

## **SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE**

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

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

### **SPECIAL MEETING AGENDA/TPAC**

**4:10 p.m.**

**February 13, 2020**

**Room 1734**

**1. ROLL CALL**

**2. APPROVAL OF MINUTES**

A. December 12, 2019

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

**4. DIRECTOR'S REPORT**

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

**5. AGREEMENTS/ACTION ITEMS**

- A. Approval of Amended and Restated Design-Build Contract for the Final Design and Construction of the Headworks Project at the San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

1. Approve the Amended and Restated Design-Build Contract with CH2M HILL Engineers, Inc. for the final design, construction, commissioning and acceptance testing of the Headworks Project at the San José-Santa Clara Regional Wastewater Facility with a base Guaranteed Maximum Price in an amount not to exceed \$126,874,142.
2. Approve a ten percent construction contingency in the amount of \$12,688,000 for adjustments to the base Guaranteed Maximum Price in accordance with the Amended and Restated Design-Build Contract.

[SJ Headworks Amended and Restated DB Contract \(2-6-20\)](#)

[SJ Headworks Amended and Restated DB Contract Appendices \(2-6-20\)](#)

[1. Attachment 4A\\_60 pct Design Completion Documents\\_Specifications\\_Vol 1 of 5](#)

[2. Attachment 4A\\_60 pct Design Completion Documents\\_Specifications\\_Vol 2of5](#)

[3. Attachment 4A\\_60 pct Design Completion Documents\\_Specifications\\_Vol 3of5](#)

[4. Attachment 4A\\_60 pct Design Completion Documents\\_Drawings\\_Vol 4of5](#)

[5. Attachment 4A\\_60 pct Design Completion Documents\\_Standard Details\\_Vol 5of5](#)

- B. Approval of a settlement agreement between City of San José and Brown and Caldwell related to the Digester and Thickener Facilities Upgrade Project.

- C. [Second Amendment to the Consultant Agreement with Brown and Caldwell for Engineering Services for the Digester and Thickener Facilities Upgrade Project](#)

Staff Recommendation:

Approve the Second Amendment to the Consultant Agreement with Brown and Caldwell for engineering services for the Digester and Thickener Facilities Upgrade project at the San José-Santa Clara Regional Wastewater Facility, modifying the scope of services, extending the term of agreement from June 30, 2020 to December 31, 2021, and increasing the amount of compensation by \$2,530,734 for a total agreement amount not to exceed \$16,548,144, subject to the appropriation of funds.

- D. [Offer to Purchase Pond A-18](#)

Staff Recommendation:

Adopt a resolution authorizing the City Manager to negotiate and execute an agreement with Valley Water for the sale of Pond A-18 and related easements to support the Shoreline Levee Project consistent with the criteria directed by the Treatment Plant Advisory Committee (TPAC) and Council in October of 2015 and 2017.

- E. [Declare Pond A-18 as Surplus Property](#)

Staff Recommendation:

Adopt a resolution declaring the City's Pond A-18 property (Assessor's Parcel Numbers 015-32-042 and 015-32-043) as exempt surplus land under Cal. Gov. Code §54221 as the land is surplus to the needs of the City.

**6. OTHER BUSINESS/CORRESPONDENCE**

- A. Tributary Agencies Estimated Available Plant Capacity - 2019

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

- A. Report on Bids and Award of Construction Contract for 7759 – Switchgear M4 Replacement and G3 & G3A Removal Project at the San José- Santa Clara Regional Wastewater Facility

Report on bids and award of construction contract for 7759 - Switchgear M4 Replacement and G3 & G3A Removal Project ("Project") to the lowest responsive bidder, Blocka Construction, Inc., in the amount of \$5,519,000, and approve a 15 percent construction contingency in the amount of \$827,850.

**This item was approved by the City Council on December 17, 2019.**

8. **REPORTS**

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

The attached monthly Procurement and Contract Activity Reports summarizes the purchase and contracting between \$100,000 and \$1.3 Million for Goods and \$100,000 and \$320,000 for Services.

9. **MISCELLANEOUS**

- A. The next monthly TPAC Meeting is on **March 12, 2020, 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) 975-2547.

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

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

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

San José City Hall, T-1734  
Thursday, December 12, 2019 at 4:01 p.m.

**1. ROLL CALL**

Minutes of the Treatment Plant Advisory Committee convened this date at 4:01p.m. Vice Chair Debi Davis called the meeting to order. Roll call was taken with the following members in attendance:

**Committee Members:** Debi Davis, Dev Davis, John Gatto, Steven Leonardis, Jim Ortbal, Lan Diep (4:02 p.m.), Sam Liccardo (4:05 p.m.)

**Absent:** Carmen Montano, Kathy Watanabe

**2. APPROVAL OF MINUTES**

A. November 14, 2019

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

**Ayes – 5** (Debi Davis, Dev Davis, Gatto, Leonardis, Ortbal)

**Absent– 4** (Diep, Liccardo, Montano, Watanabe)

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

**4. DIRECTOR'S REPORT**

A. Director's Report (verbal)

Assistant Director Fukuda was available for questions regarding the Monthly Status Report.

**5. AGREEMENTS/ACTION ITEMS**

- A. Report on Bids and Award of Construction Contract for 7759 – Switchgear M4 Replacement and G3 & G3A Removal Project at the San José- Santa Clara Regional Wastewater Facility



Staff Recommendation:

Report on bids and award of construction contract for 7759 – Switchgear M4 Replacement and G3 & G3A Removal Project (“Project”) to the lowest responsive bidder, Blocka Construction, Inc., in the amount of \$5,519,000, and approve a 15 percent construction contingency in the amount of \$827,850.

Simon Alder, Project Manager with Stantec, presented.

Member Gatto asked why the project delivery costs are so high.

Mr. Alder answered that project delivery costs included the upfront, pre-construction work such as condition assessments, consultant design work, investigative work pertaining to such things as hazardous materials and underground utilities.

Chair Liccardo followed up with a question asking whether consultants or City staff were performing project management and construction management, referencing page 6 of the memo.

David Ohlson, CIP Division Manager, was present to answer and replied that this project was a combination of city staff and third-party electrical consultants on the construction management side, but primarily city staff for project management.

In response to a suggestion by Member Gatto to isolate the costs of events necessary to get the project on-line, Assistant Director Fukuda offered that an effort would be made to differentiate between upfront costs and construction/post construction costs.

Member Gatto inquired if the recommended awarded bidder was still happy with their bid despite the delay caused by the competing bidder protest.

Mr. Alder replied, yes.

**On a motion made by Committee Member Gatto and a second by Committee Member Debi Davis, TPAC recommended approval of item 5A.**

**Ayes – 7** (Debi Davis, Dev Davis, Diep, Gatto, Leonardis, Liccardo, Ortbal)

**Absent– 2** (Montano, Watanabe)

**6. OTHER BUSINESS/CORRESPONDENCE**

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

- A. Master Service Agreements with Environmental Science Associates and Ascent Environmental, Inc. for Environmental Consulting Services for Various City

Projects

Staff Recommendation:

Approval of master agreements with the following firms for environmental review and permitting services for the San José-Santa Clara Regional Wastewater Facility and Integrated Waste Management projects and programs:

- Environmental Science Associates from the date of execution through June 30, 2024 in an amount not to exceed \$1,000,000
- Ascent Environmental, Inc. from the date of execution through June 30, 2024 in an amount not to exceed \$500,000

**This item was approved by the City Council on November 19, 2019.**

- B. Second Amendment to the Master Consultant Agreements with Kennedy/Jenks Consultant 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 Second Amendment to the Master Consultant Agreement (MCA) 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 clarify authorized travel expenses and provisions governing onsite and offsite employees, and align the consulting contracts with the Capital Improvement Program (CIP) standards, with no extension to the term or increase to the maximum total compensation.

**This item was approved by the City Council on November 19, 2019.**

- C. Report on Bids and Award of Construction Contract for 9002- 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project at the San José- Santa Clara Regional Wastewater Facility

Staff Recommendation:

Report on bids and award of construction contract to the low bidder, Michels Corporation DBA Michels Pipeline Construction (“Michels”), in the amount of \$4,796,571, for the 9002 – 96-inch and 87-inch Settled Sewage Pipe Rehabilitation Project and approve a fifteen percent construction contingency in the amount of \$719,486.

**This item was approved by the City Council on November 19, 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 **January 9, 2020, at 4:00 p.m.**, City Hall, room 1734.

Vice Chair Davis said she had received a cancellation notice from staff that January 9 meeting had been cancelled. Chair Liccardo in response stated that the next TPAC Meeting will be on February 13, 2020.

10. **OPEN FORUM**

Dean Stanford, citizen and park advocate, spoke in favor of postponing the transfer of Pond A18 until further park trail options could be explored.

11. **ADJOURNMENT**

- A. The Treatment Plant Advisory Committee adjourned at 4:18 p.m.

Sam Liccardo, Chair

TREATMENT PLANT ADVISORY COMMITTEE



San José-Santa Clara  
Regional Wastewater Facility

# Capital Improvement Program

## Monthly Status Report: November 2019

January 2, 2020

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 2019.

### Report Contents

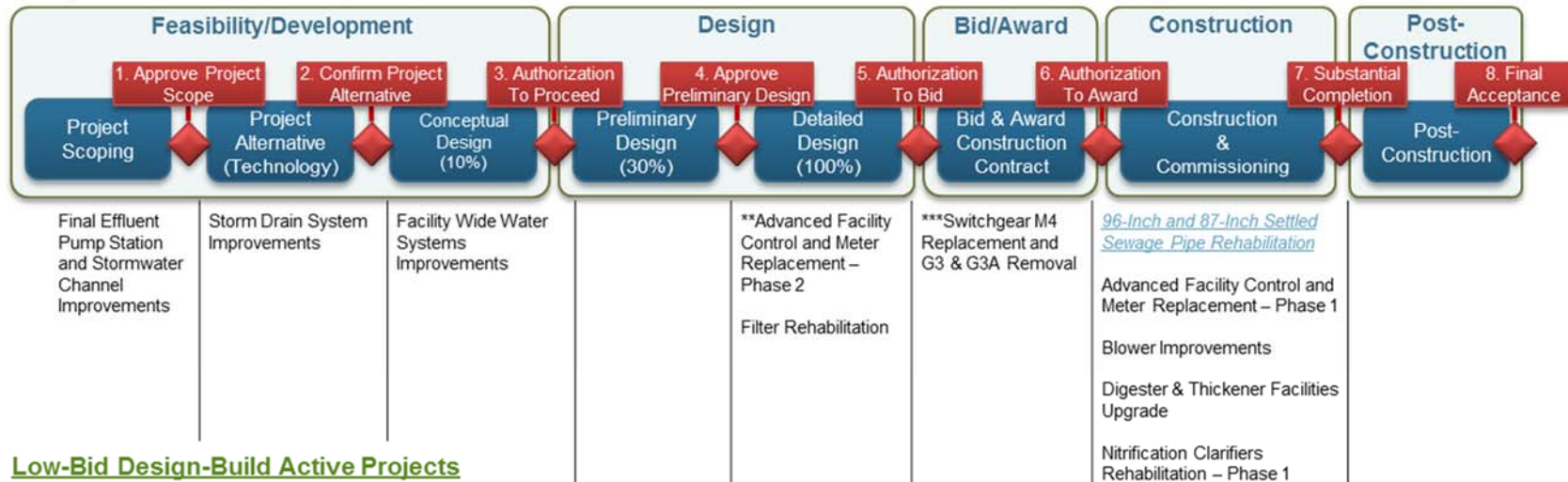
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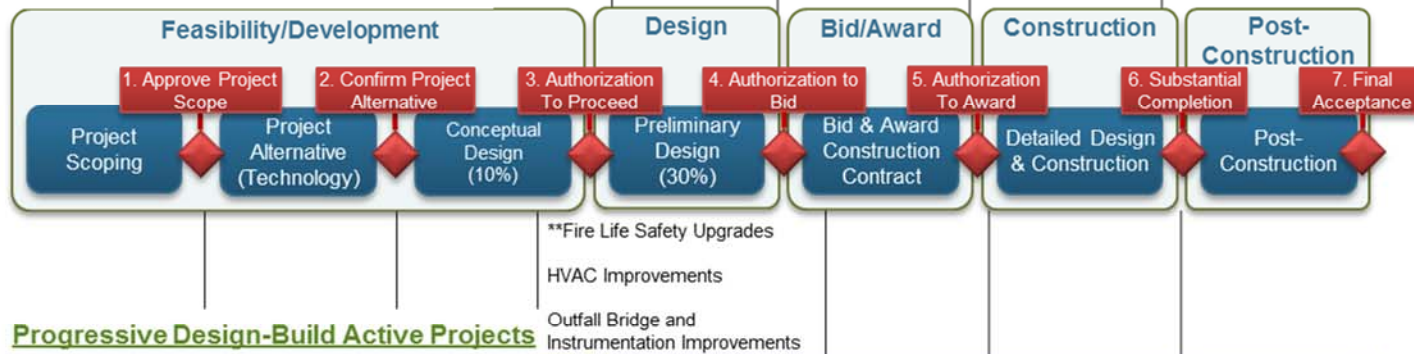


## Project Delivery Models

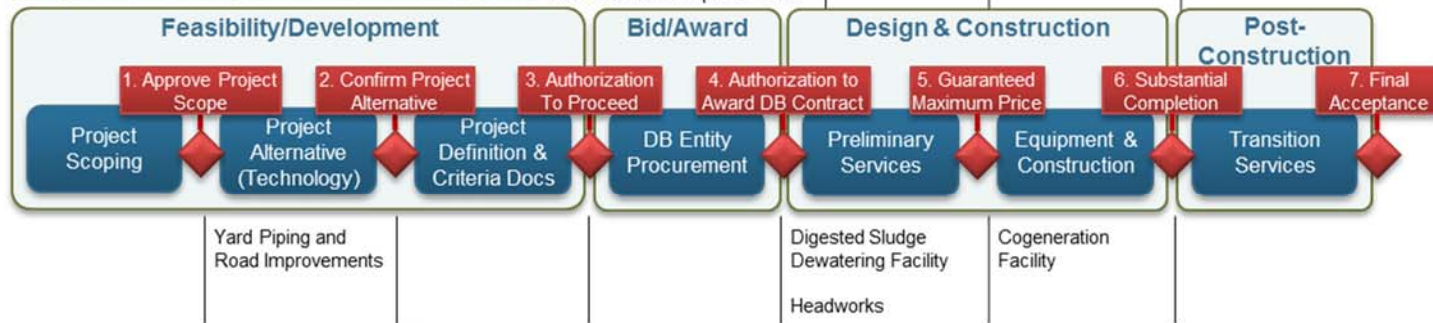
### Design-Bid-Build Active Projects



### 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

\*\*Project will move to the next stage if the Department of Public Works authorizes the team to advertise the construction contract for bid.

\*\*\*Project will move to the next stage if City Council approves award of the construction contract.



## Program Summary

### November 2019

In November, the Fire Life Safety Upgrades Project passed Stage Gate 4: Authorization to Bid of the Project Delivery Model (PDM). This low-bid design-build project is expected to be advertised in January.

The Treatment Plant Advisory Committee (TPAC) and City of San José Council (Council) approved the award of the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project construction contract. The City anticipates issuing a Notice to Proceed (NTP) to the contractor in January.

The contractor for the Digester and Thickener Facilities Upgrade Project installed an interior heavy-plastic protective coating and internal gas piping for Digesters 5 through 8, the new pipe rack tie in of digester gas piping for Digester 9, 15, and 16, and six sludge screens in the new Sludge Screen Building.

The Cogeneration Facility Project design-builder continued building out the interiors of the Power & Air Operations Center, Cogeneration Building control room, and the Electrical and Mechanical Building.

The Blower Improvements Project contractor performed preparatory work on the Process Air Building (PAB) blower No 2 prior to removing the motor and blower base.

The Advanced Facility Control and Meter Replacement – Phase 1 Project contractor installed the remaining 3 of 11 drain plates in the return-activated sludge (RAS) meter vaults. Operational testing is anticipated to commence in February.

The design consultant for the Storm Drain System Improvements Project completed field surveys and the integration of the survey data into the hydraulic model.

The City provided comments to the Headworks Project design-builder on the 60 percent design and cost model. In addition, the design-builder and City staff continued reviewing the terms and conditions of the proposed Definitive Contract Amendment (DCA) and continued negotiations on the guaranteed maximum price (GMP). Staff intends to seek Council approval of the GMP in spring 2020.

The City issued an NTP for the Nitrification Clarifier Rehabilitation – Phase 1 Project and held a pre-construction meeting with the contractor, Overaa Construction.

For the Digested Sludge Dewatering Facility Project, the City held two workshops as part of the preliminary services: project definition and subsurface utilities/hazardous materials investigations.

### Look Ahead

The following key activities are forecast for December 2019 and January 2020:

- Staff will recommend the award of the construction contract for the Switchgear M4 Replacement and G3 & G3A Removal Project to TPAC and Council.
- An NTP will be issued to the contractor to begin construction of the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project.
- Two projects will seek to advance through stage gates:
  - Headworks Project – Stage Gate 5: Guaranteed Maximum Price; and
  - Yard Piping and Road Improvements Project – Stage Gate 2: Confirm Project Alternative.
- The program will initiate an Energy Management Strategy Update and Process Optimization Study in December and January, respectively.



**Figure 1: Contractor prepares to remove blower motor as part of the Blower Rehabilitation Project**

## Program Highlight – Testing, Startup, and Commissioning

The CIP is entering a multi-year period of intense construction activity. During this time, numerous projects will require testing, startup, and commissioning (TSC) of new or rehabilitated facilities, often concurrently, following the CIP's well-defined TSC processes (see Figure 2 below). TSC will require a significant commitment of resources from operations and maintenance (O&M) and CIP staff. In addition, these efforts will require coordination with day-to-day RWF operations to prevent operational conflicts and potential construction delays.

In anticipation of this increased TSC activity, the CIP initiated a readiness assessment in summer 2019 to confirm that adequate RWF resources and expertise are available and that the processes, procedures, roles, responsibilities, systems, and tools are in place.

The objectives of this assessment include:

- Forecasting TSC activities for all planned CIP projects, including process and vendor training, and functional and acceptance testing.
- Estimating resource demands on CIP and O&M staff to support TSC activities.
- Recommending and assisting CIP staff with implementing improvements to TSC processes, procedures, organization, roles, and responsibilities, as necessary.
- Coordinating with the construction management (CM) team to review CM roles, responsibilities, and organizational structure pertaining to TSC activities.
- Identifying risks associated with TSC activities for each project and the overall Program as a result of having projects performing TSC activities concurrently.
- Implementing a process to confirm that TSC activities are being performed and completed successfully on all projects.

It is anticipated that this assessment will be completed in early 2020 and recommendations implemented in the first half of 2020.

