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

AMENDED MEETING AGENDA/TPAC

4:00 p.m. September 12, 2019 Room 1734

1. ROLL CALL

2. APPROVAL OF MINUTES

A. June 13, 2019

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTOR'S REPORT

A. Director's Report (verbal)
- Monthly Progress Report (May, June, July)

5. AGREEMENTS/ACTION ITEMS

A. Amendments to the Master Consultant Agreements with AECOM Technical Services, Inc., Brown and Caldwell and Black & Veatch Corporation for General Engineering Services at the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

(a) Approve the First Amendment to the Master Agreement with AECOM Technical Services, Inc. for the 7995 - General Engineering Services, extending the term from June 30, 2021 to June 30, 2024 at no additional cost to the City.
(b) Approve the First Amendment to the Master Agreement with Brown and Caldwell for the 7995 - General Engineering Services, extending the term from June 30, 2021 to June 30, 2023 at no additional cost to the City.
(c) Approve the First Amendment to the Master Agreement with Black & Veatch Corporation for the 7995 - General Engineering Services, extending the term from June 30, 2021 to December 31, 2023 at no additional cost to the City.

This item is scheduled for consideration by the City Council on September 24, 2019.

B. Report on Bids and Award of Construction Contract for 8983- Environmental Services Building Lab HVAC Dusting Replacement Project at the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Report on bids and award of contract for the 8983 – Environmental Services Building Lab HVAC Ducting Replacement Project to the sole bidder, Kinetics Mechanical Services, Inc., in the amount of $538,000, and approval of a fifteen percent contingency in the amount of $80,700.

This item is scheduled for consideration by the City Council on September 24, 2019.

C. First Amendment to the Master Agreement with Cornerstone Earth Group for Environmental Support Services

Staff Recommendation:

Approve the First Amendment to the Master Agreement with Cornerstone Earth Group for environmental consulting services, increasing the amount of compensation by $500,000, for a total agreement not to exceed $1,000,000. No extension is being recommended on the term of the agreement, which expires on June 30, 2020.

This item is scheduled for consideration by the City Council on September 24, 2019.

D. Approval of a Design-Build Contract with Walsh Construction Company, LLC for the Digested Sludge Dewatering Facility Project at the San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

1. Adopt a resolution adopting an Addendum to the Environmental Impact Report for the San José-Santa Clara Regional Wastewater Facility in accordance with the California Environmental Quality Act (CEQA), as amended, and adopting a related Mitigation Monitoring and Reporting Program.

2. Approve the design-build contract with Walsh Construction Company, LLC for the Digested Sludge Dewatering Facility at the RWF in an amount not to exceed $7,492,564 for the performance of Preliminary Services under the contract.

3. Approve a design contingency in the amount of $749,256 for City-approved changes to the scope of Preliminary Services.

4. Adopt a resolution authorizing the City Manager or his designee to:

    a. Negotiate and execute separate amendments to the contract to direct Walsh Construction to repair critically deteriorated infrastructure that requires immediate repair, which may be discovered during subsurface investigations, in an amount not to exceed $500,000.

    b. Negotiate and execute separate amendments to the contract to allow Walsh Construction to proceed with discrete portions of the Design-Build Work (referred to as "Early Work Packages") prior to the City's execution of the Definitive Contract Amendment in an amount not to exceed $10,800,000, which amounts will be subject to the base Guaranteed Maximum Price;

    c. Negotiate and execute change orders in excess of $100,000 up to the amount of the approved contingency for changes to the scope of the Preliminary Services and/or Early Work Packages.

This item is scheduled for consideration by the City Council on September 17, 2019.

E. Approval of Citywide Insurance Renewals

Staff Recommendation:

Adopt a resolution authorizing the Director of Finance to:

(a) Select and purchase City property and liability insurance policies for the period October 1, 2019 to October 1, 2020, at a total cost not to exceed $2,250,000, as well as an 18.0% contingency for additional property or assets scheduled, subject to the appropriation of funds with the following insurance carriers:

(1) Factory Mutual Insurance Company for Property Insurance, including Boiler & Machinery and TRIA Coverage;
(2) Beazley Syndicate 2623/623 at Lloyd's for Terrorism Insurance;
(3) Old Republic Insurance Company, for Airport Owners and Operators Liability including War Risks & Extended Perils Coverage (including Excess Automobile and Employers' Liability) and Police Aircraft Hull & Liability including War Risks & Extended Perils Coverage;
(4) QBE Specialty Insurance Company for Secondary Employment Law Enforcement Professional Liability;
(5) Hartford Life and Accident Insurance Company for Accidental Death, Accidental Dismemberment, and Paralysis Policy for the Police Air Support Unit; and

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

(b) Select and purchase additional insurance coverage not-to-exceed $450,000 for the following products:

(1) Up to $15 million in excess property coverage for the flood peril for locations in high and moderate hazard flood zones for the period October 1, 2019, to October 1, 2020, at a cost not to exceed $150,000 subject to the appropriation of funds;
(2) Auto Liability insurance for Airport fleet vehicles including Shuttle Buses; Regional Wastewater Facility fleet vehicles; and Airport Shuttle Bus physical damage for the period October 1, 2019, to October 1, 2020, at a cost not to exceed $120,000 for the Airport and $100,000 for the Regional Wastewater Facility, subject to the appropriation of funds; and
(3) Up to $25 million in Excess Auto Liability insurance for Airport fleet vehicles including Shuttle Buses for the period October 1, 2019, to October 1, 2020, at a cost not to exceed $80,000, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on September 17, 2019.

6. OTHER BUSINESS/CORRESPONDENCE

A. Update on Biosolids Disposition Market Assessment for the San Jose-Santa Clara Regional Wastewater Facility

TO BE HEARD WITH ITEM 5.D..

B. Comment Letter – City of San José SCR, Response to Tentative Order from the City of San Jose, as Administering Agency for the San Jose-Santa Clara Regional Wastewater Facility

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Amendments to the Master Consultant Agreements with Consolidated Engineering Labs, Construction Testing Services, Inc., and Signet Testing Labs, Inc. for Special Inspection and Materials Testing Services for the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve the Amended and Restated Master Consultant Agreements with Consolidated Engineering Laboratories, Construction Testing Services, Inc., and

Signet Testing Labs, Inc. for special inspection and materials testing services to allow for premium pay, reductions in the minimum limits for Professional Liability Errors and Omissions insurance from $5,000,000 to $2,000,000 per claim limit, and revisions to the Schedule of Rates and Charges, with no extensions of the term or increases to the maximum total compensation.

This item was approved by the City Council on June 25, 2019.

8. REPORTS

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

The attached monthly Procurement and Contract Activity Reports summarize 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 **October 10, 2019, at 4:00 p.m.**, City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

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

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

MINUTES OF THE
SAN JOSÉ/SANTA CLARA
TREATMENT PLANT ADVISORY COMMITTEE
San José City Hall, T-1734
Thursday, June 13, 2019 at 4 p.m.

1. ROLL CALL

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

Committee Members: Debi Davis, Lan Diep, John Gatto, Steven Leonardis, Carmen Montano, Kathy Watanabe, Jim Ortbal (4:03p.m.)[i]

2. APPROVAL OF MINUTES

A. May 16, 2019

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

Ayes – 6 (Debi Davis, Diep, Gatto, Leonardis, Montano, Watanabe)
Absent– 3 (Dev Davis, Liccardo, Ortbal)

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTOR'S REPORT

A. Director's Report (verbal)

5. AGREEMENTS/ACTION ITEMS

A. Amendments to the Master Consultant Agreements with Consolidated Engineering Labs, Construction Testing Services, Inc., and Signet Testing Labs,

[i] Committee Member Jim Ortbal was absent for Item No. 1 Roll Call and for Item No. 2 Approval of the Minutes, but he arrived at 4:03 p.m., and was present for the remainder of the meeting.

Inc. for Special Inspection and Materials Testing Services for the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation:

Approve the Amended and Restated Master Consultant Agreements with Consolidated Engineering Laboratories, Construction Testing Services, Inc., and Signet Testing Labs, Inc. for special inspection and materials testing services to allow for premium pay, reductions in the minimum limits for Professional Liability Errors and Omissions insurance from $5,000,000 to $2,000,000 per claim limit, and revisions to the Schedule of Rates and Charges, with no extensions of the term or increases to the maximum total compensation.

