Master Plan serving as a tool to identify and prioritize future projects for upgrades and replacements. The Capital Improvement Program (CIP) Division of ESD is in the midst of implementing these complex projects required for the Facility due to aging infrastructure and to prepare for future regulations.

While the intermediate and long-term CIP projects are underway, there are also numerous structures, utilities, equipment, systems, and unit operations associated with the operation of the Facility that have more immediate needs to maintain functional use.

The O&M Engineering projects are predominantly process related and routine. The majority of the O&M engineering support and services that will be utilized under this MSA will be focused on as-needed consulting services for the modernization, rehabilitation, replacement and maintenance of existing aging equipment such as pumps, motors, valves, pipes, as well as equipment repair due to unexpected failure to ensure the Facility's continuous and efficient operations while the MP implementation is in progress.

ANALYSIS

A consultant selection process was initiated in November 2017 with a Request for Proposal (RFP) for Engineering Services. Proposals from four firms were received, of which the top two firms were selected for further interviews. The selection criteria were based on the following:

- Qualifications and expertise of the firm's lead personnel (30%)
- Service Approach (30%)
- Examples of Applicable and Exemplary Projects (30%)
- Classification as local/small firm per Council policy (10%)

The top two firms below were interviewed on May 14, 2018, by staff from various sections within the Facility. A combination of the written submittal and the interview scores were used to rank the firms. The evaluation panel rated HydroScience Engineers, Inc. as the most qualified to provide the needed engineering services, based on the qualifications presented in their proposal and final interview score. The final scores for the two companies are summarized below:

Evaluation Criteria	Max Points	HydroScience Engineers, Inc.	Kennedy/Jenks Consultants, Inc.
Experience	30	28	27
Expertise	30	28	27
Project Approach	30	26	24
Local Business Preference	5	5	5
Small Business Preference	5	0	0
TOTAL	100	87	83

1. HydroScience Engineers, Inc.
2. Kennedy/Jenks Consultants, Inc.

The RFP provided for additional points for local firms. Both firms received additional points for having a local office in San José. A notice of intention to award the contract was issued on May 18, 2018, and no protests were filed.

Scope of Work

The scope of services under the Agreement will involve a variety of activities that include engineering studies, conceptual design, preparation of construction bid documents, construction management support and O&M manual preparation for newly constructed or rehabilitated facilities. Specific service orders will be issued to implement projects related to equipment replacement, infrastructure rehabilitation, and electrical and electronic communication improvements. The list of current and near-term projects include, but are not limited to the following:

- Prepare contract and/or bid documents for the replacement of various antiquated equipment such as pumps, motors, valves, gearboxes, actuators, pipes, facility wide;
- Prepare record drawings for various O&M projects;
- Prepare contract bid documents for repair and/or replacement of various concrete walkways, gates, Administration Building roof, roofs of digesters, guard shack, and various hazmat storage sheds;
- Prepare contract bid documents for repair of the emergency overflow structure and the primary effluent equalization basin, installing new recycled water piping to the Residual Sludge Management (RSM) fill station, sewer repair at the RSM buildings, and piping redesign for the East Primary treatment area;
- Prepare preliminary engineering and engineering studies for Facility wide infrastructure and processes;
- Facility wide replacement of piping supports and joints for various types of pipes;
- Facility wide hydraulics assessment and modeling using software applications;
- Various electrical and instrumentation improvements and repair projects;
- Facility wide condition assessment of various overhead cranes inside building; and
- Vibration report evaluation for various pumps Facility wide.

Prior to scope development for the projects and issuing any service orders to the consultant, O&M project manager(s) assigned to each individual project and the CIP program management team participates in coordination meetings. The purpose of the meeting is to ensure availability of the needed resources and to avoid duplication of efforts and projects.

Contract Management and Oversight

Staff will negotiate costs with the consultant on individual project proposals, on a flat fee, or not to exceed time and materials basis. Staff will also determine the award of individual service orders based on the overall budget and availability of the required expert personnel on the Consultant's team. The Consultant will provide monthly status reports that will be discussed with ESD management. Performance of the Consultant on each service order will be evaluated after each project is completed and prior to the issuance of the next service order.

EVALUATION AND FOLLOW-UP

No additional follow up action with Council is expected at this time.