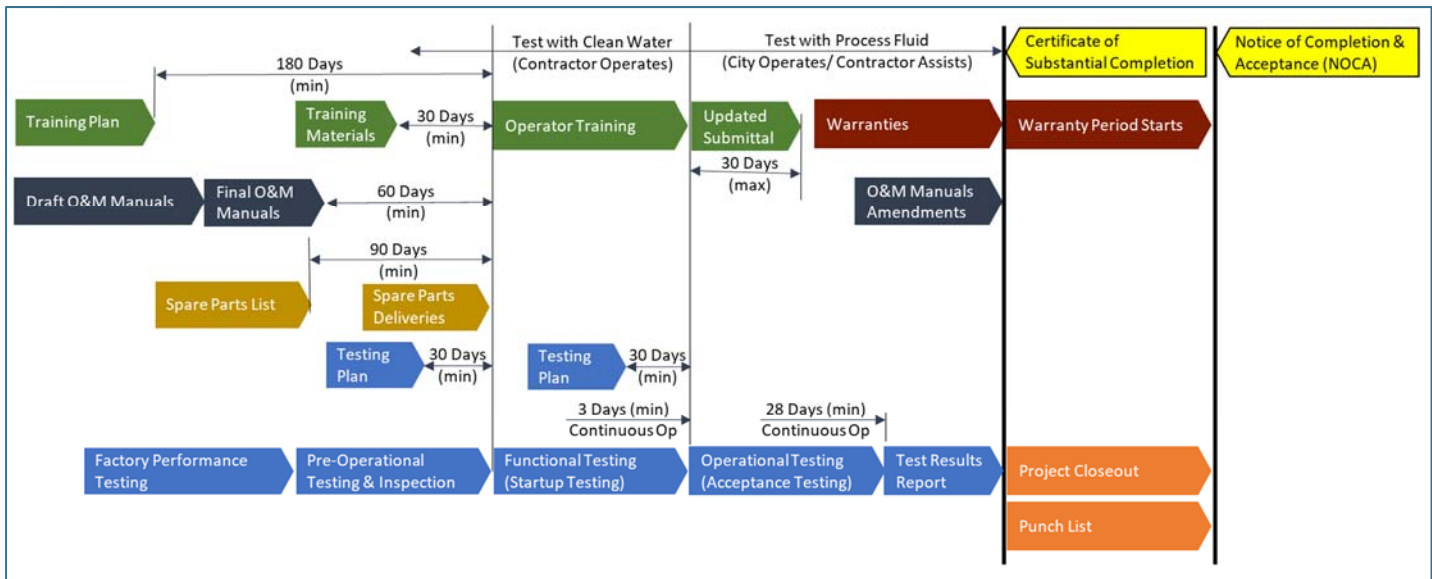


























Figure 2: CIP Design-Bid-Build TSC Process



## 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 basis. 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 2019-2020

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
<b>Stage Gates</b>	90%	91% 10/11 <sup>1</sup>			95% 19/20		
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%							
<b>Schedule<sup>2</sup></b>	90%	N/A 0/0	N/A	N/A	N/A 0/0	N/A	N/A
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. <sup>3</sup> Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							
<b>Budget<sup>4</sup></b>	90%	N/A 0/0	N/A	N/A	N/A 0/0	N/A	N/A
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. <sup>3</sup> Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							
<b>Expenditure<sup>5</sup></b>	\$372M	\$213M			\$412M		
Measurement: CIP FY19-20 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of \$531M = \$372M. Therefore Fiscal Year End Green: >=\$372M; Amber: \$292M to \$372M; Red: < \$292M							
<b>Procurement</b>	80%	40% 2/5 <sup>6</sup>			88% 7/8 <sup>7</sup>		
Measurement: Number of consultant and contractor procurements advertised compared to planned for the fiscal year. Target: Green: >= 80%; Amber: 70% to 80%; Red: < 70%							
<b>Safety</b>	0	0			0		
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
<b>Environmental<sup>8</sup></b>	0	1			0		
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
<b>Vacancy Rate<sup>9</sup></b>	10%	20% 17/86 <sup>10</sup>			9% 8/86		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. <sup>3</sup> Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							

#### Notes

- The Plant Instrument Air System Upgrade and Fire Life Safety Upgrades projects passed Stage Gate 8: Final Acceptance, and Stage Gate 4: Authorization to Bid, respectively.
- The CIP does not anticipate any projects reaching Beneficial Use this fiscal year.
- The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
- The CIP does not anticipate accepting any projects this fiscal year.
- The program budget and resulting fiscal-year expenditure target increased after the final FY18-19 budget reconciliation action shifted unspent previous year budget to the current fiscal year budget. Additionally, the fiscal year-end forecast decreased roughly \$1 million after forecast encumbrances were adjusted.
- The program revised the advertisement date of three procurements to later this fiscal year.
- The City postponed the advertisement of the HVAC Improvements Project construction contract until next fiscal year.
- The Bay Area Air Quality Management District (BAAQMD) issued a notice of violation for the CIP's construction of a new digester gas holder without a permit. The City contested the violation because the equipment installed appeared to be exempt from permitting. The CIP currently believes the violation will be rescinded.
- The vacancy rate KPI measures CIP-approved positions, including ESD, Public Works, and program management consultant full-time staff.
- The vacancy count decreased by one.

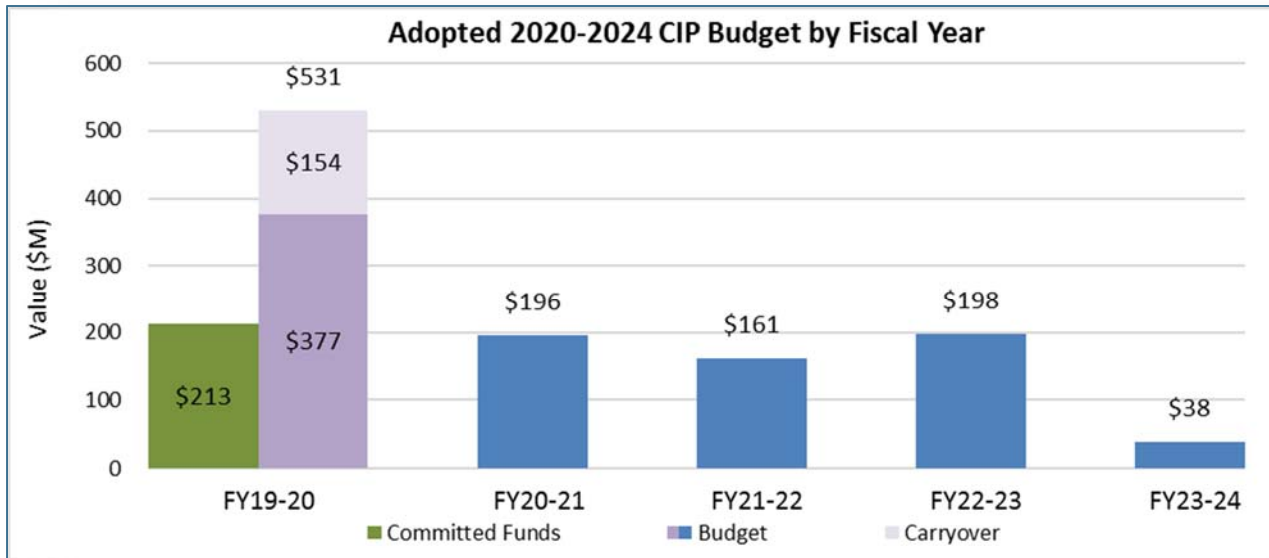




## Program Budget Performance Summary

This section summarizes the cumulative monthly budget performance for fiscal year (FY)19-20 based on the Adopted 2020-2024 CIP.

### Adopted 2020-2024 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.

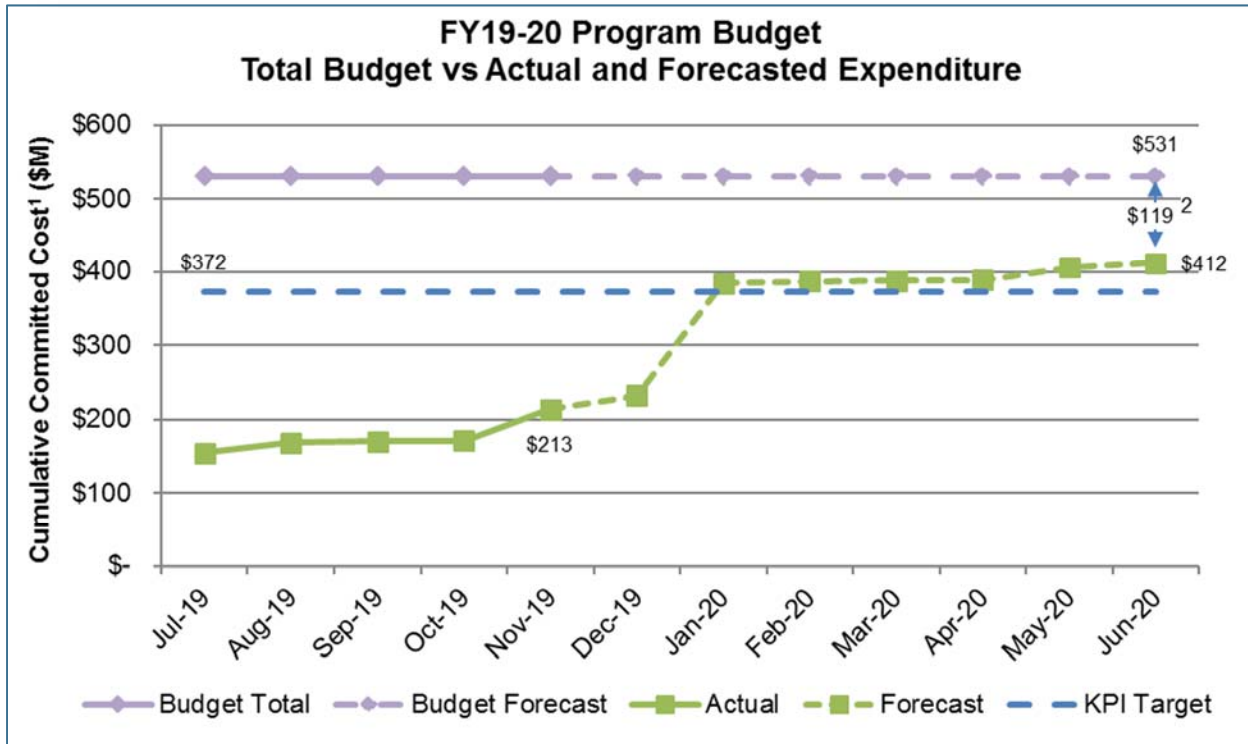
The FY19-20 budget is \$401.5 million, which consists of \$339.6 million in new funds and \$61.9 million in rebudgets. For purposes of this monthly report, the adopted FY19-20 budget is adjusted from \$401.5 million to \$377.2 million due to the exclusion of certain appropriations that are not measured 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; City Facilities Emergency Power, and Urgent and Unscheduled Treatment Plant Rehabilitation. Similar adjustments have been made to the budgets for FY20-21 through FY23-24.

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. FY19-20 carryover is \$153.6 million.

Budget of \$377.2 million and carryover of \$153.6 million totals \$530.8 million for FY19-20.

## Fiscal Year 2019-2020 Program Budget Performance

The FY19-20 CIP budget is comprised of approximately \$377.2 million in new and rebudgeted funds, plus encumbered carryover of \$153.6 million, for a total of \$530.8 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; City Facilities Emergency Power; and Urgent and Unscheduled Treatment Plant Rehabilitation items. Overall, the forecast fiscal year-end committed funds exceed the fiscal year-end target by \$40 million.



### Notes:

1. Committed costs are expenditures and encumbrance balances, including carryover (encumbrance balances from the previous fiscal year).
2. The variance between budget and commitments can be primarily attributed to the following factors:
  - a. Three construction contracts are now anticipated to be awarded in FY20-21 instead of FY19-20, based on updated schedules:
    - i. Filter Rehabilitation Project
    - ii. HVAC Improvements
    - iii. Outfall Bridge and Instrumentation Improvements Project
  - b. Several consultant service orders are not anticipated to be awarded in FY19-20:
    - i. Aeration Tank Rehabilitation Project conceptual through final design
    - ii. Facility Wide Water Systems Improvements Project preliminary engineering and value engineering
    - iii. Flood Protection Project alternatives analysis and conceptual design
  - c. The Yard Piping and Road Improvements Project design and first phase of construction will no longer occur this fiscal year.
  - d. The Nitrification Clarifiers Rehabilitation – Phase 1 construction bids came in under budget.
  - e. Several other minor encumbrances for consultant services are either lower than budgeted or are anticipated to be awarded in FY20-21.
  - f. Several authorized positions remain vacant, resulting in lower personal services expenses than budgeted.



## Project Performance Summary

There are currently six projects in the construction and post-construction phases and an additional 12 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 <sup>1</sup>	Cost Performance <sup>2</sup>	Schedule Performance <sup>2</sup>
1. Cogeneration Facility	Design & Construction	Sep 2020	●	●
2. Digester and Thickener Facilities Upgrade	Construction	Nov 2020	◆	◆
3. 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation	Construction	Feb 2021 <sup>3</sup>	●	●
4. Advanced Facility Control & Meter Replacement - Phase 1	Construction	June 2021	●	●
5. Blower Improvements	Construction	Sep 2022	●	●
6. Nitrification Clarifiers Rehabilitation – Phase 1	Construction	Jan 2023 <sup>3</sup>	●	●

#### Key:

<b>Cost:</b>	● On Budget	◆ >1% Over Budget	<b>Schedule:</b>	● On Schedule	◆ >2 months delay
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#### Notes

1. Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
2. An explanation of cost and schedule variances on specific projects identified in this table is provided on page 11.
3. 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 <sup>1</sup>
1. Headworks	Design and Construction	Feb 2023
2. Digested Sludge Dewatering Facility	Design and Construction	Nov 2023
3. Switchgear M4 Replacement and G3 & G3A Removal	Bid/Award	May 2022
4. Outfall Bridge and Instrumentation Improvements	Design	Dec 2021
5. Fire Life Safety Upgrades	Design	Jul 2022
6. Advanced Facility Control & Meter Replacement - Phase 2	Design	Jan 2023
7. Filter Rehabilitation	Design	Jul 2023
8. HVAC Improvements	Design	Sep 2023
9. Storm Drain System Improvements	Feasibility/Development	Feb 2024
10. Facility Wide Water Systems Improvements	Feasibility/Development	Jan 2025
11. Final Effluent Pump Station and Stormwater Channel Improvements	Feasibility/Development	Feb 2026
12. Yard Piping and Road Improvements	Feasibility/Development	Nov 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

#### Digested Sludge Dewatering Facility Project

- The project team held workshops for project definition and subsurface utilities/hazardous materials investigations.
- The project team continued sludge sample collection in preparation for onsite centrifuge testing.

#### Digester and Thickener Facilities Upgrade Project

- Contractor Walsh installed an interior heavy-plastic protective coating and internal gas piping for Digesters 5 through 8; new pipe rack tie-in of digester gas piping for Digesters 9, 15, and 16; and six sludge screens in the new Sludge Screen Building.

### Facilities Package

#### 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project

- On November 19, Council approved award of a construction contract to Michels Pipeline Construction. The City will issue the NTP in January 2020.

#### Fire Life Safety Upgrades Project

- The project passed Stage Gate 4: Authorization to Bid. The City will advertise for construction bids in January 2020.

#### Storm Drain System Improvements Project

- Design consultant AECOM completed field surveys and began integrating survey data into the hydraulic model. The results will document flood risks to the RWF. In December, the project team will review the flood risks and the design consultant will submit draft recommendations for flood risk reduction alternatives.

### Liquids Package

#### Advanced Facility Control and Meter Replacement – Phase 1 Project

- Contractor Overaa Construction (Overaa) completed drain plate installation in the return activated sludge (RAS) meter vaults B9, B10, and B11, as well as conduit work in the secondary clarifier area.
- The operational test of the new equipment in Secondary Tanks B1, B2, B3, and B4 and in the secondary clarifiers is anticipated to begin in February 2020.

#### Blower Improvements Project

- Contractor Monterey Mechanical began preparing to rehabilitate the PAB No 2 blower. Next month, the contractor will remove the blower, sand blast, and repaint the impeller housing and stand.

#### Headworks Project

- Owner's Advisor CDM Smith and the City provided comments to design-builder CH2M on the 60 percent design and cost model.
- The City and CH2M continued to negotiate the GMP and DCA, which is anticipated to be brought to Council for approval in February 2020.

#### Nitrification Clarifier Rehabilitation - Phase 1 Project

- The City executed the construction contract with Overaa, held a pre-construction meeting, and issued the NTP.

### Power and Energy Package

#### Cogeneration Facility Project

- Design-builder CH2M installed drywall in the Cogeneration Building control room, the Electrical and Mechanical Building, and in Power and Air Operations Center.
- CH2M also installed windows and doors in the Cogeneration Building control room, as well as piping and supports to the hydrogen sulfide siloxane vessels. In the Power and Air Operations Center, CH2M completed the 6-inch, 8-inch and 14-inch hot water supply/return piping installation.



## Explanation of Project Performance Issues

### Digester and Thickener Facilities Upgrade Project

This project encountered numerous unforeseen conditions at the beginning of construction in 2016, including corroded underground pipe and other obstructions for new building foundations. A temporary reroute system was installed to enable the replacement of a 78-inch settled sewage pipeline and junction structure during the 2018 dry season.

In 2017, design modifications were required to address seismic risks, control system changes, additional underground obstructions, pipe anchorage, and new fire department requirements. Discovery of hazardous materials required submittal of an extensive cleanup proposal to the federal Environmental Protection Agency (EPA) for approval. Once mitigation was completed in 2019, the City submitted another report to the EPA that detailed how it met each EPA cleanup permit requirement.

To pay for the additional work to address unforeseen conditions, Council approved a construction contingency increase of \$15 million in November 2017 and another contingency increase of \$25 million in June 2018.

Delays for these conditions have amounted to 273 working days. The original construction completion and Beneficial Use date of September 2019 has been delayed and rescheduled to November 2020. To minimize further delays, the City and contractor have worked together to sequence several tasks so they could be completed more quickly and efficiently.



## Project Profile – Digested Sludge Dewatering Facility

During the RWF wastewater treatment process, a series of physical, biological, and chemical processes treats liquid and solid streams. Separated solids, or sludge, is thickened and processed through anaerobic digesters for 15 to 30 days to reduce pathogens and sludge volume. The thickened digested sludge is then pumped to open-air lagoons and drying beds for further sludge volume reduction, treatment, and stabilization over a four-year cycle. The RWF generates approximately 85 dry tons of these biosolids per day, which are used as alternate daily cover (ADC) at the local Newby Island Landfill.

The 2013 Plant Master Plan recommended transitioning from the existing open-air lagoons and drying beds to a new mechanical dewatering facility, which would:

- Reduce odors in the community;
- Increase and diversify RWF disposition options;
- Reduce the biosolids processing area footprint from 750 acres to about 160 acres, enabling other land uses; and
- Create flexibility to respond to future regulatory changes governing treated biosolids landfill disposal and changing market conditions related to beneficial reuse of treated biosolids.

Following Council approval of the RWF biosolids management strategy, in December 2014 and June 2015, the CIP initiated the Digested Sludge Dewatering Facility Project (Project). The need for the Project was underscored by the recent implementation of state Senate Bill 1383, signed by Governor Jerry Brown in 2016, that targets the reduction of short-lived climate pollutants such as methane and aims to achieve a 50 percent reduction in organic waste disposal by 2020. This could preclude the RWF from continuing to dispose of biosolids at landfills as early as 2022. With construction of a new dewatering facility, the RWF will have more biosolids disposition options available to comply with SB 1383.

The Project is being delivered using the progressive design-build method. In October 2016, Owner's Advisor Brown and Caldwell (B&C) began developing project alternatives. B&C completed the alternatives analysis in 2017 and the Project Definition Report (PDR) in October 2018. The City selected decanter centrifuges (See Figure 3) for the dewatering technology after finding all other large peer agencies surveyed were either currently using or planning to use centrifuges because the technology is proven, produces relatively dry cake, requires a relatively small footprint, and has lower overall predicted capital and lifecycle costs.

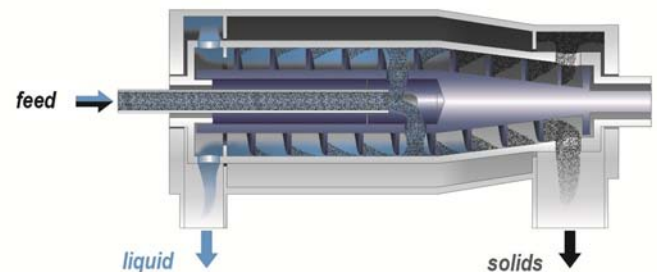


Figure 3: Dewatering Centrifuge

The Project includes transfer sludge pumps; digested sludge storage tanks and feed pump stations; dewatering centrifuges; sludge cake conveyance facilities; polymer facilities; centrate pumps; and truck load-out facilities. The new facility will be located on the east side of Zanker Road. The estimated total project cost is \$128 million.

In January 2019, the Walsh Construction Company lead design-build team with designer Black and Veatch was ranked first of the three teams that proposed. In September 2019, Council approved a design-build contract with Walsh to begin preliminary services for the Project.

Preliminary services include site investigations, facility design through 60 percent, and two early work packages. The first early work package consists of site preparation, including the potential use of surcharging to consolidate the soil beneath the site. The second early work package consists of final design completion. Once the City negotiates the GMP with Walsh, the construction phase will begin, likely in April 2021. Beneficial Use is expected in November 2023.



Figure 4: Design Build Partnering Session with all stakeholders

In October 2019, an initial partnering workshop (See Figure 4) was held between Walsh, Black and Veatch, B&C, and the City to introduce team members and agree on overall project goals. A series of workshops are scheduled to run through early 2020 to define the overall basis of the project. Workshop topics include: subsurface utilities/hazardous investigations; project definition; risk management; process modelling; flows and loads; cost model; process equipment; permitting/project interfaces. The workshops will culminate in the preparation of a Basis of Design Report, followed by development of a 60 percent design, the submission of a Definitive Project Submittal, agreement of the GMP, and signing of the DCA, which will allow construction to commence.

