

SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

SAM LICCARDO, CHAIR
DEBI DAVIS, MEMBER
LAN DIEP, MEMBER
DAVID SYKES, MEMBER
DEV DAVIS, MEMBER

CARMEN MONTANO, MEMBER
KATHY WATANABE, MEMBER
STEVEN LEONARDIS, MEMBER
JOHN GATTO, MEMBER

AMENDED AGENDA/ TPAC

4:00 p.m.

March 14, 2019

Room 1734

1. **ROLL CALL**

2. **APPROVAL OF MINUTES**

A. February 14, 2019

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

4. **DIRECTOR'S REPORT**

A. Director's Report (verbal)

- Monthly Progress Report

5. **AGREEMENTS/ACTION ITEMS**

A. Election of Chair

B. Election of Vice Chair

C. 8716 – South Bay Water Recycling Pump Station 5 VFD Replacement

Staff Recommendation:

Report on bids and award of contract for the 8716 - South Bay Water Recycling Pump Station 5 VFD Replacement project to the low bidder, CESCORP dba CAL ELECTRIC, in the amount of \$243,100 and approve a contingency in the amount of \$24,300, for a total of \$267,400.

**This item is scheduled for consideration by the City Council on
March 19, 2019.**

6. **OTHER BUSINESS/CORRESPONDENCE**

- A. Golden Shovel Design Competition at San José – Santa Clara Regional Wastewater Facility Information Memo

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

- A. First Amendment to the Master Consultant Agreements with Kennedy/Jenks Consultants Inc. and MNS Engineers, Inc. for Construction Management and Inspection Services for the San José- Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve the First Amendment to the Master Consultant Agreement with Kennedy/Jenks Consultants Inc. and MNS Engineers, Inc., for construction management and inspection services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility, to allow for overtime pay, as may be required by the City, with no extension to the term or increase to the maximum total compensation.

This item was approved by the City Council on February 26, 2019.

- B. Actions Related to the Purchase Order for Digester Dome Coating Rehabilitation Services

Staff Recommendation:

Adopt a resolution authorizing the City Manager to:

1. Execute a Purchase Order with National Coating & Lining Company (Murrieta, CA) for digester dome coating rehabilitation services for the Environmental Services Department at the San Jose-Santa Clara Regional Wastewater Facility for an initial twelve-month period, starting on or about April 1, 2019 and ending on or about March 31, 2020, for an amount not to exceed \$240,000; and
2. Exercise up to four one-year options to extend the term of the Purchase Order with the last option year ending on or about March 31, 2024, subject to the annual appropriation of funds.

Desired Outcome: Increase the life expectancy of the Regional Wastewater Facility digesters.

This item was approved by the City Council on February 26, 2019.

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 **April 11, 2019, at 4:00 p.m.**, City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

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

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

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

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

San José City Hall, T-1734
Thursday, February 14, 2019 at 4:04 p.m.

At this time, San José City Attorney Jennifer Pousho advised that since the Chair was not in attendance and no Vice Chair had been appointed yet, a motion needed to be made to approve someone as Acting Chair for today's meeting.

On a motion made by Committee Member Leonardis and a second by Committee Member Dev Davis, TPAC recommended nomination of Committee Member Debi Davis as Chair Pro Tem for this meeting.

Ayes – 7 (Dev Davis, Diep, Gatto, Leonardis, Montano, Sykes, Watanabe)

Abstain 1 (Debi Davis)

Absent – 1 (Liccardo)

1. ROLL CALL

Minutes of the Treatment Plant Advisory Committee convened this date at 4:04p.m. Roll call was taken with the following members in attendance:

Committee Members: Debi Davis, Dev Davis, Lan Diep, John Gatto, Steven Leonardis, Carmen Montano, David Sykes, Kathy Watanabe

Absent: Sam Liccardo

2. APPROVAL OF MINUTES

A. December 13, 2018

On a motion made by Committee Member Leonardis and a second by Committee Member Watanabe, TPAC recommended approval of the minutes.

Ayes – 8 (Debi Davis, Dev Davis, Diep, Gatto, Leonardis, Montano, Sykes, Kathy Watanabe)

Absent – 1 (Liccardo)

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

4. **DIRECTOR'S REPORT**

A. Director's Report (verbal)

Director Kerrie Romanow communicated that the nominations for Chair and Vice Chair would be agendized on the March TPAC Agenda.

Director Romanow pointed out that the CIP Monthly Progress Reports were for the months November and December.

She also wanted to share that the Environmental Services Department would be working on an Info Memo regarding participation in a design contest with the University of California, Berkley and Stanford called the Golden Shovel.

5. **AGREEMENTS/ACTION ITEMS**

A. First Amendment to the Master Consultant Agreements with Kennedy/Jenks Consultants Inc. and MNS Engineers, Inc. for Construction Management and Inspection Services for the San José- Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve the First Amendment to the Master Consultant Agreement with Kennedy/Jenks Consultants Inc. and MNS Engineers, Inc., for construction management and inspection services for various capital improvement projects at the San José-Santa Clara Regional Wastewater Facility, to allow for overtime pay, as may be required by the City, with no extension to the term or increase to the maximum total compensation.

This item is scheduled for consideration by the City Council on February 26, 2019.

Assistant Director Napp Fukuda gave an overview of what this item was regarding and was available for questions.

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

Ayes – 8 (Debi Davis, Dev Davis, Diep, Gatto, Leonardis, Montano, Sykes, Watanabe)

Absent – 1 (Liccardo)

B. Actions Related to the Purchase Order for Digester Dome Coating Rehabilitation Services

Staff Recommendation:

Adopt a resolution authorizing the City Manager to:

1. Execute a Purchase Order with National Coating & Lining Company (Murrieta, CA) for digester dome coating rehabilitation services for the Environmental Services Department at the San Jose-Santa Clara Regional Wastewater Facility for an initial twelve-month period, starting on or about April 1, 2019 and ending on or about March 31, 2020, for an amount not to exceed \$240,000; and
2. Exercise up to four one-year options to extend the term of the Purchase Order with the last option year ending on or about March 31, 2024, subject to the annual appropriation of funds.

Desired Outcome: Increase the life expectancy of the Regional Wastewater Facility digesters.

This item is scheduled for consideration by the City Council on February 26, 2019.

Assistant Director Napp Fukuda gave an overview of why this was needed and was available for questions.

Committee Member Dev Davis asked how often the digester's domes need to be recoated. Deputy Director, RWF O&M, Amit Mutsuddy was present to answer that they should be done every 10-15 years.

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

Ayes – 8 (Debi Davis, Dev Davis, Diep, Gatto, Leonardis, Montano, Sykes, Watanabe)

Absent – 1 (Liccardo)

6. **OTHER BUSINESS/CORRESPONDENCE**

- A. Tributary Agencies Estimated Available Plant Capacity Report dated January 18, 2018

Item 6.A. was approved to note and file

Ayes – 8 (Debi Davis, Dev Davis, Diep, Gatto, Leonardis, Montano, Sykes, Kathy Watanabe)

Absent – 1 (Liccardo)

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

- A. Master Service Agreement with Trussell Technologies for Engineering and Regulatory Support for the South Bay Water Recycling Program

Staff Recommendation:

Approve a Master Agreement with Trussell Technologies through January 31, 2021 and up to two one-year options to extend, for a maximum compensation of \$650,000 to provide conceptual engineering for sequential chlorination, and regulatory support for Title 22 compliance at the San Jose-Santa Clara Regional Wastewater Facility.

This item was approved by the City Council on December 18, 2018.

- B. Confined Space Protection and Rescue Team Services

Staff Recommendation:

Adopt a resolution authorizing the City Manager to:

1. Execute a Purchase Order with Capstone Fire Management, Inc. (Escondido, CA) for confined space rescue team services for the Environmental Service Department for an initial twelve-month period, starting on or about December 19, 2018 and ending on or about December 18, 2019, for an amount not to exceed \$300,000, subject to appropriation of funds; and
2. Exercise up to four one-year options to extend the term of the Purchase Order with the last option year ending on or about December 18, 2023, subject to the appropriation of funds.

