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. January 11, 2018 Room 1734

- 1. ROLL CALL
- 2. APPROVAL OF MINUTES
 - A. November 9, 2017
- 3. <u>UNFINISHED BUSINESS/REQUEST FOR DEFERRALS</u>
- 4. DIRECTOR'S REPORT
 - A. Director's Report (verbal)
 - Monthly Progress Reports

5. <u>AGREEMENTS/ACTION ITEMS</u>

A. First Amendment to the Master Agreement with Signet Testing Laboratories,
Inc. for Special Inspection and Materials Testing Services for the San José – Santa
Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve the First Amendment to the Master Agreement with Signet Testing Laboratories, Inc., for special inspection and materials testing services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility to increase the amount of compensation by \$200,000, for a total agreement not to exceed \$700,000.

This item is scheduled for consideration by the City Council on January 23, 2018.

B. Adoption of Mitigated Negative Declaration for the San José-Santa Clara Regional Wastewater Facility Pond A18 South Gate Levee Repair Project

Staff Recommendation:

Adopt a resolution adopting the Mitigated Negative Declaration and the corresponding Mitigation Monitoring and Reporting Program prepared for the San

José-Santa Clara Regional Wastewater Facility Pond A18 South Gate Levee Repair Project (File No. PP17-047) as having been completed in compliance with the California Environmental Quality Act reflecting the City of San José's independent judgement and analysis.

This item is scheduled for consideration by the City Council on January 23, 2018.

6. OTHER BUSINESS/CORRESPONDENCE

A. Tributary Agencies Estimated Available Plant Capacity Report dated December 20, 2017

7. <u>STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC</u>

A. <u>Construction Contingency Increase for the 7382 – Digester and Thickener</u>
<u>Facilities Upgrade Project at the San Jose – Santa Clara Regional Wastewater</u>
Facility

Staff Recommendations:

- (a) Approve a \$15,000,000 increase to the construction contingency amount of \$13,490,625 for a revised total contingency amount of \$28,490,625 and increasing the contract not-to-exceed amount from \$121,415,625 to a total revised amount not-to-exceed \$136,415,625 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 Yard Piping and Road Improvements appropriation to the Environmental Services Department by \$8,000,000;
 - (2) Decrease the Aeration Tanks and Blowers Rehabilitation appropriation to the Environmental Services Department by \$7,000,000; and
 - (3) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department by \$15,000,000.

The proposed recommendation was approved by the City Council on November 28, 2017.

B. Report on Bids and Award of Contract for 8687 – Repairs of Water Services and Mains: 2017

Staff Recommendations:

- (1) Report on bids and award of contract for the 8687 Repairs of Water Services and Mains: 2017 project to the lowest responsive bidder, San Jose Water Company, for the initial term of November 2017 through November 2020, in an amount not to exceed \$1,617,407.
- (2) Adoption of a resolution authorizing the City Manager to exercise one option to extend the contract for an additional one-year term after the expiration of the initial term in an amount not to exceed \$539,136, and a second option to extend the term of the contract for an additional one-year term after the first

option year in an amount not to exceed \$539,136, for a total maximum contract amount of \$2,695,678 if both option years are exercised.

The proposed recommendation was approved by the City Council on November 14, 2017.

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.

9. MISCELLANEOUS

A. The next monthly TPAC Meeting is on **February 8, 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 April Kellett, Environmental Services (408) 975-2541.

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please contact April Kellett (408) 975-2541 or (408) 294-9337 (TTY) as soon as possible, but at least three business days before the meeting/event.

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

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

San José City Hall, T-1734 Thursday, November 9, 2017 at 4:00 p.m.

1. ROLL CALL

Minutes of the Treatment Plant Advisory Committee convened this date at 4:00 p.m. Roll call was taken with the following members in attendance:

Committee Members: Sylvia Arenas (alternate), Debi Davis, Lan Diep, John Gatto, Marsha Grilli, Steven Leonardis, David Sykes, Kathy Watanabe (alternate), Dev Davis

Absent: Chair Sam Liccardo and Vice Chair Pat Kolstad

On a motion by Committee Member Grilli and a second by Committee Member Watanabe, TPAC nominated Committee Member Debi Davis to serve as Pro -Tem Chair for the November 9, 2017 TPAC meeting.

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

2. <u>APPROVAL OF MINUTES</u>

A. October 12, 2017

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

Ayes – **9** (Arenas, Debi Davis, Dev Davis, Diep, Gatto, Grilli, Leonardis, Sykes, Watanabe)

Nayes - 0

Absent – 0

3. <u>UNFINISHED BUSINESS/REQUEST FOR DEFERRALS</u>

4. <u>DIRECTOR'S REPORT</u>

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

Committee Member Gatto raised concerns about inconsistencies found in the September 2017 CIP Monthly Status Report. Staff clarified that costs are based on a multi-year encumbrance, construction, and non-construction costs. The figures also parallel the adopted budget and Five Year CIP. Director Kerrie Romanow suggested color coding items to ensure clarity and consistency between documents. Staff will address Committee Member Gatto's concerns in future reports.

Committee Member Gatto inquired about the purpose of the Digested Sludge Dewatering Facility. Assistant Director Ashwini Kantak responded that it is part of the transition program to move from the open air lagoons and drying beds to a mechanized dewatering facility.

Committee Gatto suggested re-visiting the Biosolids Project, which was supported by Committee Member Grilli. Ms. Romanow noted the decision to proceed with the transition program was made in 2015, and that staff can provide documents about the decision making process. Committee Member Diep added that there were concerns from Milpitas and Santa Clara about odors potentially coming from the drying beds at the Regional Wastewater Facility.

A motion was made by Committee Member Watanabe and seconded by Committee Member Grilli for staff to agendize the Biosolids Transition History at a future TPAC meeting.

 $\mathbf{Ayes} - \mathbf{9}$ (Arenas, Debi Davis, Dev Davis, Diep, Gatto, Grilli, Leonardis, Sykes, Watanabe)

Naves - 0

Absent - 0

5. AGREEMENTS/ACTION ITEMS

A. <u>Construction Contingency Increase for the 7382 – Digester and Thickeners Facilities</u> Upgrade Project at the San Jose – Santa Clara Regional Wastewater Facility

Staff Recommendations:

- (a) Approve a \$15,000,000 increase to the construction contingency amount of \$13,490,625 for a revised total contingency amount of \$28,490, 625 and increasing the contract not-to-exceed amount from \$136,415,625 for the 7382 Digester and Thickeners 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 Yard Piping and Improvements Appropriation to the Environmental Services Department by \$8,000,000;
 - (2) Decrease the Aeration Tanks and Blower Rehabilitation Appropriation to the Environmental Services Department by \$7,000,000; and
 - (3) Increase the Digester and Thickener Facilities Upgrade Appropriation to the Environmental Services Department by \$15,000,000.

This item is scheduled for consideration by the City Council on November 28, 2017.

Principal Engineer John Cannon and Program Manager Colin Page presented.

Committee Member Gatto commended the staff memo and inquired if the Yard Piping and Aeration Tanks and Blower Rehabilitation Projects are going to be deferred. City staff clarified that a portion of the money from the Yard Piping Project had been moved

over to the Digester Project along with associated scope. Some money was still allocated for other yard piping work that was underway. Additional money, to make up for the transfer of funds from the Aeration Tanks Project, will be included in the proposed FY19-23 CIP Budget. Committee Member Gatto also suggested staff provide a report to Council about the consultant's liability, particularly with the seismic issue.

Committee Member Grilli expressed concerns about the design changes. She inquired if San José intends to pursue cost recovery from the consultant for omissions and errors, and if the Tributary Agencies will be credited. Assistant Director Ashwini Kantak responded that staff was evaluating the design impacts and will provide an update on them along with remedies that will be pursued.

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

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

B. Report on Bids and Award of Contract for 8687 – Repairs of Water Services and Mains: 2017

Staff Recommendations:

- (1) Report on bids and award of contract for the 8687 Repairs of Water Services and Mains: 2017 project to the lowest responsive bidder, San Jose Water Company, for the initial term of November 2017 through November 2020, in an amount not to exceed \$1,617,407.
- (2) Adoption of a resolution authorizing the City Manager to exercise one option to extend the contract for an additional one-year term after the expiration of the initial term in an amount not to exceed \$539,136, and a second option to extend the term of the contract for an additional one-year term after the first option year in an amount not to exceed \$539,136, for a total maximum contract amount of \$2,695,678 if both option years are exercised.

Director Kerrie Romanow clarified for Committee Member Gatto that San Jose Municipal Water provides water services for the San José – Santa Clara Regional Wastewater Facility.

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

Ayes – **9** (Arenas, Debi Davis, Dev Davis, Diep, Gatto, Grilli, Leonardis, Sykes, Watanabe)

Nayes - 0

Absent – 0

6. OTHER BUSINESS/CORRESPONDENCE

A. Approval of Early Work Package 2 for the Design and Construction of the Cogeneration Facility at the San Jose – Santa Clara Regional Wastewater Facility dated October 17, 2017

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

Ayes – **9** (Arenas, Debi Davis, Dev Davis, Diep, Gatto, Grilli, Leonardis, Sykes, Watanabe)

Naves - 0

Absent - 0

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

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

Staff Recommendation: Accept the semiannual status report on the San Jose – Santa Clara Regional Wastewater Facility Capital Improvement Program for the period of January 2017 through June 2017.

The proposed recommendation was approved by the City Council on October 31, 2017.

B. Construction Impacts to the San Jose – Santa Clara Regional Wastewater Facility

Staff Recommendation: Accept this report about the construction impacts to the Operation and Maintenance at the San Jose – Santa Clara Regional Wastewater Facility.

The proposed recommendation was approved by the City Council on October 31, 2017.

C. <u>Wastewater Flow Pattern Changes at the San Jose – Santa Clara Regional Wastewater</u> Facility

Staff Recommendation: Accept this report about wastewater influent and effluent pattern changes at the San José – Santa Clara Regional Wastewater Facility.

The proposed recommendation was approved by the City Council on October 31, 2017.

D. Shoreline Levee Update

Staff Recommendation: Accept this status report on the construction of the Shoreline Levee and progress on discussions with the Santa Clara Valley Water District on the transfer of Pond A18.

The proposed recommendation was approved by the City Council on October 31, 2017.

E. Wildlife Habitat at the San Jose – Santa Clara Regional Wastewater Facility

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

The proposed recommendation was approved by the City Council on October 31, 2017.

F. Amendment to the Master Consultant Agreement with Stantec Consulting Services
Inc. (formerly MWH Americas, Inc.) for Program Management Services for the
San Jose – Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation: Approve an Amended and Restated Master Consultant Agreement with Stantec Consulting Services Inc. (formerly MWH Americas, Inc.) for program management services at the San José – Santa Clara Regional Wastewater Facility Capital Improvement Program, increasing the not to exceed agreement amount from \$39,000,000 to a revised not to exceed agreement amount of \$78,000,000; and extending the term of the agreement from September 30, 2018 to June 30, 2023.

This item was recommended by TPAC on September 14, 2017, and was approved by the City Council on October 17, 2017.

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

Ayes – **9** (Arenas, Debi Davis, Dev Davis, Diep, Gatto, Grilli, Leonardis, Sykes, Watanabe)

Naves - 0

Absent - 0

8. REPORTS

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

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

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

Ayes – **9** (Arenas, Debi Davis, Dev Davis, Diep, Gatto, Grilli, Leonardis, Sykes, Watanabe)

Nayes - 0

Absent – 0

9. <u>MISCELLANEOUS</u>

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

10. OPEN FORUM

11. <u>ADJOURNMENT</u>

A. The Treatment Plant Advisory Committee adjourned at 4:34 p.m.

Sam Liccardo, Chair TREATMENT PLANT ADVISORY COMMITTEE





Capital Improvement Program Monthly Status Report: October 2017

December 7, 2017

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

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Project Delivery Model

Design-Bid-Build Active Projects Post-Feasibility/Development Bid/Award Construction Design Construction 1. Approve 2. Confirm 4. Approve 6. Authorization Preliminary To Award & Project Project 5. Authorization 3. Authorization 7. Substantial 8. Final Scope Alternative To Proceed Design To Bid Establish Baseline Completion Acceptance Project Conceptual Preliminary Detailed Bid & Award Construction Project Post-**Alternative** Design Construction Design Design Scoping Construction (10%)(30%)(100%)(Technology) Contract Commissioning Switchgear S40 Aeration Tanks Filter Rehabilitation Advanced Facility Construction-Enabling Upgrade, M4 Rehabilitation Control and Meter Improvements Replacement, G3 & Nitrification Clarifiers Replacement Phase 1 G3A Removal Facility-wide Water Rehabilitation Digester & Thickener Systems Improvements Advanced Facility Facilities Upgrade Flood Protection Control and Meter Outfall Bridge and Replacement Phase 2 Headworks Critical Storm Drain System Levee Improvements Improvements Blower Improvements *Improvements* Iron Salt Feed Station Support Facilities Tunnel Rehabilitation Plant Instrument Air System Upgrade **Design-Build Active Projects** Post-Feasibility/Development Bid/Award **Design & Construction** Construction 1. Approve 2. Confirm 4. Authorization to Award DB Project 3. Authorization Project 5. Guaranteed 6. Substantial 7. Final Alternative To Proceed Contract Maximum Price Completion Acceptance Scope Project Basis of DB Equipment & **Project** Preliminary Transition Alternative Design & Contractor Construction Services Scoping Services Criteria Docs Key (Technology) Procurement Phases Digested Sludge Headworks Cogeneration Facility Digester Gas Dewatering Facility Compressor Improvements Stages Upgrade Fire Life Safety New Headworks Upgrades Emergency Stage Gates Diesel **HVAC** Improvements Generators Yard Piping and Road Improvements *Projects shown underlined and in blue and italics have advanced this reporting period



Program Summary

October 2017

In October, the CIP progressed on multiple fronts, including the advancement of three projects through the Project Delivery Model (PDM) stage gate process. The New Headworks and Headworks Improvements projects successfully completed a combined Authorization to Proceed stage gate, and the Emergency Diesel Generators Project successfully completed the Substantial Completion stage gate. In addition, the new Storm Drain System Improvements Project was initiated this month. This project will upgrade the RWF's storm water drainage system to meet the City's 10-year design standards, which aim to prevent storm water flooding in and around the RWF's operational area.