This item is scheduled for consideration by the City Council on June 25, 2019.

Assistant Director Napp Fukuda described these Agreements to the Committee and was available for questions.

Committee Member Montano asked whether these companies had been used before and how long they had been used at the Facility.

Assistant Director Fukuda stated that they have been used since the beginning of the program.

Committee Member Montano asked if there had been a bid process.

Assistant Director Fukuda stated that yes there had and they had been chosen for their qualifications.

On a motion made by Committee Member Leonardis and a second by Committee Member Gatto, TPAC recommended approval of this item.

Ayes – 7 (Debi Davis, Diep, Gatto, Leonardis, Montano, Ortbal, Watanabe)
Absent– 2 (Dev Davis, Liccardo)

6. OTHER BUSINESS/CORRESPONDENCE

A. Final Proposer Rankings and Intent to Negotiate the Design-Build Contract for the Digested Sludge Dewatering Facility Project at the San José- Santa Clara Regional Wastewater Facility

Assistant Director Fukuda described this Info Memo to the Committee and was

available for questions.

Vice Chair Debi Davis asked if we had used either of the companies before.

Assistant Director Fukuda replied in the affirmative.

Committee Member Gatto asked if there had been some sort of performance guidelines or requirements within the RFP.

Assistant Director Fukuda answered yes.

Committee Member Gatto asked if there was still an ongoing study for the overall biosolids marketing.

Assistant Director Fukuda answered yes and it was currently in progress.

Committee Member Gatto queried whether this study was a disposition issue or an overall method of handling the biosolids.

Assistant Director Fukuda answered that it was a disposition issue.

Committee Member Gatto asked how the budget was determined, was it a part of the bidding process or was it given to the companies?

Assistant Director Fukuda introduced Interim Deputy Director Marianna Chavez-Vazquez to explain the process.

Interim Deputy Director Chavez-Vazquez described the two-step process: first, request for qualifications that got the top three qualified companies.. Second, the companies submitted proposals for a basic design of what was expected and a scope of services for the preliminary services. This is a preliminary service quote based on the scope that we provided. Interim Deputy Director Chavez-Vazquez stated that the Committee would be getting the estimate of a budget but not a Guarantee Maximum Price yet, which would come to TPAC later once there is a more developed design scope.

Committee Member Gatto asked for clarification on what the actual construction costs will be versus what the first phase preliminary costs

Interim Deputy Director Chavez-Vazquez clarified that the first phase preliminary costs would be nine to ten million dollars of the $125 million total for the project.

Committee Member Gatto asked Director Kerrie Romanow if the funding costs will be staged when the contracts are issued or if the full amount will be due this year.

Director Romanow asked Interim Director Chavez-Vazquez if she remembered how it was budgeted.

Interim Deputy Director Chavez-Vazquez stated that the amount due this year is just the amount for the preliminary services and a couple of early work packages. In the next fiscal year, is the bulk of the construction and therefore the rest of the costs.

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. First Amendment to the Master Agreement with Golder Associates for Environmental Support Services

Staff Recommendation:

Approve the First Amendment to the Master Agreement with Golder Associates for environmental consulting services, increasing the amount of compensation by $500,000, for a total agreement not to exceed $1,000,000. No extension is being recommended on the term of the agreement, which expires on June 30, 2020.

This item was approved by the City Council on May 21, 2019.

B. Agreements with ABB Inc., DBA ABB DE, Inc., for a Distributed Control Unit (DCU) upgrade and ongoing support and maintenance at the San José/Santa Clara Regional Wastewater Facility

Staff Recommendation:

Adopt a resolution authorizing the City Manager to:

a. Negotiate and execute an agreement with ABB Inc., dba ABB DE, Inc., (Wickliffe, OH) to upgrade distributed control units at the San José/Santa Clara Regional Wastewater Facility, including hardware, software, programming, configuration, and related professional services, beginning May 1, 2019 and ending December 31, 2022 for a maximum not-to-exceed compensation of $6,377,000, subject to the appropriation of funds; and

b. Execute the Water Care Enhanced Agreement with ABB Inc., dba ABB DE, Inc. (Wickliffe, OH) and annual purchase orders pursuant to the terms of the Water Care Enhanced Agreement for ongoing support and

maintenance ($233,194 per year) and as-needed parts replacement and repair and rebuilding services (estimated at $500,000-$750,000 per year) for a five-year term beginning May 1, 2019 and ending April 30, 2024 and for a combined compensation not to exceed $3,915,970, subject to the appropriation of funds; and

c. Negotiate and execute amendments and change orders to the agreements as required for unanticipated changes, subject to the appropriations of funds.

This item was approved by the City Council on May 21, 2019.

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

Staff Recommendation:

Accept the annual update on regulatory items related to the San José-Santa Clara Regional Wastewater Facility.

This item was accepted by the T&E Committee on May 6, 2019.

D. Proposed 2020-2024 CIP Budget

Staff Recommendation: TPAC approval of the San José/Santa Clara Regional Wastewater Facility Control Proposed 2020-2024 Capital Improvement Program.

The San José/Santa Clara Regional Wastewater Facility Proposed 2020-2024 Capital Improvement Program is scheduled for Council consideration on June 11, 2019, and for adoption on June 18, 2019.

E. Proposed 2019-2020 O&M Budget

Staff Recommendation: TPAC approval of the San José/Santa Clara Regional Wastewater Facility Control Proposed 2019-2020 Operating Budget.

The San José/Santa Clara Regional Wastewater Facility Proposed 2019-2020 Operating Budget is scheduled for Council consideration on June 11, 2019, and for adoption on June 18, 2019.

Items 7.A, 7.B., 7.C., 7.D., and 7.E. were approved to note and file.
Ayes – 7 (Debi Davis, Diep, Gatto, Leonardis, Montano, Ortbal, Watanabe)

Absent– 2 (Dev Davis, Liccardo)

8. REPORTS

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

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

9. MISCELLANEOUS

A. The next TPAC Meeting is on **August 8, 2019, at 4:00 p.m**., City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