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## Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

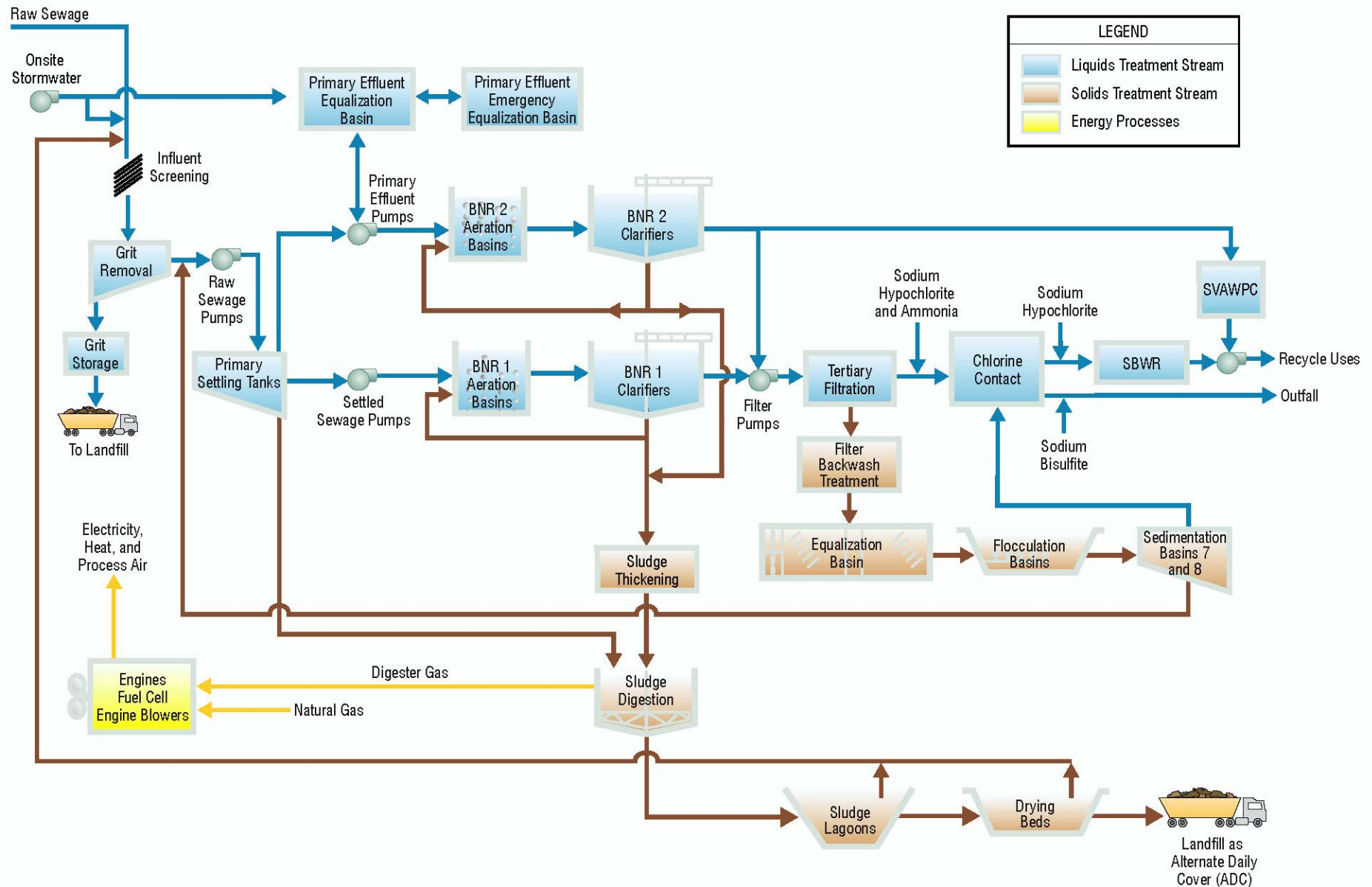


Figure 5 – Current Treatment Process Flow Diagram

## Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

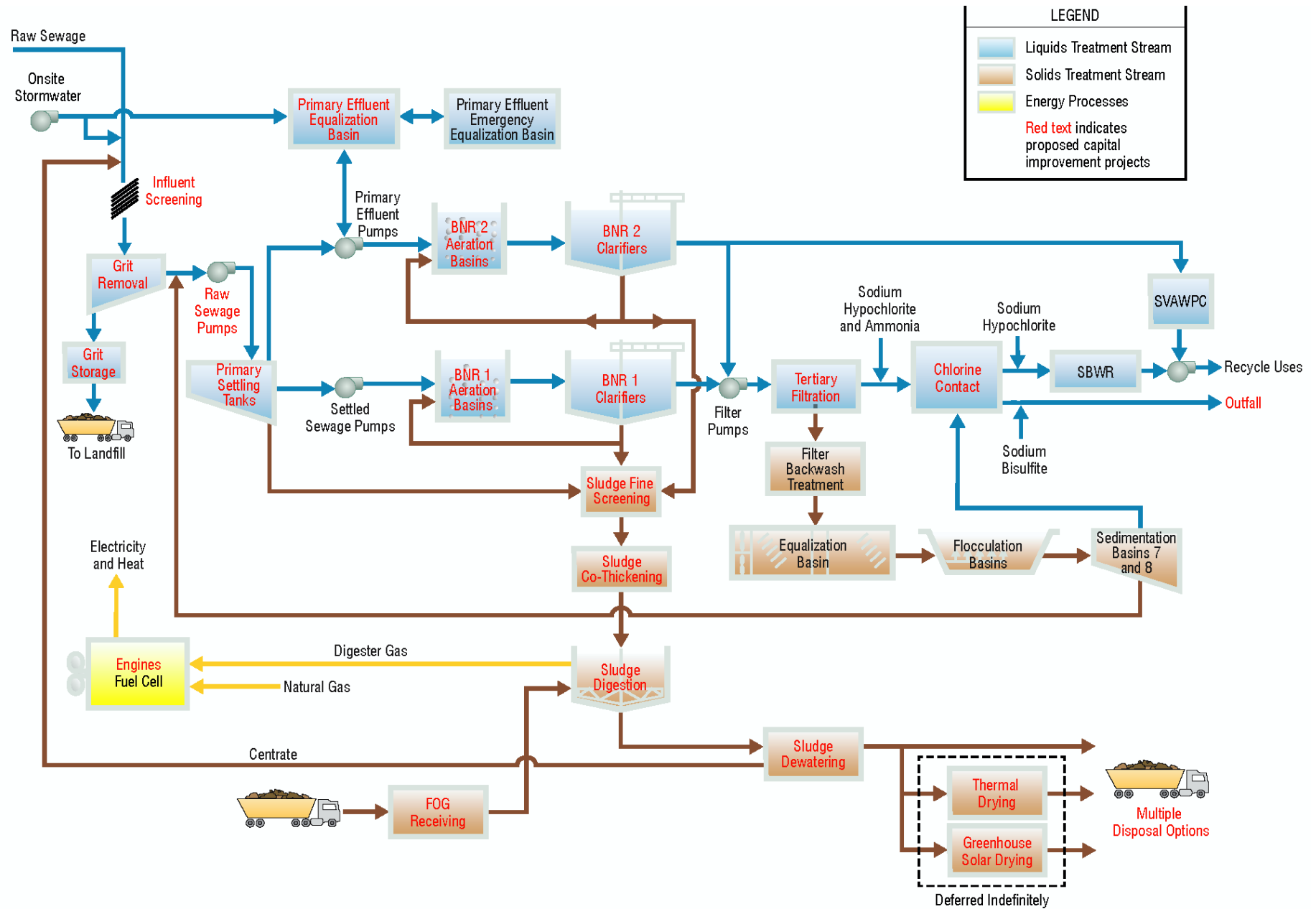


Figure 6 – Proposed Treatment Process Flow Diagram

## Active Construction Projects – Aerial Plan

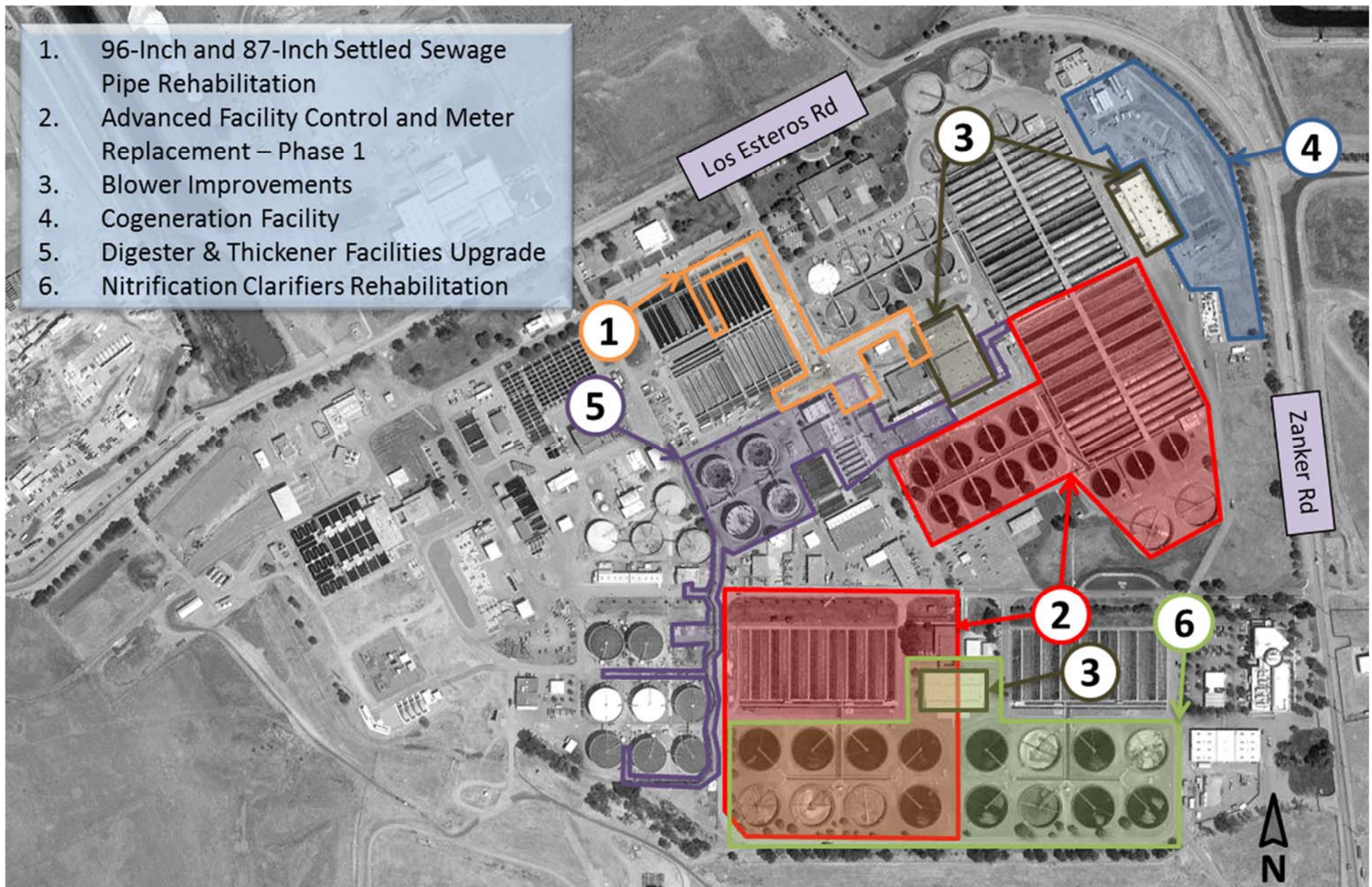


Figure 7: Active Construction Projects





San José-Santa Clara  
Regional Wastewater Facility

# Capital Improvement Program

## Monthly Status Report: December 2019

February 6, 2020

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

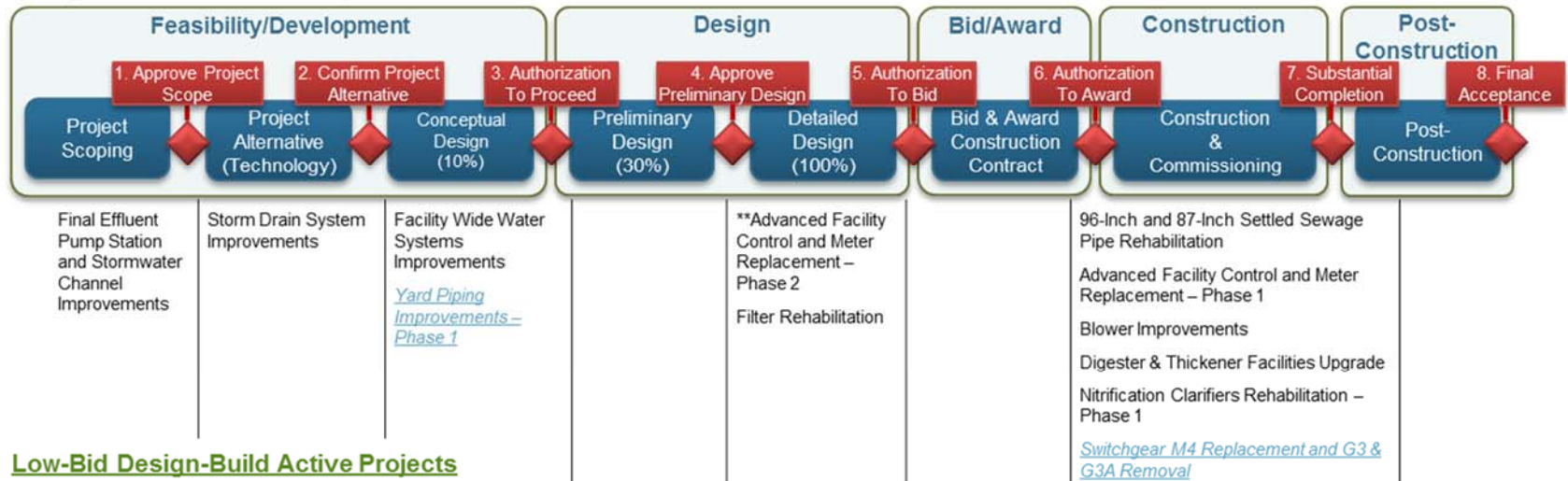
### Report Contents

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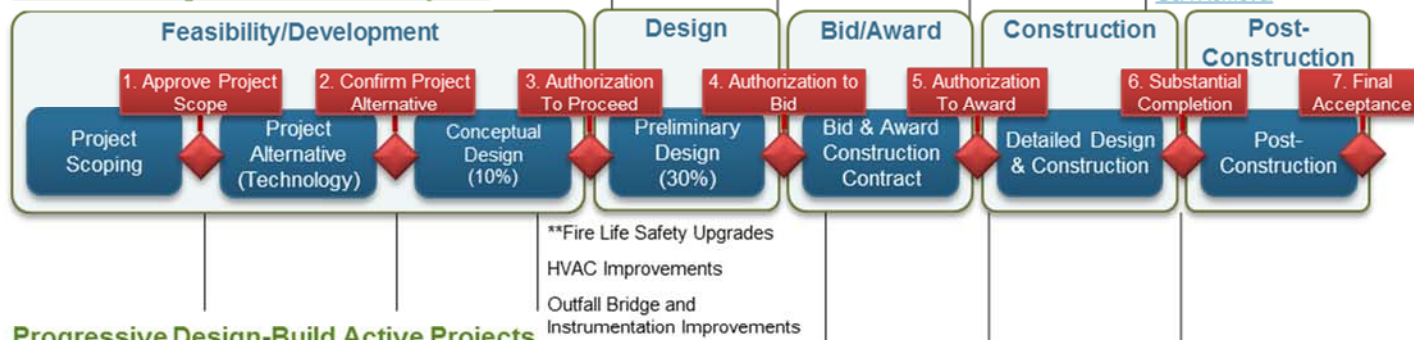


## Project Delivery Models

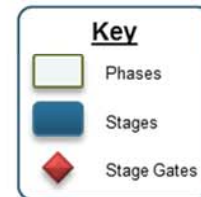
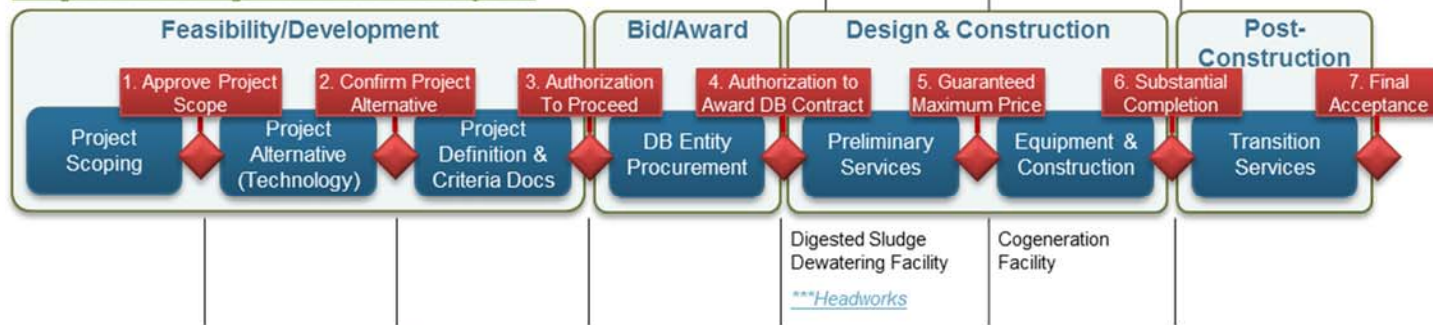
### Design-Bid-Build Active Projects



### 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

\*\*Project will move to the next stage if the Department of Public Works authorizes the team to advertise the construction contract for bid.

\*\*\*Project will move to the next stage if City Council approves award of the construction contract.





# Program Summary

## December 2019

In December, two projects advanced through the Project Delivery Model (PDM). On the Headworks Project, the design-builder and project team reached agreement on the guaranteed maximum price (GMP). The project passed Stage Gate 5: Guaranteed Maximum Price and the City intends to seek Council approval of the definitive contract amendment (DCA) in February. The Yard Piping and Road Improvements Project passed Stage Gate 2: Confirm Project Alternative. As part of the alternatives analysis work, the project team and design consultant re-evaluated the sequencing of work and project delivery method. To better align construction with planned maintenance shutdowns, the project scope will be completed in four phases, as design-bid-build projects, in successive summers, between 2021 and 2024. Design of the first phase is expected to begin this summer, with construction award anticipated in spring 2021.

The Treatment Plant Advisory Committee (TPAC) and the San José City Council (Council) approved the award of the Switchgear M4 Replacement and G3 & G3A Removal Project construction contract. The City anticipates issuing a Notice to Proceed (NTP) to the contractor in February.

The contractor for the Digester and Thickener Facilities Upgrade Project reached a major milestone with the removal of all temporary scaffolding and roof access towers around Digesters 5-8, signifying completion of exterior insulation and stairways. The contractor also completed a major excavation and installation of a 48-inch diameter subnatant pipeline beneath an existing tunnel. Operations accepted the fourth of eight remote digesters. Digester gas piping for each of these digesters is now located on the elevated pipe rack rather than in the tunnels, which is a safety improvement.

The Cogeneration Facility Project design-builder pulled medium voltage (4160V) cables between the M2 Switchgear and several manholes to connect the new cogeneration engines to the RWF's electrical grid.



Figure 1: Aerial view of Digesters 5-8

The Blower Improvements Project contractor received variable frequency drives (VFDs) for the three blowers in the Process Air Building (PAB). The contractor also received a new temporary shower/locker room trailer, which will allow interior work to be done in Building 40. They also continued rehabilitating the first blower in the Process Air Building (PAB) by removing the motor and blower base, then sandblasting and painting the impeller housing and stand.

The Advanced Facility Control and Meter Replacement – Phase 1 Project contractor prepared the newly installed equipment in Secondary Tanks B1 to B4 and Secondary Clarifiers for operational testing, which is anticipated to start in February.

For the Digested Sludge Dewatering Facility Project, the project team held two workshops: (1) flows and loads; and (2) project cost model. Additionally, the project team reviewed the test plan for the centrifuge study expected to begin in January. This study will compare the performance of various manufacturers' centrifuges.

## Look Ahead

The following key activities are forecast for January and February 2020:

- Staff will recommend to TPAC and Council:
  - Approval of the DCA for the Headworks Project; and
  - Approval of a second amendment to the Brown and Caldwell (B&C) consultant agreement for the Digester & Thickener Facilities Upgrade Project to allow B&C to provide professional services through the end of construction.
- An NTP will be issued to the contractors for the following projects:
  - 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project; and
  - Switchgear M4 Replacement and G3 & G3A Removal Project.
- Four projects will seek to advance through stage gates:
  - Storm Drain System Improvements Project – Stage Gate 2: Confirm Project Alternative;
  - Fire Life Safety Upgrades Project – Stage Gate 5: Authorization to Award and Establish Baseline (if required);
  - Advanced Facility Control and Meter Replacement – Phase 2 Project – Stage Gate 6: Authorization to Award and Establish Baseline (if required); and
  - Filter Rehabilitation Project – Stage Gate 5: Authorization to Bid.