Twenty CIP projects continued to progress through the feasibility/development, design, and bid/award PDM stages. Alternatives analysis work continued on the Aeration Tanks Rehabilitation, Digested Sludge Dewatering Facility, Fire Life Safety Upgrade and Facility-wide Water Systems Improvements projects, while conceptual design progressed on the Filter Rehabilitation and Nitrification Clarifiers Rehabilitation projects. Detailed design also progressed on the Advanced Facility Control and Meter Replacement, Blower Improvements, and Cogeneration Facility projects. The project team accepted the 90 percent design and cost submittal for the first phase of the Advanced Facility Control and Meter Replacement Project, and received pre-qualification submittals from six interested contractors. Additionally, the City received Statements of Qualifications (SOQs) for the Yard Piping and Road Improvements Project owner's advisor role this month.

In addition, the seven CIP projects under construction continued to make good progress. Resolution of final outstanding work items continued on the Digester Gas Compressor Upgrade and the Emergency Diesel Generators projects; both projects are now fully operational. Construction activities also continued on the Headworks Critical Improvements, Construction-Enabling Improvements, Digester and Thickener Facilities Upgrade, Iron Salt Feed Station, and Plant Instrument Air System Upgrade projects. In particular, the Headworks Critical Improvements Project received delivery of the new bar screens and commenced construction on site, and the Iron Salt Feed Station commenced process testing and commissioning. On the Digester and Thickener Facilities Upgrade Project, the project team continues to evaluate a design issue that is affecting the digester tanks' seismic retrofit. This issue will result in further delay and additional costs to the project. Staff will provide additional updates as more information becomes available.

The City Council (Council), Treatment Plant Advisory Committee (TPAC), and Transportation and Environment (T&E) Committee took action on the following items presented this month:

- Council accepted the final audit report titled Audit of Environmental Services Department Consulting Services: Agreements Require Additional Oversight (September 2017);
- TPAC and Council approved an interim financing program to fund CIP projects at the RWF in an aggregate principal amount not to exceed \$300 million;
- T&E, TPAC and Council accepted the Semiannual CIP Status Report (January-June 2017);
- TPAC and Council accepted the following reports: Construction Impacts to Operations and Maintenance; Wastewater Flow Pattern Changes; Shoreline Levee/Pond A18 update; and Wildlife Habitat at the RWF;
- Council approved an amendment to the existing Master Consultant Agreement (MCA) with Stantec (formerly MWH) for program management services to increase the not-to-exceed amount from \$39 million to \$78 million and extend the term through June 2023 to align with the 10-year CIP.

Look Ahead

The following key activities are forecast for November/December:

- Condition assessment work will begin on the Fire Life Safety Upgrade Project;
- The project team will hold the HVAC Improvements Project consultant kickoff meeting;
- The Digested Sludge Dewatering project will seek approval to advance through the Confirm Project Alternative stage gate;
- The Cogeneration Facility Project will receive its Authority to Construct (ATC) from the Bay Area Air Quality Management District (BAAQMD) and expects to arrive at a negotiated guarantied maximum price for the remaining design and construction;
- The Advanced Facility Control & Meter Replacement Phase 1 Project will reach 100 percent design completion and will seek approval to advance through the Authorization to Bid stage gate;
- The City will issue Request for Proposals (RFP) for design-build services for the Headworks Improvements and New Headworks projects, and for construction specialty inspection services for the CIP;
- Staff will recommend that TPAC and Council approve a \$15 million increase to the construction contingency for the Digester and Thickener Facilities Upgrade Project to address a number of major unforeseen project conditions.



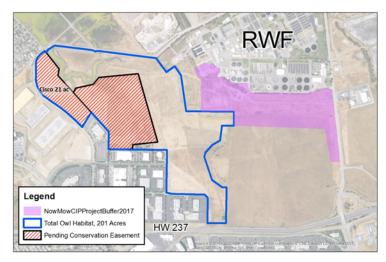
Program Highlight – Bufferlands Habitat for Burrowing Owls

The RWF bufferlands perform an important function as an odor and noise buffer for adjoining communities. They also provide critical habitat for more than 60 Western Burrowing Owls, a federal and state species of special concern. In fact, the RWF bufferlands represent the most successful burrowing owl habitat in the South Bay.

The Western Burrowing Owl has experienced significant population decreases over the past several decades. This owl species is only about nine inches tall and is typically migratory, although many reside in California throughout the year. Western Burrowing Owls are most active at dawn and dusk, and are the only species of owl that live and nest underground. They do not hoot, and will use burrows dug by other animals, as well as other "burrows," like pipes and rock crevices.

Western Burrowing Owls have been documented nesting in the RWF bufferlands over the past decade. Their numbers were declining when the City initiated habitat improvements in 2012. Since then, the City has actively monitored and managed them with help from San José State University, Santa Clara Valley Audubon Society, and more recently, the Santa Clara Valley Habitat Agency (HA), along with hundreds of volunteers.

Initially, staff implemented temporary measures based on an Interim Burrowing Owl Management Plan. Then, in 2013, the City adopted the Plant Master Plan (PMP) Environmental Impact Report (EIR), which led to designating 180 acres of bufferlands to burrowing owl habitat. The following year, Cisco Systems Inc. donated and transferred to the City an additional 21 acres of land adjacent to the existing 180 acres of burrowing owl habitat bringing the total to 201 acres (see Figure 1). In August 2016, the City's Land Use and Planning (LUP) staff began a five-year management agreement to transfer owl management and monitoring activities to the habitat agency. This agreement has improved the burrowing owl habitat while reducing the City's owl management level of effort to only providing minimal support such as tree pruning and fence maintenance.



Protection of burrowing owl habitat is provided under the Figure 1: Owl Habitat Map terms of required mitigation measures in the PMP EIR

Mitigation Monitoring and Reporting Program (MMRP). These terms are rolled into project-level mitigation under the California Environmental Quality Act (CEQA) for CIP projects that could impact owl habitat. Such mitigation may involve costs for pre-construction surveys, monitoring, and possible regulatory reporting.

To minimize encroachment into the burrowing owl habitat, the HA requires developers planning to construct within the burrowing owl fee zone to either pay fees or irrevocably enroll land into the HA's Reserve Program. Four CIP projects fall within this zone. Construction of these projects would require \$1.4 million in fees. In lieu of paying these fees, the City is working with the HA to enroll 72 acres of the 201 acres of designated burrowing owl habitat into the permanent Habitat Agency Reserve Program. The City will still own the land, but the land will be set aside in perpetuity as burrowing owl habitat. Remaining costs associated with mowing, fencing, and management of other bufferlands fall under Facility expenses.



Figure 2: Burrowing Owl Active Construction Site Habitat

Due to the facilities proximity to the owl habitat, owls occasionally nest or forage within RWF operational and CIP project boundaries. As a result, LUP staff work closely with CIP and O&M staff to coordinate and implement owl habitat compliance. In 2016 a pair of owls nested within proximity to the Emergency Diesel Generators Project resulting in the full range of mitigation and protection, including reporting to the California Department of Fish and Wildlife. The pair was successfully protected and had five chicks that fledged within three months while the project was able to proceed. This year the CIP was successful in avoiding and deterring owls from nesting in areas that would conflict with construction by creating a "no-mow" buffer zone and survey program (see Figure 1).



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 this fiscal year.

Program Key Performance Indicators – Fiscal Year 2017-2018

KPI	Tarant	Fiscal	Year to Da	ate	Fiscal Year End			
KPI	Target	Actual	Status	Trend	Forecast	Status	Trend	
Stage Gates	80%	100% 7/7 ¹		→	100% 22/22		→	
	Measurement: Percentage of initiated projects and studies that successfully pass each stage gate on their first attempt. Target: Green: >=80%; Amber: 70% to 80%; Red: < 70%							
Schedule	90%	0% 0/1	•	→	40% 2/5 ²	•	+	
Measurement: Perc Milestone.3 Target:	_					seline Bene	eficial Use	
Budget	90%	100% 1/1		→	86% 6/7		→	
Measurement: Perc budget. ³ Target: Gre	_			•	ity within the a	approved ba	aseline	
Expenditure	\$248M ⁴	\$164M			\$296M		→	
Measurement: CIP F Budget. 70% of \$354		_						
Procurement	80%	NA 0/0		+	100% 4/4		→	
Measurement: Num the fiscal year. Targ						ared to plar	ned for	
Safety	0	0		→	0		→	
Measurement: Num Criteria: Green: zero		•		ciated with	CIP delivery fo	or the fiscal	year.	
Environmental	0	0		→	0		→	
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2								
Staffing ⁵	80%	100% 4/4		→	100% 15/15		→	
Measurement: Number of planned positions filled for the fiscal year. Target: Green: >=80%; Amber: 70% to 79%; Red: < 70%								

Notes

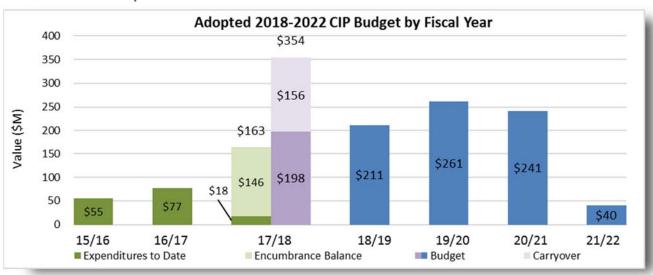
- 1. The Emergency Diesel Generators Project successfully completed the Substantial Completion stage gate and the Headworks Improvements and New Headworks projects successfully completed their joint Authorization to Proceed stage gate.
- 2. The Iron Salt Feed Station Project Beneficial Use date has slipped one month and is no longer anticipated to reach Beneficial Use within two months of the approved baseline.
- 3. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
- 4. The expenditure target decreased as the overall CIP budget decreased due to the removal of \$3.4 million in debt service from the CIP only budget, offset by an increase of \$1.5 million due to fall cleanups being incorporated.
- Staffing KPI represents CIP recruitments planned for the fiscal year and is measured quarterly. The next update will occur in the December report. 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.

Fiscal Year 2017-18 Expenditure and Encumbrances



Notes

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

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

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

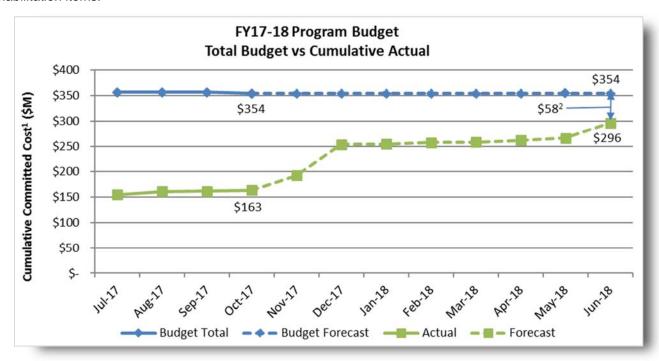
Fiscal Year Budget for 2017-18 is \$238 million, which consists of \$198 million in new funds and \$40 million in rebudgets. Rebudgets can happen as part of the budget adoption process in June, which is reflected in the published Adopted CIP, or as part of the fall clean-up in October, which is reflected beginning with the October external monthly report. For purposes of the monthly report, the adopted FY17-18 budget is adjusted from \$238 million to \$198 million by excluding certain appropriations. 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. The budgets for FY18-19 through FY 21-22 are similarly adjusted. The FY17-18 Budget also includes a fall rebudget (or clean-up) of previous fiscal year funds, which are not reflected in the published Adopted CIP.

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



Fiscal Year 2017-2018 Program Budget Performance

This budget comprises the FY17-18 budget of \$198.5 million plus carryover of \$155.9 million. The budget 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 budget and expenditures can be primarily attributed to the following factors:
 - The following construction contracts are now expected to be awarded in FY18-19:
 - i. Blower Improvements Project.
 - ii. Fire Life Safety Upgrades Project
 - b. The following consultant service orders are now expected to be executed 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.
 - e. The FY17-18 budget includes three recurring appropriations (Preliminary Engineering, Equipment Replacement, and Plant Infrastructure Improvements) totaling approximately \$3.66 million. These appropriations are included in the budget for implementing minor capital improvement projects that may be needed during the fiscal year. No major expenditures or encumbrances are planned against these appropriations at this point.

Project Performance Summary

There are currently seven active projects in the construction or post-construction phases, with an additional 20 projects in feasibility/development, design, bid and award, or design and construction (design-build projects) phases (see PDM, page 2). All active projects are listed in the tables below. Projects in the construction phase have established cost and schedule baselines and are monitored using the City's Capital Project Management System (CPMS). Green/red icons are included in the table below to indicate whether these projects are on budget and schedule.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹	Cost Performance ²	Schedule Performance ²
1. Digester Gas Compressor Upgrade	Post-Construction	Apr 2017 ³	•	•
2. Emergency Diesel Generators	Post-Construction	Jul 2017 ³		•
3. Iron Salt Feed Station	Construction	Dec 2017		•
4. Construction-Enabling Improvements	Construction	Jan 2018		•
5. Plant Instrument Air System Upgrade	Construction	May 2018		
6. Headworks Critical Improvements	Construction	Jun 2018		
7. Digester and Thickener Facilities Upgrade	Construction	Sep 2020	•	•

KEY:

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

<u>Notes</u>

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

Project Performance – Pre-Baselined Projects

	Project Name	Phase	Estimated Beneficial Use Date1
1.	Cogeneration Facility	Design & Construction	Aug 2019
2.	Blower Improvements	Design	Nov 2020
3.	Advanced Facility Control & Meter Replacement Phase 1	Design	Dec 2020
4.	Advanced Facility Control & Meter Replacement Phase 2	Design	Dec 2022
5.	Outfall Bridge and Levee Improvements	Feasibility/Development	Dec 2020
6.	Flood Protection	Feasibility/Development	Aug 2021
7.	Switchgear S40 Upgrade, M4 Replacement, G3 & G3A Removal	Feasibility/Development	Apr 2022
8.	Digested Sludge Dewatering Facility	Feasibility/Development	Jul 2022
9.	Headworks Improvements	Feasibility/Development	Sep 2022
10.	New Headworks	Feasibility/Development	Sep 2022
11.	Fire Life Safety Upgrades	Feasibility/Development	Sep 2022
12.	Filter Rehabilitation	Feasibility/Development	Oct 2022
13.	HVAC Improvements	Feasibility/Development	Nov 2022
14.	Storm Drain System Improvements	Feasibility/Development	Jan 2023
15.	Facility-wide Water Systems Improvements	Feasibility/Development	May 2023
16.	Nitrification Clarifiers Rehabilitation	Feasibility/Development	Dec 2023
17.	Aeration Tanks Rehabilitation	Feasibility/Development	Oct 2025
18.	Tunnel Rehabilitation	Feasibility/Development	Aug 2026
19.	Support Facilities	Feasibility/Development	Dec 2026
20.	Yard Piping and Road Improvements	Feasibility/Development	Jan 2027

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.