POLICY ALTERNATIVES

Alternative #1: An alternative approach to accomplish this effort would be for all work to be performed by City staff in lieu of the proposed partnership effort with outside professional engineering consulting firms.

Pros: The work would be done by City staff.

Cons: In-house staff does not possess the capacity or all the required technical capability and specialized equipment across the broad range of expertise anticipated for the wide array of O&M-related projects. A significant amount of the anticipated work will require engineering oversight in various technical specialties.

Reason for not recommending: The City would need to hire additional staff with the knowledge, expertise, and/or certification in a variety of engineering areas. Specialized equipment would need to be obtained or leased to perform these duties and staff would need to be trained and certified to use of the equipment. Furthermore, with an extensive CIP program underway at the Facility, there will already be an increased demand for engineering design and construction services and existing staff will not be able to meet the demand.

Alternative #2: An alternative approach to accomplish this effort would be to perform a separate RFP process for each of the projects described in the background and scope of work sections of this memo.

Pros: The RFP selection process would focus on the specific needs of each project instead of the broader scope of work specified in the recent RFP.

Cons: The RFP selection process typically takes six months or more to complete and involves a large amount of staff work to develop a specific project scope, solicit responses, interview consultants, negotiate contracts, and obtain Council approval if needed. The majority of the O&M projects require a more timely response due to the critical nature of various unit operations and processes at the Facility. By implementing a separate RFP selection process for each specific project, there will be significant delays in completing the O&M projects.

Reason for not recommending: This approach will limit the City's flexibility and response time for handling the O&M projects, resulting with a high possibility of leading to equipment and process failures that are critical to the safe and sound operation of the Facility.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the September 25, 2018 Council Meeting. Also, the Request for Proposal was advertised on the City's Internet Bid Sync Platform.

COORDINATION

The memorandum has been coordinated with the Environmental Services Department, the City Manager's Budget Office, and the City Attorney's Office. This item is scheduled to be heard at the September 13, 2018 Treatment Plant Advisory Committee (TPAC) meeting.

COMMISSION RECOMMENDATION/INPUT

This project is consistent with the following General Budget Principles "We must focus on protecting our vital core city services for both the short and long-term."

COST SUMMARY/IMPLICATIONS

Funding for service orders issued under the MSA will be made available from the San Jose/Santa Clara Treatment Plant Operations & Maintenance Funds (Fund 513). Funds will be encumbered as needed from various project appropriations when service orders are developed and will not exceed \$500,000 per fiscal year, for a four-year total not-to-exceed aggregate amount of \$2,000,000. All encumbrances will be subject to the annual appropriation of funds.

HONORABLE MAYOR AND CITY COUNCIL

September 6, 2018

Subject: Actions Related to the Master Service Agreement with HydroScience Engineers

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BUDGET REFERENCE

Fund #	Appn. #	Appn. Name	Total Appn.	Amount Requested	2018-2019 Proposed Operating Budget Page*	Last Budget Action (Date, Ord. No.)
513	0762	ESD Non-Personal/Equipment	\$28,440,251	\$500,000	X-81	6/19/2018 30124

* The 2018-2019 Operating Budget was adopted on June 19, 2018.

CEQA

Not a Project, File No. PP17-003, Agreements/Contracts (New or Amended) resulting in no physical changes to the environment.

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Amit Mutsuddy, Deputy Director, WMD, at (408) 635-4007.



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow
Matt Cano

SUBJECT: SEE BELOW

DATE: August 27, 2018

Approved

Date

8-27-18

INFORMATION

SUBJECT: AMENDED AND RESTATED DESIGN-BUILD CONTRACT FOR DESIGN AND CONSTRUCTION OF THE COGENERATION FACILITY AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

The purpose of this memorandum is to inform the City Council that a major milestone for the Cogeneration Facility project (Project) at the San José-Santa Clara Regional Wastewater Facility (RWF) has been completed with the City Manager's approval of the design-build contract to complete the Project.

On April 26, 2016, the City Council approved the design-build contract with CH2M Hill Engineers, Inc. (CH2M) for the Project. The City Council also authorized the City Manager to negotiate and execute a definitive contract amendment and early work package agreements pursuant to the terms of the design-build contract, subject to budgetary constraints and appropriation of funds.