## Program Highlight – Health and Safety

For any capital program, ensuring a culture and climate of safety requires a top-down commitment. For the RWF's capital program, this commitment is embodied by the following statement in the CIP's Health and Safety Plan:

*"It is the policy of the CIP Program to conduct all work activities in a manner that protects employees, the public and the environment; provides for a safe and healthful work environment; and complies with applicable regulations and requirements."*

The safety policy statement commits the entire CIP to promoting a safe and productive workplace which program leadership drives downwards throughout the organization. A clearly visible safety commitment statement helps staff at all levels understand the CIP's commitment to safety.

To further put into action a safety-minded culture, CIP protocol requires the following:

- Every meeting begins with a safety moment;
- All new employees go through a safety orientation and meet with the Health Safety and Security Manager (HSS Manager); and
- The safety team is involved early to promote a culture of safety, set the tone for the project's safe execution, and establish safety expectations of each contractor.

Open lines of communication are also extremely important for a good safety program. Bottom-to-top feedback needs to be established so that any project team member can easily communicate unsafe conditions.

### Implementing a Sustainable Health and Safety Program

As shown on the inverted pyramid in Figure 2, leadership is the safety program driver. Leadership ensures funding, scheduling, and compliance, and they are ultimately responsible for the safety outcome.

Advanced Safety Management activities include human performance, job safety analyses, stop work authority, and behavior-based safety.

Systems refer to safety inspections, training, pre-construction meetings and orientations, contract language, and the owner-controlled insurance program (OCIP).

And finally, at the bottom of the pyramid are the legal requirements including Occupational Safety and Health Administration (OSHA) regulations, state and local laws and regulations.



**Figure 2: This pyramid illustrates the importance of leadership in a sustainable health and safety program.**

### Tracking Safety Performance

Safety performance tracking is a key part of the CIP's commitment to safety. The HSS Manager maintains and tracks all records that pertain to safety performance, accident investigations, root cause findings, and leading and lagging indicators. CIP leadership can track these metrics, set clear goals, and implement strategies to achieve program safety goals.

When an injury occurs, it disrupts the workplace, and it disrupts the victim and his/her coworkers. One of the duties of the HSS Manager is to investigate incidents. Tasks during an investigation include:

- Capture photographic documentation of the incident site;
- Ensure all evidence is secured;
- Interview the victim(s) and any witnesses when possible;
- Notify leadership;
- Document the incident in the appropriate report(s); and
- Ensure that the contractor provides corrective actions, discusses lessons learned, and retrain their workers accordingly.

The CIP has tracked more than 500,000 contractor staff hours since the CIP started and has maintained incident rates well below the industry average (See Figure 3). For instance, the one recordable injury in all of 2019 resulted in a recordable rate of 0.83 for CIP projects. This is well below the federal Bureau of Labor Statistics, Department of Labor report of November 7, 2019, which shows an industry average of 3.0. Overall, the CIP maintains a perfect track record for reportable incidents, which is a key performance indicator that is reported in this monthly report (See Page 6).

		2019 INCIDENTS				
Project	Hours	First Aid Cases	OSHA Recordables	Theft/ Vandalism	Lost Work Day Cases (LWDC)	Property Damage or Near Hit Events
Digester & Thickener Upgrade	123506.00	2	1			2
Cogeneration Facility	96,326.00					
Advanced Facility Control and Meter Repl.	12,072.00					
Blower Improvements	7,017.00					1
Others	0.00					
<b>Total</b>	238,921.00	2	1	0	0	3

**Figure 3: Project Incident Tracking for 2019**

Safety programs are successful only when leadership and all employees recognize and support the value of safety to the organization. Accountability from all managers and supervisors, as well as involved and empowered staff, improves safety and leads to greater effectiveness and productivity.





## 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 basis. 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 2019-2020

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
<b>Stage Gates</b>	90%	92% 12/13 <sup>1</sup>	●	↑	95% 19/20	●	→
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%							
<b>Schedule<sup>2</sup></b>	90%	N/A 0/0	N/A	N/A	N/A 0/0	N/A	N/A
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. <sup>3</sup> Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							
<b>Budget<sup>4</sup></b>	90%	N/A 0/0	N/A	N/A	N/A 0/0	N/A	N/A
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. <sup>3</sup> Target: Green: >= 90%; Amber: 75% to 90%; Red: < 75%							
<b>Expenditure<sup>5</sup></b>	\$370M	\$213M	●	→	\$411M	●	↓
Measurement: CIP FY19-20 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of \$528M = \$370M. Therefore Fiscal Year End Green: >=\$370M; Amber: \$291M to \$370M; Red: < \$291M							
<b>Procurement</b>	80%	40% 2/5	◆	→	88% 7/8	●	→
Measurement: Number of consultant and contractor procurements advertised compared to planned for the fiscal year. Target: Green: >= 80%; Amber: 70% to 80%; Red: < 70%							
<b>Safety</b>	0	0	●	→	0	●	→
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
<b>Environmental</b>	0	1	▲	→	0	●	→
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
<b>Vacancy Rate<sup>6</sup></b>	10%	19% 16/86 <sup>7</sup>	▲	↓	9% 8/86	●	→
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

#### Notes

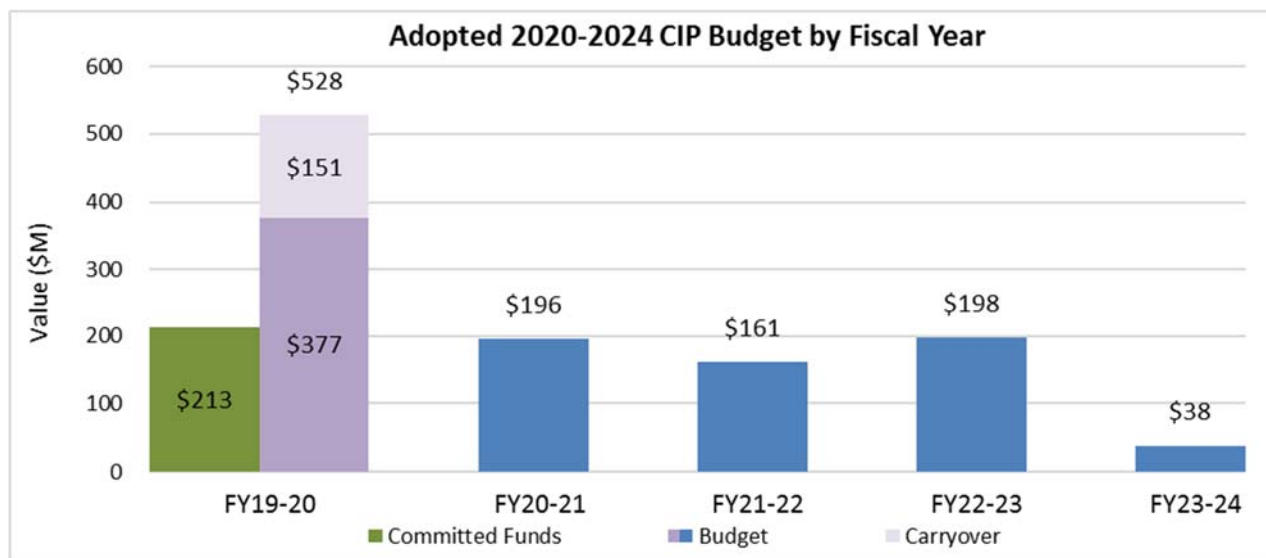
- The Yard Piping and Road Improvements Project passed Stage Gate 2: Confirm Project Alternative and the Headworks Project passed Stage Gate 5: Guarantee Maximum Price.
- The CIP does not anticipate any projects reaching Beneficial Use this fiscal year.
- The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
- The CIP does not anticipate accepting any projects this fiscal year.
- The program budget and resulting fiscal-year expenditure target decreased after multiple contracts were closed and the remaining encumbered balances were liquidated. Additionally, the fiscal year-end forecast decreased by roughly \$1 million after forecast encumbrances were adjusted.
- The vacancy rate KPI measures CIP-approved positions, including ESD, Public Works, and program management consultant full-time staff.
- The vacancy count decreased by one.



## Program Budget Performance Summary

This section summarizes the cumulative monthly budget performance for fiscal year (FY)19-20 based on the Adopted 2020-2024 CIP.

### Adopted 2020-2024 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 FY19-20 budget is \$401.5 million, which consists of \$339.6 million in new funds, \$61.9 million in rebudgets. For purposes of this monthly report, the adopted FY19-20 budget is adjusted from \$401.5 million to \$377.2 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; City Facilities Emergency Power, and Urgent and Unscheduled Treatment Plant Rehabilitation. Similar adjustments have been made to the budgets for FY20-21 through FY23-24.

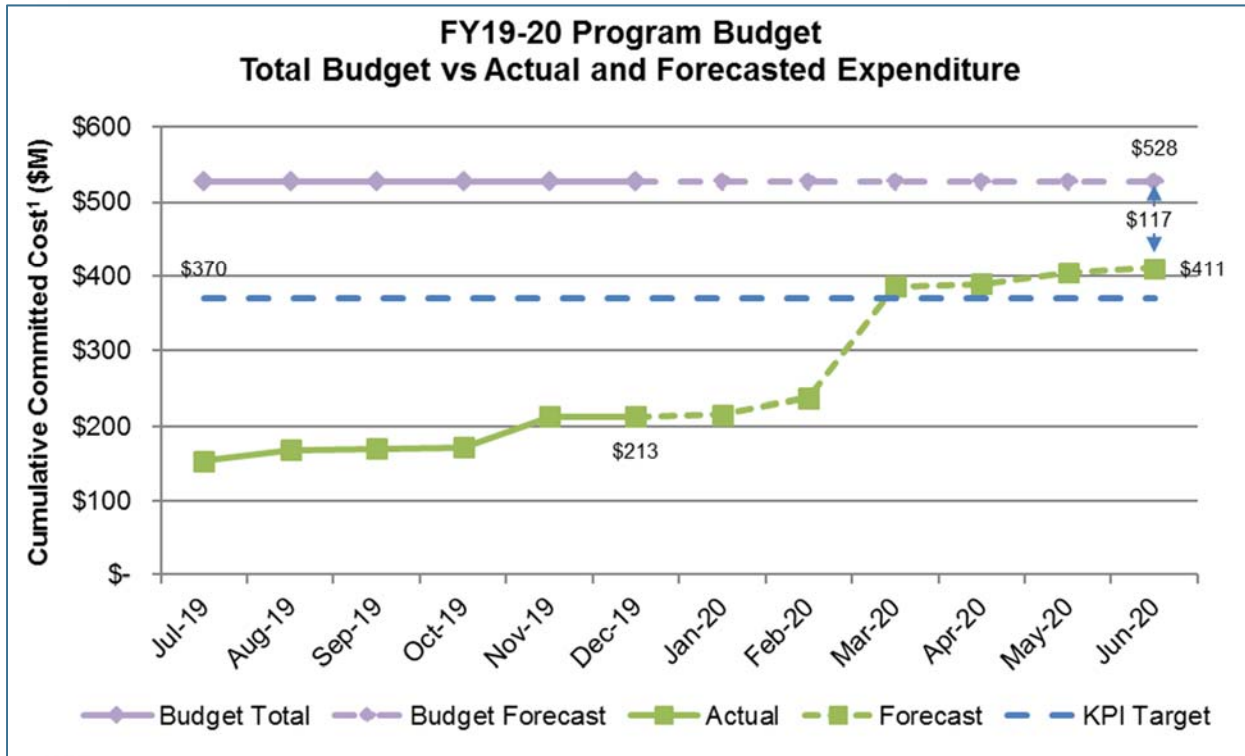
Carryover: Encumbrance balances at the end of the previous fiscal year are automatically carried forward to the current fiscal year as carryover funding to pay invoices for approved construction contracts and consultant agreements. FY19-20 carryover is \$151.0 million.

Budget of \$377.2 million and carryover of \$151.0 million totals \$528.2 million for FY19-20.



## Fiscal Year 2019-2020 Program Budget Performance

The FY19-20 CIP budget is comprised of approximately \$377.2 million in new and rebudgeted funds, plus encumbered carryover of \$151.0 million, for a total of \$528.2 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; City Facilities Emergency Power; and Urgent and Unscheduled Treatment Plant Rehabilitation items. Overall, the forecast fiscal year-end committed funds exceed the fiscal year-end target by \$40 million.



### Notes:

1. Committed costs are expenditures and encumbrance balances, including carryover (encumbrance balances from the previous fiscal year).
2. The variance between budget and commitments can be primarily attributed to the following factors:
  - a. Three construction contracts are now anticipated to be awarded in FY20-21 instead of FY19-20, based on updated schedules:
    - i. Filter Rehabilitation Project
    - ii. HVAC Improvements
    - iii. Outfall Bridge and Instrumentation Improvements Project
  - b. Several consultant service orders are not anticipated to be awarded in FY19-20:
    - i. Aeration Tank Rehabilitation Project conceptual through final design
    - ii. Facility Wide Water Systems Improvements Project preliminary engineering and value engineering
    - iii. Flood Protection Project alternatives analysis and conceptual design
  - c. The Yard Piping and Road Improvements Project design and first phase of construction will no longer occur this fiscal year.
  - d. The Nitrification Clarifiers Rehabilitation – Phase 1 construction bids came in under budget.
  - e. Several other minor encumbrances for consultant services are either lower than budgeted or are anticipated to be awarded in FY20-21.
  - f. Several authorized positions remain vacant, resulting in lower personal services expenses than budgeted.



## Project Performance Summary

There are currently seven projects in the construction and post-construction phases and an additional 11 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 <sup>1</sup>	Cost Performance <sup>2</sup>	Schedule Performance <sup>2</sup>
1. Cogeneration Facility	Design & Construction	Sep 2020	●	●
2. Digester and Thickener Facilities Upgrade	Construction	Nov 2020	◆	◆
3. 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation	Construction	Feb 2021 <sup>3</sup>	●	●
4. Advanced Facility Control & Meter Replacement - Phase 1	Construction	June 2021	●	●
5. Switchgear M4 Replacement and G3 & G3A Removal	Construction	May 2022 <sup>3</sup>	●	●
6. Blower Improvements	Construction	Sep 2022	●	●
7. Nitrification Clarifiers Rehabilitation – Phase 1	Construction	Jan 2023 <sup>3</sup>	●	●

#### Key:

<b>Cost:</b>	● On Budget	◆ >1% Over Budget	<b>Schedule:</b>	● On Schedule	◆ >2 months delay
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#### Notes

1. Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
2. An explanation of cost and schedule variances on specific projects identified in this table is provided on page 12.
3. 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 <sup>1</sup>
1. Headworks	Design and Construction	Feb 2023
2. Digested Sludge Dewatering Facility	Design and Construction	Nov 2023
3. Fire Life Safety Upgrades	Bid/Award	Jul 2022
4. Advanced Facility Control & Meter Replacement - Phase 2	Bid/Award	Jan 2023
5. Outfall Bridge and Instrumentation Improvements	Design	Dec 2021
6. Filter Rehabilitation	Design	Jul 2023
7. HVAC Improvements	Design	Feb 2025
8. Yard Piping Improvements – Phase 1	Feasibility/Development	Oct 2021
9. Storm Drain System Improvements	Feasibility/Development	Feb 2024
10. Facility Wide Water Systems Improvements	Feasibility/Development	Jan 2025
11. Final Effluent Pump Station and Stormwater Channel Improvements	Feasibility/Development	May 2026

### Notes

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



## Project Significant Accomplishments

### Biosolids Package

#### Digested Sludge Dewatering Facility Project

- The City held workshops to discuss flow and loads and the project cost model.
- Staff reviewed the test plan for the centrifuge study, which is expected to begin in January.

#### Digester and Thickener Facilities Upgrade Project

- Contractor Walsh removed all temporary scaffolding and roof access towers around the digesters, signifying completion of exterior insulation and stairways.
- Walsh completed installation of a 36-inch diameter pressure flow pipe and removed the re-route pipes and pumps installed to facilitate the replacement.
- Walsh installed the fire suppression system and HVAC ductwork throughout the new Sludge Screening Building.
- Walsh completed a major excavation and installation of a 48-inch diameter subnatant pipeline beneath an existing tunnel.
- Operations accepted the fourth of eight remote digesters with the gas now being conveyed through piping on the new, elevated pipe rack rather than through the underground tunnels, providing RWF staff with a safer working environment.

### Liquids Package

#### Advanced Facility Control and Meter Replacement – Phase 1 Project

- Contractor Overaa prepared the new equipment in Secondary Tanks B1 to B4 and Secondary Clarifiers for operational testing starting in February.

#### Blowers Improvements Project

- Contractor Monterey Mechanical received all three PAB blower VFDs and will set them on their foundations in January.
- Monterey Mechanical began rehabilitation of the existing PAB No. 2 electrical motor.
- The contractor delivered a new, temporary shower/locker room to the site. This room will facilitate work to be done in the Building 40 locker room. The temporary facilities are expected to be available to the operations and maintenance staff in February 2020.

#### Headworks Project

- Design-builder CH2M Hill Engineers, Inc. (CH2M) and the City finished GMP negotiations. The project passed Stage Gate 5: Guaranteed Maximum Price, and staff will recommend the DCA for approval to TPAC and Council in February.

### Power and Energy Package

#### Cogeneration Facility Project

- Design Builder CH2M pulled medium-voltage (4160V) cables between the M2 Switchgear and several manholes preparing to connect to the RWF electrical grid.

#### Switchgear M4 Replacement and G3 & G3A Removal Project

- Council awarded the construction contract to Blocka Construction. The City anticipates issuing the NTP in February with equipment fabrication beginning this year and installation next year.



## Explanation of Project Performance Issues

### Digester and Thickener Facilities Upgrade Project

This project encountered numerous unforeseen conditions at the beginning of construction in 2016, including corroded underground pipe and other obstructions for new building foundations. A temporary reroute system was installed to enable the replacement of a 78-inch settled sewage pipeline and junction structure during the 2018 dry season.

In 2017, design modifications were required to address seismic risks, control system changes, additional underground obstructions, pipe anchorage, and new fire department requirements. Discovery of hazardous materials required submittal of an extensive cleanup proposal to the federal Environmental Protection Agency (EPA) for approval. Once mitigation was completed in 2019, the City submitted another report to the EPA that detailed how it met each EPA cleanup permit requirement.

To pay for the additional work to address unforeseen conditions, Council approved a construction contingency increase of \$15 million in November 2017 and another contingency increase of \$25 million in June 2018.

Delays for these conditions have amounted to 273 working days. The original construction completion and Beneficial Use date of September 2019 has been delayed and rescheduled to November 2020. To minimize further delays, the City and contractor have worked together to sequence several tasks so that they could be completed more quickly and efficiently.