Significant Accomplishments

Biosolids Package

Digester and Thickener Facilities Upgrade

- Contractor Walsh Construction continued construction on the new screening building and pipe rack and continued to pour and form the east wall and subnatant channel of the dissolved air floatation tanks 1-6.
- The City continued to review the digester foundation seismic modifications and hazardous material impacts.

Facilities Package

Cogeneration Facility

- Design-builder CH2M completed the 60 percent design and is preparing the contract amendment for the guaranteed maximum price proposal, which is anticipated to be submitted next month.
- The project team continues to coordinate with BAAQMD to finalize the permit needed to construct the cogeneration facility. Staff expect to receive the permit by the end of December.

Storm Drain System Improvements Project

 This month, staff initiated the project, which will upgrade the RWF's storm water drainage system to meet the City's 10-year design standards. The objective of these standards is to prevent storm water flooding in and around the RWF's operational area. The project team anticipates finalizing the project scope in early 2018.

Yard Piping and Road Improvements

• The City held a non-mandatory site conference and received four SOQs for the Owner Advisor Services procurement. Next, the project team will evaluate the SOQs and invite short-listed consultants to interview in December.

Liquids Package

Advanced Facility Control and Meter Replacement

 Design consultant Black & Veatch (B&V) submitted the 90 percent design Opinion of Probable Construction Costs (OPCC). Next, B&V will submit an interim 95 percent design submittal for CIP team review prior to completing the 100 percent submittal in December.

Aeration Tanks Rehabilitation

- Design consultant Brown and Caldwell (B&C) finalized the hydraulic modeling technical memorandum and held a workshop with CIP staff.
- B&C held a workshop to review alternatives for future treatment processes that will meet future nutrient discharge limits. The workshop group identified a short list of alternatives. Another workshop will be held in December to select a final alternative for the conceptual design.

Headworks Critical Improvements Construction

• Contractor Overaa Construction received delivery of the new bar screens and began preparing to remove the old screens. The contractor expects to install the new screens next month.

Headworks Improvements and New Headworks

• The project team finalized the RFPs for the three pre-qualified design-build entities. The RFP is expected to be released next month.

Iron Salt Feed Station

 Contractor Anderson Pacific conducted training sessions with O&M, and completed functional test at ferric chloride station and polymer station. Next month, the contractor will begin operational test with water at ferric chloride station and operational test with polymer at polymer station.

Power and Energy

Emergency Diesel Generators

The project team completed the Substantial Completion stage gate, moving the project to post-construction.

Plant Instrument Air System Upgrade

The City's Building Department approved the steel roof design, and contractor Anderson Pacific began construction.
 Construction is 40 percent complete.



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 winter season, contractor Teichert Construction was unable to perform site work for several weeks from October through April. Teichert has been granted 47 extra work days for weather-related delays. Teichert has also been 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 the fabrication and delivery of portable trailers required for the project continue to impact the schedule. The trailer to be used for badging and training was delivered in August; however, the trailers to be used for construction management personnel are still under fabrication. Teichert now estimates that the construction management trailers will be delivered in December. Installation and furnishing of these trailers, plus final inspection, should take another four to six weeks, placing the Beneficial Use date in January 2018. The City notified Teichert that the number of contract work days has been exceeded and that liquidated damages were in effect. By the end of this reporting month, liquidated damages were \$105,000.

Digester and Thickener Facilities Upgrade

This project is over budget due to the numerous unforeseen conditions, as well as seismic design modifications and hazardous material issues currently being investigated.

Numerous unforeseen conditions are impacting the project schedule. The conditions, detailed below, are resulting in an estimated delay to the Beneficial Use date of five months. The project team continues to evaluate the schedule delays.

- Contractor Walsh Construction encountered major corrosion of an existing below-ground 78-inch settled sewage (SES) pipeline and junction structure during construction. This corrosion has impacted the dissolved air floatation tank piping connections, two new pressurization flow boxes, and utility relocation work. All repairs have been postponed until the 2018 dry season, when a bypass pumping system can be safely installed to allow repair work to continue. Pricing and submittal review of bypass pumps and piping is in progress.
- An unidentified, 36-inch biochemical oxygen demand pipe was discovered during preparation of the foundation for the new sludge screen building. The contractor removed this pipe and relocated several unforeseen digester and landfill gas drain vaults and associated piping.
- Multiple unforeseen utility conflicts with water, natural gas, digester gas, landfill gas, storm drain, and sanitary sewer
 pipelines have impacted progress. These conflicts have caused numerous utility pipe, conduit, and duct bank
 relocations across the site, and have also impacted the new digester gas pipe rack footings, causing rerouting and other
 design changes.
- Digester gas bypass work was delayed approximately six months due to BAAQMD venting restrictions. Work on digester gas bypass connections was completed this month, and the digester gas bypass is now in service.
- Digester structural design is being revised for seismic safety. Revised design details will result in schedule delays and increased coordination with ongoing construction.
- Planned excavations for digesters five through eight are on hold until testing of soils and concrete for PCBs is completed and results show clearance of hazardous material contamination around the surrounding work areas.

Digester Gas Compressor Upgrade

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

The contractor achieved Beneficial Use in April 2017; final acceptance is scheduled for January 2018. This schedule delay was primarily due to the following factors:

- The compressor skids were required to be reclassified from Class 1, Division 2 to Class 1, Division 1. This issue was resolved in May 2015.
- BAAQMD delayed approval of the digester gas flaring during the tie-in of the new gas piping. This issue was resolved in November 2016.
- Functional testing of the automation system took longer than anticipated.
- Multiple competing process shutdowns with other projects contributed to the delay.

Emergency Diesel Generator

This project reached Beneficial Use in July 2017; final acceptance is scheduled for January 2018. The schedule shows a project completion delay of approximately one year from the Notice to Proceed (NTP) completion date. The City granted a schedule addition of 189 working days through the change order process due to additional scope. The project has extended beyond the original schedule due to the following factors:



- Caterpillar, the supplier of the emergency diesel generator system, took longer than expected to develop the controls
 and network switches that interface with existing RWF controls. Caterpillar and Peterson Control have completed all
 outstanding items and are in the process of obtaining O&M final signoff.
- Additional time was required for PG&E to review the third-party report on the protective devices testing and to schedule the witness test for the new emergency diesel generators. PG&E has now completed this work.
- A no-cost time extension change order was required to split the commissioning sequence into two phases and ensure RWF backup power during engine modification work. The contractor completed the first two phases of the project, including modifications to the existing EG1 engine; an eight-hour load test for the four new generators; installation of the fueling and diesel exhaust fluid systems; and upgrades to the existing EG2 and EG3 engines and M4 switchgear. The project was completed in July and is now in the post-construction phase for completion of remaining minor outstanding items.

Iron Salt Feed Station

The Iron Salt Feed Station Project construction has been delayed by three months due to a combination of heavy winter rain; longer than anticipated time to fabricate the double containment pipeline and leak detection system; and longer than anticipated time for system testing and commissioning. Staff anticipates the contractor will reach Beneficial Use in December/January 2018.

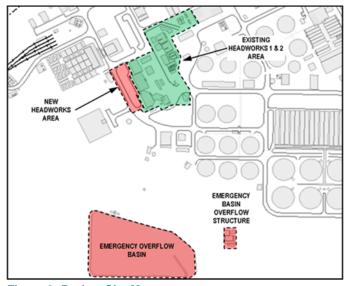


Project Profile – Headworks Improvements and New Headworks

When raw wastewater enters the RWF, it first goes to the headworks facility for preliminary treatment. The headworks facility removes inorganic material such as sticks, stones, grit, and sand from the influent wastewater stream to reduce wear on the downstream process equipment and enhance process performance.

Of the RWF's two separate headworks facilities, the original Headworks 1 includes screens; grit removal through an aerated grit chamber; detritor systems; screenings and grit handling facilities; and pumping facilities. Headworks 1 has been in operation for more than 50 years and has a rated capacity of 271 million gallons per day (MGD). Headworks 2, commissioned in 2008 with a rated capacity of 160 MGD, includes screens; vortex grit removal units; screenings and grit handling facilities; and a pump station. It was built to supplement Headworks 1 in response to a 1998 storm that resulted in an estimated peak wet-weather flow of 330 MGD.

With the aging Headworks 1 facilities requiring regular repairs Figure 3: Project Site Map and rehabilitation, the City's Plant Master Plan recommended



decommissioning Headworks 1 and expanding Headworks 2 to handle future anticipated peak flows of up to 400 MGD. Subsequent City evaluations identified the need for a new Headworks 3 facility to replace Headworks 1, and outlined modifications required for Headworks 2 to improve operational reliability and performance. The Headworks 1 and Headworks 2 improvements, collectively known as the Headworks Improvements and New Headworks Project (Project), are described below:

Headworks Improvements Project - This portion of the Project will improve the reliability of existing Headworks 2 to enable it to function reliably in conjunction with the new Headworks 3. The Headworks Improvements Project will also include the installation of infrastructure needed to reroute flows from Headworks 1 to Headworks 2 in preparation for the decommissioning of Headworks 1.

New Headworks Project - This portion of the Project will include the design and construction of a new headworks facility, including new influent piping, a new pump station, screenings and grit removal systems, and an odor control facility.

The City selected the Progressive Design-Build (PDB) delivery method for these projects due to its complexity, unknown site conditions, presence of multiple project interfaces, and integration with existing facilities. The PDB delivery method provides a single point of responsibility for both design and construction, and increase the potential for innovative solutions to complex issues. The City is selecting the Design-Build Entity (DBE) through a two-step selection process, consisting of a Request for Qualifications (RFQ) with a subsequent RFP. The RFQ will identify DBEs qualified to submit proposals, while the RFP will define selection criteria. Selection of the DBE will be based on a "best value" determination, in which the combination of technical capabilities, key personnel, project approach, past performance, schedule, and pricing most closely meets the project owner's requirements. CDM Smith is assisting with the process by serving as the Owner's Advisor for the Project.

On May 24, 2017, the City initiated the two-step competitive selection process. Four SOQs were received and reviewed, and the following three DBEs were pre-qualified:

- 1. CH2M Hill and Kiewit Corporation
- 2. HDR Inc. and Alberici Corporation
- 3. Overland Contracting Inc. and Overaa Construction

On November 8, 2017, the City initiated the second step of the competitive selection process by issuing the formal RFP to the three pre-qualified DBEs, with proposals due in December. To ensure that the submitted proposals meet requirements, the City is setting up site tours and meeting with the pre-gualified DBEs to discuss potential technical and contractual issues.

The Notice to Proceed for the progressive design-build contract is scheduled for July 2018, with Beneficial Use expected in September 2022.





Figure 4: Current Bar Screens



Figure 5: New Bar Screens



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Regional Wastewater Facility Treatment - Current Treatment Process Flow Diagram

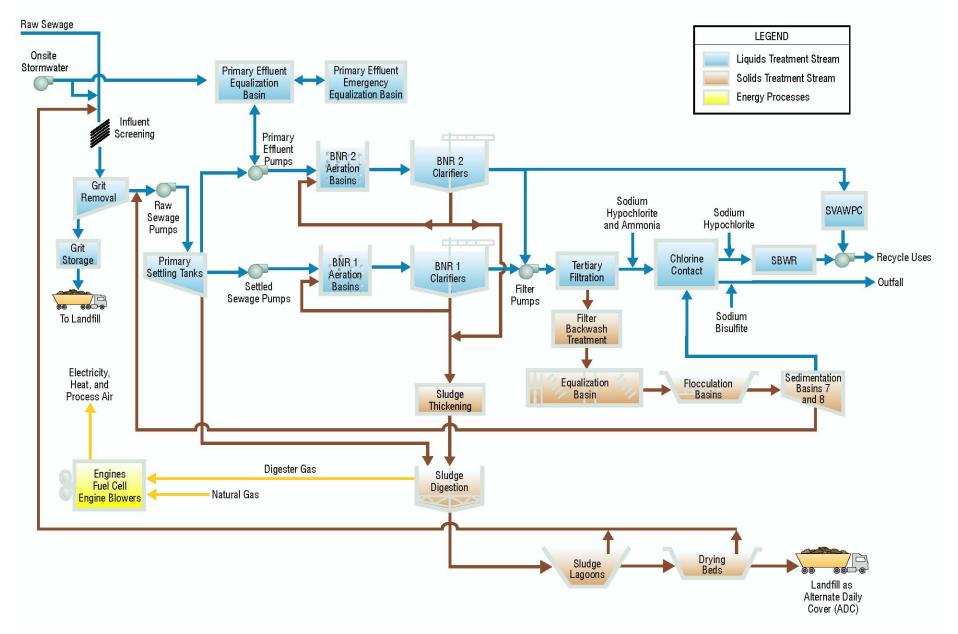


Figure 6 – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment - Proposed Treatment Process Flow Diagram