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

Sam Liccardo, Chair

TREATMENT PLANT ADVISORY COMMITTEE

San José-Santa Clara Regional Wastewater Facility

Capital Improvement Program

Monthly Status Report: May 2019

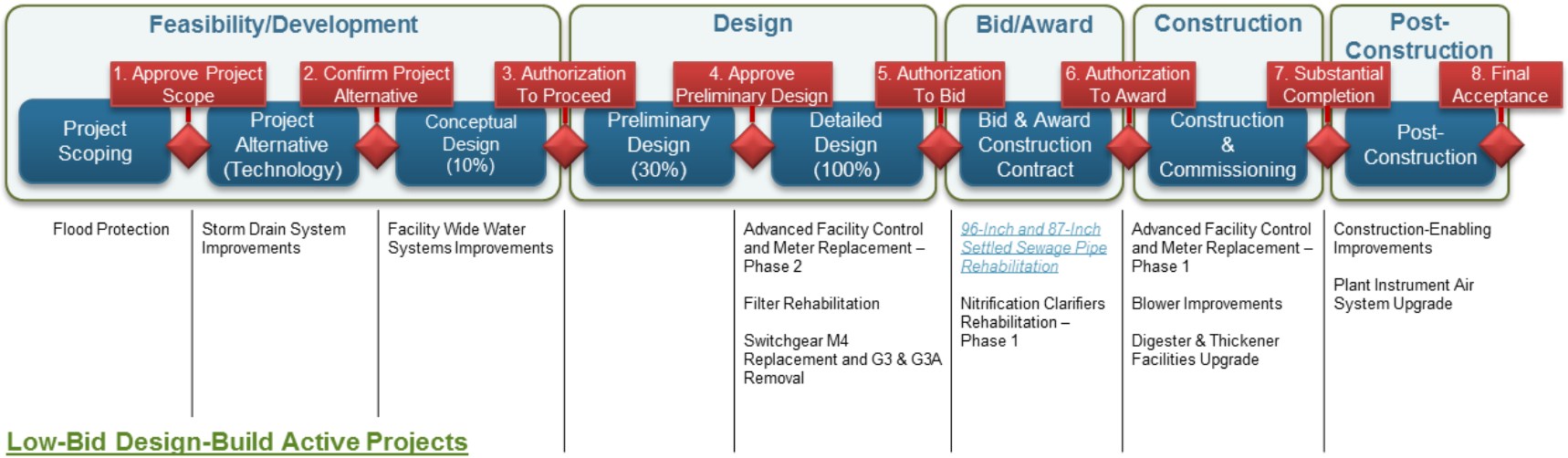
July 5, 2019

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

Report Contents

Project Delivery Models

Design-Bid-Build Active Projects



Flood Protection

Storm Drain System Improvements

Facility Wide Water Systems Improvements

Advanced Facility Control and Meter Replacement – Phase 2

Filter Rehabilitation

Switchgear M4 Replacement and G3 & G3A Removal

96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation

Nitrification Clarifiers Rehabilitation – Phase 1

Advanced Facility Control and Meter Replacement – Phase 1

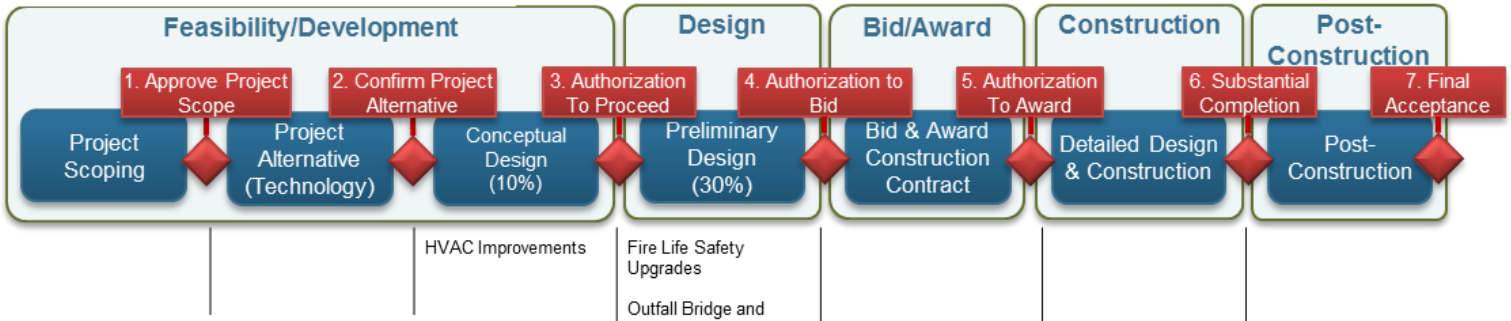
Blower Improvements

Digester & Thickener Facilities Upgrade

Construction-Enabling Improvements

Plant Instrument Air System Upgrade

Low-Bid Design-Build Active Projects

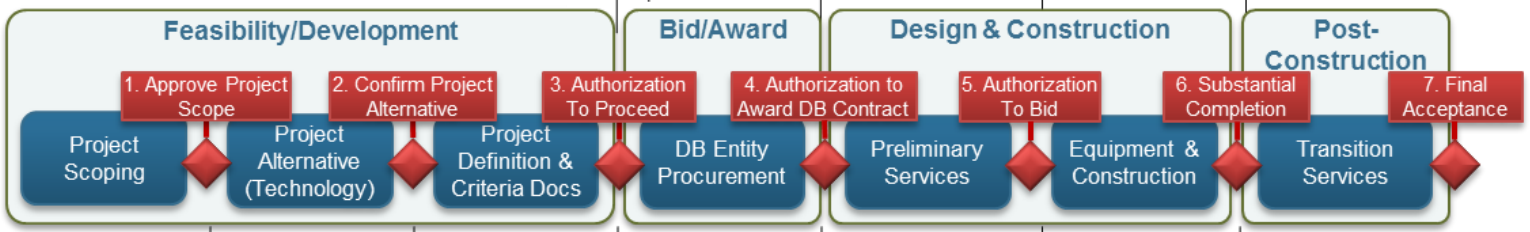


HVAC Improvements

Fire Life Safety Upgrades

Outfall Bridge and Instrumentation Improvements

Progressive Design-Build Active Projects

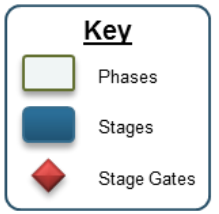


Yard Piping and Road Improvements

Digested Sludge Dewatering Facility

Headworks

Cogeneration Facility



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

Program Summary

May 2019

In May, the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project passed Stage Gate 5: Authorization to Bid of the Project Delivery Model (PDM). The project will repair two critical, large-diameter pipes that convey primary effluent to the secondary treatment process. The project team anticipates advertising the project in July and opening bids in August.

The City advertised the Nitrification Clarifiers Rehabilitation – Phase 1 Project for bid and held two mandatory bid meetings for prequalified contractors. Bids will be opened in early July.

The contractor on the Digester and Thickener Facilities Upgrade Project completed seismic ring beam concrete placement on Digesters 5 and 6, with a single lift remaining to be poured on Digesters 7 and 8. The contractor also completed the final mitigation of polychlorinated biphenyl (PCB)-impacted concrete on Digester 7's internal joints. The recently installed digester gas stainless steel pipeline was successfully pressure tested.

The Cogeneration Facility Project design-builder installed column anchors in the main generator building in preparation for installing the bridge crane columns and rails. Concrete slabs were poured for the gas treatment and cooling towers and chillers with preparation work continuing for the electrical and mechanical building.

Figure 1: Digesters 5-8 showing ring beam construction

On the Blower Improvements Project, the City approved the blower motor submittal and continued reviewing other major electrical submittals for the reduced voltage starters and variable frequency drives. The contractor started demolition of existing structures in two of the three blower buildings.

The contractor for the Advanced Facility Control and Meter Replacement – Phase 1 Project began installing new flowmeters, control valves, and associated piping in the Battery B secondary tunnels and returned activated sludge meter vaults.

On the Headworks Project, the design-builder submitted the 30 percent design and cost estimate, both of which are under review by the project team and owner's advisor. The design-builder also started early subsurface investigation work.

On the Digested Sludge Dewatering Facility Project, the project team concluded negotiations with the top-ranked firm on the preliminary services contract. The project team anticipates TPAC and Council approval to award the design-build contract in September 2019 and expects to return with a not-to-exceed guaranteed maximum price (GMP) in April 2021.

The Filter Rehabilitation Project design consultant commenced 90 percent design. The Yard Piping and Road Improvements Project team and Operations and Maintenance (O&M) began planning for the condition assessment of several pipelines over the summer dry weather period. The Outfall Bridge and Instrumentation Improvements Project design consultant commenced the 30 percent design.

Look Ahead

The following key activities are forecast for June and July 2019:

- The City will open bids for the Nitrification Clarifiers Rehabilitation – Phase 1 Project.
- The City will advertise the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project construction contract.
- The City will advertise the Advanced Facility Control and Meter Replacement – Phase 2 and Filter Rehabilitation projects' contractor pre-qualification documents.
- The CIP will hold stage gates for projects, including:
    - Construction Enabling Improvements Project – Stage Gate 7: Substantial Completion;
    - Storm Drain Systems Improvements Project – Stage Gate 2: Confirm Project Alternative; and
    - Digested Sludge Dewatering Facility – Stage Gate 4: Authorization to Award DB Contract.
    - HVAC Improvements – Stage Gate 2: Confirm Project Alternative
- The Cogeneration Facility Project will install the main generator building roof beams and gantry crane.
- The City will issue Notices of Completion and Acceptance for the Construction-Enabling Improvements and Plant Instrument Air System Upgrade projects.

Program Highlight – Project Delivery Model

As the CIP consists of multiple individual projects, a Project Delivery Model (PDM) is used to ensure that each project is delivered in a consistent manner. The PDM consists of the following key components:

- **Project Phases**: A series of discrete phases laid out in chronological order and aligned with the City budget cost breakdown structure.
- **Project Stages**: Each phase is divided into one or more stages each of which is broken down into individual activities with key deliverables and supporting procedures and templates listed.
- **Governance Framework**: Approval stage gates between each PDM stage that confirm project alignment with CIP mission, vision and objectives.

The PDM was initially developed as part of CIP startup in early 2014 for both design-bid-build (DBB) and low-bid design-build (LBDB) delivery methods. Since that time, the PDM has been updated to add delivery methods for studies and progressive design-build. The program team are currently in the process of issuing the latest version of the PDM which includes updates to terminology and is shown in Figure 2 below. The process for procuring a construction contractor varies depending on the delivery method employed (refer to Monthly Status Report: April 2019).