Desired Outcome: To protect and rescue San Jose City staff working in

confined spaces.

This item was approved by the City Council on December 18, 2018.

C. Cathodic Protection Systems Services

Staff Recommendation:

Adopt a resolution authorizing the City Manager to:

1. Execute a Purchase Order with Corpro Companies, Inc. (Castro Valley, CA) for cathodic protection systems services for the Environmental Services Department for an initial twelve-month period, starting on or about December 19, 2018 and ending on or about December 18, 2019, for an amount not to exceed \$215,000; and
2. Exercise up to four one-year options to extend the term of the Purchase Order with the last option year ending on or about December 18, 2023, subject to the appropriation of funds.

Desired Outcome: Ensure cathodic protection systems are in place to protect valuable infrastructure from corrosion.

This item was approved by the City Council on December 18, 2018.

8. **REPORTS**

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

The attached monthly Procurement and Contract Activity Report summarizes the purchase and contracting of goods with an estimated value between \$100,000 and \$1.17 million and of services between \$100,000 and \$290,000.

9. **MISCELLANEOUS**

- A. The next TPAC Meeting is on **March 14, 2019, at 4:00 p.m.**, City Hall, Room 1734.

10. **OPEN FORUM**

Dean Stanton gave an update to the park proposal that he had brought to a previous

meeting. He asked that the Committee take time to discuss or investigate his proposal. Councilmember Gatto thought that Mr. Stanford wanted to agendize this item. Acting Chair Debi Davis asked staff if this was possible. Director Kerrie Romanow said that staff could do a workload assessment to see if they could investigate Mr. Stanford's proposal. Acting Vice Chair asked the consensus of the committee to see if they would like an update from staff regarding this. Committee Member John clarified that one of the components of the Master Plan was the environmental use of the property and it was determined that if that was to occur, it was to occur with no expense from the Wastewater District¹. Councilmember Gatto stated that what he thought staff should figure out is if Mr. Stanford's plan could be done without expenditure of wastewater funds. San José City Attorney Jennifer Pousho clarified that there was no action item regarding this proposal but that instead staff bring back an update to the Committee at the next meeting.

11. ADJOURNMENT

- A. The Treatment Plant Advisory Committee adjourned at 4:15 p.m.

Debi Davis, Acting Chair

TREATMENT PLANT ADVISORY COMMITTEE

¹ Staff believes that Committee Member John Gatto was referring to the RWF when he used the term "Wastewater District".



San José-Santa Clara
Regional Wastewater Facility

Capital Improvement Program Monthly Status Report: January 2019

March 7, 2019

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for January 2019.

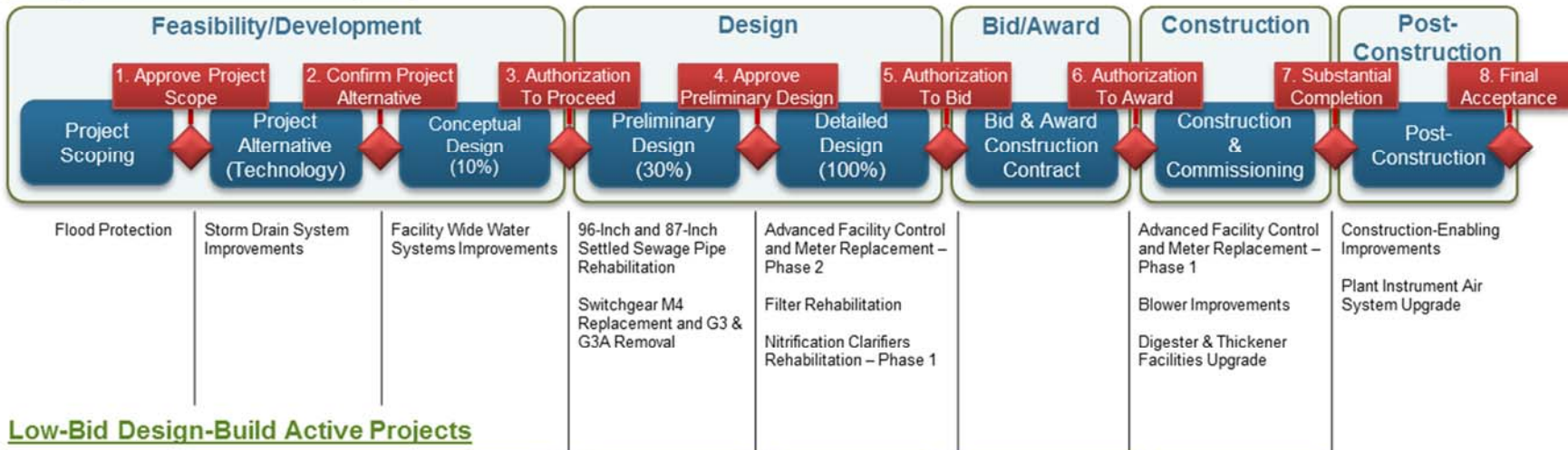
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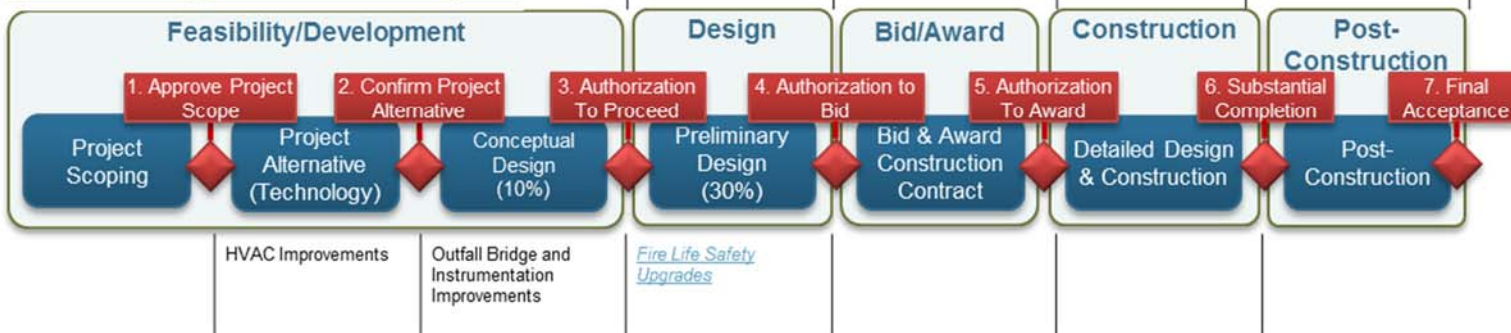


Project Delivery Models

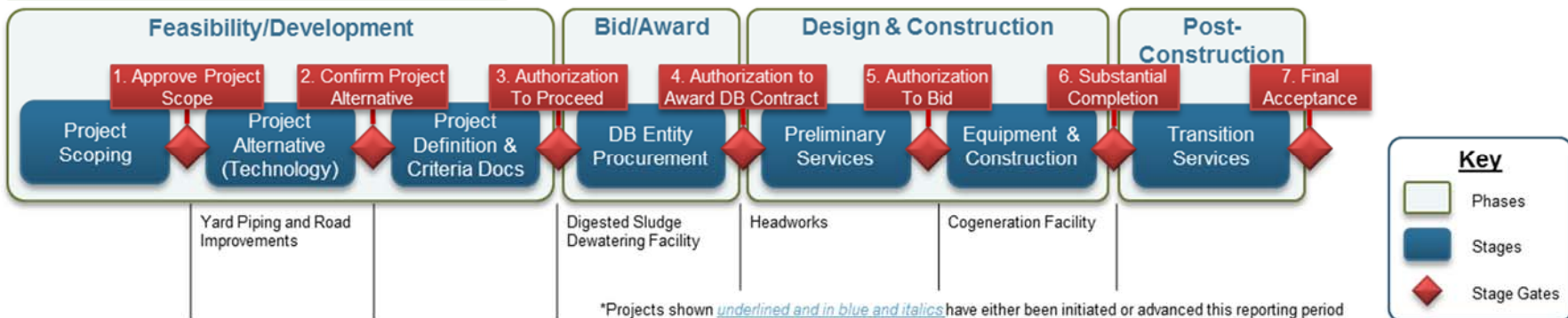
Design-Bid-Build Active Projects



Low-Bid Design-Build Active Projects



Progressive Design-Build Active Projects



*Projects shown underlined and in blue and italics have either been initiated or advanced this reporting period

Key

- Phases
- Stages
- ◆ Stage Gates



Program Summary

January 2019

In January, the Fire Life Safety Upgrades Project passed Stage Gate 3: Authorization to Proceed. The project team began preliminary design, which is expected to be completed by summer 2019.