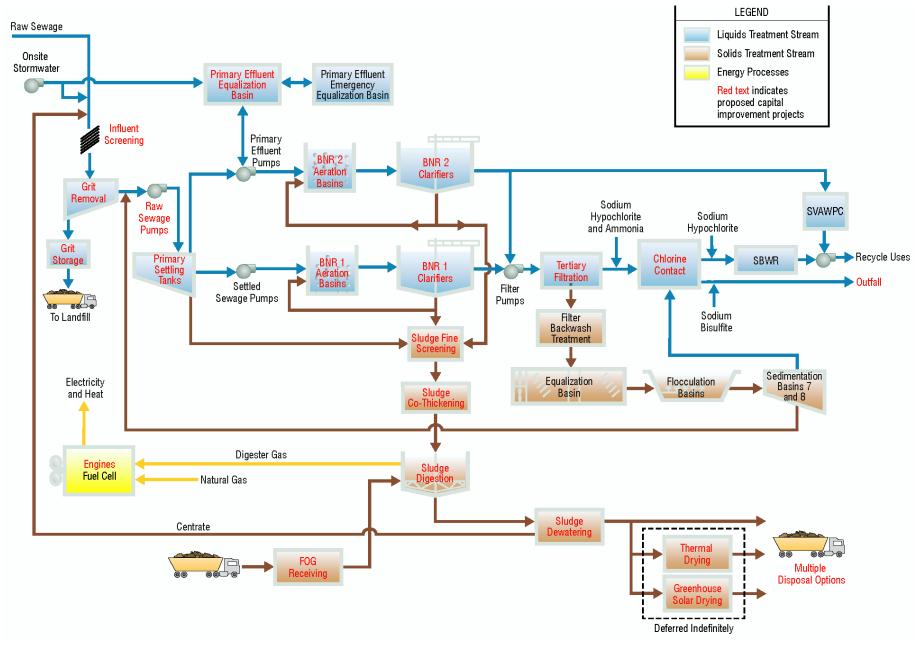


Figure 7 – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

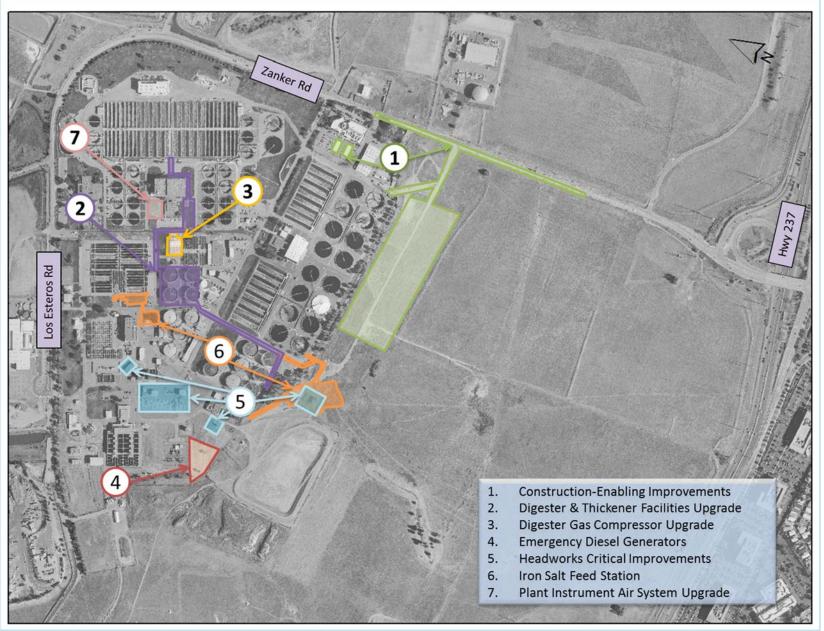


Figure 8 – Active Construction Projects







Capital Improvement Program Monthly Status Report: November 2017

January 4, 2018

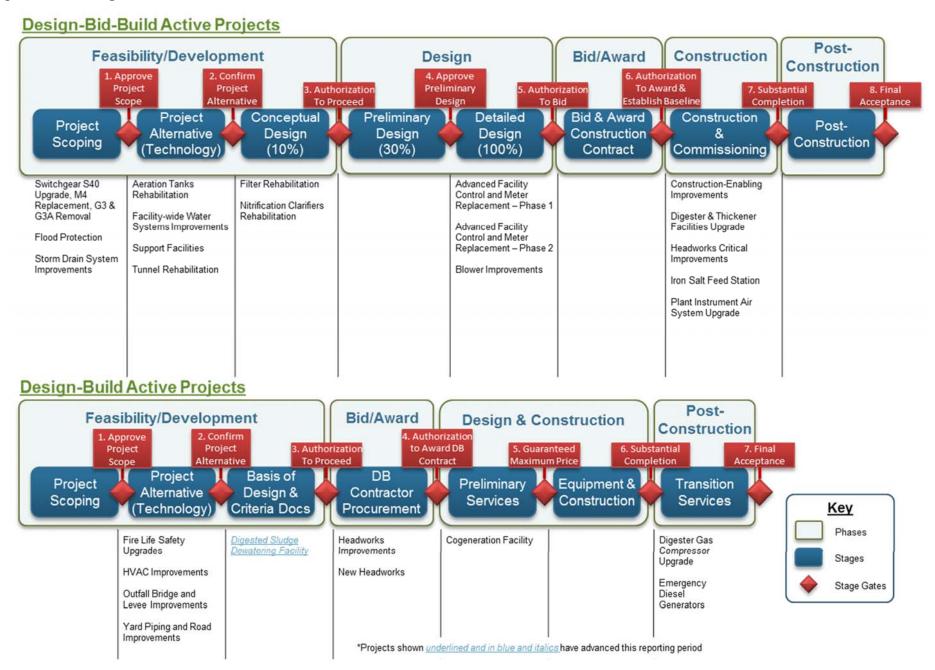
This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for November 2017.

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Project Delivery Model





Program Summary

November 2017

In November, 20 CIP projects continued to progress through the feasibility/development, design, and bid/award stages of the project delivery model (PDM). Of particular note, the Digested Sludge Dewatering Project advanced through the Confirm Project Alternative stage gate and work began on the basis of design report. This \$98 million project will construct a new mechanical dewatering facility and associated support facilities by 2022 to treat all RWF biosolids. The project will allow the RWF to retire its existing sludge lagoons and drying beds by 2027. The Digested Sludge Dewatering Project is part of a biosolids transition strategy that will position the RWF to have multiple and diversified biosolids disposition options in the future; reduce the biosolids processing area footprint and enable other land uses; create flexibility to respond to future regulatory changes governing the disposal of treated biosolids at landfills as well as allow greater flexibility to respond to changing market conditions related to the beneficial reuse of treated biosolids; and reduce odors that could impact neighboring communities.

Alternatives analysis work continued on the Aeration Tanks Rehabilitation, Fire Life Safety Upgrades, and Facility-wide Water Systems Improvements projects, with condition assessment work commencing this month across 30 RWF buildings on the Fire Life Safety Upgrades Project. The conceptual design progressed on the Filter Rehabilitation and Nitrification Clarifiers Rehabilitation projects. Detailed design continued on the Advanced Facility Control and Meter Replacement Phase 1, Blower Improvements, and Cogeneration Facility projects. Project teams received the 95 percent design and cost submittal for the first phase of the Advanced Facility Control and Meter Replacement Project, and the formal project submittal and guaranteed maximum price (GMP) proposal for the Cogeneration Facility Project. Additionally, the City issued Request for Proposals (RFP) for design-build services for the Headworks Improvements and New Headworks projects, and for construction specialty inspection services for the CIP.

In addition, the following five active CIP construction projects continued to progress: Headworks Critical Improvements; Construction-Enabling Improvements; Digester and Thickener Facilities Upgrade; Iron Salt Feed Station; and Plant Instrument Air System Upgrade. On the Headworks Critical Improvements Project, the contractor completed modifications to the existing headwork's channels and will install one new bar screen before the end of the year. On the Iron Salt Feed Station Project, the contractor continued to resolve punch list items and advance testing and commissioning activities prior to achieving Beneficial Use in spring 2018. On the Digester and Thickener Facilities Upgrade Project, the contractor continued construction of the new screening building, elevated pipe rack, and dissolved air floatation tanks.

San José City Council (Council) and Treatment Plant Advisory Committee (TPAC) approved a \$15 million increase to the construction contingency for the Digester and Thickener Facilities Upgrade Project to address a number of major unforeseen project conditions. The project team continues to evaluate a design issue affecting the digester tanks' seismic retrofit, and finalize a hazardous materials testing and disposal plan for polychlorinated biphenyls (PCB) materials with the Environmental Protection Agency (EPA). These issues will result in additional delays and costs for this project. Staff will provide additional updates as more information becomes available.

Look Ahead

The following key activities are forecast for December 2017/January 2018:

- The HVAC Improvements project team will hold the consultant kickoff meeting;
- The City will issue a Request for Qualifications (RFQ) for design-build services for the Digested Sludge Dewatering project;
- The Bay Area Air Quality Management District (BAAQMD) will issue the Cogeneration Facility Project air permit and Authority to Construct. The project team will also finalize the GMP and seek approval to advance through the designbuild GMP stage gate;
- The Advanced Facility Control & Meter Replacement Phase 1 project team will complete the 100 percent design and will seek approval to advance through the Authorization to Bid stage gate;
- The Storm Drain System Improvements project team will seek approval to advance through the Approve Project Scope stage gate;
- Staff will recommend an amendment to a Master Services Agreement with Signet Testing Laboratories to continue special inspection and materials testing services on the Digester and Thickener Facilities Upgrade Project;
- The CIP will carry out construction Health and Safety Training, based upon OSHA training syllabuses, for all CIP and RWF staff.



Program Highlight - Program Reporting

Reporting is essential for verifying and measuring performance. In the CIP, staff collect and distill project and program data to compare actual performance against measurable, agreed-upon performance metrics. These performance metrics promote actionable information, help inform decisions, demonstrate trends, identify root causes, and assist in stakeholder communication. Staff use these metrics as the source of data for key performance indicators (KPIs), which ensure consistency and continuity of reporting at all levels.

Each month, the Program Controls team initiates a sixweek reporting cycle, culminating in the issue of the CIP Monthly Status Report. Because of the six-week length of each cycle, two reporting cycles overlap within a single month.

Staff utilize various software tools to collect and report on program and project information. Actual cost data is extracted from the City financial management system, and schedule data from Oracle Primavera. Other project information, such as risk and decision items are retrieved from the CIP Portal. In addition, project managers provide narrative updates on progress, issues, and risks. All of this information is stored in a database. Staff use a business intelligence tool to combine the data into two-page project reports and online dashboards, both of which are accessible through the CIP Portal. This data flow is represented graphically in Figure 1.

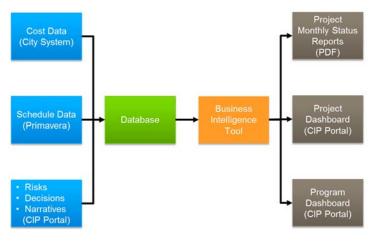


Figure 1: Project Monthly Reporting Data Flow

The Package Performance Meeting, held in Week 3 of the reporting cycle (the third or fourth week of each month), extensively utilizes the project reports. The purpose of the meeting is to review each project's performance and identify any issues that may require discussion with the package managers and project managers. A reporting packet is prepared for each project consisting of the two-page report and schedule. The deputy program manager/program controls manager chairs the meeting, with CIP leadership in attendance. Projects are reviewed by package with the package manager and project managers using the reports as reference.

Program Performance Summary Nov 2017 (As of: 11/30/2017)								
KPI Scorecard								
As of 11/30/2017								
KPI Description Q	Target	YTD Actual	YTD Status	YTD Trend	FY Forecast	FY Status	FY Trend	Measurement/Criteria
Stage Gates	80%	100%		>	100%		•	Measurement: Percentage of initiated projects and studies that successfully pass each stage gate. Criteria: Red: < 70%; Amber: 70% to 80%; Green: >=80%
Schedule	90%	0%		*	40%		•	Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. Criteria: Red: < 75%; Amber: 75% to 85%; Green: >=85%
Budget	90%	100%		•	86%		A	Measurement: Percentage of CIP projects that are completed within the approved baseline budget. Criteria: Red: < 75%; Amber: 75% to 89%; Green: >=90%
Expenditure	\$248 M	\$165 M		A	\$298 M		A	lem:measurement: CIP Fiscal Year 16/17 committed costs. Committed cost meets or exceeds 70% of planned Budget. Criteria: Red: < \$152M; Amber > \$152M and < \$193M; Green: >= \$193M
Procurement	80%	100%		•	100%		•	Measurement: Number of consultant and contractor procurements for initiated projects and program- wide services advertised compared to planned for the fiscal year. Criteria: Red: < 70%; Amber: 70% to 79%; Green: >=86%
Safety	0	0		>	0		•	Measurement: Number of OSHA reportable incidents associated with CIP construction for the fiscal year. Criteria: Red: > 2; Amber: 1 to 2; Green: zero incidents
Environmental	0	0		•	0		•	Measurement: Number of permit violations caused by CIP construction for the fiscal year. Criteria: Red: > 2; Amber: 1 to 2; Green. zero incidents
Staffing	80%	100%		•	100%		•	Measurement: Number of planned positions filled for the fiscal year. Criteria: Red: < 70% ; Amber: 70% to 79% ; Green: >= 80%

Figure 2: CIP KPI Dashboard



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 this fiscal year.