On May 25, 2018, the City Manager approved the Amended and Restated Design-Build Contract (ARC) with CH2M for the Project (see Attachment A). The ARC includes work required by two previously executed early work packages and completion of the balance of Project, for a Guaranteed Maximum Price in an amount not to exceed \$89,071,932. The balance of Project will fully complete the design and the construction of the Cogeneration Facility, including: the engine room, control room, electrical and mechanical rooms, power and air operations center, gas treatment area, cooling towers and other supporting equipment. The balance of Project also includes the performance of commissioning, start-up, and acceptance testing of the Cogeneration Facility.

/s/
KERRIE ROMANOW
Director of Environmental Services

/s/
MATT CANO
Director of Public Works

For questions, please contact John Cannon, Principal Engineer, Department of Public Works, at (408) 635-4006.

Attachment



Memorandum

TO: David Sykes

FROM: Kerrie Romanow
Matt Cano

SUBJECT: SEE BELOW

DATE: May 18, 2018

Approved

DDSYL

Date

5/25/18

SUBJECT: APPROVAL OF AMENDED AND RESTATED DESIGN-BUILD CONTRACT AND GUARANTEED MAXIMUM PRICE FOR THE DESIGN AND CONSTRUCTION OF THE COGENERATION FACILITY AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

Approve the Amended and Restated Design-Build Contract (Amended Contract) with CH2M HILL Engineers, Inc. (CH2M) for the design and construction of the Cogeneration Facility at the San José-Santa Clara Regional Wastewater Facility (RWF) with a Guaranteed Maximum Price (GMP) in an amount not to exceed \$89,071,932.

OUTCOME

City Manager's approval of the Amended Contract and the GMP will allow for the completion of the design, construction, commissioning, and acceptance testing of the Cogeneration Facility Project (Project).

BACKGROUND

In 2012, the City completed an Energy Management Strategic Plan that assessed the RWF's existing and future power demands and condition of the existing energy systems. The study identified existing, aging cogeneration equipment as a critical issue that would need to be addressed to maintain onsite production of a reliable supply of power and heat. In 2013, the City engaged the consulting firm Black & Veatch Corporation (Black & Veatch) to prepare the Cogeneration Facility Project Definition Report (PDR), which served as the guiding document for the development of a basis of design for the new Cogeneration Facility.

On April 26, 2016, the City Council approved the Design-Build Contract (Contract) with CH2M in an amount not to exceed \$5,656,000 for preliminary design services under the Contract, and a

CITY MANAGER

May 18, 2018

Subject: Approval of the Amended Design-Build Contract for the Cogeneration Facility at the San Jose-Santa Clara Regional Wastewater Facility

Page 2

design contingency of \$565,000 for City-approved changes. The City Council also adopted Resolution No. 77729 and 77730 authorizing the City Manager or his designee to negotiate and execute certain amendments and change orders related to the Contract, subject to budgetary constraints and appropriation of funds, including:

- Negotiate and execute a Definitive Contract Amendment to the Contract with CH2M with a base GMP amount not to exceed \$82,884,000 for the design-build work to be performed following the preliminary design services;
- Approve a design-build contingency in the amount not to exceed \$8,288,000 to pay for adjustments to the base GMP or, if applicable, the lump sum amount, in accordance with the contract and to pay for the transition services after acceptances of the Cogeneration Facility;
- Negotiate and execute separate agreements and/or amendments to the Contract to allow CH2M to proceed with discrete portions of the design-build work (i.e., Early Work Packages) prior to the City's execution of the Definitive Contract Amendment in a total amount not to exceed \$30,000,000, which amounts will be subject to the not to exceed GMP.

On April 28, 2016, the City executed the Contract with CH2M. The Contract is a GMP contract, meaning that the City will pay CH2M on a defined cost-reimbursable basis subject to a maximum limit (i.e., the GMP).

On May 24, 2017, the City Manager approved Early Work Package 1 (EWP 1) for procurement of engine generators and gas treatment equipment for the Project in an amount not to exceed \$24,411,351, including a Design-Builder Contingency in the amount of \$966,084 and optional work in the amount of \$762,045. The early procurement of engine generators and gas treatment system equipment provides price and schedule certainty for this critical, long-lead time equipment. The engine generators and gas treatment equipment are currently being manufactured and are expected to arrive on site this summer.