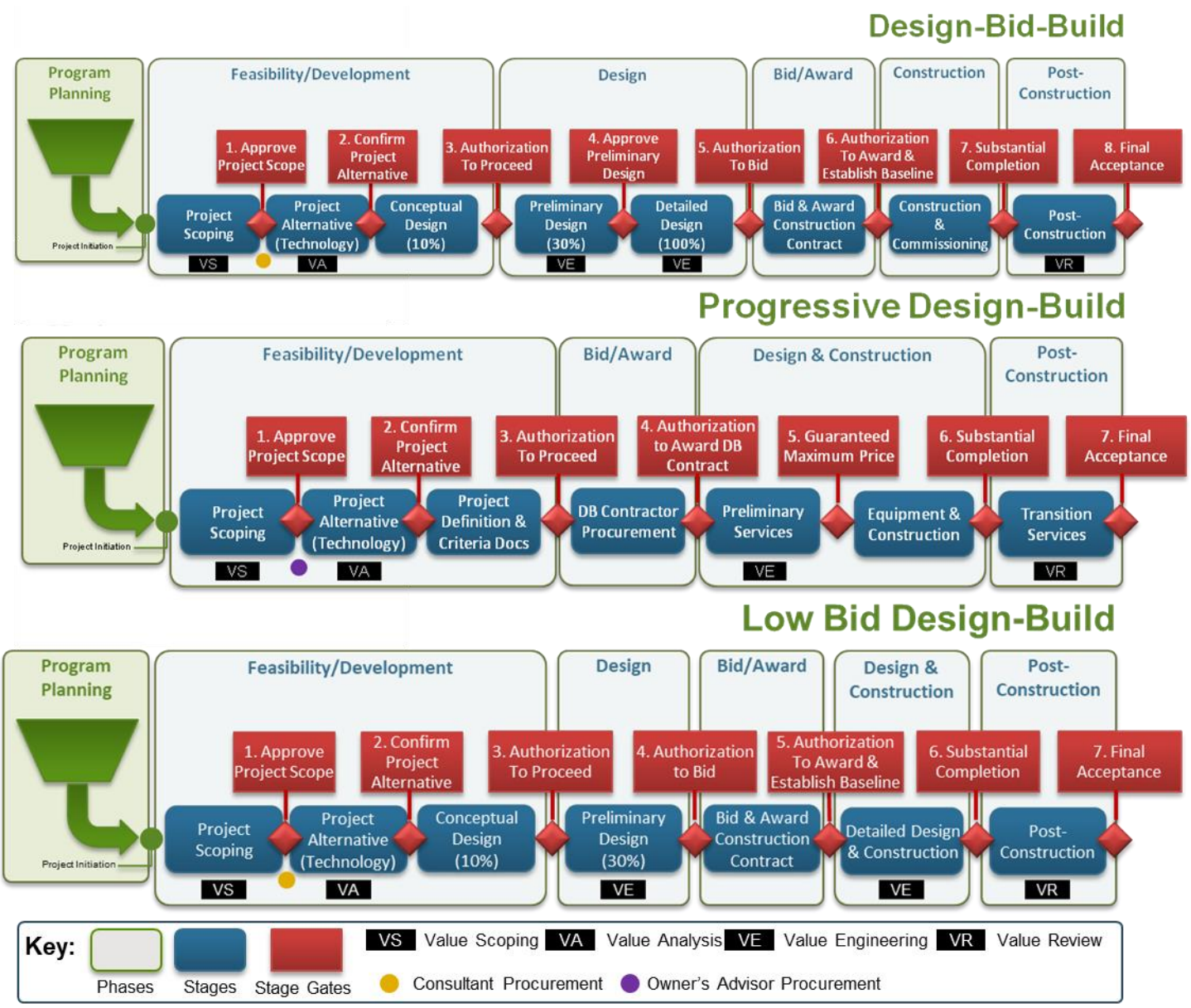


Figure 2: Latest CIP Project Delivery Model

Program Performance Summary

Seven key performance indicators (KPIs) have been established to measure overall CIP success. Each KPI represents a metric that will be monitored on a regular 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 2018-2019

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	90%	94% 16/17[1]	●	↑	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%							
Schedule	90%	33% 1/3	◆	→	33% 1/3	◆	→
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone.[2] Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	100% 2/2	●	→	75% 3/4	▲	→
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget.[2] Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure	$250M[3]	$273M[3]	●	↓	$278M[4]	●	↓
Measurement: CIP FY18-19 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of $358M = $250M. Therefore Fiscal Year End Green: >=$250M; Amber: $197M to $250M; Red: < $197M							
Safety	0	0	●	→	0	●	→
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Environmental	0	0	●	→	0	●	→
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Vacancy Rate[5]	10%	19% 16/83[6]	▲	↓	11% 9/83	▲	→
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

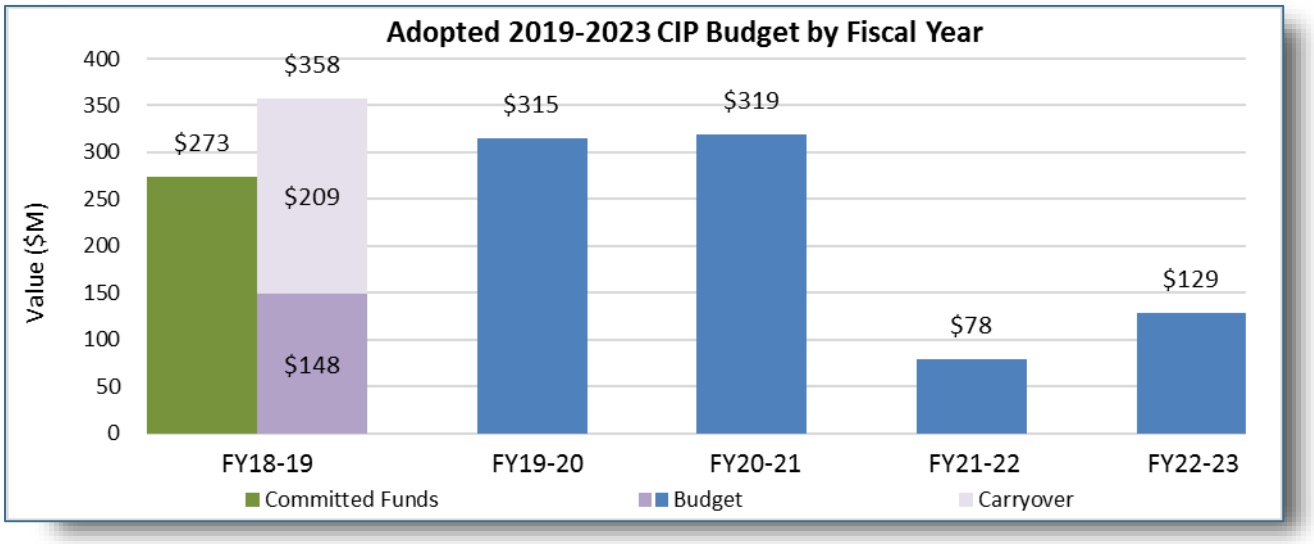
Notes

1. The 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project passed Stage Gate 5: Authorization to Bid.
2. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
3. The expenditure Target and Fiscal Year to Date committed funds decreased due to the liquidation of carryover.
4. The forecasted fiscal year-end expenditure decreased due to revised encumbrance timing and liquidated carryover reducing encumbrances.
5. The Vacancy Rate KPI measures CIP-approved positions (ESD and Public Works) and program management consultant full-time staff.
6. The CIP vacancy count decreased by one.

Program Budget Performance Summary

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

Adopted 2019-2023 CIP Expenditure and Encumbrances



Notes:

Committed Funds: Total of expenditures and encumbrances.