Program Key Performance Indicators – Fiscal Year 2017-2018

KPI	Tarast	Fiscal	Year to Da	ate	Fiscal Year End			
KPI	Target	Actual	Status	Trend	Forecast	Status	Trend	
Stage Cates	80%	100%			100%			
Stage Gates	00%	8/8 ¹		7	22/22		7	
Measurement: Percentage of initiated projects and studies that successfully pass each stage gate on								
their first attempt. Tar	rget: Green:		er: 70% to	80%; Red:				
Schedule	90%	0%		-	40%		-	
		0/1	1 212		2/5	F 5	5 : 111	
Measurement: Perce	_					seline Bene	ficial Use	
Milestone. ² Target: G	3reen: >= 90%	%; Amber: 75% 100%	6 to 89%; I	Red: < 75%	86%			
Budget	90%	1/1		-	6/7		-	
Measurement: Perce	ntage of CID		ro acconto	d by the C		nnroyod ha	colino	
budget. ² Target: Gree	_			•	ity within the a	ipproved ba	iseillie	
	en. >- 30 /0, /	Alliber. 7576 to	00 70, Ret	1. < 1576			_	
Expenditure	\$248M	\$165M		1	\$298M ³			
Measurement: CIP FY	17-18 commit	ted costs. Targ	et: Committ	ed cost me	ets or exceeds	70% of plan	nned	
Budget. 70% of \$354M		_						
Draguramant	000/	100%			100%			
Procurement	80%	1/14		7	4/4		7	
Measurement: Numb						ared to plar	ned for	
the fiscal year. Targe	t: Green: >=	80%; Amber: 1	70% to 799	%; Red: < 1	70%			
Safety	0	0		_	0		—	
Measurement: Numb		•		ciated with	CIP delivery to	or the fiscal	year.	
Criteria: Green: zero	incidents; An	nber: 1 to 2; R	ea: > Z					
Environmental	0	0		-	0		-	
Measurement: Number of permit violations caused by CIP delivery for the fiscal year.								
Target: Green: zero in				delivery for	uie iiscai yeai			
		100%			100%			
Staffing ⁵	80%	4/4		-	15/15		→	
Measurement: Numb	er of planned	positions filled	for the fis	cal year.	10, 10			
Measurement: Number of planned positions filled for the fiscal year. Target: Green: >= 80%; Amber: 70% to 79%; Red: < 70%								

Notes

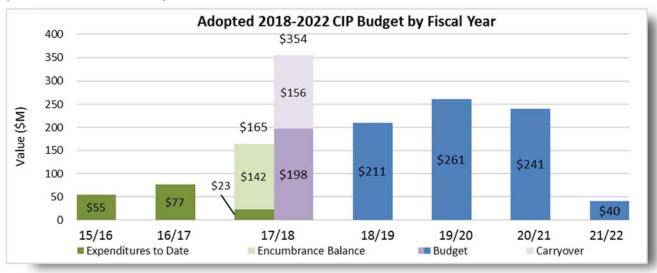
- 1. The Digested Sludge Dewatering Facility Project successfully completed the Confirm Project Alternative stage gate.
- 2. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
- 3. The fiscal year-end expenditure has increased due to an increase of the anticipated encumbrances in the year.
- 4. The Master Service Agreement for Special Inspection Consultant Services was advertised this month.
- 5. The staffing KPI represents CIP recruitments planned for the fiscal year and is measured quarterly. The next update will occur in the December report. 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

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

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

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

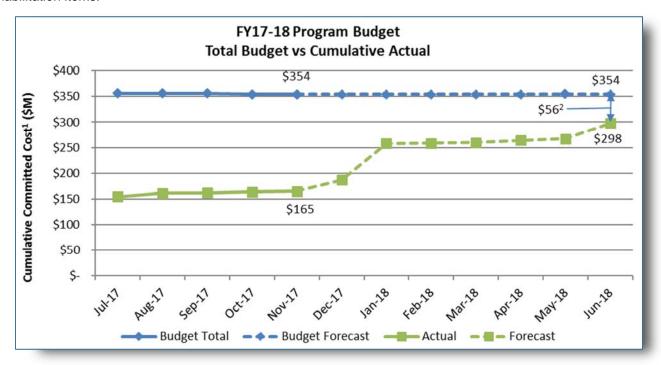
Fiscal Year Budget for 2017-18 is \$238 million, which consists of \$198 million in new funds and \$40 million in rebudgets. Rebudgets can happen as part of the budget adoption process in June, which is reflected in the published Adopted CIP, or as part of the fall clean-up in October, which is reflected beginning with the October external monthly report. For purposes of the monthly report, the adopted FY17-18 budget is adjusted from \$238 million to \$198 million by excluding certain appropriations. 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. The budgets for FY18-19 through FY 21-22 are similarly adjusted. The FY17-18 Budget also includes a fall rebudget (or clean-up) of previous fiscal year funds, which are not reflected in the published Adopted CIP.

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



Fiscal Year 2017-2018 Program Budget Performance

This budget comprises the FY17-18 budget of \$198.5 million plus carryover of \$155.9 million. The budget 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 budget and expenditures can be primarily attributed to the following factors:
 - a. The following construction contracts are now expected to be awarded in FY18-19:
 - i. Blower Improvements Project
 - ii. Fire Life Safety Upgrades Project
 - b. The following consultant service orders are now expected to be executed 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.
 - e. The FY17-18 budget includes three recurring appropriations (Preliminary Engineering, Equipment Replacement, and Plant Infrastructure Improvements) totaling approximately \$3.66 million. These appropriations are included in the budget 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 or post-construction phases, with an additional 20 projects in feasibility/development, design, bid and award, or design and construction (design-build projects) phases (see PDM, page 2). All active projects are listed in the tables below. Projects in the construction phase have established cost and schedule baselines and are monitored using the City's Capital Project Management System (CPMS). Green/red icons are included in the table below to indicate whether these projects are on budget and schedule.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹	Cost Performance ²	Schedule Performance ²
1. Digester Gas Compressor Upgrade	Post-Construction	Apr 2017 ³	•	•
2. Emergency Diesel Generators	Post-Construction	Jul 2017 ³		•
3. Iron Salt Feed Station	Construction	Jan 2018		•
4. Construction-Enabling Improvements	Construction	Mar 2018		•
5. Plant Instrument Air System Upgrade	Construction	May 2018		
6. Headworks Critical Improvements	Construction	Jun 2018		
7. Digester and Thickener Facilities Upgrade	Construction	Sep 2020	•	•

KEY:

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

<u>Notes</u>

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

Project Performance – Pre-Baselined Projects

	Project Name	Phase	Estimated Beneficial Use Date1
1.	Cogeneration Facility	Design & Construction	Aug 2019
2.	Advanced Facility Control & Meter Replacement Phase 1	Design	Dec 2020
3.	Blower Improvements	Design	Dec 2020
4.	Advanced Facility Control & Meter Replacement Phase 2	Design	Dec 2022
5.	Outfall Bridge and Levee Improvements	Feasibility/Development	Jul 2021
6.	Flood Protection	Feasibility/Development	Jan 2022
7.	Switchgear S40 Upgrade, M4 Replacement, G3 & G3A Removal	Feasibility/Development	May 2022
8.	Digested Sludge Dewatering Facility	Feasibility/Development	Sep 2022
9.	Fire Life Safety Upgrades	Feasibility/Development	Sep 2022
10.	Headworks Improvements	Feasibility/Development	Sep 2022
11.	New Headworks	Feasibility/Development	Sep 2022
12.	Filter Rehabilitation	Feasibility/Development	Oct 2022
13.	Storm Drain System Improvements	Feasibility/Development	Jan 2023
14.	HVAC Improvements	Feasibility/Development	Mar 2023
15.	Facility-wide Water Systems Improvements	Feasibility/Development	May 2023
16.	Nitrification Clarifiers Rehabilitation	Feasibility/Development	Dec 2023
17.	Aeration Tanks Rehabilitation	Feasibility/Development	Aug 2025
18.	Tunnel Rehabilitation	Feasibility/Development	Oct 2026
19.	Support Facilities	Feasibility/Development	Dec 2026
20.	Yard Piping and Road Improvements	Feasibility/Development	Jan 2027

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.

Significant Accomplishments

Biosolids Package

Digester Thickener and Facilities Upgrade

- Contractor Walsh Construction completed hydro testing of the sludge tank and continues to assemble the pipe rack.
- Design consultant Brown and Caldwell (B&C) finalized the structural modifications package for the seismic retrofit modifications to the digester tanks.
- Council approved an increase of the construction contingency to address numerous unforeseen conditions.

Digested Sludge Dewatering Facility

• The project team successfully completed the Confirm Project Alternative stage gate. Staff anticipate advertising the RFQ for a design-builder in January 2018.

Facilities Package

Cogeneration Facility

- Design-builder CH2M submitted the formal project submittal and GMP proposal. Negotiations are underway on final contract terms, schedule, and costs. Staff expect to execute the contract amendment in January.
- The project team continues to coordinate with BAAQMD to finalize the permit needed to construct the cogeneration facility. Staff expect to receive the permit by the end of December.

Facility-wide Water Systems Improvements

 Design consultant Kennedy/Jenks (KJ) submitted the Existing Water Systems Hydraulic Modeling and Analyses technical memorandum and held a workshop to review it and discuss the future alternative analysis work to be carried out during the next stage of the project.

HVAC Improvements

• The project team issued the Notice to Proceed (NTP) to design consultant KJ and will hold a kick-off meeting in December.

Fire Life Safety Upgrades

 Design consultant KJ commenced condition assessments of the fire life systems at 30 buildings at the RWF. Staff anticipate completing this work in December.

Liquids Package

Advanced Facility Control and Meter Replacement - Phase 1

 Design consultant Black & Veatch (B&V) submitted the 95 percent design submittal for review. Next month, B&V will submit the final 100 percent design documents, ready for bid advertising.

Aeration Tanks Rehabilitation

- B&C conducted a workshop with the project team to review the triple bottom line plus (TBL+) approach for selecting
 process alternatives to meet future nutrient discharge limits.
- B&C submitted a technical memo that summarizes the condition assessment of the aeration tanks and associated facilities. Next month the consultant will hold a workshop to present the condition assessment findings to the project team and stakeholders.

Headworks Critical Improvements

• Overaa Construction completed demolition of one of the two existing single-rake bar screens in Headworks 2 and prepared the existing bar screen channel for installation of the new multi-rake bar screen in December.

Headworks Improvements and New Headworks

- The City issued an RFP for design-build (DB) teams. Proposals are due in December.
- The project team conducted a pre-proposal site tour for the pre-qualified DB teams. Next month, the project team will conduct confidential meetings individually with the teams.

Iron Salt Feed Station

- Contractor Anderson Pacific completed the remaining punch list items.
- The contractor and Operations and Maintenance (O&M) staff began testing the chemical feed systems. Beneficial Use is expected to be achieved in January 2018.

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 through April. Teichert has been granted 47 extra work days for weather-related delays. Teichert has also been 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 the fabrication and delivery of portable trailers required for the project continue to impact the schedule. The trailer to be used for badging and training was delivered in August; however, the trailers to be used for construction management personnel are still under fabrication. Teichert now estimates that the construction management trailers will be delivered in January 2018. Installation and furnishing of these trailers, plus final inspection, should take another four to six weeks, placing the Beneficial Use date in March 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 \$121,000.

Digester and Thickener Facilities Upgrade

This project is over budget due to numerous unforeseen conditions, seismic design modifications, and hazardous material issues that are currently being investigated.

Numerous unforeseen conditions are impacting the project schedule. The conditions, detailed below, are resulting in an estimated five-month delay to the Beneficial Use date. The project team continues to evaluate the schedule delays.

- Contractor Walsh Construction encountered major corrosion of an existing below-ground 78-inch settled sewage (SES) pipeline and junction structure during construction. This corrosion has impacted the dissolved air floatation tank piping connections, two new pressurization flow boxes, and utility relocation work. All repairs have been postponed until the 2018 dry season, when a bypass pumping system can be safely installed to allow repair work to continue. Pricing and submittal review of bypass pumps and piping is in progress.
- An unidentified, 36-inch biochemical oxygen demand pipe was discovered during preparation of the foundation for the
 new sludge screen building. The contractor removed this pipe and relocated several unforeseen digester and landfill
 gas drain vaults and associated piping.
- Multiple unforeseen utility conflicts with water, natural gas, digester gas, landfill gas, storm drain, and sanitary sewer
 pipelines have impacted progress. These conflicts have caused numerous utility pipe, conduit, and duct bank
 relocations across the site, and have also impacted the new digester gas pipe rack footings, causing rerouting and
 other design changes.
- Digester gas bypass work was delayed approximately six months due to BAAQMD venting restrictions. Work on digester gas bypass connections was completed this month, and the digester gas bypass is now in service.
- Digester structural design is being revised for seismic safety. Revised design details will result in schedule delays and increased coordination with ongoing construction.
- Planned excavations for digesters five through eight are on hold until testing of soils and concrete for PCBs is completed and results show clearance of hazardous material contamination around the surrounding work areas.

Digester Gas Compressor Upgrade

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

The contractor achieved Beneficial Use in April 2017; final acceptance is scheduled for January 2018. This schedule delay was primarily due to the following factors:

- The compressor skids were required to be reclassified from Class 1, Division 2 to Class 1, Division 1. This issue was resolved in May 2015.
- BAAQMD delayed approval of the digester gas flaring during the tie-in of the new gas piping. This issue was resolved in November 2016.
- Functional testing of the automation system took longer than anticipated.
- Multiple competing process shutdowns with other projects contributed to the delay.

Emergency Diesel Generators

This project reached Beneficial Use in July 2017; final acceptance is scheduled for January 2018. The schedule shows a project completion delay of approximately one year from the Notice to Proceed (NTP) completion date. The City granted a schedule addition of 189 working days through the change order process due to additional scope. The project has extended beyond the original schedule due to the following factors:



- Caterpillar, the supplier of the emergency diesel generator system, took longer than expected to develop the controls
 and network switches that interface with existing RWF controls. Caterpillar and Peterson Control have completed all
 outstanding items and are in the process of obtaining O&M final signoff.
- Additional time was required for PG&E to review the third-party report on the protective devices testing and to schedule the witness test for the new emergency diesel generators. PG&E has now completed this work.
- A no-cost time extension change order was required to split the commissioning sequence into two phases and ensure RWF backup power during engine modification work. The contractor completed the first two phases of the project, including modifications to the existing EG1 engine; an eight-hour load test for the four new generators; installation of the fueling and diesel exhaust fluid systems; and upgrades to the existing EG2 and EG3 engines and M4 switchgear.

The project is now in the post-construction phase for completion of remaining minor outstanding items.

Iron Salt Feed Station

The Iron Salt Feed Station Project construction has been delayed by four months due to a combination of heavy winter rain; longer than anticipated time to fabricate the double containment pipeline and leak detection system; and longer than anticipated time to test and commission the new equipment. Staff anticipates that the contractor will reach Beneficial Use in January 2018.



Project Profile – Iron Salt Feed Station

The Iron Salt Feed Station Project is constructing a new ferric chloride feed station and a new polymer feed station at the RWF. Each station includes chemical storage tanks; metering pumps; concrete containment structures; metal canopies; chemical offloading areas; electrical systems; and instrumentation and control systems. The ferric chloride feed station stores and delivers ferric chloride solution to the RWF influent at the Emergency Basin Overflow Structure to control odor at the headworks, primary clarifiers, and sludge digesters. The polymer feed station stores, activates, and delivers polymer to the primary clarifiers to enhance primary treatment.

The benefits of this project include:

- Compliance with air permit requirements through the reduction of hydrogen sulfide levels in the digesters' gas;
- · Reduced corrosion throughout RWF processes;
- Reduced odors at the headworks, primary clarifiers, and digesters;
- Increased primary solids removal;
- Increased biogas production in the digesters; and
- Reduced biological oxygen demand loading to RWF treatment processes.

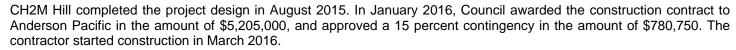


Figure 3: Ferric Chloride Station

As of November 2017, the status of construction is as follows:

- Ninety-nine percent complete with minimal change order work remaining;
- Construction cost with change orders is \$5,444,960;
- Plant operators are testing the performance of both stations locally and remotely from the Plant Computer Control Room.

After successful completion of performance testing, the stations will begin to deliver chemicals to the RWF. The project team currently forecasts Beneficial Use in January 2018, with final acceptance expected in May 2018.