On October 23, 2017, the City Manager approved EWP 2 for civil site preparation and foundation work for the engine generator building for the Project in an amount not to exceed \$3,951,611, including a Design-Builder Contingency in the amount of \$223,676. The early performance of site work and foundation construction provide schedule certainty for these critical elements of the Project, including a concrete equipment pad where the engine generators will be delivered this summer. Construction on EWP 2 began on January 31, 2018.

CITY MANAGER

May 18, 2018

Subject: Approval of the Amended Design-Build Contract for the Cogeneration Facility at the San Jose-Santa Clara Regional Wastewater Facility

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ANALYSIS

CH2M developed the design for the Project up to a 60% level as part of Preliminary Services under the Contract. In consultation with City staff, CH2M led the process to develop a scope of work and pricing for completion of the design, construction, commissioning, and acceptance testing of the Project. CH2M worked with their key subcontractor and teaming partner, C. Overaa & Co. (Overaa) to develop bid packages, obtain competitive bids from subcontractors and vendors, price work to be self-performed, and develop a cost model for the GMP. Those efforts, and parallel design efforts under the Preliminary Services contract, resulted in a Definitive Project Submittal package from CH2M, initially submitted in November 2017.

The technical and cost submittals from CH2M were reviewed by City staff and the City's technical support services consultant, Black & Veatch, to assess the suitability of the proposed scope of work, evaluate the adequacy of the plans and specifications, and validate the proposed pricing in CH2M's cost model. The Amended Contract is priced as a GMP contract, meaning that the City will pay CH2M on a defined cost-reimbursable basis subject to a maximum limit (i.e., the GMP). City Staff and CH2M participated in over a dozen workshops and meetings to negotiate the terms and conditions of the Amended Contract.

The previously approved contracting authority allowed for a base GMP and the addition of scope items, called Base GMP Adjustments, which would be funded through a shared pot of contingency funds. Base GMP Adjustments have been added to restore certain scope items removed during value engineering. As the design advanced, these items (administration space, room for a future engine, architectural screening) were found to be necessary for the proper completion of the project. The Amended Contract includes a Base GMP of \$82,884,000, Base GMP Adjustments of \$2,815,650, and a Design-Builder Controlled Contingency of \$3,372,282 for a total Design-Build GMP of \$89,071,932.

The scope of work and pricing for EWP 1 and EWP 2 are included in the schedule of values for the GMP under the Amended Contract. City staff contemplated having CH2M perform design services from 60% to 100% as EWP 3, but due to schedule considerations it was decided to include those services in the balance of project work performed under the Amended Contract instead of issuing EWP 3.

The previously approved contingencies for EWP 1 and EWP 2 have been incorporated into a single Design-Builder Controlled Contingency in the amount of \$3,372,282 to provide funding for additional work and unforeseen conditions that may be necessary for the proper completion of the Cogeneration Facility. This is approximately 5% of the construction costs, which falls within the typical 4% - 10% range. In addition, there is a City-controlled contingency outside of the GMP in the amount of \$2,100,068. The Amended Contract provides for a limited set of circumstances that would require use of the City-controlled contingency, such as uncontrollable circumstances, changes to the technical specifications, or City-directed changes.

CITY MANAGER

May 18, 2018

Subject: Approval of the Amended Design-Build Contract for the Cogeneration Facility at the San Jose-Santa Clara Regional Wastewater Facility

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The Amended Contract has provisions for shared savings between the City and CH2M, in the event the actual cost of the work at completion is less than the GMP. A list of over 250 line items from the GMP was developed by City staff and CH2M to be specifically tracked for potential line item savings during performance of the Project. Several items were clarified after the Definitive Project Submittal (while the Amended Contract was being negotiated) and are already being carried as \$142,455 of line items savings within the GMP. A number of design elements were developed late in the 60% design period or after Definitive Project Submittal and are being carried as allowances in the GMP under Design Development Items; the pricing for these items will be further defined and justified as the design is advanced to the 100% level.

The Amended Contract provides a schedule for completion of the Design-Build work. The Scheduled Acceptance Date is 735 calendar days following the Amended Contract Date. The Amended Contract also includes performance guarantees and acceptance test procedures for demonstrating the Project meets specified performance requirements. Delay liquidated damages and performance liquidated damages are also stated in the Amended Contract.