The Digester and Thickener Facilities Upgrade Project completed the roof concrete placement on Digester 5 and continued roof replacement work on the remaining three digesters (see Figure 1). The contractor also completed installation of the 8-inch compressed digested gas (CDG) piping from the gas compressor room at the Sludge Control Building to the aeration basins. The piping is required to provide CDG to the new engine generators being installed as part of the Cogeneration Facility Project. Work continues at the dissolved air flotation thickeners with installation of the mechanical mechanisms, pressure retention tanks, and electrical conduit and wire.



Figure 1: Digester 6 Concrete Roof Under Construction, Digester 5 Roof Completed

The Cogeneration Facility achieved 50 percent height on the main building walls, which are anticipated to be completed in April 2019. The

Advanced Facility Control and Meter Replacement - Phase 1 Project contractor completed a hazardous material survey of the major piping system. In addition, the City approved submittals for the flowmeters, allowing the contractor to order the equipment. Installation of the meters will commence in May 2019. The City held a pre-construction meeting for the Blower Improvements Project with all stakeholders and issued the Notice to Proceed (NTP) to the contractor, Monterey Mechanical.

The Headworks Project team completed contract development and cost negotiations for the exploratory trenching and subsurface investigations, which are anticipated to be performed in April. The design-builder submitted the Basis of Design Report (BODR) and conducted a review workshop with the City.

For the Digested Sludge Dewatering Facility Project, the City interviewed three proposers as part of the design-build (DB) entity selection process and issued the Notice of Final Ranking at the end of the month. The City will begin negotiations with the top-ranked firm.

For the Nitrification Clarifiers Rehabilitation – Phase 1 Project, the City advertised prequalification documents for construction contractors. As part of the final design for the Filter Rehabilitation Project, the design consultant conducted geotechnical investigations, structural reconnaissance, and electrical investigations to minimize the impact of unforeseen conditions during construction. The City reviewed the Switchgear M4 Replacement and G3 and G3A Removal Project 60 percent design submittal and submitted them to the design consultant.

Look Ahead

The following key activities are forecast for February and March of 2019:

- The CIP will hold four stage gates as projects seek approval to advance to the next stage on the PDM. Anticipated stage gates include:
 - 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation—Stage Gate 4: Approve Preliminary Design
 - HVAC Improvements—Stage Gate 2: Confirm Project Alternatives
 - Outfall Bridge & Instrumentation Improvements—Stage Gate 3: Authorization to Proceed
 - Switchgear M4 Replacement and G3 & G3A Removal—Stage Gate 4: Approve Preliminary Design
- The Blower Improvements Project contractor will mobilize and begin submitting contract documentation.
- The 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project will advertise the contractor pre-qualification package.

Program Highlight – Vendor Open House

On December 5, the City held the fifth annual open house at the RWF to inform potential vendors about upcoming CIP contracting opportunities. Sixty people representing 48 different companies attended. The City provided consultants, construction contractors, and material and equipment suppliers with information on the CIP and on seven upcoming construction projects, described below, which have an estimated total construction value of \$95 million.

1. **96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation:** This project will rehabilitate a 96-inch settled sewage pipeline using cured-in-place pipe (CIPP), and an 87-inch by 136-inch settled sewage pipeline using concrete crown repair. The engineer's estimate, based on the project's 50 percent design, is approximately \$5 million. The project team anticipates pre-qualifying contractors starting in March 2019, requesting bids in summer 2019, and awarding a construction contract in late 2019.
2. **Advanced Facility Control and Meter Replacement - Phase 2:** This project will replace critical instrumentation, valves, and actuators throughout the RWF. The engineer's estimate based on the project's 90 percent design is approximately \$11 million. The City anticipates pre-qualifying contractors starting in summer 2019, requesting bids in fall 2019, and awarding a construction contract before the end of fiscal year 2019-2020.
3. **Filter Rehabilitation:** This project will make improvements to 16 existing media filters, electrical equipment, mechanical equipment, lighting, and concrete surfaces in the RWF's filter building. The engineer's estimate, based on the project's 30 percent design, is approximately \$28 million. The project team anticipates pre-qualifying contractors starting in spring 2019, requesting bids in late 2019, and awarding a construction contract before the end of fiscal year 2019-2020.
4. **Fire Life Safety Upgrades:** This project will provide new local fire alarm systems for three existing buildings and modify fire alarm systems in multiple other buildings that will be connected to a new centralized fire alarm system, which will monitor all of the RWF fire alarm panels. The engineer's estimate, based on the conceptual design, is approximately \$0.9 million. The project team anticipates requesting bids for this low-bid design-build project in mid-2019 and awarding a contract in late 2019.
5. **Nitrification Clarifiers Rehabilitation - Phase 1:** This project will rehabilitate eight clarifiers; replace all influent and return activated sludge (RAS) pipeline flow meters, valves, and actuators; repair RAS pipelines with CIPP; and replace supporting electrical, instrumentation, and control equipment. The engineer's estimate, based on the project's 60 percent design, is approximately \$43 million. The City advertised pre-qualification documents for contractors this month and anticipates requesting bids in mid-2019 and awarding a construction contract in fall 2019.
6. **Outfall Bridge and Instrumentation Improvements:** This low-bid design-build project will replace the RWF's existing wooden outfall bridge, instrumentation on the bridge, meters in pipes, and transformer. Based on the project's alternative analysis, the engineer's estimate is approximately \$3 million. The project team anticipates requesting bids in early 2020 and awarding a design-build contract in mid-2020.
7. **Switchgear M4 Replacement and G3 & G3A Removal:** This project will replace a one switchgear with new equipment that has a larger breaker and lower arch flash value, its enclosure, and two bus ducts that connect the switchgear to the transformers, as well as remove two switchgears. Based on the project's scope, the engineer's estimate is approximately \$4 million. The project team anticipates requesting bids from contractors in mid-2019 and awarding a construction contract in early 2020.

Also at the open house, the City presented information about recent and upcoming changes that will impact future procurements, including a change in the online bidding vendor (See Figure 2). Information presented during the event and at previous events is available online through BidSync and via the CIP Document Library at www.sjenvironment.org/cip.



Figure 2: David French, CIP Procurement Manager, presents at the Vendor Open House

Program Performance Summary

Seven 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 are reset each fiscal year.

Program Key Performance Indicators – Fiscal Year 2018-2019

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	90%	91% 10/11 ¹			95% 18/19		
Measurement: Percentage of initiated projects and studies that successfully pass each stage gate on their first attempt. Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							
Schedule	90%	0% 1/3			33% 1/3		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. ² Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	100% 2/2			75% 3/4		
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. ² Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure	\$253M	\$267M			\$301M		
Measurement: CIP FY18-19 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of \$361M = \$253M. Therefore Fiscal Year End Green: >=\$253M; Amber: \$199M to \$253M; Red: < \$199M							
Safety	0	0			0		
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Environmental	0	0			0		
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Vacancy Rate³	10%	19% 16/83 ⁴			6% 5/83		
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