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

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

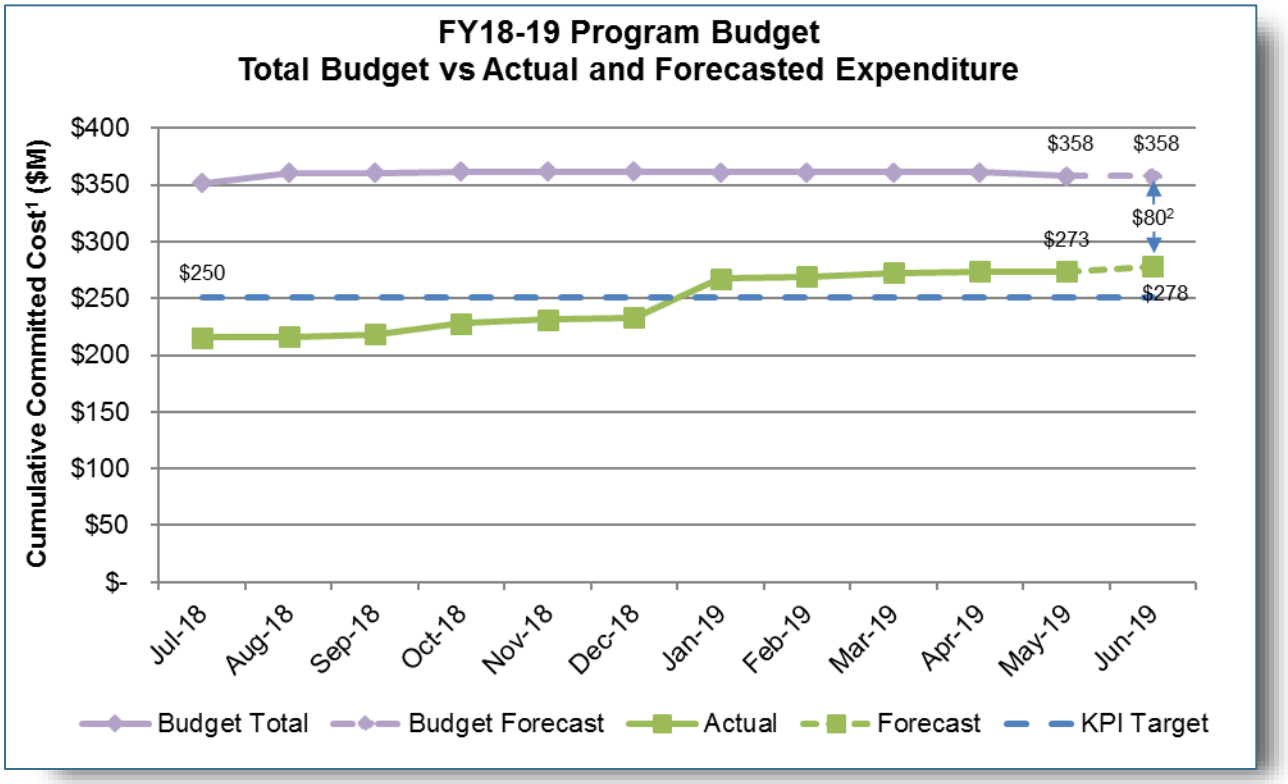
The FY18-19 budget is $185 million, which consists of $131 million in new funds and $54 million in rebudgets. For purposes of this monthly report, the adopted FY18-19 budget is adjusted from $185 million to $148 million due to the exclusion of certain appropriations that are not measured as part of the expenditure KPI. Excluded appropriations include City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Equipment Replacement Reserve; Ending Fund Balance; Public Art; SBWR Extension; State Revolving Fund Loan Repayment; and Urgent and Unscheduled Treatment Plant Rehabilitation. Similar adjustments have been made to the budgets for FY19-20 through FY22-23.

Carryover: Encumbrance balances at the end of the previous fiscal year are automatically carried forward to the current fiscal year as carryover funding to pay invoices for approved construction contracts and consultant agreements. FY18-19 carryover is $209 million.

Budget of $148.3 million and carryover of $209.4 million totals $358 million for FY18-19.

Fiscal Year 2018-2019 Program Budget Performance

The FY18-19 CIP budget is comprised of approximately $148.3 million in new funds, plus encumbered carryover of $209.4 million, for a total of $358 million. This excludes City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Equipment Replacement Reserve; Ending Fund Balance; Public Art; SBWR Extension; State Revolving Fund Loan Repayment; and Urgent and Unscheduled Treatment Plant Rehabilitation items. Overall, the forecasted fiscal year-end committed funds exceed the fiscal year-end target by $25 million.



Notes:

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

Project Performance Summary

There are currently six projects in the construction and post-construction phases and an additional 14 projects in feasibility/development, design, bid and award, or design and construction phases (see PDM, page 2). Projects in the construction phase have established cost and schedule baselines and are monitored using the City's Capital Project Management System (CPMS). Green/red icons are included in the table below to indicate whether these projects are on budget and schedule.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]	Cost Performance[2]	Schedule Performance[2]
1. Construction-Enabling Improvements	Post-Construction	Aug 2018[3]	●	◆
2. Plant Instrument Air System Upgrade	Post-Construction	Nov 2018[3]	◆	◆
3. Cogeneration Facility	Design & Construction	Sep 2020	●	●
4. Digester and Thickener Facilities Upgrade	Construction	Nov 2020	◆	◆
5. Advanced Facility Control & Meter Replacement - Phase 1	Construction	June 2021	●	●
6. Blower Improvements	Construction	Sep 2022	●	●

Key:

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

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 pages 11 and 12.
3. Actual Beneficial Use date.

Project Performance – Pre-Baselined Projects

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

- The City concluded negotiations with the top-ranked design-build firm for preliminary services. The project team anticipates going to Council for contract approval in September 2019.
- Environmental subconsultant ESA completed the project's Environmental Impact Report addendum and submitted it to the City's Planning Department for review.

Digester and Thickener Facilities Upgrade

- Contractor Walsh Construction conducted a successful pressure test of the recently installed digester gas stainless steel pipe from the remote digesters to a new temporary connection near the existing flare.
- Walsh completed the final mitigation of PCB-impacted concrete at the 13 internal joints on digester 7. All PCB-impacted waste materials have been transported off-site to landfills approved for this purpose.
- Walsh excavated the digester load center foundation and completed backfill; installed conduits in the east electrical building; completed T-lock installation and testing at digester 8; completed digester 5 and 6 ring beam concrete placement; and completed concrete pours for the polymer tank and pumps foundations.

Facilities Package

96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation

- Design consultant Black & Veatch (B&V) completed the 100 percent design.
- The project team passed Stage Gate 5: Authorization to Bid. The City will advertise the project for bids in July.

HVAC Improvements

- Design consultant Kennedy/Jenks started a hazardous material survey and completed sampling work. The draft survey report will be submitted to the City in early June.

Storm Drain Improvements

- Design consultant AECOM completed the condition assessment and alternative analysis reports. In July, the project team will seek approval to proceed to conceptual design at Stage Gate 2: Confirm Project Alternative.

Liquids Package

Advanced Facility Control and Meter Replacement – Phase 1

- Contractor Overaa Construction began installing new flowmeters, control valves, and associated piping in the Battery B secondary tunnels and the secondary returned activated sludge meter vaults.

Blowers Improvements

- Contractor Monterey Mechanical Construction (MMC) began demolition of the workshop in Building 40 and the baghouse structures in the tertiary blower building to create space for the new electrical rooms.
- The City facilitated a second partnering session with MMC, design engineer Brown and Caldwell (B&C), CIP, and O&M to discuss project priorities and approaches.

Headworks

- Design builder CH2M Hill Engineers, Inc (CH2M) submitted the 30 percent design submittal and cost estimate, held workshops for the 30 percent electrical and instrumentation design, and presented the 30 percent design to O&M. In June, the project team will complete reviews of the 30 percent design submittal.

Nitrification Clarifiers Rehabilitation – Phase 1

- The City advertised the construction contract for bids and conducted two mandatory pre-bid conferences. The project team anticipates opening bids in July.

Power and Energy Package

Cogeneration Facility

- Design builder CH2M installed column anchors in the main generator building in preparation for the installation of the bridge crane columns and rails and poured the concrete pads for the gas treatment equipment, cooling towers, and chillers.

Explanation of Project Performance Issues

Construction-Enabling Improvements Project

This project was originally scheduled to be substantially complete by mid-February 2017. Due to the extremely wet 2016-17 winter season, contractor Teichert Construction was unable to perform site work on several occasions between October 2016 and April 2017. Teichert was granted extra work days for weather-related delays and for extra work associated with several contract change orders. A new contract completion date of June 8, 2017 was established. However, Teichert's subcontractor, ModSpace, was slow to respond and regularly submitted late and incomplete documentation. This resulted in very late delivery of required portable trailers, which arrived in January 2018, approximately nine months later than the contract completion date.