The Amended Contract requires CH2M and their subcontractors to participate in the City's Owner Controlled Insurance Program (OCIP) for the RWF Capital Improvement Program (CIP). Because work under EWP 1 was initiated prior to establishment of the OCIP, EWP 1 is insured under previous insurance requirements of the Contract and the EWP 1 Amendment; however, once the equipment procured under EWP 1 is delivered and accepted at the Project site, EWP 1 will be deemed complete and the EWP 1 equipment will be covered under the OCIP and associated insurance policies. Work begun under EWP 2 is covered under the OCIP. The OCIP provides a number of key insurance coverages, such as Commercial General Liability, Workers' Compensation, and Builder's Risk insurance, but does not provide comprehensive coverage for all required insurances. The Amended Contract requires CH2M and their subcontractors to provide proof of coverage for required insurances outside the scope of the OCIP.

The Amended Contract includes provisions for Transition Services. Following Project acceptance, CH2M may provide services generally consisting of monitoring and advising on the City's operations and maintenance of the Cogeneration Facility for up to a two-year period. Establishment of the scope of Transition Services and the fee to be charged will be negotiated as part of a future amendment, should the City decide to utilize CH2M for these services. Payment for the Transition Services will be made from the construction contingency.

There is the potential for the scope of work to increase as the design is developed from 60% to 100% and as construction progresses (e.g., unforeseen site conditions, additional emissions control equipment, City-directed scope additions, etc.). To minimize this potential, several different steps have been taken: 1) detailed hazardous materials, geotechnical, and underground utility investigations were performed during Preliminary Services to ascertain Project site conditions; 2) options for additional emission control equipment have been priced into the GMP; 3) Design-Builder and City controlled contingencies have been set aside. City staff will work closely with CH2M to manage the scope of work during execution of the Project.

CITY MANAGER

May 18, 2018

Subject: Approval of the Amended Design-Build Contract for the Cogeneration Facility at the San Jose-Santa Clara Regional Wastewater Facility

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EVALUATION AND FOLLOW-UP

After Amended Contract approval, CH2M will advance the design to 100%, while continuing ongoing work under EWP 1 and EWP 2. City staff will continue to engage and interact with CH2M in the design effort, including a workshop for review of the 90% design package. A progress report on this project will be made to the Transportation Environment Committee and the City 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.

POLICY ALTERNATIVE

Alternative #1: Do not authorize Amended Contract; negotiate with CH2M to advance the design to 100%, prepare a bid package, and solicit bids to construct the facility using traditional project delivery (i.e., design-bid-build).

Pros: Obtain pricing from additional bidders.

Cons: Risks of not meeting completion date, potential failure of existing cogeneration equipment, and potential cost increase due to market escalation.

Reason for not recommending: Schedule maintenance is a major concern. Existing cogeneration equipment at the RWF ranges from 30 to 60 years of age, and has been subject to breakdowns of increasing frequency and severity. The risk of failure is made worse by delaying the completion of the Project. Delaying the solicitation of construction bids while completing the design to 100% and preparing a bid package for advertisement will likely result in cost increases, as the construction market shows ongoing escalation. The Project would not be able to take advantage of the significant schedule and cost benefits of early construction if this alternative were selected. And lastly, the start-up and commissioning of the Project in alignment with completion of the Digester and Thickener Facilities Upgrade Project is critical to RWF operations.

COORDINATION

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

FISCAL/POLICY ALIGNMENT

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

CITY MANAGER

May 18, 2018

Subject: Approval of the Amended Design-Build Contract for the Cogeneration Facility at the San Jose-Santa Clara Regional Wastewater Facility

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COST SUMMARY/IMPLICATIONS

The City will pay CH2M on a defined cost-reimbursable basis subject to a maximum limit (i.e., the GMP), above which the City is not obligated to pay for services that are not otherwise subject to reimbursement under the Contract. The GMP not to exceed price for the Project is as follows:

EWP 1 – Engine Generators & Gas Treatment Equipment	\$ 19,969,041
EWP 2 – Civil Site Preparation & Foundation Work	\$ 3,131,149
<u>Balance of Project:</u>	
Construction Subcontractor Costs	\$37,150,949
Process Equipment	\$ 2,677,171
Third Party Professional Services	\$ 560,000
Design-Builder Labor & Materials	\$ 7,143,900
Design Development Items	\$ 2,237,190
Project Efficiencies (City Reserve – Line Item Savings)	\$ 142,455
<u>Bonds & Insurance Outside of OCIP</u>	<u>\$ 1,299,806</u>
Subtotal: Design-Build Costs	\$74,311,661
General Conditions Fee (7.7% of All Design-Build Costs)	\$ 5,721,998
<u>Design-Builder Fee (7.8% of Costs Excl. Bonds & Insurance)</u>	<u>\$ 5,665,991</u>
Cumulative Subtotal: Design-Build Price	\$85,699,650
<u>Design-Builder Contingency</u>	<u>\$ 3,372,282</u>
Design-Build GMP not to exceed	\$89,071,932

BUDGET REFERENCE

Fund #	Appn #	Appn. Name	Total Appn.	2017-2018 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7454	Energy Generation Improvements	\$71,003,000	284	10/17/2017 Ord No. 30014

Services performed by CH2M HILL under this Contract Amendment will be authorized by a Notice to Proceed. There is sufficient funding in the appropriation for the GMP. Future funding is subject to the annual appropriation of funds and, if needed, will be included in the development of future year budgets during the annual budget process.

CITY MANAGER

May 18, 2018

Subject: Approval of the Amended Design-Build Contract for the Cogeneration Facility at the San Jose-Santa Clara Regional Wastewater Facility

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CEQA

Mitigated Negative Declaration (MND), File No. PP14-005

The MND states that the proposed Project will not have significant effects on the environment, because mitigation measures have been made a part of the Project.

\s\
KERRIE ROMANOW
Director, Environmental Services

\s\
MATT CANO
Director, Public Works

For questions, please contact John Cannon, Principal Engineer, Department of Public Works, at (408) 635-4006.

City Manager's Contract Approval Summary
For Procurement and Contract Activity between \$100,000 and \$1.17 Million for Goods and \$100,000 and \$290,000 for Services

JUN 1 - AUG 31, 2018

Description of Contract Activity ¹	Fiscal Year	Req#/RFP#	PO#	Vendor/Consultant	Original \$ Amount	Start Date	End Date	Additional \$ Amount	Total \$ Amount	Comments
1 OVERHAUL OF TPS & FLOWAY PUMPS	18-19	25674	55293	MARTECH, INC MECAHNICAL ANALYSIS REPAIR INC	150,000	02/01/18	01/31/19	140,000	290,000	SOUTH BAY WATER PUMP, PEP'S PRIMARY PUMP AND BACKWASH PUMP: URGENT OVERHAULS
2 REPAIR LEAKING & MISSING EXPANSION JOINTS	18-19	25963	55701	TUCKER CONSTRUCTION	250,000	07/01/18	06/30/19			
3 CONOCO PHILLIPS UNION 76 MOTOR OIL	18-19	25978	55863	PACIFIC COAST PETROLEUM, INC.	230,000	07/01/18	06/30/19			
4 ANIONIC EMULSION POLYMER	18-19	25979	55786	POLYDYNE INC	257,000	07/01/18	06/30/19			
5 SERVICES PROVIDED TO CLEAN 3 DIGESTERS AT RWF	18-19	25981	55944	PIPE AND PLANT SOLUTIONS INC	389,067	07/01/18	06/30/19			
6 PIPES, FITTING AND RELATED PARTS	18-19	25983	55482	FERGUSON WATERWORKS	120,000	07/01/18	06/30/19			
7 MECHANICAL MAINTENANCE SERVICE	18-19	25986	55732	MONTEREY MECHANICAL CO	270,000	07/01/18	06/30/19			
8 REPAIR OF LEVEE ALONG ARTESIAN SLOUGH & POND A-18	18-19	26354	56084	RJ GORDON CONSTRUCTION INC	100,000	07/01/18	06/30/19			
9 BUILDING MAINTENANCE MATERIALS & SUPPLIES	18-19	26389	55995	GRAINGER, W W INC	400,000	07/01/18	06/30/19			
10 AQUEOUS AMMONIA	18-19	26492	55809	TERRACHEM INC.	162,000	07/01/18	06/30/19			
11 SODIUM BISULFITE	18-19	26493	55784	UNIVAR USA INC	660,000	07/01/18	06/30/19			
12 12.5% SODIUM HYPOCHLORITE	18-19	26494	55785	UNIVAR USA INC	995,000	07/01/18	06/30/19			
13 FERRIC CHLORIDE	18-19	26495	55807	THATCHER COMPANY OF CALIFORNIA	1,170,000	07/01/18	06/30/19			
14 VALUE ENGINEERING & PEER REVIEW SERVICES: FILTER REHABILITATION PROJECT	17-18		AC27754	HAZEN & SAWYER	\$147,602	6/4/2018	8/31/2018			SERVICE ORDER #02 (MASTER AGREEMENT TERM 6/21/16-6/30/21, \$5M)
15 GENERAL ENGINEERING SERVICES: STORM DRAIN SYSTEM IMPROVEMENTS: CONDITION ASSESSMENT THROUGH CONCEPTUAL DESIGN	17-18		AC27585	AECOM	\$779,976	6/11/2018	4/30/2019			SERVICE ORDER #02 (MASTER AGREEMENT TERM 6/11/18-4/30/19, \$5M)
16 OWNER'S ADVISOR FOR YARD PIPING AND ROAD IMPROVEMENT PROJECTS	17-18		AC29225	BLACK & VEATCH	\$2,094,357	6/15/2018	3/31/2020			SERVICE ORDER #01 (MASTER AGREEMENT TERM 4/24/18-6/30/26, \$9.75M)
17 PROGRAM MANAGEMENT: PACKAGE MANAGER SERVICES	18-19		AC25704	STANTEC	\$641,804	7/1/2018	6/30/2019			SERVICE ORDER #30 (MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M)