Notes

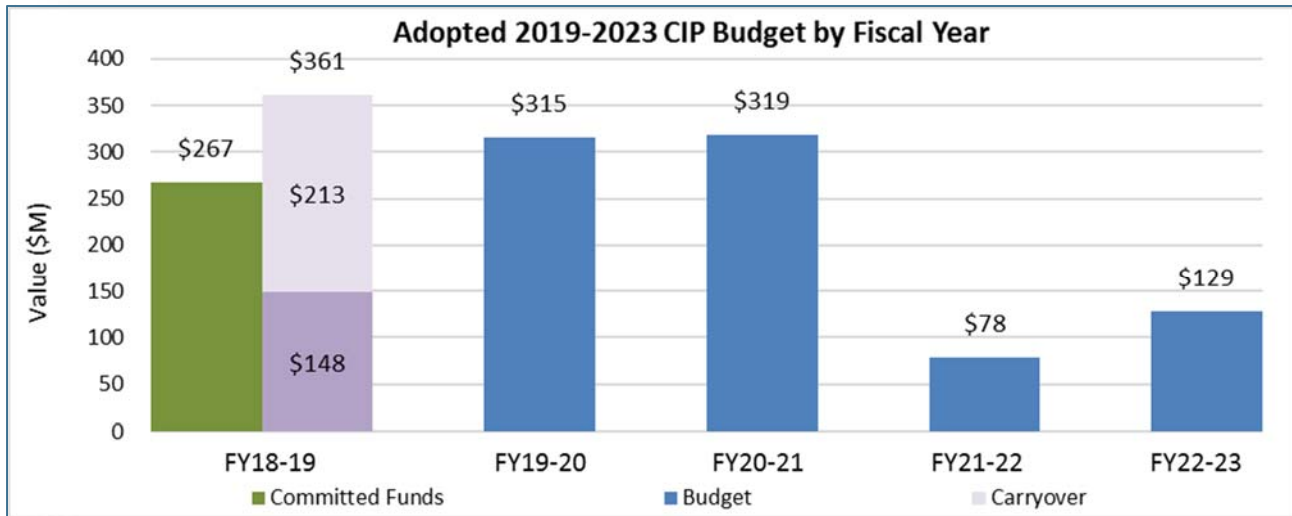
1. The Fire Life Safety Upgrades Project passed Stage Gate 3: Authorization to Proceed.
2. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
3. The Vacancy Rate KPI measures City CIP-approved positions (ESD and Public Works) and program management consultant full-time staff.
4. The total number of vacant positions has been reduced by one because that position will not be needed on the CIP until FY 20-21. The CIP vacancy count increased by one.



Program Budget Performance Summary

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

Adopted 2019-2023 CIP Expenditure and Encumbrances



Notes:

Committed Funds: Total of expenditures and encumbrances.

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

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

The FY18-19 budget is \$185 million, which consists of \$131 million in new funds and \$54 million in rebudgets. For purposes of this monthly report, the adopted FY18-19 budget is adjusted from \$185 million to \$148 million due to the exclusion of certain appropriations that are not measured as part of the expenditure KPI. Excluded appropriations include City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Equipment Replacement Reserve; Ending Fund Balance; Public Art; SBWR Extension; State Revolving Fund Loan Repayment; and Urgent and Unscheduled Treatment Plant Rehabilitation. Similar adjustments have been made to the budgets for FY19-20 through FY 22-23.

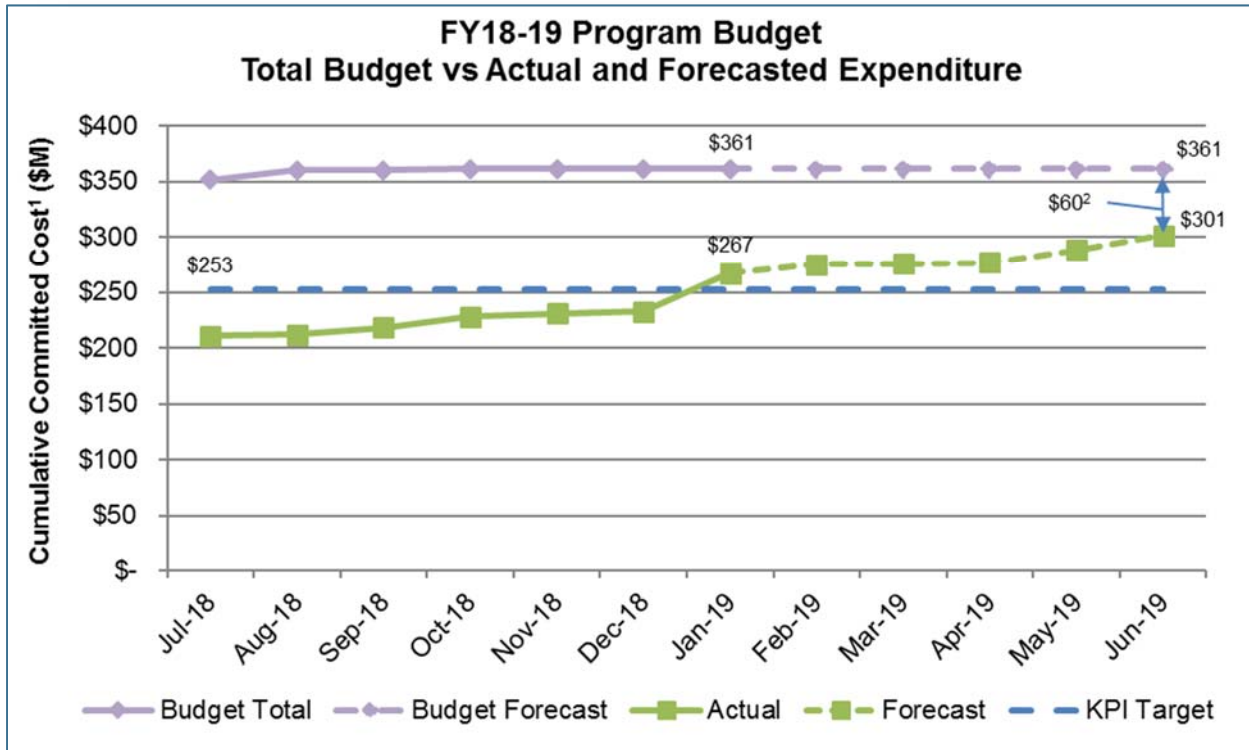
Carryover: Encumbrance balances at the end of the previous fiscal year are automatically carried forward to the current fiscal year as carryover funding to pay invoices for approved construction contracts and consultant agreements. FY18-19 carryover is \$213 million.

Budget of \$148.3 million and carryover of \$213.1 million totals \$361.4 million for FY18-19.



Fiscal Year 2018-2019 Program Budget Performance

The FY18-19 CIP budget is comprised of approximately \$148 million in new funds, plus encumbered carryover of \$213 million for a rounded total of \$361 million. This excludes City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Equipment Replacement Reserve; Ending Fund Balance; Public Art; SBWR Extension; State Revolving Fund Loan Repayment; and Urgent and Unscheduled Treatment Plant Rehabilitation items. Overall, the forecasted fiscal year-end committed funds exceed the fiscal year-end target by \$48 million.



Notes:

1. Committed costs are expenditures and encumbrance balances, including carryover (encumbrance balances from the previous fiscal year).
2. The variance between forecasted budget and forecasted commitments can be primarily attributed to the following factors:
 - a. Several construction contracts are now anticipated to be awarded in FY19-20 instead of FY18-19 based on updated schedules:
 - i. Fire Life Safety Upgrades Project
 - ii. Switchgear M4 Replacement and G3 & G3A Removal Project
 - b. Several consultant service orders will not be awarded in FY18-19:
 - i. Aeration Tank Rehabilitation Project
 - ii. Support Facilities Project
 - iii. Tunnel Rehabilitation Project
 - c. The Blower Improvement Project construction bids came in under budget.
 - d. Several other minor encumbrances for consultant services are either lower than budgeted or are anticipated to be awarded in FY19-20.
 - e. Several authorized positions remain vacant, resulting in lower predicted personal services expenses than budgeted.
 - f. The FY16-17 payment budgeted for the annual Owners Controlled Insurance Program premium covered the period through FY17-18. Funds rebudgeted from FY17-18 will be programmed in FY19-20.