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

Plant Instrument Air System Upgrade Project

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

Digester and Thickener Facilities Upgrade Project

This project encountered numerous unforeseen conditions at the beginning of construction in 2016, described below. In 2017, design modifications were required to address seismic risks, and discovery of hazardous materials required extensive cleanup. Delays for these conditions have amounted to 273 working days. The original construction completion and Beneficial Use date of September 2019 has been delayed to November 2020.

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

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

The City has negotiated contract change orders for the following issues discovered in 2017 and 2018:

- Digester structural redesign: The design consultant revised the structural drawings to address seismic concerns by enlarging the foundation ring beam at the base of each of the four digesters. The contractor provided a cost proposal associated with this revision and the City issued a final, global change order to cover work activities.
- Distributed control system architectural changes: The design guidelines for the distributed control system were developed after the project plans were completed. Several changes were required for fiber optic cable, electrical wiring, patch panels, converters, communications instrumentation, and emergency power supply. Drawings, color-coding labeling, and process diagrams had to be revised to reflect these changes.

- Fire Department requirements: Fire permit requirements changed after the design was completed. The Fire Marshal required additional alarms and electrical connections. A new electrical fire suppression system was installed to meet current environmental requirements. At one structure, the Fire Marshall requires a full discharge test of the system.
- Structural issues: Designer B&C modified the west electrical building foundation design to avoid an unforeseen conflict and protect the structural integrity of an existing underground tunnel; provided a new design to anchor the pressure flow pipes in the DAFT gallery to the ceiling and floor slabs to avoid conflicts with multiple existing pipes; and redesign structural supports to meet code for the foul air and thickened sludge pipes attached to columns holding up the canopy over the thickened sludge pumps.
- During construction, Walsh discovered the DAFT gallery underslab drains were not functioning properly. The City directed Walsh to replace the drain and pump system; and
- Construction delays required the contractor to pay to extend a warranty on six liquid ring gas compressors.

Testing of soils and concrete for PCBs was completed, and the federal Environmental Protection Agency (EPA) issued a final conditional approval. In compliance with the EPA-approved, risk-based management plan, removal and disposal of all contaminated materials in all four affected digesters and all tunnel joints has been completed. All contaminated soils have been removed and disposed of and most of the impacted concrete has been encased or removed. The last portion of the work will be finished in June 2019. The project team anticipates submittal of final work reports to the EPA in August 2019.

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

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

To minimize further delays, the contractor is executing several tasks concurrently that originally had been planned in series.

Project Profile – DCS Upgrade – Phase 3

The O&M PCS (Process Control and Systems) group oversees the administration, configuration, and maintenance of the RWF's Distributed Control System (DCS). The system is comprised of both software and hardware components including servers, workstations, a graphical user interface, distributed control units (DCUs), field connections known as input/output points, and a fiber optic communications network along with various other ancillary equipment. The DCS is connected to operational equipment that control and monitor electrical, hydraulic, biological, and chemical processes throughout the Facility on a 24/7 basis. The existing System Six DCS, originally installed by ABB Inc. (ABB), has been in service for 29 years and is built on software and hardware that are nearing obsolescence. Replacement hardware is difficult to obtain, and the software does not support many advanced functions that are needed to manage new process equipment.

In 2011, the City determined that a system upgrade, completed in three phases, was necessary:

- Phase 1: DCS hardware and software upgrade
- Phase 2: Infrastructure and configuration updates
- Phase 3: DCU upgrade

Phase 1 was completed by ABB in December 2015. Since that time, staff has been working on Phase 2, along with supplemental services provided by ABB, to update wiring, cabinetry, and input/output modules. Incompatibility between the two DCS systems meant that nearly 8,000 instruments throughout the RWF required rewiring or reconfiguration. In preparation for Phase 3, the PCS group also upgraded the fiber optic and network wiring. This work adds significant capacity for all fiber-dependent facility networks, including closed-circuit television, management information systems, and voice-over internet protocol networks. Phase 2 is still in process and is expected to be completed by September 2020.

Figure 3: Old System Six controller (left) and new Harmony controllers (right)

For the DCS Upgrade - Phase 3 Project (Project), in May 2019, Council adopted a resolution to execute an agreement with ABB to upgrade the 18 existing System Six DCUs with new Harmony DCUs for approximately $6.4 million (See Figure 3).

Figure 4: Operator trends and graphic examples

The project will be completed in nine stages. Each stage addresses the conversion of a specific process area or subsystem and requires the complex conversion of more than 500 computer applications to a new programming language. In addition, the new hardware setup will require configuring data presentation and analysis tools including more than 3,000 display graphics and 1,500 trend graphs (See Figure 4). After this conversion the new controllers will be deployed, input/output modules will be transferred, new networks will be activated, and 17 existing System Six controllers will be removed.

Upgrading each DCU requires a several-month freeze on additions, subtractions, and modifications of field instrumentation. Considering there are several concurrent projects in various stages of development, the freezes could potentially impact CIP projects with instrumentation connected to affected controllers. To mitigate this potential impact., PCS is closely coordinating with other CIP projects on upgrade timing and scheduling.

The project team is planning a project kickoff meeting in July 2019 and expects Beneficial Use in July 2022. At the end of the project, the last of the System Six controllers will be disconnected. The Harmony DCS will take full control of the RWF's automation needs, ready for the next 25 years of innovation, and capable of supporting all new CIP projects and instrumentation technologies.