Figure 4: Polymer Feed Station



Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

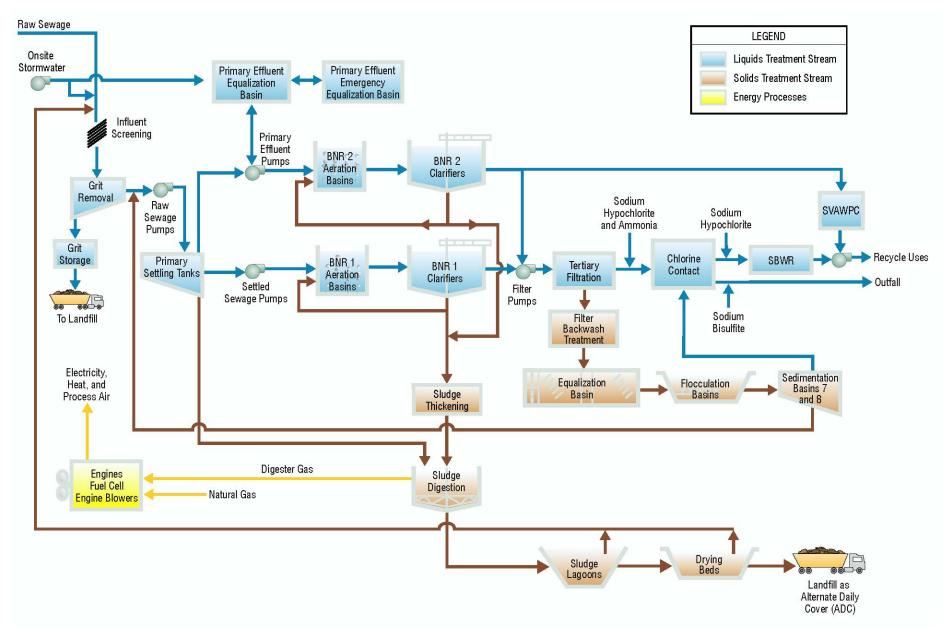


Figure 5 – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment - Proposed Treatment Process Flow Diagram

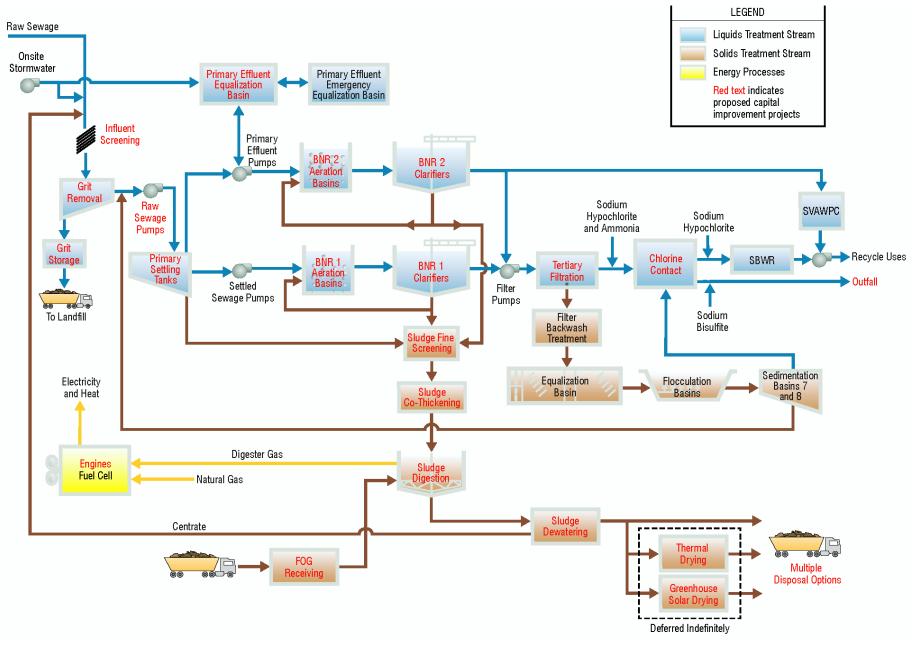


Figure 6 – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

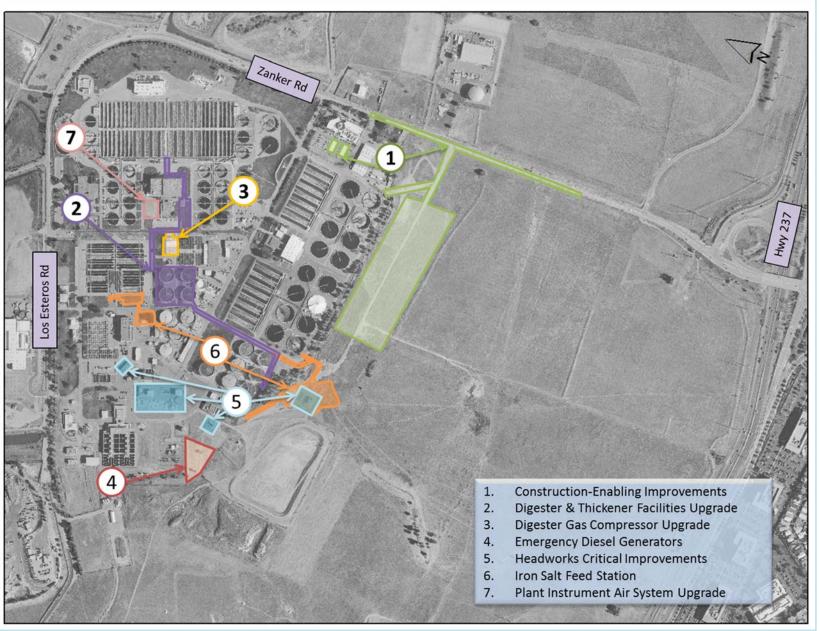


Figure 7 – Active Construction Projects



COUNCIL AGENDA: 1/23/18

ITEM:

FILE: 18-039



CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR

AND CITY COUNCIL

FROM: Barry Ng

Kerrie Romanow

SUBJECT: SEE BELOW

DATE: January 3, 2018

Approved

Date

SUBJECT: FIRST AMENDMENT TO THE MASTER AGREEMENT WITH SIGNET TESTING LABORATORIES, INC. FOR SPECIAL INSPECTION AND MATERIALS TESTING SERVICES FOR THE SAN JOSE -SANTA CLARA REGIONAL WASTEWATER FACILITY CAPITAL IMPROVEMENT **PROGRAM**

RECOMMENDATION

Approve the First Amendment to the Master Agreement with Signet Testing Laboratories, Inc., for special inspection and materials testing services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility to increase the amount of compensation by \$200,000, for a total agreement amount not to exceed \$700,000.

OUTCOME

Approval of the recommendation provides additional funding for continued on-call special inspection and materials testing services from Signet Testing Laboratories, Inc. (STL) for the Digester and Thickener Facilities Upgrade project (Project) through summer 2018. These services are needed to ensure Project construction is performed in accordance with special inspection and testing requirements of the San José Municipal Code and the California Building Code.

BACKGROUND

On October 22, 2014, the City entered into two master agreements, with Construction Testing Service, Inc. (CTS) and STL, to provide special inspection and testing services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility¹ (RWF), with not-to-exceed amounts of \$500,000 each, and a term through December 31, 2019.

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

January 3, 2018

Subject: First Amendment to the Master Agreement with Signet Testing Laboratories, Inc.

Page 2

The two master agreements are used on a rotating basis. To date, CTS has been issued five service orders, totaling \$271,413, to provide a variety of special inspection and testing services on the following projects:

- 1. Digester Gas Compressors Upgrades
- 2. Process Water Pumps Replacement
- 3. Plant Instrument Air System Upgrade
- 4. Headworks Critical Improvements
- 5. Nitrification Clarifier Lighting

Staff is currently negotiating a service order with CTS to provide special inspection and testing services for the upcoming Cogeneration Facility design-build project that is expected to use the remaining balance of the agreement.

Five service orders have also been issued under the STL master agreement to provide support for the following projects:

- 1. Digester Gas Storage Replacement
- 2. Emergency Diesel Generators
- 3. Iron Salts Feed Station
- 4. Digester and Thickener Facilities Upgrade (Concrete and reinforcement)
- 5. Digester and Thickener Facilities Upgrade (Masonry, soils, costings, steel, etc.)

Of the \$499,589 authorized to date, \$374,000 has been issued, under two service orders (Items 4 and 5 above), to provide special inspection and testing services for the Project. Specific services authorized under these service orders include submittal reviews; inspection and testing of structural steel, welding, pre-stressing tendons, reinforced concrete, shotcrete, epoxy anchor bolting, structural masonry, soils, foundation elements, fire-resistant materials, exterior insulation and finish systems, coatings; and provision of confined space entry and rescue.

ANALYSIS

Special Inspection services typically cost between one-half and one percent of the value of a construction project. This is highly variable depending on the nature of the work, and the contractor's sequence of construction. Since construction for the Project commenced in July 2017, the rate at which special inspection services have been required has been significantly higher than originally estimated. This has been due to a large number of unforeseen conditions and underground utility conflicts, which have caused numerous additional inspections and testing for soils compaction, anchors, cast-in-place concrete and concrete reinforcing.

Significant additional scope has been added to the Project to respond to changed field conditions, hazardous materials mitigation, seismic design changes and deteriorated pipe repairs. This in turn has increased the amount of special inspection and testing services that will be required to support the remainder of the Project. Staff anticipates that the current service order and master

January 3, 2018

Subject: First Amendment to the Master Agreement with Signet Testing Laboratories, Inc.

Page 3

agreement funding will be exhausted by spring 2018. Increasing the total maximum compensation on the STL agreement from \$500,000 to \$700,000 will allow staff to issue additional service orders for STL to continue providing special inspection and materials testing services for the Project through summer 2018. This will allow the City to maintain continuity on the Project until new master consultant agreements are in place to complete the special inspection and materials testing services required for this Project and for future Capital Improvement Program (CIP) projects. The recommended fee increase is in sole support of the Project and no new service orders for other projects will be issued under this amended agreement.

EVALUATION AND FOLLOW-UP

The required service order amendment for the Project, issued under this amended master agreement, will be reported to the Treatment Plant Advisory Committee (TPAC) on the monthly summary of procurement and contract activity.

The City is currently advertising for new master agreements for special inspection and testing services. These agreements will be brought to City Council for approval in the second quarter of 2018.

POLICY ALTERNATIVES

Alternative 1: Direct City staff to provide the required services for the Project from the other special inspection consultant under contract with the City, Construction Testing Services, Inc. (CTS).

Pros: CTS has the technical expertise and industry certifications for the services required. **Cons:** Available funding under the agreement with CTS is limited and the City is currently negotiating with the consultant to use the balance of the agreement for services on other projects, including the Cogeneration Facility project.

Reason for not recommending: Using the balance of the CTS agreement to perform inspections for the Project could delay construction on the Cogeneration Facility and other RWF CIP projects.

Alternative 2: Direct City staff to provide the required services with in-house resources from the Department of Public Works (DPW).

Pros: Increased work options for City staff.

Cons: In-house DPW staff does not possess the capacity, technical expertise, or industry certifications needed for the anticipated projects, which could lead to possible construction delays or ineffective, incomplete inspections.

Reason for not recommending: The City would need to hire several new staff members with knowledge and expertise in a variety of inspection and materials testing disciplines. This would add time and cost to the project, and would likely result in releasing newly hired staff at the completion of the project.

January 3, 2018

Subject: First Amendment to the Master Agreement with Signet Testing Laboratories, Inc.

Page 4

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the January 23, 2018 City Council agenda.

COORDINATION

This agreement and memorandum have been coordinated with the City Manager's Budget Office and the City Attorney's Office.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the January 11, 2018 TPAC meeting. A supplemental memo with the committee's recommendation will be included in an amended January 23, 2018 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

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

COST SUMMARY/IMPLICATIONS

1.	AMOUNT OF RECOMMENDATION:	\$200,000
	Current Master Agreement First Amendment	\$500,000 \$200,000
	TOTAL AGREEMENT AMOUNT	\$700,000

- 2. COST ELEMENTS OF MASTER AGREEMENT: The consultant's services are reimbursed on an hourly rate schedule in the master agreement for the involved consultant personnel.
- 3. SOURCE OF FUNDING: 512 San José-Santa Clara Treatment Plant Capital Fund.
- 4. FISCAL IMPACT: This agreement is funded through the San José-Santa Clara Treatment Plant Capital Fund (Fund 512) and will have no impact on the San José-Santa Clara Treatment Plant Operating Fund (Fund 513).

January 3, 2018

Subject: First Amendment to the Master Agreement with Signet Testing Laboratories, Inc.

Page 5

5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the 2015-2016 Budget Adjustments for the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program memorandum, as approved by the City Council on March 22, 2016, the cost for this project will be allocated 40 percent to biochemical oxygen demand and 60 percent to total suspended solids.

BUDGET REFERENCE

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

				Amount	2017-2018	Last Budget
Fund	Appn		Current Total	for	Adopted Capital	Action (Date,
# *	#	Appn Name	Appn	Contract	Budget (Page)	Ord. No.)
		Digester and				06/20/2017
512	4127	Thickener	\$1,861,000	\$200,000	282	Ord. No.
		Facilities Upgrade				29962

Funding for service orders is available in the 2017-2018 Adopted Water Pollution Control Plant Capital Budget. Costs to be incurred in future fiscal years are subject to appropriation and, if needed, will be included in the development of future year budgets during the annual budget process.

CEQA

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

/s/ Jon Cicirelli for BARRY NG Director, Public Works /s/ Ashwini Kantak for KERRIE ROMANOW Director, Environmental Services

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

COUNCIL AGENDA: 01/23/18

FILE:

18-038

ITEM:



Memorandum

TO: HONORABLE MAYOR

AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: January 3, 2018

Date Approved

COUNCIL DISTRICT: 4

SUBJECT: ADOPTION OF MITIGATED NEGATIVE DECLARATION FOR THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY POND A18 SOUTH GATE LEVEE REPAIR PROJECT

RECOMMENDATION

Adopt a resolution adopting the Mitigated Negative Declaration and the corresponding Mitigation Monitoring and Reporting Program prepared for the San José-Santa Clara Regional Wastewater Facility Pond A18 South Gate Levee Repair project (File No. PP17-047) as having been completed in compliance with the California Environmental Quality Act reflecting the City of Šan José's independent judgment and analysis.