Project Performance Summary

There are currently six projects in the construction and post-construction phases and an additional 14 projects in feasibility/development, design, bid and award, or design and construction phases (see PDM, page 2). 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. Construction-Enabling Improvements	Post-Construction	Aug 2018 ³	◆	◆
2. Plant Instrument Air System Upgrade	Post-Construction	Nov 2018 ³	●	◆
3. Cogeneration Facility	Design & Construction	Mar 2020 ⁴	●	●
4. Digester and Thickener Facilities Upgrade	Construction	Nov 2020	◆	◆
5. Advanced Facility Control & Meter Replacement - Phase 1	Construction	June 2021	●	●
6. Blower Improvements	Construction	Sep 2022	●	●

Key:

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

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



Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date ¹
1. Digested Sludge Dewatering Facility	Bid/Award	Nov 2022
2. 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation	Design	Oct 2020
3. Switchgear M4 Replacement and G3 & G3A Removal	Design	Feb 2022
4. Fire Life Safety Upgrades	Design	Sep 2022
5. Advanced Facility Control & Meter Replacement - Phase 2	Design	Dec 2022
6. Headworks	Design and Construction	Dec 2022
7. Filter Rehabilitation	Design	Apr 2023
8. Nitrification Clarifiers Rehabilitation – Phase 1	Design	Oct 2023
9. Outfall Bridge and Instrumentation Improvements	Feasibility/Development	Jan 2021
10. Storm Drain System Improvements	Feasibility/Development	Dec 2022
11. Flood Protection	Feasibility/Development	Mar 2023
12. HVAC Improvements	Feasibility/Development	Mar 2023
13. Facility Wide Water Systems Improvements	Feasibility/Development	Aug 2024
14. Yard Piping and Road Improvements	Feasibility/Development	June 2027

Notes

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



Project Significant Accomplishments

Biosolids Package

Digester and Thickener Facilities Upgrade

- Contractor Walsh completed the compressed digester gas line from the sludge control building gas compressor room to the aeration basins. The Cogeneration Facility Project will connect the line to the new engine generation building.
- Walsh also completed the new concrete roof on digester 5 and the installation of mechanical equipment in dissolved air flotation tanks 1 and 2. Additionally, the electrical subcontractors installed one of the four new motor control centers and other electrical equipment in the sludge control electrical room. The project is currently 65% complete.

Digested Sludge Dewatering Facility

- To help inform the performance standards that will be incorporated into the design-build contract, owner's advisor Brown and Caldwell began a study to forecast the dewaterability of the sludge after converting the digestion process from mesophilic to thermophilic.
- The City conducted interviews with three proposing design-build entities and issued a Notice of Final Ranking. The project team will begin negotiating with the top-ranked firm in February.

Facilities Package

96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation

- Design consultant Black & Veatch conducted the 50 percent design workshop. In March, the project team will bring the project to stage gate and seek approval to proceed with detailed design.

Fire Life Safety Upgrades

- The low-bid design build project passed Stage Gate 3: Authorization to Proceed. Design consultant Kennedy/Jenks (K/J) began preliminary design, which is anticipated to be completed by April 2019.

HVAC Improvements

- Design consultant K/J finalized the alternative analysis report. In March, the project team will present project alternative recommendations at Stage Gate 2: Confirm Project Alternative and seek approval to begin conceptual design.

Storm Drain System Improvements

- Design consultant AECOM conducted workshops to present their alternatives analysis for storm pump stations and storm sewer system. The final reports are anticipated in March 2019.

Yard Piping and Roadway Improvements

- Owner's advisor Black & Veatch conducted workshops to present findings and recommendations based on the recently completed condition assessments. The project team anticipates final reports in April 2019.

Liquids Package

Advanced Facility Control and Meter Replacement – Phase 1

- Contractor Overaa completed the hazardous material survey and ordered all critical equipment. Overaa anticipates beginning equipment installation at the start of the dry season this May.

Blowers Improvements

- The project team issued the NTP to construction contractor Monterey Mechanical and held a pre-construction meeting. Next month, the City will hold a formal partnering session and will begin reviewing submittals and process shutdown requests.

Filter Rehabilitation

- Design consultant K/J completed geotechnical drilling, structural reconnaissance, and electrical investigations for the site investigation. Next month, the project team will work with K/J to finalize the plan for utility potholing and field verifying the existing electrical infrastructure.

Headworks

- Design-builder CH2M Hill submitted the draft BODR for the City to review. The final BODR is anticipated in April 2019.



Nitrification Clarifiers Rehabilitation – Phase 1

- The City advertised the pre-qualification documents for construction contractor and expects to post a list of pre-qualified contractors in March 2019.

Power and Energy Package

Cogeneration Facility

- The design-builder CH2M achieved 50 percent height on the main building CMU wall. The wall completion is anticipated in late April 2019 (See Figure Below).
- The City submitted the application and supporting documentation detailing the operation of the boilers to the Bay Area Air Quality Management District and anticipate a response within 60 days.
- The City also submitted to PG&E the final Interconnection Agreement and the Detailed Study Agreement outlining the impacts of the connection. The project team anticipates a response from PG&E by early May.

Switchgear M4 Replacement and G3 & G3A Removal

- Design consultant Brown and Caldwell submitted the 60 percent design for City review. The final design submittal is anticipated in July 2019.



Figure 3: Main Cogeneration Building

Explanation of Project Performance Issues

Construction-Enabling Improvements Project

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 on several occasions between October 2016 and April 2017. Teichert was granted extra work days for weather-related delays and for extra work associated with several contract change orders. A new contract completion date of June 8, 2017 was established. However, Teichert's subcontractor, ModSpace, was slow to respond and regularly submitted late and incomplete documentation, which resulted in the portable trailers arriving in January 2018, approximately nine months later than the contract completion date.

Teichert experienced additional delays completing installation of the portable trailers and submitting complete and acceptable documentation for access ramps and canopies. In early August 2018, the contractor completed installation of the electrical, communications, and wastewater utilities. Also in August, the City of San José Building Division issued the Certificate of Occupancy permit for the trailers, and the construction management group issued the Notice of Substantial Completion indicating the project had reached Beneficial Use. The project team provided Teichert with a list of remaining contract work to be completed. The project team has reached agreement with Teichert for liquidated damages and to complete outstanding tasks for project closeout. The project team anticipates accepting the project in March 2019.

Plant Instrument Air System Upgrade Project

Project construction has been delayed by seven months due to four issues: 1) The project team discovered that the planned construction site access route crossed a large settled sludge pipeline, requiring an alternative access route to be developed and constructed; 2) the contractor was temporarily unable to install a section of the conduit from the sludge control building to the new compressor building due to other work being performed in the area by a different contractor; 3) development of the 28-day commissioning test procedure took longer than anticipated; and 4) during the eight-hour functioning test the project team discovered oxidized (rusted) carbon steel shavings in an existing condensate tank unrelated to the project construction. The material was removed, and the test was successfully completed. The project achieved Beneficial Use in November 2018. The project team anticipates project acceptance in April 2019.

Digester and Thickener Facilities Upgrade Project

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

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

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

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

- Digester structural redesign: The design consultant revised the structural drawings to address seismic issues by enlarging the foundation ring beam at the base of each of the four digesters. The contractor provided a cost proposal associated with this revision and the City issued a change order for a portion of the proposal. Work associated with the new foundations is ongoing.
- Hazardous material mitigation: Testing of soils and concrete for polychlorinated biphenyls (PCBs) was completed and the federal Environmental Protection Agency (EPA) issued a final conditional approval. In compliance with the EPA-approved, risk-based management plan, removal and disposal of all contaminated materials in three of four affected digesters and all tunnel joints has been completed. All contaminated soils have been removed and disposed of and most of the impacted concrete has been encased. The last portion of the work will be finalized once the digester



foundation base layers and roof work are complete. The project team anticipates submittal of final work reports to the EPA in June 2019.

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

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

The Beneficial Use date was accelerated to November 2020 after the contractor identified and initiated several tasks concurrently that had been originally planned in series. The City received an updated schedule from contractor Walsh in November 2018 and is processing a change order to compensate for additional delays due to the redesign and PCBs cleanup and removal.