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

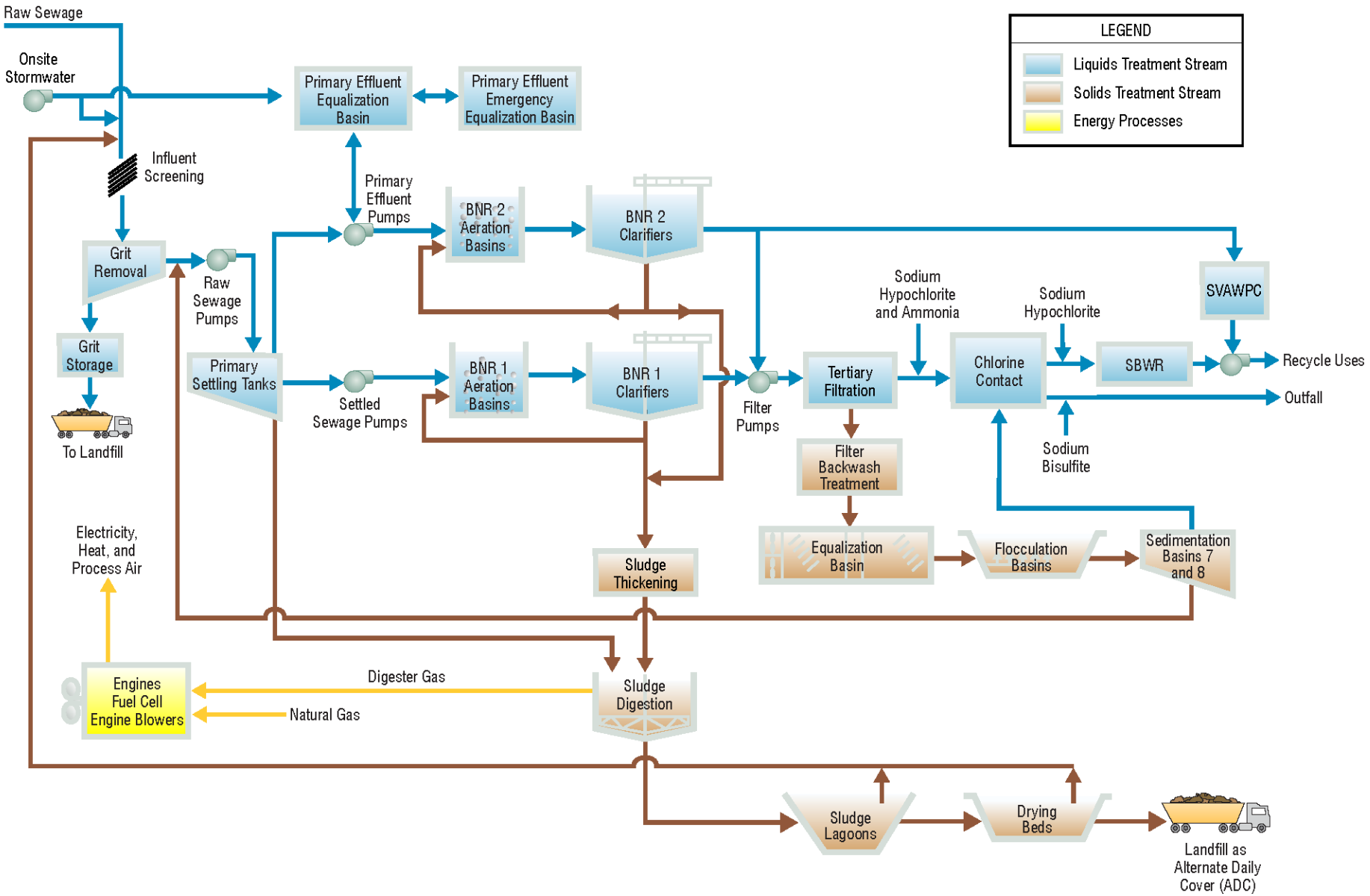


Figure 5 – Current Treatment Process Flow Diagram

Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

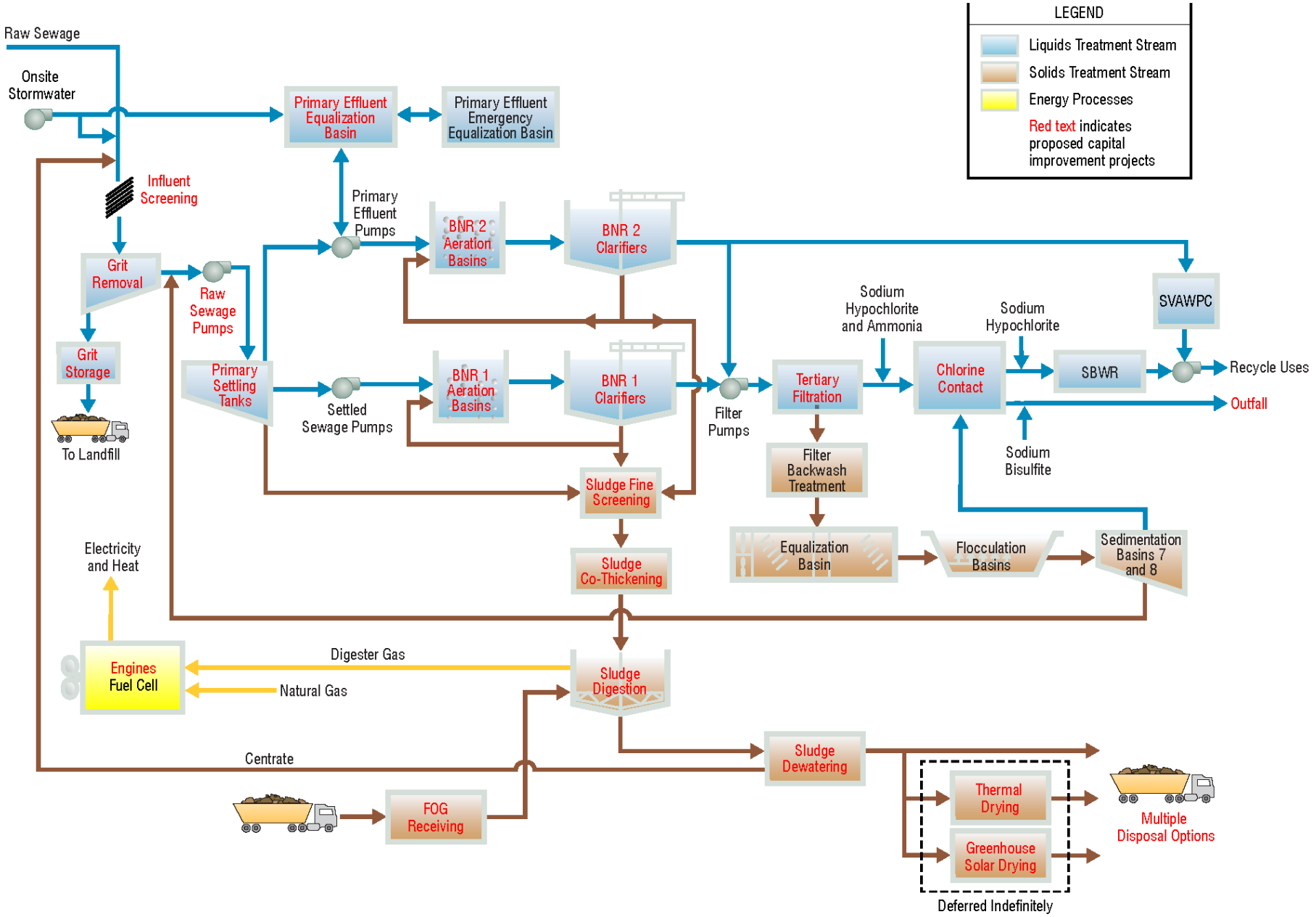


Figure 6 – Proposed Treatment Process Flow Diagram

Active Construction Projects – Aerial Plan

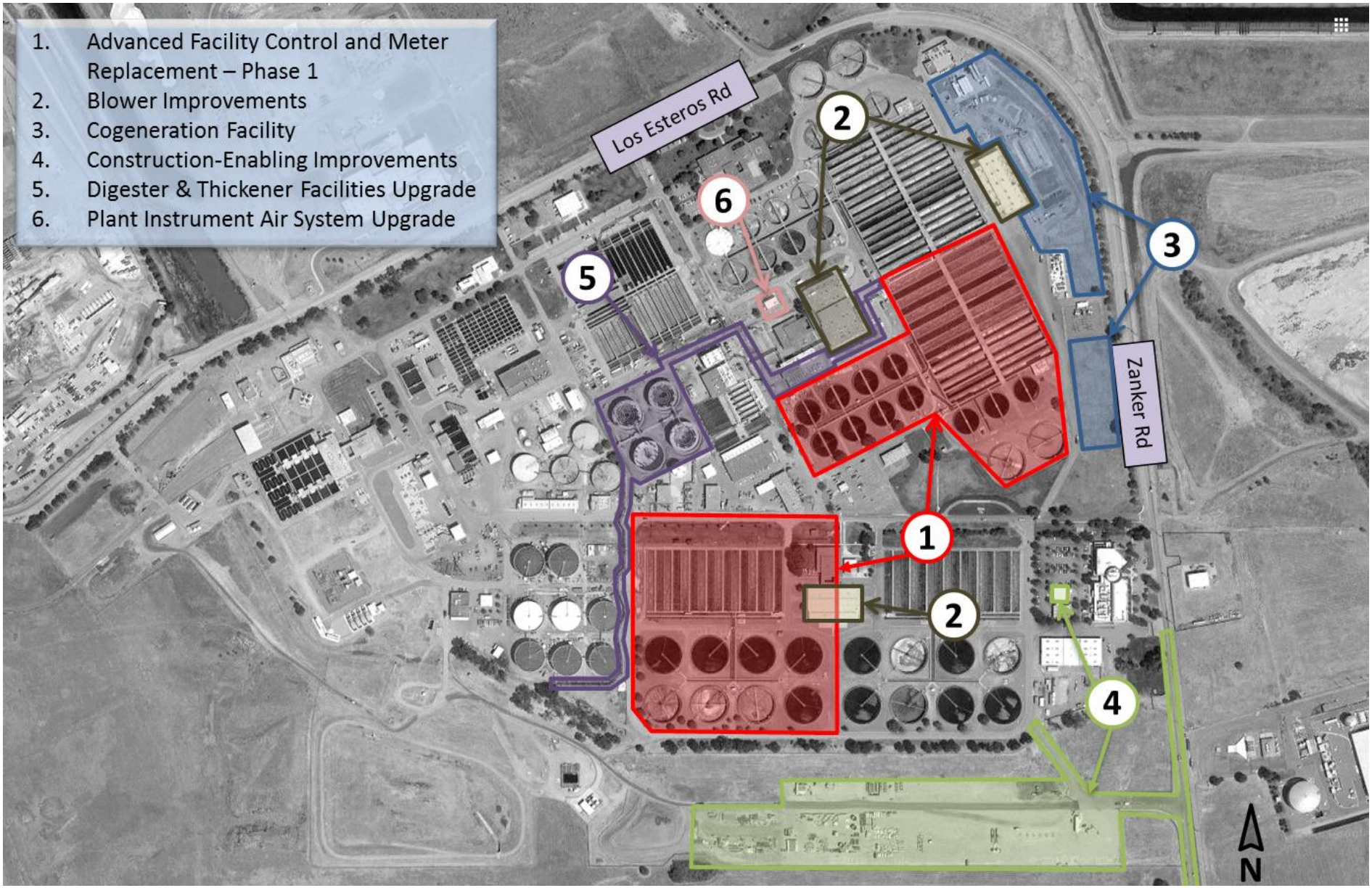


Figure 7: Active Construction Projects

San José-Santa Clara Regional Wastewater Facility

Capital Improvement Program

Monthly Status Report: June 2019

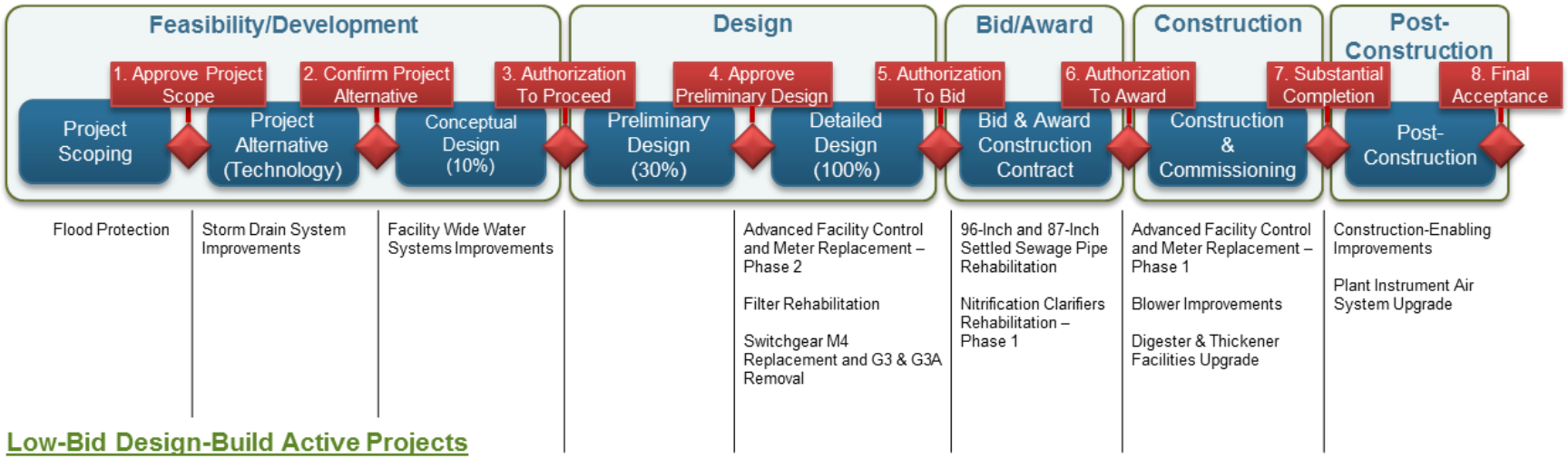
July 5, 2019

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

Report Contents

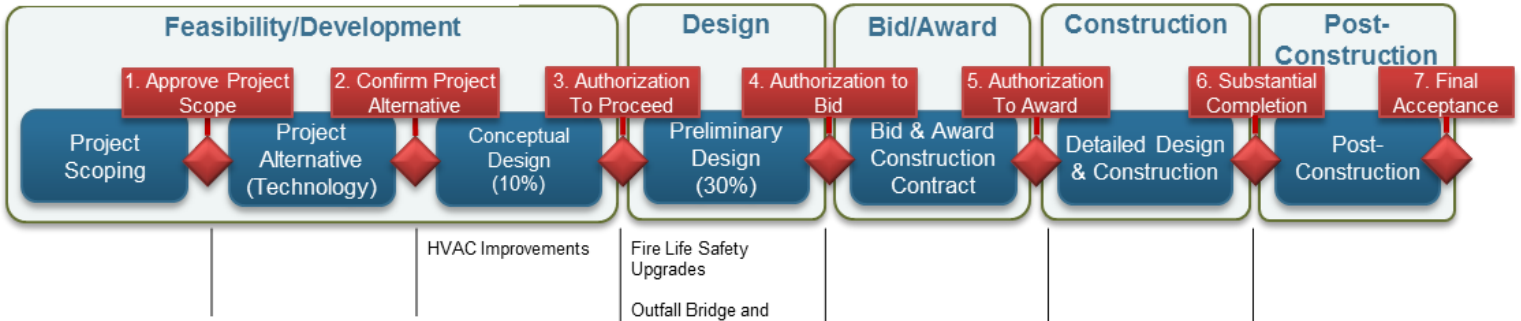
Project Delivery Models

Design-Bid-Build Active Projects



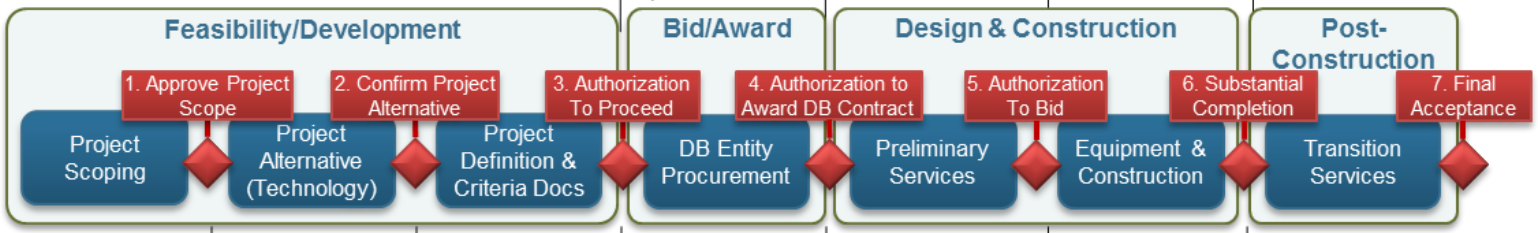
- Flood Protection
- Storm Drain System Improvements
- Facility Wide Water Systems Improvements
- Advanced Facility Control and Meter Replacement – Phase 2
- Filter Rehabilitation
- Switchgear M4 Replacement and G3 & G3A Removal
- 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation
- Nitrification Clarifiers Rehabilitation – Phase 1
- Advanced Facility Control and Meter Replacement – Phase 1
- Blower Improvements
- Digester & Thickener Facilities Upgrade
- Construction-Enabling Improvements
- Plant Instrument Air System Upgrade

Low-Bid Design-Build Active Projects

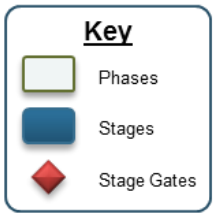


- HVAC Improvements
- Fire Life Safety Upgrades
- Outfall Bridge and Instrumentation Improvements

Progressive Design-Build Active Projects



- Yard Piping and Road Improvements
- Digested Sludge Dewatering Facility
- Headworks
- Cogeneration Facility



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

Program Summary

June 2019