OUTCOME

Adoption of the Mitigated Negative Declaration (MND) and Mitigation Monitoring and Reporting Program (MMRP) will enable staff to obtain applicable permits and advertise the construction contract, and the City Council to ultimately approve funding and construction of the proposed project.

EXECUTIVE SUMMARY

As a part of the project planning activities, the Director of Planning, Building, and Code Enforcement (PBCE) circulated an Initial Study/Draft Mitigated Negative Declaration on August 22, 2017, for a 30-day public review through the State Clearinghouse in conformance with the requirements of California Environmental Quality Act (CEQA).

January 3, 2018

Subject: RWF Pond A18 S. Gate Levee Repair MND

Page 2

The purpose of this Memorandum is to provide the City Council the ability to consider and adopt the MND and MMRP for the San José-Santa Clara Regional Wastewater Facility¹ (RWF) Pond A18 South Gate Levee Repair project in accordance with CEQA in advance of the construction contract advertisement. In addition, the following environmental permits are required before the construction contract can be advertised:

- U.S. Army Corps of Engineers Clean Water Act Section 404 Nationwide Permit
- San Francisco Bay Regional Water Quality Control Board Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirements
- California Department of Fish and Wildlife Streambed Alteration Agreement under California Fish and Game Code Section 1602
- San Francisco Bay Conservation and Development Commission Amendment to Permit No. M1983.110.00

Construction will take place within the jurisdictions of the agencies listed above. These agencies require CEQA compliance to be completed prior to issuing environmental permits for project construction.

Once the environmental permits have been issued, staff will incorporate the final required permit conditions from each agency into the construction contract specifications to ensure that interested construction contractors will have all of the project information necessary to prepare accurate bids. After bids are reviewed and a construction contractor is selected, staff will return to City Council to request approval to award the construction contract.

BACKGROUND

Pond A18 is a former salt pond that was purchased by the RWF in 2003. Pond A18 is approximately 856 acres in size and is located in the northwestern section of the RWF property at the southern tip of San Francisco Bay. It is surrounded by levees, only a portion of which are "engineered." Approximately three-quarters of the levee system is dredged bay mud that has compacted on its own over time, is easily eroded, is not accessible to vehicles when moist or wet, and requires ongoing maintenance in order to provide containment of the pond waters and flood protection for the RWF, and the general area south of Pond A18.

The RWF operates Pond A18 under Waste Discharge Requirements described in the San Francisco Bay Regional Water Quality Control Board's (SFRWCB) Order Number R2-2005-0003. The Order requires the City to maintain adequate water levels in the pond to control odors, dissolved oxygen, and erosion of the interior (southern) levee. Exchange of water between Pond A18 and Artesian Slough is accomplished via two hydraulic control structures

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.

January 3, 2018

Subject: RWF Pond A18 S. Gate Levee Repair MND

Page 3

along the levee bounding the western edge of the pond that were installed in 2004 as part of the purchase agreement with Cargill. These hydraulic control structures, commonly referred to as "gate structures," are constructed of timber products and each structure has two 48-inch plastic pipes (for a total of four pipes) with 1-way slide-gates on either end of the pipes, allowing staff operational flexibility to manage water and water quality within the pond.

A condition assessment completed in 2015 revealed that the northern gate structure was in critical condition and at risk of failure and the southern gate structure was found to need various repairs and recommended yearly follow up for condition assessment. This prompted the City Council to approve emergency action to replace the northern gate structure on March 3, 2015, and construction was completed in September 2015. During the reconstruction of the northern gate structure, the southern gate structure was used to pulse slough water into and out of the pond to maintain pond water elevation and water quality. This pulsing of water caused bank erosion and active scouring/slumping on the levee proximal to the southern gate structure.

Once the northern gate structure's construction was completed, the water control structures were configured to return to the pond's normal continuous circulating regime of intake at the northern gate structure and discharge from the southern gate structure. While operating under this configuration, the erosion around the southern gate structure progressed to the extent that RWF engineering staff recommended an alternate flow regime to reduce risk of levee failure and breach to acceptable levels. As a result, continuous circulation of Pond A18 was subsequently reoriented for inflow at the South Gate Structure and discharge from the North Gate Structure in early 2016.

The recent unforeseen storms during the winter and spring seasons of 2017 brought record rainfall, wind, and tides that exacerbated the southern gate structure's levee stability issues. Subsequent monitoring of the southern gate structure showed continued erosion to sections of the levee on each side of the Pond A18 southern gate structure. As a result, the Environmental Services Department (ESD) plans to implement the RWF Pond A18 South Gate Levee Repair project to replace the eroded material and allow the southern gate structure and its adjoining levee to function as they had prior to the erosive losses.

The repair involves installing sheet piles that extend from a relatively undamaged portion of the levee across the eroded and damaged areas that will connect to each of the four wing walls of the existing southern gate structure. The project would provide scour and erosion protection, improve the structural integrity of the adjoining levee, and reduce the risk of levee failure. There would be no new operations associated with the project and the construction activities are limited to the levee repair. Construction is planned to be completed during the summer of 2018.

The overall project purpose is to extend the lifespan of the southern gate structure and its adjoining levee until Pond A18 is restored as a part of the South San Francisco Bay Shoreline (Shoreline) project. Tidal marsh restoration in Pond A18 is expected to take place in 2022. In preparation for Shoreline project, staff is working with the Santa Clara Valley Water District (SCVWD) on a memorandum of understanding to transfer the City's property interest in Pond

January 3, 2018

Subject: RWF Pond A18 S. Gate Levee Repair MND

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A18. The ESD provided a presentation and memorandum to update the Transportation and Environment and Treatment Plant Advisory Committees on the construction of the Shoreline levee and progress on the transfer of Pond A18 on October 2 and 14, 2017.

The City must complete the proposed repair to the southern gate structure levee to prevent a potential levee breach and remain compliant with the RWF's operational Waste Discharge Requirements for Pond A18. Without this repair, there is a risk that a severe storm could exacerbate levee embankment erosion and slumping, thereby making a levee breach imminent and creating an emergency situation.

Should a levee breach occur, access to the breach to implement emergency repairs would be severely limited. A levee breach would allow uncontrolled tidal flooding into Pond A18 and expose over 9,000 feet of non-engineered levees on the south side of the pond to erosive tidal and wave actions. Pond A18's southern levee is a critical, last layer of protection against tidal flooding to the RWF. The southern levee has several existing erosion-weakened areas that would likely be at serious risk of failure if tidal action occurs in Pond A18.

Staff has completed a geotechnical evaluation of the levee adjoined to the southern gate structure and anticipates that the levee will remain structurally stable through the 2017-2018 wet season. Until project construction starts, staff will conduct regular monitoring per the project's erosion monitoring plan to track erosion and to mobilize if emergency repairs are necessary.

ANALYSIS

The Initial Study and MND for the RWF Pond A18 South Gate Levee Repair project were prepared and processed in compliance with the requirements of CEQA. The Director of PBCE, pursuant to the requirements of Title 21 of the San José Municipal Code, reported that there is no substantial evidence in the public record received to date that the project will have a significant effect on the environment with the identified mitigation measures included in the project. The MND has been prepared and processed in a manner that reflects the City's independent judgment and analysis as the Lead Agency. Adopting the MND and MMRP will not preclude the City Council from taking appropriate action in the future when considering approval to award the construction contract.

Potentially significant impacts identified in the Initial Study were related to biological, cultural, water quality, and hazards and hazardous materials environmental resource areas. Potential impacts to biological resources are due to the proximity of construction activities to marsh habitat and Artesian Slough. Mitigation measures to avoid take of any of species, including special status species, have been incorporated into the project. Work performed in this sensitive habitat will be conducted in accordance with best practices identified by the environmental permit agencies listed above and included as mitigation measures for this project. The project permits and mitigation measures will reduce impacts to biological resources to a less than significant level.

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Cultural resource impacts are related to the potential of construction activities to uncover previously unknown archeological and tribal resources. Mitigation measures have been incorporated into the project that require special procedures and compliance with Section 15064.5 of the CEQA Guidelines if resources are inadvertently uncovered. The mitigation measures would reduce impacts to cultural resources to a less than significant level.

Construction activities may include the use of hazardous materials on site. Potential impacts from hazards and hazardous materials are related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials to the environment. An accidental release of sediment could also violate water quality standards or waste discharge requirements. To address this issue, project mitigation measures require implementation of low impact construction practices. All construction-related hazardous materials must be stored, handled, and used according to federal, state, and local laws, and all imported backfill must be tested and meet minimum quality criteria prior to use in construction activities. The mitigation measures reduce impacts to water quality and the environment from hazards and hazardous materials to a less than significant level.

If City Council adopts the MND and MMRP, the full set of mitigation measures will be incorporated in the project. The Draft Initial Study, MND, and associated documents are available at: http://www.sanjoseca.gov/index.aspx?nid=5672.

Two comment letters were received during the public review period from SCVWD and the Santa Clara County Parks and Recreation Department. The SCVWD's comment letter stated that the proposed project's location is not within or adjacent to any SCVWD facility or right-of-way and no SCVWD permit is required. The Santa Clara County Parks and Recreation Department's comments pertained to the project's potential impacts on the Santa Clara County Countywide Trails Master Plan Update. However, there will not be any trails in proximity to the construction area or its access routes during construction. No significant environmental issues were raised that were not already adequately addressed in the Initial Study and Draft MND. On October 27, 2017, the Director of Planning, Building, and Code Enforcement provided responses to all comments received.

EVALUATION AND FOLLOW-UP

Once City staff advertises the construction contract and selects a construction contractor, ESD will return to City Council to request approval to award the construction contract in the spring of 2018. City staff cannot move forward with the required permits and construction contract advertisement if the MND and MMRP are not adopted.

December 20, 2017

Subject: RWF Pond A18 S. Gate Levee Repair MND

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PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the January 23, 2017 City Council meeting.

COORDINATION

This project and memorandum were coordinated with the Planning, Building, and Code Enforcement Department and the City Attorney's Office.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the January 11, 2018 Treatment Plant Advisory Committee meeting. A supplemental memorandum with the committee's recommendation will be included in an amended January 23, 2018 City Council meeting agenda.

CEQA

The environmental impacts of the project were addressed by a MND (File No. PP17-046) circulated on August 22, 2017. The MND is recommended for adoption by City Council.

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

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

Attachment: Project Vicinity Map and Draft CEQA Resolution

ATTACHMENT Land Uses in the Vicinity of RWF and Pond A18



RESOL	UTIC	N NO)
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A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN JOSE ADOPTING THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER POND A18 SOUTH GATE LEVEE REPAIR PROJECT MITIGATED NEGATIVE DECLARATION, FOR WHICH AN INITIAL STUDY WAS PREPARED, ALL IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AS AMENDED, AND ADOPTING A RELATED MITIGATION MONITORING AND REPORTING PROGRAM

WHEREAS, prior to the adoption of this Resolution, the Planning Director of the City of San José prepared an Initial Study and approved for circulation a Mitigated Negative Declaration for the San José-Santa Clara Regional Wastewater Pond A18 South Gate Levee Repair Project under Planning File No. PP17-047 (the "Initial Study/Mitigated Negative Declaration"), all in accordance with the requirements of the California Environmental Quality Act of 1970, together with state and local guidelines implementing said Act, all as amended to date (collectively "CEQA"); and

WHEREAS, the San José-Santa Clara Regional Wastewater Pond A18 South Gate Levee Repair Project (the "Project") analyzed under the Initial Study/Mitigated Negative Declaration consists of a repair of failing sections of the levee on each side of the Pond A18 South Gate Structure. The repair involves placing sheet piles into the levee so as to extend from a relatively undamaged portion of the levee, across the eroded/damaged area, and connect to the walls of the existing South Gate Structure. Construction would occur over a period of approximately 30 days. The Project is located at San José-Santa Clara Regional Wastewater Facility at the south gate of Pond A18, north of 700 Los Esteros Road in the City of San José, California; and

WHEREAS, the Initial Study/Mitigated Negative Declaration concluded that implementation of the Project could result in certain significant effects on the

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RD:JVP:JMD 12/6/2017

environment and identified mitigation measures that would reduce each of those

significant effects to a less-than-significant level; and

WHEREAS, in connection with the approval of a project involving the preparation of an

initial study/mitigated negative declaration that identifies one or more significant

environmental effects, CEQA requires the decision-making body of the lead agency to

incorporate feasible mitigation measures that would reduce those significant

environmental effects to a less-than-significant level; and

WHEREAS, whenever a lead agency approves a project requiring the implementation

of measures to mitigate or avoid significant effects on the environment, CEQA also

requires a lead agency to adopt a mitigation monitoring and reporting program to ensure

compliance with the mitigation measures during project implementation, and such a

mitigation monitoring and reporting program has been prepared for the Project for

consideration by the decision-maker of the City of San José as lead agency for the

Project (the "Mitigation Monitoring and Reporting Program"); and

WHEREAS, the City of San José is the lead agency on the Project, and the City Council

is the decision-making body for the proposed approval to undertake the Project; and

WHEREAS, the City Council has reviewed and considered the Initial Study/Mitigated

Negative Declaration and related Mitigation Monitoring and Reporting Program for the

Project and intends to take actions on the Project in compliance with CEQA and state

and local guidelines implementing CEQA; and

WHEREAS, the Initial Study/Mitigated Negative Declaration and related Mitigation

Monitoring and Reporting Program for the Project are on file in the Office of the Director

of Planning, located at 200 East Santa Clara Street, 3rd Floor Tower, San José,

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RD:JVP:JMD 12/6/2017

California, 95113, are available for inspection by any interested person at that location

and are, by this reference, incorporated into this Resolution as if fully set forth herein;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SAN

JOSE:

THAT THE CITY COUNCIL does hereby make the following findings: (1) it has

independently reviewed and analyzed the Initial Study/Mitigated Negative Declaration

and other information in the record and has considered the information contained

therein, prior to acting upon or approving the Project, (2) the Initial Study/Mitigated

Negative Declaration prepared for the Project has been completed in compliance with

CEQA and is consistent with state and local guidelines implementing CEQA, and (3) the

Initial Study/ Mitigated Negative Declaration represents the independent judgment and

analysis of the City of San José, as lead agency for the Project. The City Council

designates the Director of Planning at the Director's Office at 200 East Santa Clara

Street, 3rd Floor Tower, San José, California, 95113, as the custodian of documents

and records of proceedings on which this decision is based.