Project Profile – Fire Life Safety Upgrades

The RWF's main operational area is approximately 150 acres and houses unit treatment processes as well as more than two dozen support building facilities that are scattered throughout the site. The building facilities are now between 30 to 60 years old and range in size from 1,440 square feet to 31,600 square feet with a combined total estimated floor area of approximately 180,000 square feet. In late 2011, a Fire Code Compliance Gap Analysis study was conducted that identified fire code compliance gaps and fire risk potentials across most of the support buildings. Since 2012, RWF staff have implemented standard operating procedures and taken corrective actions to address many of the findings, however, some findings remain outstanding and require capital construction. These findings will be addressed by the Facility-wide Water System Improvements Project (see Monthly Status Report: August 2017 issue) and the Fire Life Safety Upgrades Project.

Based on the condition assessment performed in spring 2018 by the design consultant, K/J, this project will:

1. Provide new fire alarm systems for two existing buildings (Administration Building and Warehouse).
2. Replace the fire alarm system in one existing building (Filtration Influent Pump Station Building).
3. Modify the fire alarm systems in eight existing buildings (Chlorine Building, Disinfection Building, Sludge Control Building, Paint Shop, ESB, TPS Building, Building 40 and RSM Operations Building).
4. Connect the fire alarm systems in six new buildings constructed by three other CIP projects (Digester Gas Compressor Upgrades, Digester and Thickener Facilities Upgrade, and Cogeneration Facility projects) to the new centralized monitoring system.
5. Remove abandoned fire alarm equipment in three existing buildings (Paint Shop, HVAC Shop and Warehouse).
6. Install a new centralized fire alarm monitoring system to monitor panels in the 11 existing buildings and six new buildings to satisfy fire alarm related code requirements.
7. Install one main and one redundant monitoring stations.
8. Provide standard fire alarm and fire suppression system specifications to be used by other CIP projects.

The project will be delivered using the low-bid design-build method. This month, the project passed Stage Gate 3: Authorization to Proceed and K/J began developing the 30 percent design plans and specifications. The project is anticipated to be advertised for bid in mid-2019 and construction is scheduled to begin in spring 2020. Beneficial Use is expected by fall 2022. The estimated total project cost is approximately \$5 million.

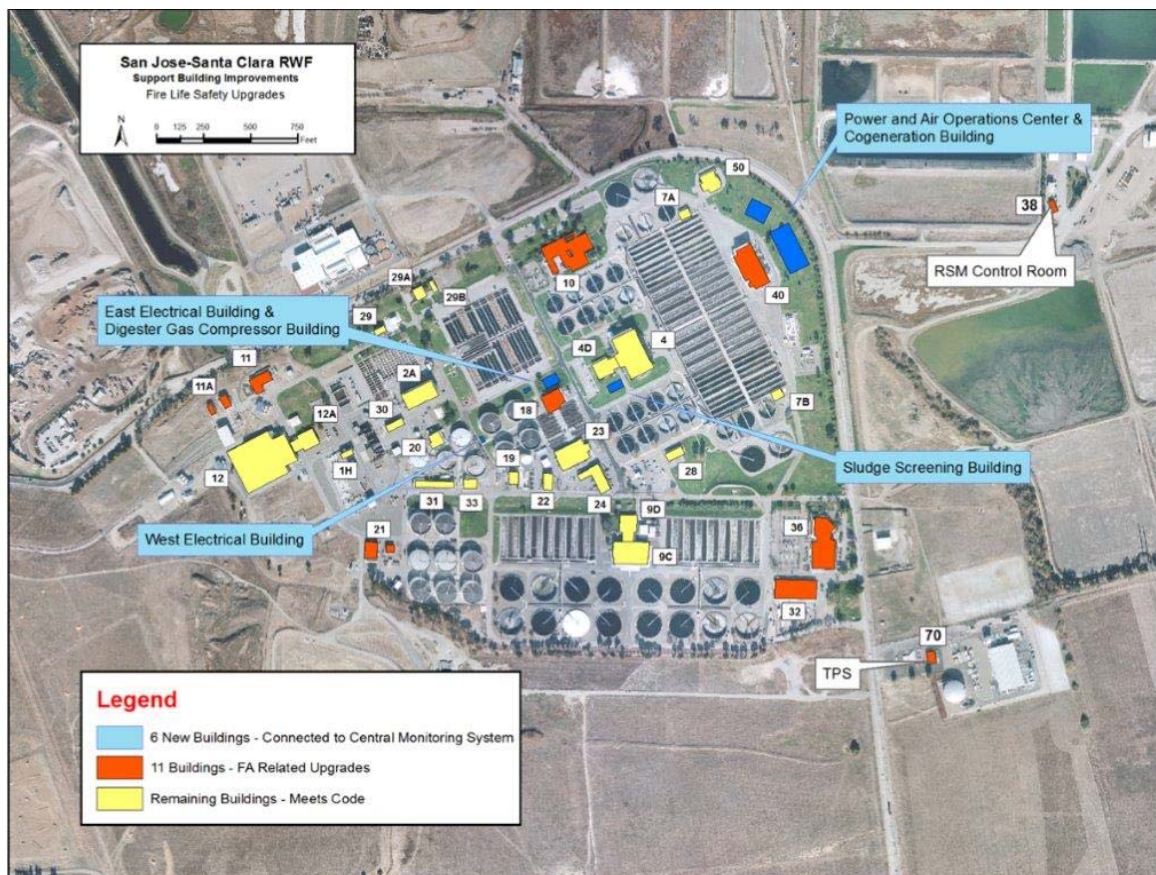


Figure 4: Condition Assessment Outcome

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Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