City Manager's Contract Approval Summary
For Procurement and Contract Activity between \$100,000 and \$1.17 Million for Goods and \$100,000 and \$290,000 for Services

18	PROGRAM MANAGEMENT: SUBJECT MATTER EXPERT DIGESTER AND THICKENER FACILITIES UPGRADE	18-19		AC25704	STANTEC	\$150,812	7/1/2018	6/30/2019			SERVICE ORDER #31 (MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M)
19	PROGRAM MANAGEMENT: SUBJECT MATTER EXPERT PROGRAM MANAGEMENT SERVICES	18-19		AC25704	STANTEC	\$595,898	7/1/2018	6/30/2019			SERVICE ORDER #32 (MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M)
20	CONSTRUCTION MANAGEMENT & INSPECTION SERVICE: CONSTRUCTION MANAGEMENT FOR ADVANCED FACILITY CONTROL AND METER REPLACEMENT	18-19		AC27747	MNS ENGINEERING	\$535,212	7/5/2018	6/30/2021			SERVICE ORDER #02 (MASTER AGREEMENT TERM 6/14/16-6/30/24, \$8M)
21	VALUE ENGINEERING & PEER REVIEW SERVICES: NITRIFICATION CLARIFIER PROJECT	18-19		AC27755	VALUE MANAGEMENT STRATEGIES	\$147,829	7/5/2018	10/15/2018			SERVICE ORDER #01 (MASTER AGREEMENT TERM 6/21/16-6/30/21, \$5M)
22	SPECIAL INSPECTION AND MATERIALS TESTING SERVICES	18-19		AC29639	SIGNET TESTING LABORATORIES	\$1,280,000	7/9/2018	6/30/2020			SERVICE ORDER #01 (MASTER AGREEMENT TERM 6/19/18-12/31/23, \$3M)
23	GENERAL ENGINEERING SERVICES: PROGRAM-WIDE HAZARDOUS MATERIAL TESTING	18-19		AC27586	BROWN AND CALDWELL	\$796,931	8/13/2018	6/30/2021			SERVICE ORDER #03 (MASTER AGREEMENT TERM 6/20/16-6/30/21, \$5M)
24	PROJECT: OWNER'S ADVISOR SERVICES DURING PRELIMINARY SVCS PHASE OF HEADWORKS DESGIN BUILD	18-19		AC27269	CDM SMITH	\$1,404,765	8/31/2018	3/31/2020			SERVICE ORDER #04 (MASTER AGREEMENT TERM 12/21/15-12/31/22, \$9.67M)