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## Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

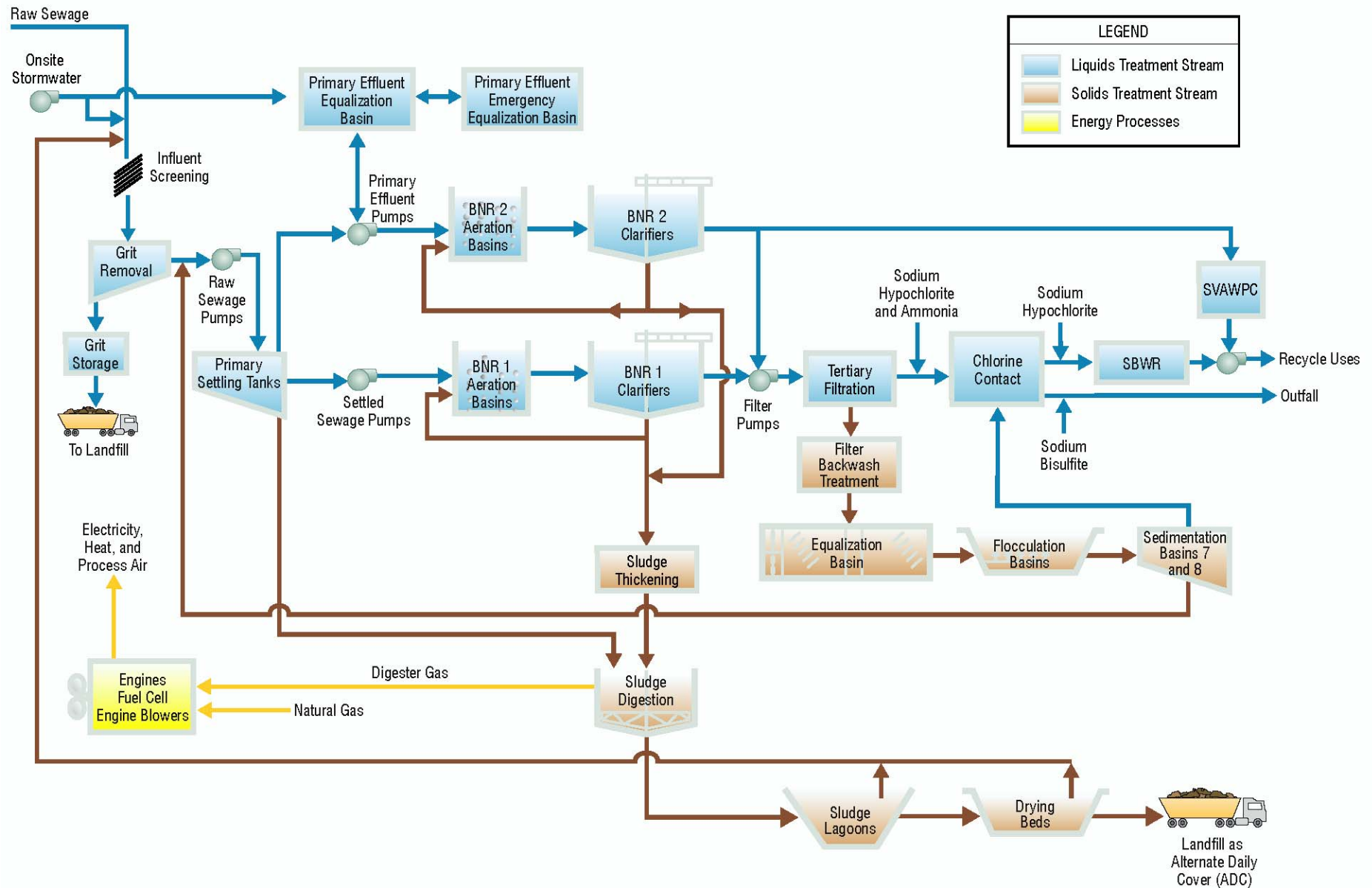
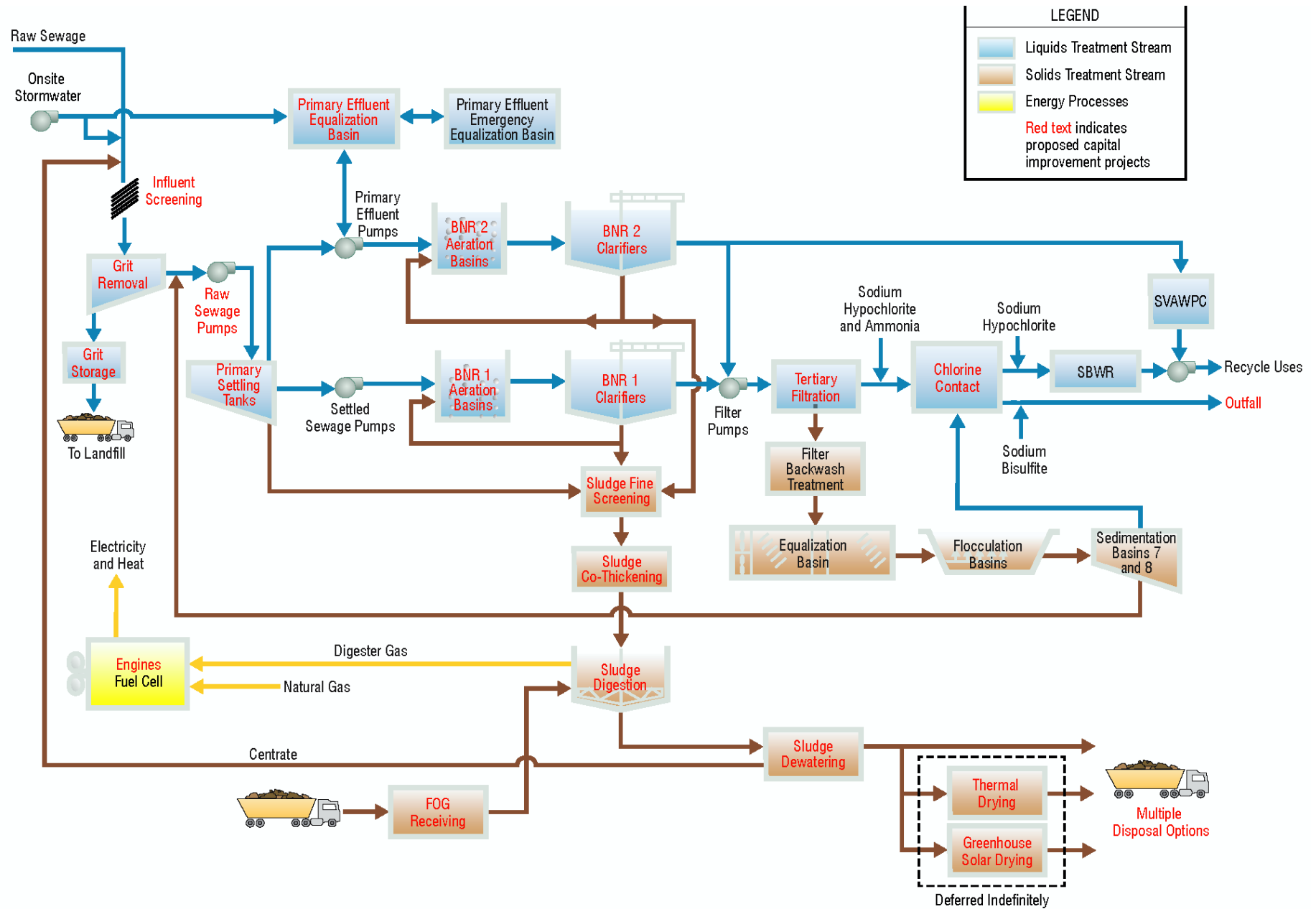


Figure 4 – Current Treatment Process Flow Diagram

## Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram



### Figure 5 – Proposed Treatment Process Flow Diagram

## Active Construction Projects – Aerial Plan

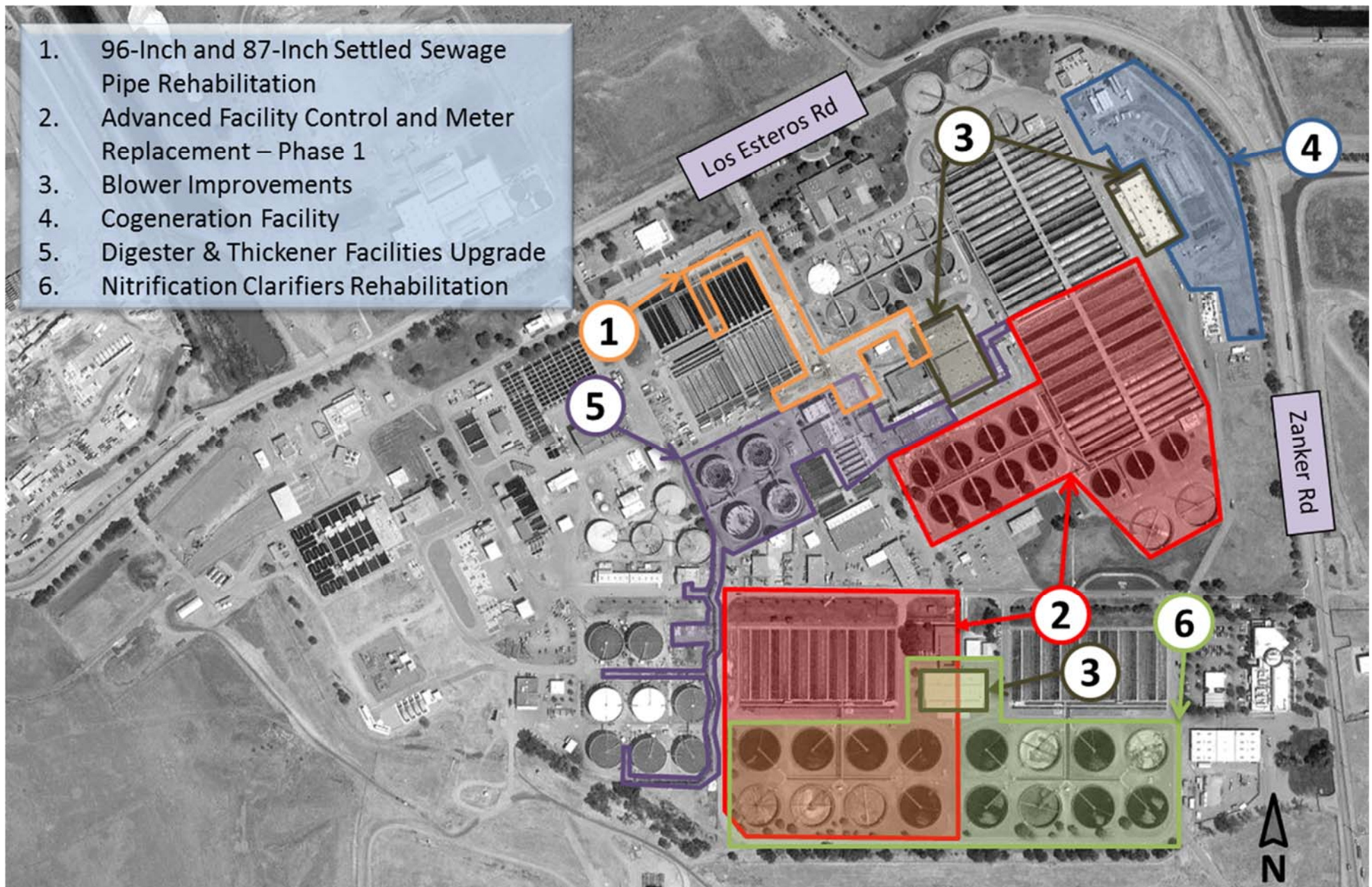


Figure 6: Active Construction Projects





# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow  
Matt Cano

**SUBJECT:** SEE BELOW

**DATE:** February 4, 2020

Approved

Date

2/6/2020

**SUBJECT: APPROVAL OF AMENDED AND RESTATED DESIGN-BUILD CONTRACT FOR THE FINAL DESIGN AND CONSTRUCTION OF THE HEADWORKS PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY**

## **RECOMMENDATION**

- (a) Approve the Amended and Restated Design-Build Contract with CH2M HILL Engineers, Inc. for the final design, construction, commissioning and acceptance testing of the Headworks Project at the San José-Santa Clara Regional Wastewater Facility with a base Guaranteed Maximum Price in an amount not to exceed \$126,874,142.
- (b) Approve a ten percent construction contingency in the amount of \$12,688,000 for adjustments to the base Guaranteed Maximum Price in accordance with the Amended and Restated Design-Build Contract.

## **OUTCOME**

Approval of the Amended and Restated Design-Build Contract will establish the Guaranteed Maximum Price for the final design, construction, commissioning, and acceptance testing of the Headworks Project.

## **EXECUTIVE SUMMARY**

Preliminary treatment, the first step in the San José-Santa Clara Regional Wastewater Facility (RWF) treatment process, is provided by a headworks facility that removes inorganic material such as sticks, stones, grit and sand from the influent wastewater to protect and reduce wear on downstream processes and equipment. The existing headworks facility consists of two separate structures: a duty headworks (Headworks 1-circa 1970) and a wet-weather headworks (Headworks 2-circa 2008).

The City's Plant Master Plan recommended construction of a new headworks to replace the aging Headworks 1 and enhancements to Headworks 2 so it can continue to serve as the backup and wet-weather headworks.

In June 2018, Council approved a design-build contract with CH2M Hill Engineers, Inc. (CH2M). The design-build contract consists of a preliminary services phase and a design-build phase. In the preliminary services phase, the design-builder performs subsurface investigations and develops the design to a 60-percent level of completion. Amendments to the design-build contract and a Guaranteed Maximum Price (GMP) for the final design and construction of the Headworks Project (Project) are then negotiated based on this initial design work. In the design-build phase, the design is taken to 100-percent, and construction, commissioning, and acceptance testing are completed.

The preliminary services phase of the Project has been completed and staff is now recommending Council approval to move to the design-build phase pursuant to the Amended and Restated Design-Build Contract (Amended Contract).

As part of the GMP development, CH2M worked with their designated General Contractor, Kiewit Infrastructure West Co. (Kiewit) to develop bid packages, obtain competitive bids from subcontractors and vendors, and price work to be self-performed. City Staff and CH2M participated in numerous workshops and meetings to negotiate the terms and conditions of the Amended Contract and to finalize the GMP. Because the progressive design-build delivery model takes a different approach to pricing than the traditional low-bid design-bid-build delivery model, staff and its consultants put considerable time and effort into the GMP negotiations to ensure a fair Project cost for RWF ratepayers.

Given the due diligence performed as part of the GMP negotiations to validate costs, including 1) development of an independent bottom-up cost estimate, which was adjusted to reflect current Bay area construction market conditions and which was benchmarked against San Francisco Public Utility Commission's (SFPUC) ongoing \$360 million headworks project; 2) value engineering; 3) negotiation of overhead and profit; 4) procurement of subcontractors and process equipment using a competitive, best-value, selection process; and 5) cost-benefit analysis of converting to a design-bid-build delivery method, staff recommends approval of the Amended Contract with a not-to-exceed GMP of \$126,874,142 and a contingency of \$12,688,000.

## **BACKGROUND**

### **Project Description**

Preliminary treatment, the first step in the RWF treatment process, is provided by the headworks facility, which removes inorganic material such as sticks, stones, grit and sand from the influent wastewater to protect and reduce wear on downstream processes and equipment. Due to the consistency and corrosivity of the incoming sewage, the mechanical and electrical equipment

must be robust and reliable. In addition, the headworks must be able to respond to a wide range of hydraulic loading conditions to account for daily and seasonal fluctuations.

The existing headworks facility consists of two separate structures, a duty headworks (Headworks 1) and a wet-weather headworks (Headworks 2). Headworks 1 has been in operation for over 50 years, has a rated capacity of 271 million gallons per day (mgd), and includes single-rake screens, grit removal using aerated grit chambers and detritors, screenings and grit handling facilities, and pumping facilities. Headworks 2 has been in operation for over 10 years, has a rated capacity of 160 mgd, and includes multi-rake screens, vortex grit removal, screenings and grit handling facilities, and a pump station.

With the aging Headworks 1 facilities requiring regular repairs 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 evaluations identified the need for a new duty headworks facility (Headworks 3) to replace Headworks 1, and outlined modifications required for Headworks 2 to improve operational reliability and performance so that it can continue to serve as the backup and wet-weather headworks. The Headworks Project will construct a new headworks facility and make the needed modifications to Headworks 2. The decommissioning of Headworks 1 is not included in this Project. **Attachment A** shows the location of the existing Headworks 1 and 2 facilities and the proposed location of the new Headworks 3 facility.

#### *Design-Build Contract*

On June 19, 2018, the Council approved the original design-build contract with CH2M in the amount of \$5,666,354 for the preliminary services phase of the Project.<sup>1</sup> Council also approved a ten percent City-held design contingency of \$566,635 and authorized the City Manager to execute a separate amendment to the contract for CH2M to perform subsurface investigations to inform its design work in an amount of \$1,000,000 with a separate contingency of \$1,000,000 for this subsurface work.

The preliminary services phase of the work was concluded in January 2020 in the amount of \$6,147,765, which included the use of \$481,411 of design contingency for further subsurface investigation work. The preliminary services work consisted of initial investigations of existing site conditions, development of the basis of design report, detailed design to a 60-percent completion level, and development of the definitive project submittal, which included the GMP, and led to the recommended Amended Contract that contains the terms and conditions for the design-build work to complete the Project.

As part of the design development, key criteria were established including site selection, flow and loading criteria, process configuration and equipment, and civil, mechanical, HVAC,

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<sup>1</sup> May 29, 2018 Council Memo for design-build contract:

<https://sanjose.legistar.com/View.ashx?M=F&ID=6298296&GUID=21436F30-C836-4470-BD79-CE8724719812>

electrical, and instrumentation requirements. Preliminary investigations included geotechnical studies and subsurface investigations of utilities and regulated substances, which was performed to reduce the risk of discovering unknown conditions during construction.

A key element of the preliminary services phase was negotiation of the GMP. As part of the GMP development, CH2M worked with their designated General Contractor, Kiewit Infrastructure West Co. (Kiewit) to develop bid packages, obtain competitive bids from subcontractors and vendors, and price work to be self-performed. City Staff and CH2M participated in numerous workshops and meetings, between June 2019 and December 2019, to negotiate the terms and conditions of the Amended Contract and to finalize the GMP.

CH2M submitted its final technical and cost submittal to the City for the Project in January 2020. This submittal included proposed revisions to the terms and conditions of the original design-build contract, the GMP and a schedule for completion of the Project.

## **ANALYSIS**

CH2M's technical and cost submittals have been reviewed by City staff and the City's consultants to assess the suitability of the proposed scope of work, evaluate the adequacy of the plans and specifications, and validate the proposed pricing in CH2M's cost model. The Amended Contract is priced as a guaranteed maximum price, meaning that the City will pay CH2M on a defined cost-reimbursable basis subject to a maximum limit. The CH2M portion of the work will be open book (i.e., complete visibility of all costs) and subject to shared savings (i.e., if the work is completed for less than stated in the GMP, the City gets 70 percent of the cost savings and CH2M gets 30 percent), while the work by their subcontractors, including Kiewit, will be mostly lump sum and not subject to an open book process or shared savings.

City Staff and CH2M participated in numerous workshops and meetings, over a six-month period, to negotiate the terms and conditions of the Amended Contract and the GMP. Because the progressive design-build delivery model takes a different approach to pricing than the traditional low-bid design-bid-build delivery model, staff put considerable time and effort into GMP negotiations to ensure a fair project cost for RWF ratepayers. To this end, the design-builder was required to develop a cost model early in the Project and update it at key milestones. Key components of the cost model include:

1. Direct Construction Costs (including General Contractor, subcontractors, and equipment)
2. Engineering Costs (e.g., completion of design from 60-percent to 100-percent, engineering services during construction, and startup and commissioning)
3. General Conditions Costs (e.g. Field staff, field offices, utilities, safety equipment)
4. Overhead and Profit
5. Design-Builder Contingency
6. Escalation



To ensure fair pricing, the following actions were taken:

1. Evaluation of new headworks site location to determine the optimal location from the perspective of functionality, constructability, and cost.
2. Establishment of process configuration, equipment selection, and design criteria to ensure an effective, reliable, and maintainable headworks.
3. Development of an independent, bottom-up, cost estimate by the City's owner's advisor consultant (OA), CDM Smith, based on the 30-percent design documents.
4. Reconciliation of the OA's and CH2M's 30-percent estimates by the CIP's third-party cost estimating consultant, Leland Saylor Associates, that took into consideration the current Bay Area construction market conditions and which benchmarked cost elements of the City's Headworks project to San Francisco Public Utility Commission's (SFPUC) ongoing \$360 million headworks project.
5. Value engineering session led at the 30-percent design level by one of the CIP's VE consultants, Hazen and Sawyer.
6. Review of CH2M's 60-percent estimate by the OA.
7. Negotiations with CH2M on overhead and profit.
8. Negotiations with CH2M on general conditions.
9. Monte Carlo risk modeling to validate the design-builder contingency amount.
10. Procurement of subcontractors and process equipment using a competitive, best-value, selection process at the 60-percent level of design.
11. Evaluation of the pros and cons of bidding out Kiewit's work.
12. Evaluation of the pros and cons of converting the Project to design-bid-build.

Prior to procuring the design-builder for the Project, in November 2017 the OA produced a Project Definition Report (equivalent to a Conceptual Design) that outlined the project scope and provided an initial cost estimate for budgetary purposes. This initial GMP budget was \$100 million, however, as was stated in the May 29, 2018 Council Memo, based on feedback from the three proposers during the proposal phase, there was concern that this budget was inadequate. The low budget estimate was attributable to difficult site conditions and the strong Bay Area construction market, wherein municipalities are forced to bid for available construction labor against large high-tech companies. To address the budget concerns, one of the first tasks of the preliminary services phase was to evaluate the project scope and look at alternative site options to lower the project costs. Based on this evaluation, a new site was selected for Headworks 3 and a revised budget of \$123.5 million was developed and included in the 2020-2024 Adopted CIP for the Project.