THAT THE CITY COUNCIL does hereby find that based upon the entire record of

proceedings before it and all information received that there is no substantial evidence

that the Project will have a significant effect on the environment and does hereby adopt

the Mitigated Negative Declaration and related Mitigation Monitoring and Reporting

Program prepared for the Project (Planning File No. PP17-047). The Mitigation

Monitoring and Reporting Program for the Project is attached hereto as Exhibit "A" and

fully incorporated herein. The Initial Study/ Mitigated Negative Declaration and

Mitigation Monitoring and Reporting Program are: (1) on file in the Office of the Director

of Planning, located at 200 East Santa Clara Street, 3rd Floor Tower, San José,

California, 95113 and (2) available for inspection by any interested person.

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ADOPTED this day of	, 2018 by the following vote:
AYES:	
NOES:	
ABSENT:	
DISQUALIFIED:	
ATTEST:	SAM LICCARDO Mayor
TONI J. TABER, CMC City Clerk	-

SAN JOSE/SANTACLARA WATER POLLUTION CONTROL PLANT

December 20, 2017

TO: Treatment Plant Advisory Committee

SJ: Tributary Agencies Estimated Available Plant Capacity - 2017

The Master Agreements require that the Treatment Plant Advisory Committee file annually with the legislative bodies of San Jose, Santa Clara and member agencies a report on plant capacity. The attached report, Tributary Agencies Estimated Available Plant Capacity - 2017, has been prepared to satisfy this requirement and to identify each agency's 2017 plant capacity as well as estimated available (unused) capacity.

It is recommended that the Treatment Plant Advisory Committee approve the attached report.

Sincerely,

Kerrie Romanow

Director

Environmental Services Department

Attachment

CITY OF SAN JOSE ENVIRONMENTAL SERVICES DEPARTMENT

SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2017

December 2017

CITY OF SAN JOSE ENVIRONMENTAL SERVICES DEPARTMENT SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY

TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2017

This analysis was prepared to comply with the terms of the Master Agreements which require that the operational capacity and productive use of the treatment plant be determined annually. Tables I through IV contain the Plant Capacity, the 2017 Peak Week (5-day average) Flow, and the Remaining Available Capacity for the entire plant and for each individual member for 2017.

2017 PLANT CAPACITY

The nominal capacity of the treatment plant during the 2017 peak week is 167 MGD. The agencies' capacity rights in the 167 MGD plant are shown on Tables I through IV and were determined in accordance with the provisions of the Master Agreements.

2017 PEAK WEEK FLOW (1)

The 2017 peak dry weather flow of 107.30 MGD occurred during the week of October 16 - 20. Tables I through IV contain the agencies' flow and loadings for the 2017 peak week which were obtained from the following sources:

- WEST VALLEY SANITATION DISTRICT Wastewater Flow Report dated 8/4/17, submitted by the District.
- CUPERTINO SANITARY DISTRICT Metered Flow Reports dated 11/20/17, submitted by the District.
- CITY OF MILPITAS Metered Flow Reports dated 11/15/07, submitted by the City
- COUNTY SANITATION DISTRICT 2-3 2017-2018 Revenue Program.
- BURBANK SANITARY DISTRICT 2017-2018 Revenue Program.
- CITY of SAN JOSE and CITY of SANTA CLARA The 2017 Peak Week flow and loadings remaining after subtracting the other agencies' reported flows and loadings are attributed to San Jose and Santa Clara as joint owners of the facilities. These were allocated, in accordance with the 1959 Agreement, to the two cities based on current assessed valuation ratios of 81.059% for San Jose and 18.941% for Santa Clara.

2017 ESTIMATED AVAILABLE CAPACITY

The Agencies' peak week flows and loadings were subtracted from their capacities in the 167 MGD plant to obtain their 2017 available capacities.

⁽¹⁾ Past reporting has been based on different sources of information between the agencies. A new policy will be put in place that will standardize the source of information and methodology for future reporting purposes to comply with the Master Agreement requirement to report actual discharge.

TABLE I

CITY OF SAN JOSE

ENVIRONMENTAL SERVICES DEPARTMENT SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2017

FLOW

Agency		2017 Plant Capacity MGD	2017 Peak Week Flow MGD	Estimated Available Capacity MGD (*)
San Jose	81.059%	106.854	69.113	37.741
Santa Clara	18.941%	24.969	16.150	8.819
Subtotal	100.000%	131.823	85.263	46.560
West Valley Sanitation District	(1) (3)	11.697	9.609	2.088
Cupertino Sanitary District	(4)	7.850	4.250	3.600
City of Milpitas	(3) (4)	14.250	6.960	7.290
County Sanitation District 2-3	(2)	0.980	0.980	0.000
Burbank Sanitary District		0.400	0.238	0.162
Subtotal		35.177	22.037	13.140
Total		167.000	107.300	59.700

- (1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2017.
- (2) In January 1985, County Sanitation District 2-3 entered into an agreement with the Cities of San Jose and Santa Clara, as joint owners of the plant, electing not to participate in a fixed capacity. Capacity is determined annually in accordance with the methods and restrictions prescribed in the agreement.
- (3) Reflects transfer of capacity from West Valley Sanitation District to Milpitas in July 2006.
- (4) Reflects transfer of capacity from Cupertino to Milpitas in January 2009.

^(*) Past reporting has been based on different sources of information between the agencies. A new policy will be put in place that will standardize the source of information and methodology for future reporting purposes to comply with the Master Agreement requirement to report actual discharge.

TABLE II

CITY OF SAN JOSE

ENVIRONMENTAL SERVICES DEPARTMENT SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2017

BOD

Agency		Я	2017 Plant Capacity KLBS/D	2017 Peak Week Flow KLBS/D	Estimated Available Capacity KLBS/D (*)
San Jose		81.059%	377.645	205.095	172.550
Santa Clara		18.941%	88.244	47.925	40.319
Subtotal		100.000%	465.889	253.020	212.869
West Valley Sanitation District	(1) (3)		28.611	21.026	7.585
Cupertino Sanitary District	(4)		16.419	12.205	4.214
City of Milpitas	(3) (4)		27.249	16.537	10.712
County Sanitation District 2-3	(2)		2.017	2.017	.000
Burbank Sanitary District			.815	.485	.330
Subtotal			75.111	52.270	22.841
Total			541.000	305.290	235.710

- (1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2017.
- (2) In January 1985, County Sanitation District 2-3 entered into an agreement with the Cities of San Jose and Santa Clara, as joint owners of the plant, electing not to participate in a fixed capacity. Capacity is determined annually in accordance with the methods and restrictions prescribed in the agreement.
- (3) Reflects transfer of capacity from West Valley Sanitation District to Milpitas in July 2006.
- (4) Reflects transfer of capacity from Cupertino to Milpitas in January 2009.

^(*) Past reporting has been based on different sources of information between the agencies. A new policy will be put in place that will standardize the source of information and methodology for future reporting purposes to comply with the Master Agreement requirement to report actual discharge.

TABLE III

CITY OF SAN JOSE

ENVIRONMENTAL SERVICES DEPARTMENT SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2017

SUSPENDED SOLIDS

Agency		72	2017 Plant Capacity KLBS/D	2017 Peak Week Flow KLBS/D	Estimated Available Capacity KLBS/D (*)
San Jose		81.059%	335.329	257.664	77.665
Santa Clara		18.941%	78.356	60.208	18.148
Subtotal		100.000%	413.685	317.872	95.813
West Valley Sanitation District	(1) (3)		27.173	18.580	8.593
Cupertino Sanitary District	(4)		16.299	9.287	7.012
City of Milpitas	(3) (4)		25.990	12.784	13.206
County Sanitation District 2-3	(2)		2.000	2.000	.000
Burbank Sanitary District			.853	.477	.376
Subtotal		34	72.315	43.128	29.187
Total		š.	486.000	361.000	125.000

- (1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2017.
- (2) In January 1985, County Sanitation District 2-3 entered into an agreement with the Cities of San Jose and Santa Clara, as joint owners of the plant, electing not to participate in a fixed capacity. Capacity is determined annually in accordance with the methods and restrictions prescribed in the agreement.
- (3) Reflects transfer of capacity from West Valley Sanitation District to Milpitas in July 2006.
- (4) Reflects transfer of capacity from Cupertino to Milpitas in January 2009.

^(*) Past reporting has been based on different sources of information between the agencies. A new policy will be put in place that will standardize the source of information and methodology for future reporting purposes to comply with the Master Agreement requirement to report actual discharge.

TABLE IV

CITY OF SAN JOSE

ENVIRONMENTAL SERVICES DEPARTMENT

SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2017

AMMONIA

Agency	9	Ω.	2017 Plant Capacity KLBS/D	2017 Peak Week Flow KLBS/D	Estimated Available Capacity KLBS/D (*)
San Jose		81.059%	33.297	22.794	10.503
Santa Clara		18.941%	7.780	5.326	2.454
Subtotal		100.000%	41.077	28.120	12.957
West Valley Sanitation District	(1) (3)		2.825	2.411	.414
Cupertino Sanitary District	(4)		2.287	1.026	1.261
City of Milpitas	(3) (4)		2.847	1.610	1.237
County Sanitation District 2-3	(2)		.267	.267	.000
Burbank Sanitary District	X	9	.297	.066	.231
Subtotal			8.523	5.380	3.143
Total			49.600	33.500	16.100

- (1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2017.
- (2) In January 1985, County Sanitation District 2-3 entered into an agreement with the Cities of San Jose and Santa Clara, as joint owners of the plant, electing not to participate in a fixed capacity. Capacity is determined annually in accordance with the methods and restrictions prescribed in the agreement.
- (3) Reflects transfer of capacity from West Valley Sanitation District to Milpitas in July 2006.
- (4) Reflects transfer of capacity from Cupertino to Milpitas in January 2009.

^(*) Past reporting has been based on different sources of information between the agencies. A new policy will be put in place that will standardize the source of information and methodology for future reporting purposes to comply with the Master Agreement requirement to report actual discharge.

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

NOVEMBER 1 - DECEMBER 31, 2017

	Description of Contract Activity ¹	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original \$ Amount	Start Date	End Date	Additional \$ Amount	Total \$ Amount	Comments
1	COATING REHABILITATION OF DIGESTER #9 DOME	17-18	23926	79945	TRB COATING AND CONSTRUCGTION	187,300	5/5/2017	12/31/2017	102,700	290,000	ADDITIONAL REPAIRS & SCAFFOLDING RENTAL DUE TO CORROSSION
2	MOTOR & GENERATOR RE PAIR	17-18	24300	54045	VINCENT ELECTRIC	72,000	4/1/2017	3/31/2018	100,000	172,000	SPARE MOTOR FOR SBWR PUMP STATION #11 AND REPAIRS AT RWF & SBWR PUMP STATIONS
3	FRICTION & NON-FRICTION PARTS, SEALS, DRIVE COMPONENTS AND RELATED ITEMS AS REQUIRED	17-18	24637	54207	MOTION INDUSTRIES	100,000	7/1/2017	6/30/2018	75,000	175,000	REPAIRS ON FLOW GATES TO PRIMARY TANKS
4	FERRIC CHLORIDE & DOSING STATION	17-18	24943	54676	KEMIRA WATER SOLUTIONS INC	400,000	7/1/2017	6/30/2018	200,000	600,000	DOT REDUCED USAGE OF FERRIC CHLORIDE DUE TO A CONSTRUCTION PROJECT WHICH CAUSED RWF TO INCREASE USAGE OF FERRIC CHLORIDE (BY 70%) FOR SEVERAL MONTHS
5	NZ-28 STEEL SHEET PILES	17-18	25354	80267	SKYLINE STEEL LLC	180,147	12/13/2017	5/12/2018			
6	CONFINED SPACE RESCUE TEAM SERVICES INCLUDING ALL LABOR, MATERIALS, AND EQUIPMENT	17-18	25394	55097	CAPSTONE FIRE MANAGEMENT INC	300,000	11/26/2017	11/25/2018			
7	LABOR, EQUIPMENT, AND MATERIALS FOR CRANE UPGRADE AND REPAIR SERVICES.	17-18	25403	55119	GP CRANE & HOIST SERVICES	100,000	12/1/2017	11/30/2018			
8	SERVICEGRID MAINTENANCE & SUPPORT SERVICE	17-18	25415	55063	ABB INC	206,706	12/1/2017	11/30/2018			
g	HARDWARE (PARTS), REPAIR, REPLACEMENT AND REBUILDING SERVICES FOR DCS AND VFDS.	17-18	25420	55132	ABB INC	750,000	12/1/2017	11/30/2018			
1	SERVICE ORDER NO. 24 PACKAGE MANAGER SERVICES	17-18		AC 25704	STANTEC CONSULTING SERVICES INC	375,097	12/4/2017	6/30/2018			MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M
1	SERVICE ORDER NO. 25 PROJECT MANAGEMENT SERVICES FOR AERATION TANKS AND BLOWER REHABILITATION	17-18		AC 25704	STANTEC CONSULTING SERVICES INC	438,888	12/4/2017	6/30/2018			MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M
1:	2 SERVICE ORDER NO. 26 PROJECT MANAGEMENT FOR COGEN SERVICES	17-18		AC 25704	STANTEC CONSULTING SERVICES INC	350,777	12/4/2017	6/30/2018			MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M
1	SERVICE ORDER NO. 27 PROJECT 3 MANAGEMENT SERVICES FOR DIGESTED SLUDGE DEWATERING FACILITY	17-18		AC 25704	STANTEC CONSULTING SERVICES INC	405,724	12/4/2017	6/30/2018			MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M
1.	SERVICE ORDER NO. 28 P ROJECT 4 MANAGEMENT SERVICES DIGESTED SLUDGE DEWATERING FACILITY	17-18		AC 25704	STANTEC CONSULTING SERVICES INC	3,275,176	12/4/2017	6/30/2018			MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M
1:	SERVICE ORDER NO. 29 PROJECT MANAGEMENT SERVICES FOR HEADWORKS	17-18		AC 25704	STANTEC CONSULTING SERVICES INC	580,099	12/4/2017	6/30/2018			MASTER AGREEMENT TERM 9/24/13-6/30/23, \$78M
1	SERVICE ORDER NO. 02 SUPPORT BUILDINGS HVAC IMPROVEMENTS	17-18		AC 28434	KENNEDY/JENKS	932,766	12/11/2017	1/31/2020			MASTER AGREEMENT TERM 1/24/17-6/30/24. \$4.8M

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