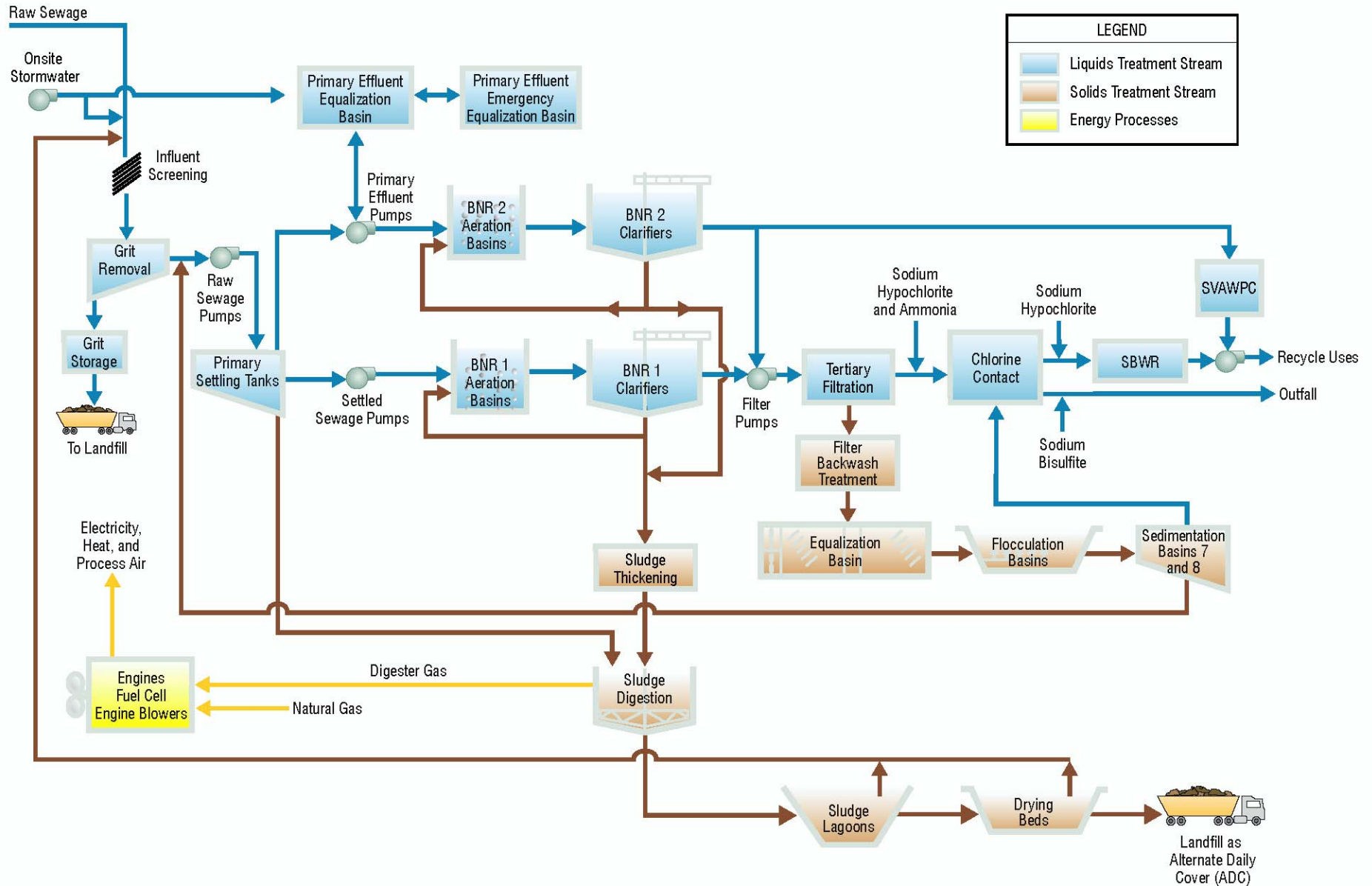


Figure 5 – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

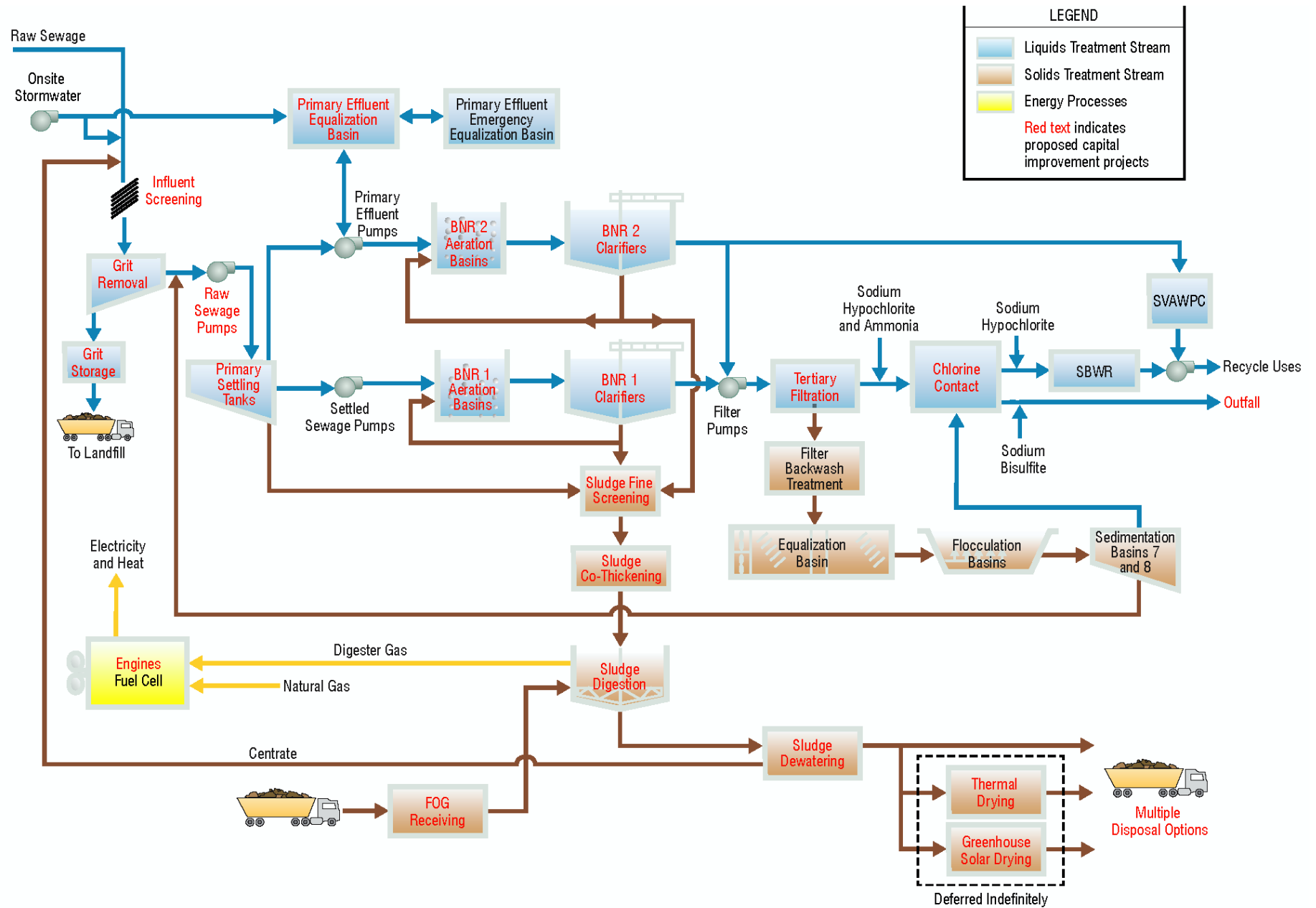


Figure 6 – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

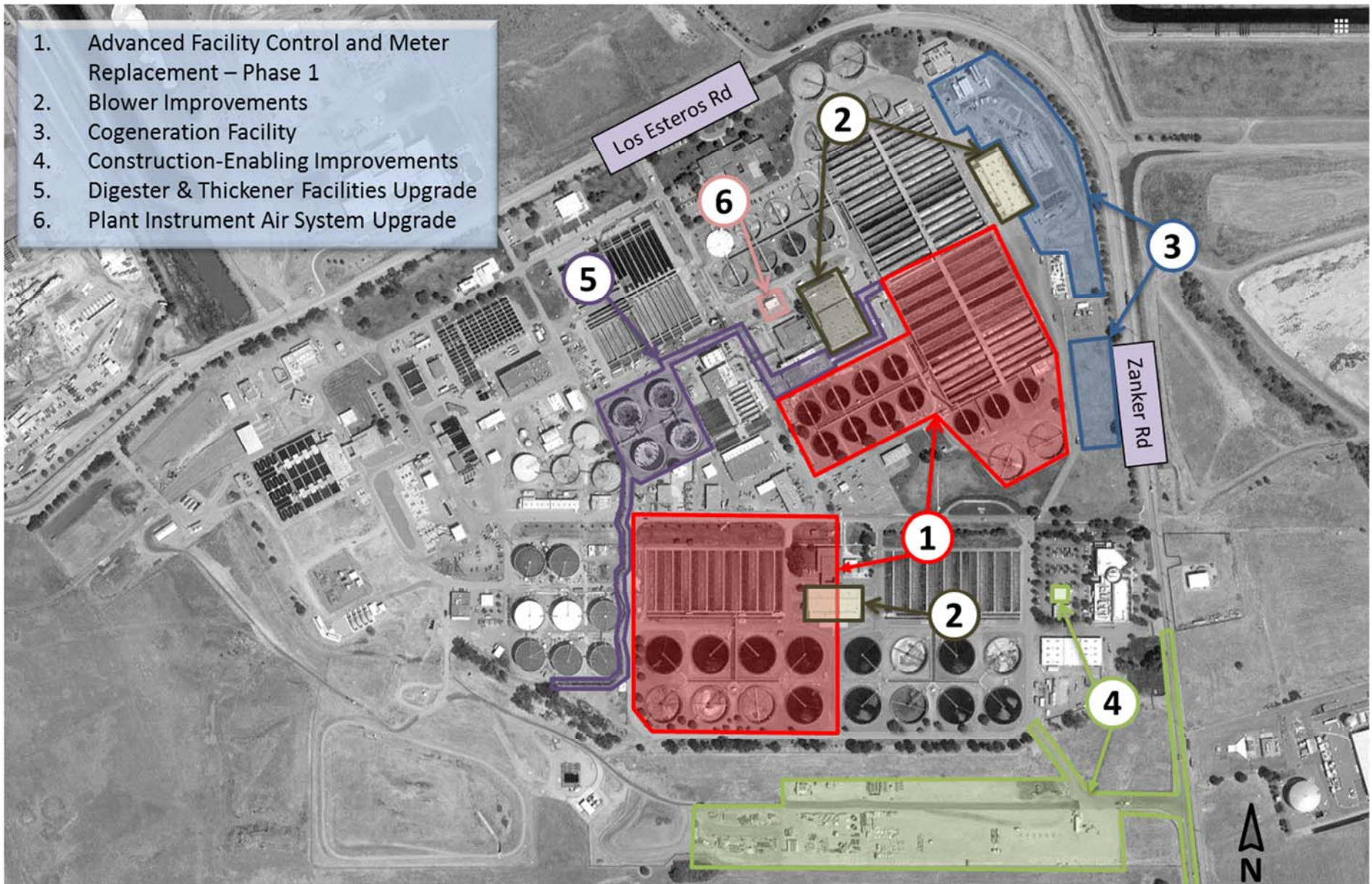
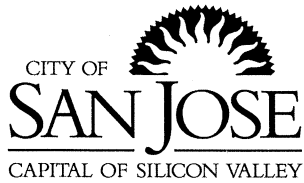