Subsequent GMP estimates were submitted by CH2M at key milestones (Basis of Design Report, 30-percent, 60-percent and the final GMP proposal). The mechanism for reviewing and negotiating direct costs was to have third-party consultants (CDM Smith and Saylor) review and

comment on the costs. This led to reductions in direct costs and general conditions costs. The final GMP of \$126.9 million represents a 2.75 percent increase over the \$123.5 million budget. Most of the increase was due to market conditions, with a portion of this increase due to scope added from other CIP projects that could be performed more cost effectively as part of the Project.

In addition to negotiating direct costs, staff negotiated the overhead and profit (OHP) markups being charged by CH2M and Kiewit on the direct engineering and construction costs. The initial values submitted by CH2M were negotiated down as shown below:

<b>Description</b>	<b>Initial Value</b>	<b>Final Negotiated Value</b>
CH2M DB Fee (similar to OHP)	9.5 percent	8.75 percent
CH2M General Conditions (GC) Fee	9.5 percent	7.4 percent
Kiewit OHP	18 percent	10 percent

For reference, the Cogeneration Facility Project's DB fee is 7.8 percent and the GC fee is 7.7 percent, and on the Dewatering Project, the DB Fee is 8.9 percent and the GC Fee is 11.2 percent. Note that these fees are project dependent based on the complexity and risk profile of the project.

Although it is difficult to put an exact value on the savings that resulted from negotiations, due to the constant updating of all components of the cost model, staff estimates that savings are on the order of \$8 million.

Approximately 56 percent (\$71 million) of the GMP was based on negotiations and includes the work that Kiewit and CH2M will be self-performing. The remaining 44 percent (\$56 million) was competitively bid out, including subcontractors (electrical, I&C, HVAC, etc.), major process equipment (bar screens, grit equipment, pumps, etc.) and materials (concrete, rebar, piping, etc.).

The Amended Contract has provisions for shared savings between the City and CH2M, in the event that the actual cost of the work at completion is less than the GMP. Additionally, the Amended Contract contains acceptance testing requirements and guarantees for the minimum performance for all major process equipment (bar screens, screenings compactors, raw sewage pumps, grit tanks, grit pumps, grit classifiers, and odor control system). In addition, the system hydraulics must be verified based on available flows to ensure that the project components can convey the required peak flow without impacting the upstream collection system. The Amended Contract also contains provisions for liquidated damages associated with construction delays or raw sewage pump efficiency.

The Amended Contract requires CH2M and their subcontractors to participate in the City's Owner Controlled Insurance Program (OCIP) for the RWF CIP. The OCIP provides a number of key insurance coverages, such as commercial general liability, workers' compensation, and builder's risk insurance, but does not provide comprehensive coverage for all required

insurances. The Amended Contract requires CH2M and their subcontractors to provide proof of coverage for required insurances outside the scope of the OCIP.

There is the potential for the scope of work to increase as the design is developed from 60-percent to 100-percent and during the course of construction. If the scope of work increases for certain causes specified in the Amended Contract, CH2M is entitled to an adjustment to the GMP to account for the increased work. One potential cause of increased scope during construction are unknown subsurface utility conflicts and other site conditions that differ from those anticipated. The Project includes a significant amount of subsurface work to connect the new headworks facility to the existing headworks. As discussed, CH2M has done some subsurface exploration work as part of the preliminary services to reduce the risk of conflicts. However, the scope of the Project is such that it was not possible to explore all potential areas that will be impacted by the Project. Experience on prior RWF projects has shown that certain existing infrastructure is in substandard condition, and once uncovered or disturbed, may need to be repaired or replaced. These additional costs may not be included in the GMP and would need to be covered by City-held contingency. The Amended Contract contains a Design-Builder's contingency of \$3.9 million, which is approximately 4 percent of the direct costs. The Design-Builder's contingency is included in the GMP and covers risks that CH2M has assumed under the Amended Contract. Staff is also requesting that Council approve a City-held contingency of \$12.7 million, which is approximately 10 percent of the GMP. The City contingency is held outside of the GMP and would cover costs associated with risks that the City has assumed under the Amended Contract.

#### *Project Schedule*

As part of the negotiations, the City and CH2M agreed to a project schedule for completion of the Project in accordance with the Amended Contract. Key milestones for the design-build work include:

- March 2020 – Notice to Proceed for Design-Build work
- January 2023 – Substantial Completion of Design-Build work
- June 2023 – Final completion of Design-Build work

#### **CONCLUSION**

Approval of the Amended Contract will allow staff to authorize CH2M to finalize the design and construct, commission and acceptance test the Project. The Amended Contract is the result of several months of detailed negotiations. Given the due diligence performed as part of the GMP negotiations and the significant risks associated with switching delivery methods at this time, staff recommends approval of the Amended Contract with a GMP of \$126,874,142 and a City-held contingency of \$12,688,000.

## **EVALUATION AND FOLLOW-UP**

A progress report on this Project will be made to the Transportation Environment Committee and the City Council on a semiannual basis. Monthly progress reports of the RWF CIP will also be submitted to TPAC and posted on the City's website. No additional City Council action is anticipated at this time.

## **CLIMATE SMART SAN JOSE**

The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals.

## **POLICY ALTERNATIVES**

***Alternative #1: Do not approve the Amended Contract; negotiate with CH2M to advance the design to 100-percent, prepare a bid package, and solicit bids to construct the facility using traditional design-bid-build).***

**Pros:** Obtains market pricing from additional bidders.

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

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

## **PUBLIC OUTREACH**

As part of the Design-Builder procurement process an RFQ was advertised on BidSync on May 24, 2017.

This memorandum will be posted on the City's Council Agenda website for the February 25, 2020 Council Meeting following the TPAC meeting on February 13, 2020.

## **COORDINATION**

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

## **COMMISSION RECOMMENDATION/INPUT**

This item is scheduled to be heard at the February 13, 2020 TPAC meeting. A supplemental memo with the Committee's recommendation will be included in the amended February 25, 2020 City Council meeting agenda.

## **FISCAL/POLICY ALIGNMENT**

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

## **COST SUMMARY/IMPLICATIONS**

1.	AMOUNT OF RECOMMENDATION:	\$126,874,142
	Project Delivery*	\$33,000,000
	Design-Build Work (GMP)	\$126,874,142
	<u>Contingency (10%)</u>	<u>\$12,688,000</u>
	Total Project Costs	\$172,562,142
	<u>Prior Year Expenditures</u>	<u>\$11,712,955</u>
	<b>REMAINING PROJECT COSTS</b>	<b>\$160,849,187</b>

*\* Project delivery includes \$4.9M for project management during feasibility/development, \$11.1M for project management during design, \$2.0M for bid and award, \$14.5M for construction management, and \$0.5M for post-construction and project closeout. The estimated project delivery cost is 26 percent of the construction cost, which is in line with project delivery costs for capital projects of this magnitude at other wastewater facilities.*

## 2. COST ELEMENTS OF CONTRACT

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



Third-Party Professional Services	\$1,880,000
General Contractor	\$59,574,446
Electrical Contractor	\$13,186,000
I&C Integrator	\$3,475,878
Other Subcontractors	\$7,415,370
Process Equipment	\$8,806,264
Final Engineering	\$2,823,728
Engineering Services During Construction	\$4,280,218
Startup and Commissioning	\$1,739,105
Permitting and Other Costs	\$170,000
<u>Bonds and Insurance (outside of OCIP)</u>	<u>\$1,890,293</u>
Subtotal: Design-Build Costs	\$105,241,302
General Conditions Fee (equivalent to 7.4% of DB Costs)	\$7,800,000
<u>Design-Builder Fee (8.75% of DB Costs excl. bonds &amp; insurance)</u>	<u>\$9,043,213</u>
Cumulative Subtotal: Design-Build Price	\$122,084,515
Design Builder Contingency	\$3,932,907
<u>Design Builder Escalation</u>	<u>\$856,720</u>
Cumulative Total: <b>Design-Build GMP</b>	<b>\$126,874,142</b>

3. SOURCE OF FUNDING: 512 - San José-Santa Clara Treatment Plant Capital Fund
4. FISCAL IMPACT: O&M costs (Fund 513 - San José-Santa Clara Treatment Plant Operating Fund) are not anticipated to change significantly because the Project involves replacing the aging Headworks 1 with a new Headworks 3 of similar capacity. Some increase in hauling costs is expected due to newer, more efficient, equipment, which will result in increased screenings and grit removal. There will also be new costs associated with odor control for Headworks 3, which is not currently provided at the existing Headworks 1.
5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), this project is allocated 100-percent to flow.

### **BUDGET REFERENCE**

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

HONORABLE MAYOR AND CITY COUNCIL

February 4, 2020

**Subject: Approval of the Amended and Restated Design-Build Contract and GMP for the Design and Construction of the Headworks Project at the San Jose-Santa Clara Regional Wastewater Facility**

Page 11

Fund #	Appn #	Appn. Name	Total Appn	Amt. for Contract	2019-2020 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7448	Headworks Improvements	\$15,853,000	\$12,687,414	V-135	10/22/2019 Ord. No. 30325
512	7449	New Headworks	\$131,176,000	\$114,186,728	V-136	10/22/2019 Ord. No. 30325
<b>Total Current Funding Available</b>			<b>\$147,029,000</b>	<b>\$126,874,142</b>		

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

**CEQA**

File No. PP19-042, Addendum to the Final Program Environmental Impact Report for the San José /Santa Clara Water Pollution Control Plant Master Plan (Resolution No. 76858).

/s/  
KERRIE ROMANOW  
Director, Environmental Services

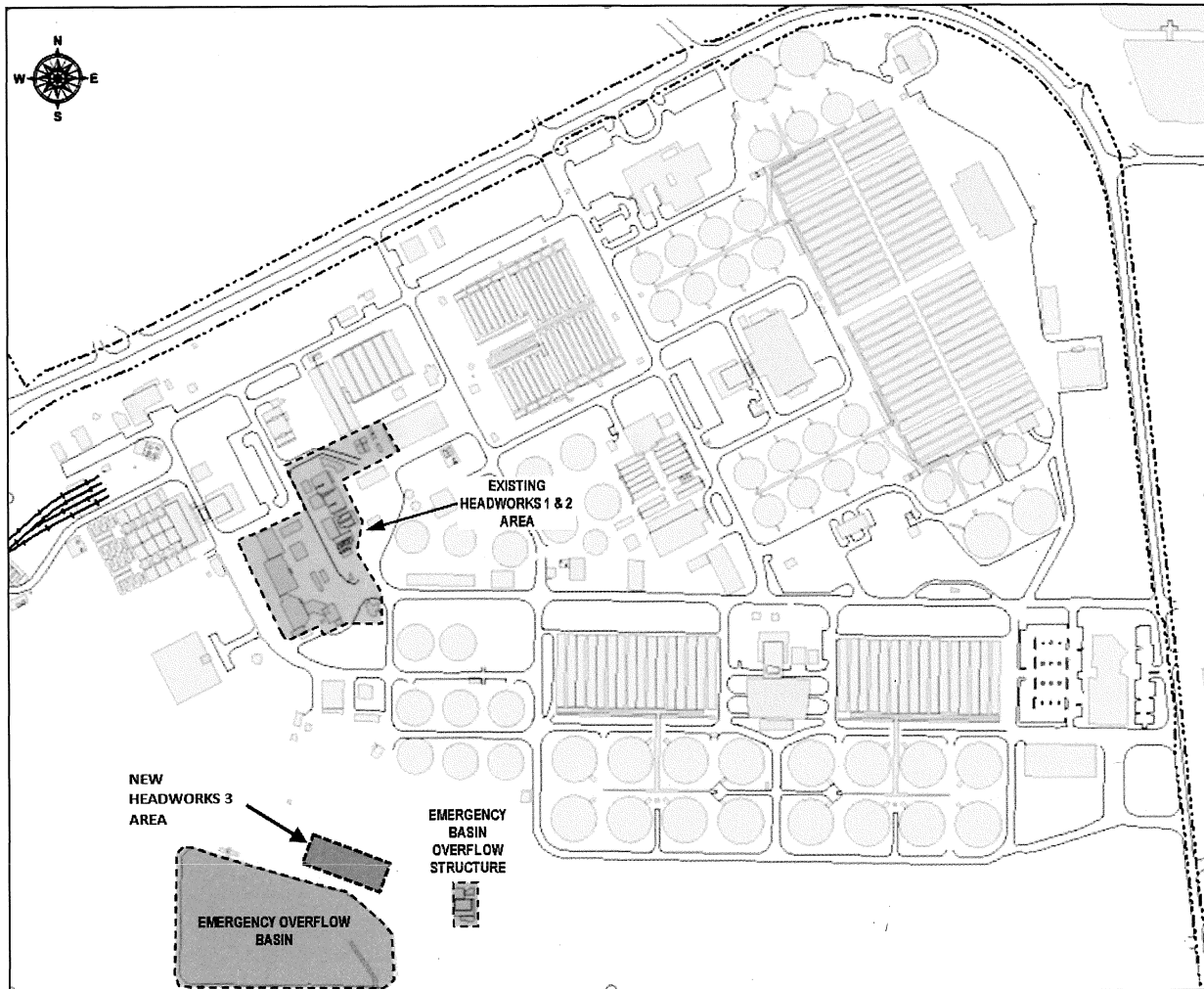
/s/  
MATT CANO  
Director, Public Works

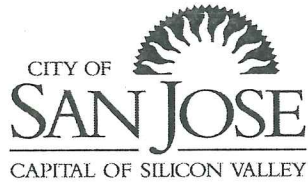
For questions, please contact Kapil Verma, Principal Engineer, Environmental Services Department at (408) 635-4045.

Attachment

## ATTACHMENT A

### Headworks Project Site Map





# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Richard Doyle  
City Attorney

**SUBJECT: SETTLEMENT AGREEMENT  
WITH BROWN AND CALDWELL**

**DATE:** February 6, 2020

## **RECOMMENDATION**

Approve a Settlement Agreement between the City of San Jose and Brown and Caldwell in the amount of \$2,750,000, which includes a direct payment to the City in the amount of \$2,500,000 and future professional engineering and design services that have a value of \$250,000.

## **OUTCOME**

Approval of the Settlement Agreement will provide compensation to the City for additional project costs incurred by the City as a result of a design issue caused by Brown and Caldwell during Brown and Caldwell's work on the Digester and Thickener Facilities Upgrade Project, currently under construction at the San José-Santa Clara Regional Wastewater Facility.

## **BACKGROUND**

On October 8, 2013, the City entered into a contract with Brown and Caldwell (Consultant) to provide professional engineering and design services for the Digester and Thickener Facilities Upgrade Project (Project) at the San José-Santa Clara Regional Wastewater Facility (RWF). The Project involves modifying four existing digesters as part of an overall project that also includes modifications to six dissolved air flotation thickener (DAFT) units, associated sludge processing equipment, and biogas collection system. Construction for the Project was started in July 2016 by Walsh Construction Company (Contractor).

In July 2017, Consultant notified the City of the existence of a "seismic design issue" that would require additional elements to resist potential seismic forces exerted by the existing digesters, as modified through construction, and their contents (Seismic Uplift Issue). Working collaboratively with the City, Consultant prepared a final revised design to address the Seismic Uplift Issue. In April of 2018, the City approved the final revised design (Final Revised Design). The Contractor has since implemented the modifications included in the Final Revised Design as reflected in change orders issued by the City to the Contractor.

## **ANALYSIS**

Based on staff's analysis of the facts and technical aspects of the Project, in coordination with the City Attorney's Office, the City Attorney's Office recommends approval of the Settlement Agreement. The City will receive a direct payment from Consultant in the amount of \$2,500,000. Consultant will also provide the City with future professional and engineering services in the amount of \$250,000, for total compensation in the amount of \$2,750,000.

## **PUBLIC OUTREACH/INTEREST**

This memorandum and Settlement Agreement have been posted on the City's website for the RWF Treatment Plant Advisory Committee's (TPAC) February 13, 2020 agenda. The memorandum and Settlement Agreement have also been posted on the City's website for the City Council's February 25, 2020 agenda.

## **COORDINATION**

The Settlement Agreement has been coordinated with the Department of Environmental Services and the Department of Public Works.

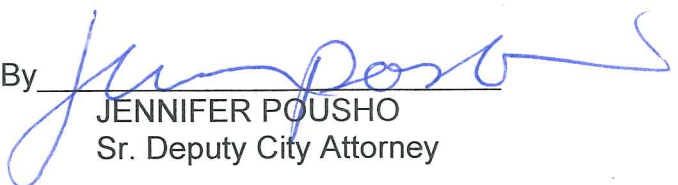
## **COST SUMMARY/IMPLICATIONS**

City staff recommends crediting the direct payment of \$2,500,000 to the Project appropriation – 4127 Digester and Thickener Facilities Upgrade. The \$250,000 of future professional engineering and design services will be provided through Consultant's agreement with the City for the Project and tracked as a separate line item through invoices to ensure the services are properly credited to the City.

## **CEQA**

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

RICHARD DOYLE  
City Attorney

By   
JENNIFER POUSHO  
Sr. Deputy City Attorney

cc: Dave Sykes, City Manager

For questions please contact RICHARD DOYLE, City Attorney, at (408) 535-1900





# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow

**SUBJECT:** SEE BELOW

**DATE:** February 4, 2020

Approved

Date

2/6/2020

**SUBJECT: SECOND AMENDMENT TO THE CONSULTANT AGREEMENT WITH BROWN AND CALDWELL FOR ENGINEERING SERVICES FOR THE DIGESTER AND THICKENER FACILITIES UPGRADE PROJECT**

## RECOMMENDATION

Approve the Second Amendment to the Consultant Agreement with Brown and Caldwell for engineering services for the Digester and Thickener Facilities Upgrade project at the San José-Santa Clara Regional Wastewater Facility, modifying the scope of services, extending the term of agreement from June 30, 2020 to December 31, 2021, and increasing the amount of compensation by \$2,530,734 for a total agreement amount not to exceed \$16,548,144, subject to the appropriation of funds.

## OUTCOME

Council approval of the Second Amendment to the Consultant Agreement with Brown and Caldwell will allow for the incorporation of additional engineering services during construction, startup, commissioning and post construction needed to successfully complete the Digester and Thickener Facilities Upgrade project.

## EXECUTIVE SUMMARY

This amendment will increase the amount of compensation for engineering consultant services by \$2,530,734, for a total agreement amount not to exceed \$16,548,144 to allow for the incorporation of additional engineering services during construction, startup, testing and commissioning. The additional engineering services during construction are required primarily to address unforeseen site conditions and the extended construction schedule. In addition, funds are required to ensure the implementation of the programmatic guidelines for functional and operational testing, training and process performance testing for the complex systems associated with the biosolids facilities. This amendment also extends the term of agreement from June 30, 2020 to December 31, 2021.

## **BACKGROUND**

### *Agreement Background*

On October 8, 2013, City Council (Council) approved a Consultant Agreement (Agreement) with Brown and Caldwell (Consultant), in the amount of \$12,017,526, to provide engineering services for the Digester and Thickener Facilities Upgrade project (Project) at the San José-Santa Clara Regional Wastewater Facility (RWF). The original term was through December 31, 2019. The scope of the agreement included providing engineering services for the design, support during bidding, engineering services during construction, start up and commissioning and post-construction engineering services.

Brown and Caldwell were selected for their nationally recognized expertise in the anaerobic digestion and biosolids processing field. As part of their proposal for the Project, they presented the City with an abundance of projects that confirmed their extensive design experience. The Consultant is also the designer for similar upgrades for East Bay Municipal Utilities District (EBMUD), City and County of San Francisco Public Utilities Commission (SFPUC), New York City Department of Environmental Protection (NYCDEP), and the City of St. Petersburg, Florida, among other large similar projects.

Council approved an amendment to the Agreement on February 24, 2015 that incorporated additional scope into the project, increased the total contract amount to \$14,017,410 and extended the term through June 30, 2020.

### *Construction Background and Status*

On May 24, 2016, Council awarded a construction contract for the Project to the low bidder, Walsh Construction Company II, LLC (Contractor), in the amount of \$107,925,000, with a 12.5% construction contingency in the amount of \$13,490,625, and a duration of 790 work days. The Project includes retrofitting existing digesters and sludge thickeners at the RWF, as well as the addition of new ancillary buildings and an external elevated digester gas pipe network. Construction was originally scheduled to be completed by September 27, 2019.

Since contract award, Council has approved two construction contingency increases to address several unforeseen issues that have significantly delayed the schedule and increased the cost of construction.

On June 5, 2017, while reviewing the lower seismic cable design/installation plan with the Contractor, the Consultant identified a potential issue with the seismic design for the digester tanks. As explained by City staff, the Consultant's original design failed to account for certain forces that would act on the facility under a seismic event, and therefore, failed to comply with applicable seismic building codes.

On July 15, 2017, the Consultant notified the City by telephone confirming the existence of a “seismic uplift design issue” that would require a significant re-design to construction work already underway.

On July 31, 2017, the City issued a stop-work notice to the Contractor due to the design changes that were going to affect the construction of the digester tanks. On or about October 5, 2017, shortly after the design team began working on a revised seismic design, polychlorinated biphenyls (“PCB”) were discovered in portions of the Project site and improvements. The Consultant continued to work on the seismic re-design during the City’s concurrent PCB mitigation work. The Consultant provided the seismic re-design in April 2018.

On November 28, 2017<sup>1</sup>, Council approved a \$15,000,000 increase to the construction contingency to address a multitude of unknown conditions, utility relocations, major repairs to a deteriorated 78-inch primary effluent pipe and junction structure, and delays to the Project caused by changes in regulatory conditions. These conditions resulted in an increase in the contract time by 140 working days. At the time of this increase, staff informed Council that a future contingency increase would be needed to resolve two other issues recently identified, the need for re-design of some structural components to fully address seismic requirements and the finding of hazardous materials (PCBs) on site.

On June 12, 2018<sup>2</sup>, Council approved a \$25,000,000 increase to the construction contingency to address the seismic requirements and hazardous materials issue, along with associated delay costs. Since the approval of the second contingency, the Contractor has reduced delays for these two issues to 133 days.

The City and the Consultant have negotiated a settlement of the City’s costs incurred as a result of the seismic re-design, which is pending Council approval. The Settlement Agreement includes direct damages and delay costs accumulated to date and also accounts for unknown future costs. The total settlement amount of \$2,750,000 will include a cash payment to the City of \$2,500,000 and \$250,000 of future in-kind services from Brown and Caldwell.

The future in-kind services will be used on this Digester Project for Engineering Services During Construction and startup. The scope of these in-kind services is included in this Second Amendment. The Second Amendment states that the City is not required to pay for the first \$250,000 worth of services rendered following the date of the Second Amendment. Staff will track the in-kind services credit amounts at the program level using letters signed by the Consultant and the City. The Consultant’s invoices also will reflect the credits for the in-kind services. Once the in-kind services credit has been depleted, the City will begin paying for services rendered under the Agreement after the date of the Second Amendment.

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<sup>1</sup> November 2, 2017: <https://sanjose.legistar.com/View.ashx?M=F&ID=5559728&GUID=BDD6C135-14B4-4B6A-A0CA-78A6A65300CF>

<sup>2</sup> May 31, 2018: <https://sanjose.legistar.com/View.ashx?M=F&ID=6280063&GUID=6AD06EDA-AAB8-4E0B-89CF-4E76E4D8A2D9>

The project is currently delayed by a total of 273 working days, resulting from the aforementioned numerous unforeseen and unexpected conditions, with a new completion date of November 2020. As of December 2019, construction was 85% complete.

#### Agreement Status

The severity of construction issues encountered in the last two years has adversely impacted the original budget for the engineering services during construction (ESDC) that are being provided by the Consultant. As is typical for ESDC services, the budget made assumptions about the number of requests for information (RFIs), submittals, and design clarifications that would need to be addressed during construction, as well as the number of site visits that would be required. The budget also made assumptions about the time each item would take.

Project records show that the Consultant's effort, through November 2019, has significantly exceeded the original Agreement's assumptions, as summarized in Table 1:

Table 1: Summary of Engineering Services Efforts

Item	Assumptions in Agreement	Project Records (as of January 2020)
Number of Requests for Information (RFIs)	602	993
Number of Submittals	538	1627
Number of Design Clarifications	83	240
Number of Site Visits	60	105

The volume of work for some of the items, such as submittals and design clarifications, has already exceeded the original assumptions established in the contract by 50 to 300%.

The original budget set for ESDC in the Agreement was \$2,547,687. After the start of construction, and under the authority of the Environmental Services Department (ESD) Director, an additional \$1,285,868 was reallocated from unused tasks for a total of \$3,833,555. Between 2016 and 2017 a total of \$925,619 was reallocated to cover additional geotechnical investigations necessary to address differing site conditions and the condition assessment and design for the deteriorated 78-inch pipe and junction structure uncovered during construction. The remaining reallocated funds were authorized in 2018 to cover additional RFIs and change orders related to the hazardous materials mitigation and the contract requirements. The balance remaining for ESDC at this point is \$ 160,639, most of which is reserved for record drawings to be provided at the end of construction. It must be noted that all the previous phases of work under the agreement, were complete within the negotiated tasks budget. A summary of the budgets remaining for each task is presented in Table 2 below.

Table 2: Engineering Services Agreement Summary

Type of Services	Agreement Amount (Including Reallocations)	Paid to Date	Balance in Agreement
Project Administration	\$ 879,647	\$ 880,791	\$ -1,143
Preliminary Engineering	\$ 947,887	\$ 947,816	\$ 71
Design Development	\$ 6,442,004	\$ 6,441,764	\$ 240
Support Services during Bid & Construction	\$ 3,833,555	\$ 3,672,916	\$ 160,639
Commissioning and Training Services	\$ 214,453	\$ 102,215	\$ 112,238
Post Construction	\$ 381,193	\$ 18,024	\$ 363,169
Optional Services	\$ 1,318,671	\$ 1,315,904	\$ 2,767
<b>TOTAL</b>	<b>\$ 14,017,410</b>	<b>\$ 13,379,430</b>	<b>\$ 637,980</b>

The term of the Agreement was from October 8, 2013 to June 30, 2020, based on the original project assumptions of 33 calendar months of construction and start-up, and 12 months for post-construction operations and training and engineering support. The Contractor's current schedule estimate for construction completion is November 2020, bringing the overall construction phase duration to 52 calendar months, almost 19 months longer than originally assumed.

## **ANALYSIS**

The Second Amendment to the Agreement will add \$2,530,734 in compensation for the additional professional services. Of this amount, \$1,905,137 is allocated to replenish and supplement the budget for engineering services during construction. There are a number of factors that have contributed to the depletion of the funds for the project. As an example, the efforts related to the 78-inch SES pipe and juncture structure replacement alone consumed \$925,619 that was supposed to cover the original scope of the contract. An additional \$525,597 is being requested for additional startup and commissioning support needed for the new facilities and \$100,000 for additional project management. The most significant factors that have contributed to the exhaustion of funds are discussed in the next sections.

### **78-inch Settled Sewage Pipe and Juncture Structure Replacement**

Upon discovery of severely deteriorated 78-inch pipe and junction structure, in November 2016, a large engineering effort was required to address the replacement of the damaged pipeline and junction structure. The Consultant completed emergency pipe condition assessment and



inspection activities and conducted a detailed alternatives evaluation to identify a preferred solution. The pipe and junction in need of replacement handles half of the plant flows so a re-route system was required to allow for its replacement. Flows are lowest in the summer, so design of the new structures and bypass system had to be ready, and the construction sequence had to be planned so that the work would be completed during the dry months (April to October) of 2018. The Consultant provided a detailed design for the replacement of the 78-inch pipe and junction structure, including the analysis for a large temporary pumped diversion, and reviewed contractor submittals to prepare for the execution of this emergency repair. The construction cost for the new structures and bypass system was approximately \$15 million which had been added to the project budget in the First Contingency increase. However, the cost for all the engineering services associated with these elements were covered with funds from the original agreement even though this emergency bypass and pipe replacement were not part of the original scope.

#### Additional Engineering Services During Construction

Outside of the seismic redesign issue, there are several factors that have been encountered during construction that significantly expanded the scope of the consultant's ESDC services, including:

1. Unforeseen Buried Utility Conflicts

Despite extensive pot-holing efforts completed during design and the use of existing utility records, many subsurface utility interferences were identified during construction, requiring re-design to relocate existing utilities and resolve the conflicts. Just as an example, 43 out of 144 elevated pipe rack column foundations had to be moved or redesigned. The earliest facilities and the RWF were installed in 1956, prior to the age of computerized asset management systems and utility location mapping. Electrical utilities have been especially problematic as their small size made their locations even less likely to have been recorded on RWF maps.

2. Existing Condition of Major Equipment and Ancillary Support Systems

The Contractor, in performing the defined contract work uncovered existing plant systems and components in various states of disrepair, including dissolved air floatation tanks (DAFT), DAFT electrical rooms, digester vessel foundations, piping supports, and electric distribution components. Specifically, when it came time to connect new utilities into the electrical equipment in the basement of the existing sludge control building, workers found corrosion and deteriorated equipment. It took additional condition assessments to determine what portions needed replacement or repair and extra engineering design to determine how to meet current codes and industry best practices, while keeping some older equipment in service and connecting it to new. Parts could not always be replaced in-kind because the same equipment was no longer manufactured.

3. Design Changes Due to Cogeneration Facility

Design for the Project was completed in 2015 and included digester gas and hot water supply and return systems that were necessary for the Cogeneration Facility project

which was in the conceptual design phase. During the detailed design phase of the Cogeneration Facility, major configuration changes were required to address functionality and cost considerations. These changes required the City to request a re-evaluation and ultimately design changes to the heat recovery system included in the Project. This effort required significant engineering efforts and coordination by the Consultant.

4. Implementation and Updates of Programmatic Design Standards

The design phase of the Project was completed prior to the publishing of some Programmatic Design Guidelines, prepared by the City, including the Automation Master Plan. To standardize all new projects, the City issued the Contractor several change orders to address the instrumentation and controls systems. These included uninterrupted power sources (UPSs), Distributed Control System (DCS) panels, and the network switch architecture. These changes required additional effort in the form of RFI responses, submittal reviews, and preparation of design change memoranda.

5. Geotechnical Engineering Field Services

Based on the results of the preliminary investigations, it was assumed that certain soil conditions were present throughout the site. However, when excavation began, different conditions were found which required the designers to visit the site, make additional soil investigations and redesign footings and foundations. The Consultant provided geotechnical engineers to visit the site and perform the inspections in specific areas where conditions encountered during construction were different from the contract documents.

6. Extended Construction Time

The Construction contract has extended 15 months beyond the timeframe anticipated in the amended Agreement. This extension will require additional day-to-day coordination, meeting attendance, and site visits by the Consultant.

Additional Startup and Commissioning support

Additional funding of \$525,597 is also required to support the start-up and commissioning of the new facilities. The original contract included \$214,453 for Start-up and Commissioning Services. The scope included in the 2013 Agreement was negotiated prior to development of the programmatic guidelines which established the coordination, functional operational and performance testing necessary for all projects within the CIP program prior to substantial completion and transition to Plant operation. The project is implementing two new processes at the Facility, the co-thickening of primary sludge and a new Thermophilic Phased Anaerobic Digestion Process (TPAD) for the digesters. These process changes require extensive training, testing and trouble-shooting to ensure the process performance requirements established by the design are achieved.

*Analysis and Benchmarking*

The new increased budget for ESDC of \$5,738,692 represents approximately 4.3% of the current project construction cost of \$135 million. This amount is the original construction contract amount of \$107 million, plus the \$15 million for 78-inch settled sewage pipe and juncture structure replacement described earlier in this memo, plus \$13 million for the necessary seismic improvements. This \$13 million represents the \$25 million contingency increase in May 2018, minus \$10 million for delays and \$2 million for PCB remediation, neither of which are counted toward actual construction costs. This percentage is below the industry standard range of 5% to 10%, according to the American Council of Engineering Companies.

Staff has also benchmarked ESDC costs for other wastewater agencies that have completed similar projects in the last few years. Because the projects present variations in overall scope, site conditions, construction completion date and geographical location, a direct comparison cannot be readily made. However, ESDC numbers and percentages of construction cost can be used as a key indicator. The comparison completed by staff showed that other agencies had ESDC costs in the range of 4.5% to 10%, based on percentage of construction cost. Wastewater agencies included EBMUD, Orange County Sanitation District (OCSD) and Sacramento Echo Water Program, which all have projects in the same range of magnitude as ours.

All of the expenditures under prior tasks in this contract stayed within the budgeted amounts. Only the ESDC have exceeded the budgeted amounts.

**CONCLUSION**

This Second Amendment will increase the amount of compensation for engineering consultant services by \$2,530,734, for a total agreement amount not to exceed \$16,548,144 and will ensure that the Consultant is compensated for services through the end of the Project. Incorporation of these services does not affect the construction cost of the Project. All additional construction costs have been addressed by increases to the construction contingency previously approved by Council.

Staff recommends proceeding with the additional engineering services during construction, startup and commissioning and believes that the associated fee increase is reasonable to address the unanticipated challenges encountered and the complexity of the Project.

This amendment also extends the term of agreement to reflect the additional construction timeline. With this change, the Project schedule now assumes 52 months for construction and start-up and 12 months for post substantial completion. The new end date for the agreement is December 31, 2021.

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

No additional follow-up action with City Council is expected at this time. Monthly progress reports, on this and other Wastewater Facility capital projects, will be submitted to TPAC and posted on the City's website.

### **CLIMATE SMART SAN JOSE**

The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals.

### **POLICY ALTERNATIVES**

**Alternative #1:** Direct staff to complete the additional scope of work utilizing in-house forces.

**Pros:** None

**Cons:** Staff does not have the capacity or expertise to complete the required work. Responses to Contractor requests for information, submittals and change orders requires in-depth wastewater design and process engineering expertise spanning multiple engineering disciplines (e.g., civil, structural, mechanical, electrical, process, instrumentation and controls). Use of City Staff will result in additional delays to the project, impacting cost and schedule, and subsequently creating delays to other pending capital projects. In addition, if City staff assumed design responsibility, it would release the consultant from their liability as designer-of-record.

**Reason for not recommending:** The complexity of this Project requires the use of specialized expertise and experience in the anaerobic digestion and biosolids processing field.

### **PUBLIC OUTREACH**

This memorandum will be posted on the City's Council Agenda website for the February 25, 2020 City Council meeting.

### **COORDINATION**

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

**COMMISSION RECOMMENDATION/INPUT**

This memorandum is scheduled to be heard at the February 13, 2020 TPAC meeting.

**FISCAL/POLICY ALIGNMENT**

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

**COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: \$2,530,734

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

	<u>Current</u> <u>Contract</u>	<u>Add</u>	<u>2<sup>nd</sup></u> <u>Amendment</u>
Project Administration	879,647	100,000	979,647
Preliminary Engineering	947,887	-	947,887
Design Development	6,442,004	-	6,442,004
Support Services during Bid & Construction	3,833,555	1,905,137	5,738,692
Commissioning & Training Services	214,453	525,597	740,050
Post Construction	381,193		381,193
Optional Services	1,318,671	-	1,318,671
<b>TOTAL AGREEMENT AMOUNT</b>	<b>14,017,410</b>	<b>2,530,734</b>	<b>16,548,144</b>

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

4. FISCAL IMPACT: Increase of this contract compensation will have no impact on operating or maintenance costs.

5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Allocations Technical Memorandum (Carollo Engineers, March 2016), the cost for the Project is allocated 40 percent to biochemical oxygen demand (BOD) and 60 percent to total suspended solids (TSS).



HONORABLE MAYOR AND CITY COUNCIL

February 4, 2020

**Subject: Second Amendment to Consultant Agreement for the Digester & Thickener Facilities Upgrade Project**

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### **BUDGET REFERENCE**

The table below identifies the fund and appropriations to fund the agreement.

Fund #	Appn # / RC#	Appn. Name	Current Appn. Total	Amount for Contract	2019-20 Adopted Capital Budget Page	Last Budget Action (Date, Ord. #)
512	4127 / 144943	Digester and Thickener Facilities Upgrade	\$9,284,000	\$2,530,734	V-128	10/22/2019 Ord. No. 30325

### **CEQA**

San José-Santa Clara Regional Wastewater Facility Digester and Thickener Facilities Upgrade Project Mitigated Negative Declaration, File No. PP15-055.

/s/

KERRIE ROMANOW

Director

Environmental Services Department

For questions, please contact Mariana Chavez-Vazquez, Deputy Director, Environmental Services Department, at (408) 635-4008.



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**SUBJECT:** OFFER TO PURCHASE  
POND A-18

**FROM:** Kerrie Romanow  
Kim Walesh

**DATE:** February 6, 2020

Approved

Date

2/6/2020

## RECOMMENDATION

Adopt a resolution authorizing the City Manager to negotiate and execute an agreement with Valley Water for the sale of Pond A-18 and related easements to support the Shoreline Levee Project consistent with the criteria directed by the Treatment Plant Advisory Committee (TPAC) and Council in October of 2015 and 2017.

## OUTCOME

Providing the City Manager the authority to negotiate and execute an agreement with Valley Water for the sale of Pond A-18 and related easements to Valley Water would facilitate the Shoreline Levee Project and enable staff to provide a formal response by rejecting or countering Valley Water's prior offer of \$13,778,000 by February 14, 2020.

## BACKGROUND

The Shoreline Levee Project is a congressionally authorized project sponsored by the U.S. Army Corps of Engineers (USACE) together with Valley Water (formerly Santa Clara Valley Water District) and the California State Coastal Conservancy (CSCC) to manage flood risk and ecosystem restoration along South San Francisco Bay. Within the South Bay region, the Alviso area was identified as the first phase, because of the high potential for flood damage, including possible damage to homes, businesses, and the Regional Wastewater Facility (RWF). Phase One of the Shoreline Levee Study proposes to build a new flood-protection levee along existing salt pond levee alignments, including the RWF's Pond A18 (Project). An estimated \$177.2M in funding has been authorized by Congress for construction of the Project with a completion date of January 2023.

The City of San Jose is the administering agency for the RWF and co-owner of the RWF with the City of Santa Clara. As the administering agency for the RWF, the City is responsible for the acquisition and disposition of real and personal property which the City determines to be

reasonably necessary for treatment plant purposes. The RWF purchased Pond A-18 on October 17, 2005 for \$13,500,000.

In 2015 and 2017 respectively, TPAC recommended and the City Council directed that staff begin negotiations with Valley Water for the transfer of Pond A-18 to facilitate the construction of the Shoreline Levee Project consistent with the criteria set forth below:

1. Need for coordination and concurrence of the City of Santa Clara, as co-owner of the RWF.
2. Confirmation that the value of the shoreline levee to the RWF is equivalent to fair market value of the proposed property.
3. Transfer of property to the Valley Water to be triggered upon award of the design contract by U.S. Army Corps of Engineers. However, if construction was unable to commence by January 1, 2021, Valley Water would need to pay the RWF the fair market value of Pond A18.
4. Inclusion of provisions that the levee crossing of Artesian Slough would not interfere with the RWF's current operation and preserve the RWF's current ability to discharge into the Bay as permitted under the National Pollutant Discharge Elimination System permit.
5. If construction of the levee required investment in capital or operational costs to RWF sooner than otherwise expected, the Shoreline Levee Project would equitably share the burden of those costs.
6. Consideration of the RWF's capital expenditures for the repair of both gate structures on the pond that have occurred as a result of the delays on the levee project.
7. Finalization of the levee alignment and confirmation that any costs associated with a change in alignment will be borne by the Shoreline Levee Project.
8. Resolution of the RWF's Waste Discharge Requirement for the management of water quality in Pond A18. This regulatory obligation should not be the RWF's after the property is transferred, but the Water Board has indicated that this is not an automatic action that happens concurrent to title transfer.

The City sought to initiate the transfer of Pond A-18 with Valley Water in 2017, but Valley Water declined to begin negotiations at that time. In the interim, the RWF incurred approximately \$2,000,000 to repair the North and South Gate of Pond A-18.

## **ANALYSIS**

The City received an offer from Valley Water on November 22, 2019 and certain easements for \$13,778,000. The parties have been in negotiation regarding price and terms of the transfer. The offer is based on the following breakdown:

**Offer Price**

Pond A-18	\$13,725,000
Ingress/egress easement (1.13 acres)	\$6,300
Ingress/egress easement (4.23 acres)	\$23,500
Flood protection levee easement (1.21 acres)	\$16,800
Temporary work area easement (2.63 acres)	\$6,400

Offer total for Pond A-18 and related easements: \$13,778,000

City staff retained Ron Garland of Garland & Salmon and Terry S. Larson of Smith & Associates to conduct reviews of Valley Water's appraisal of Pond A-18 and appraisal of related easements by Matt Watson of Carneghi-Nakasako & Associates. Mr. Garland indicated Valley Water's offer amount for Pond A-18 "is very conservative and barely reaches what I see as the bottom end of the credible range of market value opinions". The offer didn't account for the RWF's cost of North and South gate repairs in the appraisal report. Staff reviewed the same appraisal and found that Mr. Watson removed the two best comparable sales, those of wetlands located in San Jose, with the rationale that the buyer (Valley Water) "has powers of eminent domain." Staff disagrees with Valley Water's interpretation of the law and recommends including the comparable transactions to base the valuation. These sales support the high end of the value range and weighting these sales would indicate a higher value for the property close to \$20,000,000, as opposed to the appraised \$13,725,000.