Figure 7: Active Construction Projects



COUNCIL AGENDA: 03/19/19

FILE:

ITEM:

Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: February 27, 2019

Approved

Date

2-28-19

COUNCIL DISTRICT: 7

**SUBJECT: 8716 - SOUTH BAY WATER RECYCLING PUMP STATION 5
VFD REPLACEMENT**

RECOMMENDATION

Report on bids and award of contract for the 8716 - South Bay Water Recycling Pump Station 5 VFD Replacement project to the low bidder, CESCORP dba CAL ELECTRIC, in the amount of \$243,100 and approve a contingency in the amount of \$24,300, for a total of \$267,400.

OUTCOME

Award of the construction contract to CESCORP dba CAL ELECTRIC will enable the 8716 - South Bay Water Recycling Pump Station 5 Variable Frequency Drive Replacement project to proceed. Approval of a ten percent contingency will provide funding for any unanticipated work necessary for the proper completion or construction of the project.

BACKGROUND

The South Bay Water Recycling Program is responsible for the production and distribution of recycled water in the South Bay serving customers and residents in the cities of San José, Santa Clara, and Milpitas. SBWR began its operation in 1998 with a requirement to divert treated wastewater from Bay discharge. Currently, the SBWR system has five pump stations, two reservoirs, and over 150 miles of pipeline servicing more than 850 recycled water customers. The project will remove and replace three existing variable frequency drives that power the recycled water pumps at Pump Station 5.

SBWR has numerous operations and maintenance projects needed to maintain system operations that impact San José-Santa Clara Regional Wastewater Facility staff, and critical customers such as power stations, and maintain system reliability that assures revenue from use, and protection

of public health and safety. This project is recommended by the 2014 South Bay Water Recycling Strategic and Master Plan be completed to maintain SBWR system operations and reliability.

ANALYSIS

Bids for the project were opened on December 20, 2018, with the following results:

<u>Contractor</u>	<u>Bid Amount</u>	<u>Variance Amount</u>	<u>Over/(Under) Percent</u>
Engineer's Estimate	\$ 250,000	---	---
Blocka Construction, Inc. (Fremont)	\$1,021,000	\$771,000	308%
CESCORP dba CAL ELECTRIC (Fairfield)	\$ 243,100	\$ 6,900	(3%)

There were two bids submitted; one was three-hundred and eight percent over the Engineer's Estimate and the other was three percent under the Engineer's Estimate. The low bid submitted by CESCORP dba CAL ELECTRIC is three percent under the Engineer's Estimate. Staff considers the low bid submitted for this project acceptable for the work involved and recommends award of the contract to CESCORP dba CAL ELECTRIC.

Council Policy provides for a standard contingency of 10 percent on public works projects involving building projects. The standard contingency is appropriate for this project.

EVALUATION AND FOLLOW-UP

Follow-up with the City Council is not expected at this time.

PUBLIC OUTREACH

To solicit contractors, this project was listed on BidSync and advertised in the *San José Post Record*. The complete bid package and project information are available on BidSync for interested contractors, contractor organizations and builders' exchanges.

This memorandum will be posted on the City's Council Agenda website for the March 19, 2019, City Council Meeting.

COORDINATION

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

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the March 14, 2019 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended March 19, 2019 City Council meeting agenda.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT:

Project Delivery	\$ 90,000 *
Construction	243,100
Contingency	24,300
Total Project Costs	357,400
Cost to Date Expenditures	40,000
REMAINING PROJECT COSTS	\$317,400

* Project delivery includes \$40,000 for Design Services and \$50,000 for Inspection, Testing, Construction Management, and project closeout costs.

2. COST ELEMENTS OF AGREEMENT:

Remove and Replace Variable Frequency Drives	\$225,600
Start-up, Testing and Training	17,500
TOTAL AGREEMENT:	\$243,100

3. SOURCE OF FUNDING:

Fund 570 – South Bay Water Recycling Operating Fund

BUDGET REFERENCE

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

Fund #	Appn. #	Appn. Name	Total Appn.	Amount for Agreement	2018-2019 Adopted Operating Budget Page	Last Budget Action (Date, Ord. No.)
570	0762	Non-Personal/ Equipment	\$4,260,943	\$243,100	X-84	10/16/2018, Ord. No. 30172

HONORABLE MAYOR AND CITY COUNCIL
February 27, 2019
Subject: 8716 - SBWR Pump Station 5 VFD Replacement
Page 4

CEQA

Exempt. File No. PP17-068.

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions please contact Jeff Provenzano, Deputy Director, South Bay Water Recycling, at
(408) 277-3288.

Memorandum

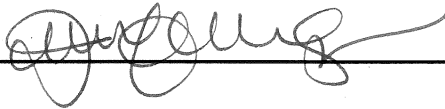
TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow
Kim Walesh

**SUBJECT: GOLDEN SHOVEL DESIGN
COMPETITION AT SAN JOSE –
SANTA CLARA REGIONAL
WASTEWATER FACILITY**

DATE: March 7, 2019

Approved



Date

3-8-19

INFORMATION

BACKGROUND

Sponsored by the San Francisco Bay Area chapter of the National Association of Industrial and Office Properties (NAIOP), the NAIOP Annual Real Estate Challenge, aka the “Golden Shovel,” now in its 30th year, is a competition between graduate students at UC Berkeley and Stanford studying real estate and related fields. A team of five students from each university are given an actual development site and have 12 weeks to review background City documents, and with the assistance of their faculty advisors, prepare a fully conceptualized development proposal, including highest and best use, design, entitlement strategy, financing, and marketing.

This year’s competition will be focused on the Economic Development acreage designated in the 2013 San José-Santa Clara Regional Wastewater Facility Plant Master Plan, located on 159 acres between the San José-Santa Clara Regional Wastewater Facility at Zanker Road and highway 237. Proposals will need to stay within the land-use constraints outlined in the PMP, and will be judged by a six-member jury of real estate and banking professionals in the categories of highest and best use of the site, site development strategy, and plan of action going forward. Development of the proposals come at no cost to the City or the San José-Santa Clara Regional Wastewater Facility.

Final proposals will be presented at a luncheon in April, with the project sponsor and hundreds of NAIOP members in attendance. The winning team gets a non-monetary prize from NAIOP, and the prized Golden Shovel for one year. Past sites include Brooks Hall/Civic Center Plaza and Fort Mason Pier 1 in San Francisco, and the BART Warm Springs/South Fremont Station in the City of Fremont.

HONORABLE MAYOR AND CITY COUNCIL

March 7, 2019

Subject: Golden Shovel Design Competition at the San José-Santa Clara Regional Wastewater Facility

Page 2

NEXT STEPS

At the competition's conclusion, staff will provide an update on the information developed by the Stanford and UC Berkeley teams, and share the completed site and action plans, which will provide useful background information and concepts to the City as the City considers how to best move forward with the economic development goals for the 159 acres identified in the PMP.

/s/
KERRIE ROMANOW
Director, Environmental Services

/s/
KIM WALESH
Director, Office of Economic Development

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