Mr. Larson reviewed Valley Water's appraisal of the easements and agreed with Valley Water's appraisal by Carneghi-Nakasako & Associates amount of \$53,000 as the market value of the easements. However, staff and Valley Water have not confirmed the final easements necessary for truck route and construction, and the final easements could impact price.

City staff have communicated to all parties during various meetings that there are cost impacts to the City of San Jose as a result of this project. Working within the abovementioned negotiating terms approved by TPAC and Council, these costs should be considered and included in the overall transaction as these costs would not be realized if it were not for the project. In August 2019, the Regional Water Quality Control Board issued an Order to expedite a phased cleanup of the RWF's Legacy Lagoons to meet the Shoreline Project timeline to transfer a portion of clean lagoons to Valley Water. The total cleanup cost is not budgeted and is estimated at \$41M (Phase 1: \$6.7M, Phase 2: \$34.3M). In addition, with the Shoreline Levee, the current gravity-flow RWF effluent will need to be pumped through or over the levee. The current project estimate for a final effluent pump station is \$50M.

The estimated cost impacts to the City, accruing as a result of the Shoreline project, are as follows:

	<b>Cost</b>
Amount to cover cost of betterments to prepare levee for Regional Water Facility to connect to the final effluent pump station project (estimated)	\$3,000,000
Additional cost (inefficiencies) of 2-phased cleanup of Legacy Lagoons	\$1,700,000
Perimeter security fence and gates to isolate Regional Water Facility (estimated)	\$1,000,000
Compensatory mitigation (estimated split)	\$1,000,000
Estimated total for capital impacts:	\$6,700,000

Valley Water and other parties have acknowledged that there will be immense cost impacts to the City due to this project, but have not yet indicated a willingness to contribute non-federal funds or other in-kind consideration and reductions to mitigate the total financial impact on the RWF.

City staff sent a response letter dated December 20, 2019 to Valley Water's offer, indicating that staff has completed review of the appraisal reports and believe the asset was undervalued. Staff believe the best comparable sales, those of Bay wetlands in the City of San Jose, indicate a value in the high-end of the credible range, or roughly \$25,000,000, which includes approximately \$2,000,000 for the North and South gate repairs and the estimated total for capital impacts.

## **CONCLUSION**

City staff understand and recognize the importance of the Shoreline Levee Project. Staff are moving to transfer the property to support the required timeline and expect the appropriate funding participation of all parties.

## **EVALUATION AND FOLLOW-UP**

Staff will provide a formal response rejecting or countering Valley Water's offer by February 14, 2020 and advise that participating entities should return to City a total of \$25,000,000, for the fair value of Pond A-18 and related easements and to reasonably compensate the San Jose/Santa Clara RWF for operational and capital impacts resulting from the Shoreline Levee Project. Staff have submitted a memo to request to declare Pond A-18 as surplus to the needs of the City at the



HONORABLE MAYOR AND CITY COUNCIL

February 6, 2020

**Subject: Offer to Purchase Pond A-18**

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February 25, 2020 public council session, in accordance with California's Surplus Land Act (Cal. Gov. Code §54220 et seq.), which is required prior to completing any transfer of the property. Staff will also work with Santa Clara City Council to gain approval for transfer of Pond A-18.

### **CLIMATE SMART SAN JOSE**

The recommendation in this memo aligns with one or more Climate Smart San José energy, water, or mobility goals.

### **PUBLIC OUTREACH**

This memorandum will be posted on the City's Council Agenda website for the February 25, 2020 City Council meeting.

### **COORDINATION**

This memorandum was prepared in coordination with the City Attorney's Office, Office of Economic Development and the Environmental Services Department and City Manager's Budget Office.

### **COMMISSION RECOMMENDATION/INPUT**

This memorandum is scheduled to be heard at the February 13, 2020 TPAC meeting.

### **CEQA**

PP20-006, Determination of Consistency with the San José/Santa Clara Water Pollution Control Plant Master Plan Final EIR (Resolution no. 76858)

/s/

KERRIE ROMANOW  
Director, Environmental Services

/s/

KIM WALES  
Director, Office of Economic Development

For questions, please contact Jennifer Voccola-Brown, Interim Sustainability and Compliance Division Manager, at (408) 975-2594 or Nanci Klein, Assistant Director of Economic Development, Director Real Estate, at 408-535-8184.

**CITY COUNCIL ACTION REQUEST**

<b>Department(s):</b> Office of Economic Development and Environmental Services	<b>CEQA: PP20-006,</b> Determination of Consistency with the San José/Santa Clara Water Pollution Control Plant Master Plan Final EIR (Resolution no. 76858)	<b>Coordination:</b> City Attorney's Office, City Manager's Office, Environmental Services Department	<b>Dept. Approval:</b> Kim Walesh, Kerrie Romanow
<b>Council District(s):</b> District 4			<b>CMO Approval:</b>

**SUBJECT: Declare Pond A-18 as Surplus Property**

**RECOMMENDATION:**

Adopt a resolution declaring the City's Pond A-18 property (Assessor's Parcel Numbers 015-32-042 and 015-32-043) as exempt surplus land under Cal. Gov. Code §54221 as the land is surplus to the needs of the City.

**BASIS FOR RECOMMENDATION:**

Initial discussions between the City of San Jose and Valley Water regarding the transfer of Pond A-18 began in 2015 when the City was notified of Valley Water's interest in acquiring the property. In October 2015, preliminary terms for a Memorandum of Understanding (MOU) were approved by TPAC and City Council. City staff were directed to per the October 20, 2015 Council meeting to enter discussions with Valley Water regarding the Shoreline Levee Project and the transfer of Pond A-18. During the October 2, 2017 Transportation & Environment Committee meeting, Staff included a memo to update the committee on the status of the transfer. Valley Water indicated it cannot begin negotiations on the transfer of real estate until the USACE issues a "take letter" for the property, meaning that the property has been identified by the USACE as critical to the construction of the project.

In May 2019, City staff were notified of Valley Water's interest in potentially acquiring Pond A-18 to support the South San Francisco Bay Shoreline Project. The U.S. Army Corps of Engineers (USACE), Valley Water, and the State Coastal Conservancy have received funding from the Federal government to identify and improve flood infrastructures along the South San Francisco Bay Shoreline. In planning and determining phases for the South San Francisco Bay Shoreline Project, the three organizations have identified Pond A-18 as a property in "Economic Impact Area 11" (Exhibit A) that are necessary components to completing Phase 1 of their flood infrastructure improvement project. The San José Santa Clara Regional Wastewater Facility, owned by the cities of San José and Santa Clara, manages the Pond-A18 property. The City of San José acts as a representative on behalf of the Regional Wastewater Facility (RWF).

The intended use of Pond A-18 in cooperation of this project shall be for wetlands and environmental mitigation. City staff has had several meetings with the U.S. Army Corps of Engineers, Valley Water, the Water Board, and the State Coastal Conservancy in October 2019 and December 2019 to discuss and better understand the impacts that the Shoreline Project will have on the area and the cost impacts to the City. Staff indicated that the City is committed to working with Valley Water and other stakeholders to see the Shoreline Project completed on time but will need to understand better the overall impacts this project will have on the City before proceeding.

Per Council and TPAC's direction in 2015 and 2017, negotiations for the transfer of Pond A-18 must include:

1. Need for coordination and concurrence of the City of Santa Clara, as co-owner of the RWF.
2. Confirmation that the value of the shoreline levee to the RWF is equivalent to fair market value of the proposed property.

3. Transfer of property to the Valley Water to be triggered upon award of the design contract by U.S. Army Corps of Engineers. However, if construction was unable to commence by January 1, 2021, Valley Water would need to pay the RWF the fair market value of Pond A18.
4. Inclusion of provisions that the levee crossing of Artesian Slough would not interfere with the RWF's current operation and preserve the RWF's current ability to discharge into the Bay as permitted under the National Pollutant Discharge Elimination System permit.
5. If construction of the levee required investment in capital or operational costs to RWF sooner than otherwise expected, the Shoreline Levee Project would equitably share the burden of those costs.
6. Consideration of the RWF's capital expenditures for the repair of both gate structures on the pond that have occurred as a result of the delays on the levee project.
7. Finalization of the levee alignment and confirmation that any costs associated with a change in alignment will be borne by the Shoreline Levee Project.
8. Resolution of the RWF's Waste Discharge Requirement for the management of water quality in Pond A18. This regulatory obligation should not be the RWF's after the property is transferred, but the Water Board has indicated that this is not an automatic action that happens concurrent to title transfer.

On December 20, 2019, as an effort to avoid any potential future delays to the project and to comply with California's Surplus Land Act (Cal. Gov. Code §54220 et seq.), City staff issued letters to notify appropriate parties of the City's intention to declare Pond A-18 as surplus to the needs of the City and allow them the opportunity to notify the City of their interest in acquiring the property. Under Cal Gov. Code §54221(f)(1)(D), a local agency that transfers land to another government local agency for that agency's use is "exempt surplus land". Here, if the property were to be transferred to another government agency, such as Valley Water, for its governmental use, "exempt surplus land" would be the proper designation required to transfer the land. The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals.

#### **COST AND FUNDING SOURCE:**

This resolution has no fiscal impact. Declaring Pond A-18 as surplus could facilitate a future sale of the property to Valley Water in conjunction with the South San Francisco Bay Shoreline Project and would generate several million dollars in one-time revenue to the RWF. This resolution would not authorize any such sale of the property.

**FOR QUESTIONS CONTACT:** Nanci Klein, Assistant Director, Office of Economic Development, at (408) 535-8184 or Jennifer Brown, Sustainability & Compliance Manager, Environmental Services, at (408) 975-2594.

## Exhibit A

### South San Francisco Bay Shoreline Project Economic Impact Area 11 Real Estate Interests on San Jose – Santa Clara Regional Wastewater Facility Lands Required for Reach 4 and 5 Construction



GIS themes are for illustration and general analysis purposes only and are not accurate to surveying or engineering standards. Information is not guaranteed to be accurate, current, or complete and use of this information is your responsibility.





Aerial View of Subject Property





OFFICE OF COUNTY ASSESSOR — SANTA CLARA COUNTY, CALIFORNIA

BOOK 15 32

ALAMEDA COUNTY

LAURENCE E. STONE — ASSESSOR

1" = 1000'

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FOR DET. MAP 100, 101  
LAWRENCE E. STONE — ASSESSOR  
Cadastral map for assessment purposes only.  
Compiled under R. & T. Code, Sec. 327.  
Effective Roll Year 2019–2020

RESOLUTION NO.

**A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN JOSE DECLARING THE CITY'S POND A-18 PROPERTY (APNs 015-32-042 AND 015-32-043) AS EXEMPT SURPLUS LAND UNDER CAL. GOV'T. CODE §54221 AS THE LAND IS SURPLUS TO THE NEEDS OF THE CITY**

**WHEREAS**, the San José-Santa Clara Regional Wastewater Agency, owned by the cities of San José and Santa Clara, manages the Pond-A18 property, as depicted in Exhibit A of the memorandum to the Council of the City of San José ("City") from Nanci Klein, Assistant Director of Economic Development, and Kerrie Romanow, Director of Environmental Services; and

**WHEREAS**, the City acts as a representative on behalf of the Regional Wastewater Facility; and

**WHEREAS**, the U.S. Army Corps of Engineers, Valley Water, and the State Coastal Conservancy received funding from the federal government to identify and improve flood infrastructures along the South San Francisco Bay Shoreline ("Project"), and subsequently, identified the Pond A-18 property as a necessary component in completing Phase 1 of the Project; and

**WHEREAS**, in May 2019, the City was notified of Valley Water's interest in potentially acquiring Pond A-18 to support the Project; and

**WHEREAS**, in October 2019 and December 2019, City staff met with Valley Water and other stakeholders to discuss and better understand the impacts that the Project will have on the area and the City; and

**WHEREAS**, on December 2019, City staff notified the appropriate parties, in compliance with California's Surplus Land Act, of the City's intention to declare Pond A-18 as surplus to the needs of the City and allow the parties the opportunity to notify the City of their interest in acquiring the property; and

**WHEREAS**, property that is transferred from a local agency to another local, state, or federal agency for that agency's use is designated "exempt surplus land" under Cal. Gov't. Code §54221(f)(1)(D);

**NOW, THEREFORE**, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SAN JOSE THAT:

The City Council hereby declares the City's Pond A-18 property (APNs 015-32-042 and 015-32-043) as exempt surplus land under Cal. Gov't. Code §54221 as the land is surplus to the needs of the City.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2020, by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

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SAM LICCARDO  
Mayor

ATTEST:

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TONI J. TABER, CMC  
City Clerk

December 17, 2019

TO: Treatment Plant Advisory Committee

SJ: Tributary Agencies Estimated Available Plant Capacity - 2019

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 - 2019, has been prepared to satisfy this requirement and to identify each agency's 2019 plant capacity as well as estimated available (unused) capacity.

Sincerely,

  
For 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 - 2019**

**December 2019**



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

**TRIBUTARY AGENCIES' ESTIMATED AVAILABLE PLANT CAPACITY - 2019**

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 2019 Peak Week (5-day average) Flow, and the Remaining Available Capacity for the entire plant and for each individual member for 2019.

**2019 PLANT CAPACITY**

The nominal capacity of the treatment plant during the 2019 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.

**2019 PEAK WEEK FLOW (1)**

The 2019 peak dry weather flow of 109.60 MGD occurred during the week of June 3 - 7. Tables I through IV contain the agencies' flow and loadings for the 2019 peak week which were obtained from the following sources:

- WEST VALLEY SANITATION DISTRICT - Wastewater Flow Report dated 7/26/19, submitted by the District.
- CUPERTINO SANITARY DISTRICT - Metered Flow Reports dated 11/13/19, submitted by the District.
- CITY OF MILPITAS - Metered Flow Reports dated 11/12/19, submitted by the City
- COUNTY SANITATION DISTRICT 2-3 - 2019-2020 Revenue Program.
- BURBANK SANITARY DISTRICT - 2019-2020 Revenue Program.
- CITY of SAN JOSE and CITY of SANTA CLARA - The 2019 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 80.418% for San Jose and 19.582% for Santa Clara.

**2019 ESTIMATED AVAILABLE CAPACITY**

The Agencies' peak week flows and loadings were subtracted from their capacities in the 167 MGD plant to obtain their 2019 available capacities.

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*(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 - 2019**

**FLOW**

<b>Agency</b>		<b>2019 Plant Capacity MGD</b>	<b>2019 Peak Week Flow MGD</b>	<b>Estimated Available Capacity MGD (*)</b>
San Jose	80.418%	106.005	69.809	36.196
Santa Clara	19.582%	25.812	16.999	8.813
Subtotal	100.000%	131.817	86.808	45.009
West Valley Sanitation District	(1) (3)	11.697	9.748	1.949
Cupertino Sanitary District	(4)	7.850	4.420	3.430
City of Milpitas	(3) (4)	14.250	7.400	6.850
County Sanitation District 2-3	(2)	0.986	0.986	0.000
Burbank Sanitary District		0.400	0.238	0.162
Subtotal		35.183	22.792	12.391
Total		167.000	109.600	57.400

(1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2019.

(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 - 2019**

**BOD**

<b>Agency</b>		<b>2019 Plant Capacity KLBS/D</b>	<b>2019 Peak Week Flow KLBS/D</b>	<b>Estimated Available Capacity KLBS/D (*)</b>
San Jose	80.418%	374.645	191.264	183.381
Santa Clara	19.582%	91.227	46.573	44.654
Subtotal	100.000%	465.872	237.837	228.035
West Valley Sanitation District (1) (3)		28.611	20.920	7.691
Cupertino Sanitary District (4)		16.419	12.138	4.281
City of Milpitas (3) (4)		27.249	18.285	8.964
County Sanitation District 2-3 (2)		2.034	2.034	.000
Burbank Sanitary District		.815	.486	.329
Subtotal		75.128	53.863	21.265
<b>Total</b>		<b>541.000</b>	<b>291.700</b>	<b>249.300</b>

- (1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2019.
- (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 - 2019**

**SUSPENDED SOLIDS**

Agency		2019 Plant Capacity KLBS/D	2019 Peak Week Flow KLBS/D	Estimated Available Capacity KLBS/D (*)
San Jose	80.418%	332.668	228.346	104.322
Santa Clara	19.582%	81.005	55.603	25.402
Subtotal	100.000%	413.673	283.949	129.724
West Valley Sanitation District	(1) (3)	27.173	18.695	8.478
Cupertino Sanitary District	(4)	16.299	9.318	6.981
City of Milpitas	(3) (4)	25.990	15.648	10.342
County Sanitation District 2-3	(2)	2.012	2.012	.000
Burbank Sanitary District		.853	.478	.375
Subtotal		72.327	46.151	26.176
Total		486.000	330.100	155.900

(1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2019.

(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 - 2019**

**AMMONIA**

Agency		2019 Plant Capacity KLBS/D	2019 Peak Week Flow KLBS/D	Estimated Available Capacity KLBS/D (*)
San Jose	80.418%	33.032	19.098	13.934
Santa Clara	19.582%	8.044	4.651	3.393
Subtotal	100.000%	41.076	23.749	17.327
West Valley Sanitation District	(1) (3)	2.825	2.422	.403
Cupertino Sanitary District	(4)	2.287	1.039	1.248
City of Milpitas	(3) (4)	2.847	1.686	1.161
County Sanitation District 2-3	(2)	.268	.268	.000
Burbank Sanitary District		.297	.066	.231
Subtotal		8.524	5.481	3.043
Total		49.600	29.230	20.370

(1) Reflects transfer of capacity from West Valley Sanitation District to San Jose/Santa Clara resulting from annexations as of June 2019.

(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 \$1.3 Million for Goods and \$100,000 and \$320,000 for Services**

**DECEMBER 1, 2019 - JANUARY 31, 2020**

	Description of Contract Activity <sup>1</sup>	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original Amount	Start Date	End Date	Additional Amount	Total Amount	Comments
1	OPTICAL EMISSION SPECTROMETER INSTRUMENT SYSTEM	19-20	29555	81573	AGILENT TECHNOLOGIES, INC.	\$119,000	01/30/20	06/30/20			LAB
2	NEW FORD F450 4X4 CREW CAB AND CHASSIS W/UTILITY BODY, CRANE, AND AIR COMPRESSOR	19-20	29587	81549	TOWNE FORD	\$166,018	12/16/19	12/15/20			RSM
3	NEW TAYLOR DUNN 48 VOLT BIGFOOT MODEL B5-540-48-XL	19-20	29707	81587	TOYOTA MATERIAL HANDLING	\$302,682	01/14/20	06/30/20			CARTS: 4X MAINT, 3X OPS, 1X P&A, 1X INSTR, 1X ELEC
4	OEM ENTERPRISE & COOPER BESSEMER ENGINE PARTS & REPAIRS	19-20	29792	58514	GE OIL & GAS COMPRESSION SYSTEMS, LLC.	\$200,000	02/01/20	01/31/21			FY19-20: \$100K; FY20-21: \$100K
5	CONSTRUCTION MANAGEMENT FOR DIGESTER AND THICKENER FACILITIES UPGRADE PROJECT	19-20		AC27745	KENNEDY/JENKS	\$1,839,148	01/01/20	12/31/20		\$1,839,148	SERVICE ORDER #03 (MASTER CONSULTANT AGREEMENT TERM 6/21/16-6/30/24, \$8M)
6	GENERAL ENGINEERING SERVICES FOR FINAL EFFLUENT DISCHARGE ALTERNATIVE STUDY	19-20		AC27586	BROWN AND CALDWELL	\$297,676	01/27/20	08/31/20		\$297,676	SERVICE ORDER #05 (MASTER CONSULTANT AGREEMENT TERM 5/20/16-6/30/34, \$5M)
7	CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES FOR ADVANCED FACILITY CONTROL AND METER REPLACEMENT PHASE I PROJECT (INCREASE COMPENSATION FOR TASKS 1, 4 AND 5)	19-20		AC27745	MNS ENGINEERS, INC.	\$535,212	01/31/20	06/30/21	\$180,000	\$715,212	SERVICE ORDER #02 FIRST AMENDMENT (MASTER CONSULTANT AGREEMENT TERM PREVIOUSLY AMENDED 2/26/19-6/30/24, \$8M)