In June, the Construction-Enabling Improvements Project passed Stage Gate 7: Substantial Completion, and the City issued the Notice of Completion and Acceptance (NOCA) for the project. The Digester Gas Compressor Upgrades and Emergency Diesel Generators projects both passed Stage Gate 8: Final Acceptance of the Project Delivery Model (PDM).

The Digester and Thickener Facilities Upgrade Project contractor installed PVC linings in Digesters 7 and 8 to protect the concrete structure from corrosion, and they continued preparation work for the seismic ring beams' final concrete pours. Pipe supports were installed inside Digesters 5 and 6 for transfer return sludge and digester overflow piping. The contractor continued to prepare for commissioning the Dissolved Air Flotation Thickener (DAFT) tanks, which will start in September 2019.

The Cogeneration Facility Project design-builder installed roof trusses and a bridge crane in the main generator building (see Figure 1). The design-builder also poured concrete slabs for the electrical and mechanical building, and installed foundations for the cooling towers and chillers.

Figure 1: Cogeneration Main Generator Building roof truss installation

The Blower Improvements Project contractor completed demolition of existing structures in Building 40 and the Tertiary Blower Building.

The Advanced Facility Control and Meter Replacement – Phase 1 Project contractor installed aeration tank influent flowmeters and new mounting stands for dissolved oxygen (DO) sensors and transmitters, as well as removed existing flowmeters and associated piping.

On the Headworks Project, the project team completed reviewing the 30 percent design submittal. Review of the design-builder's cost model continued, as did the subsurface investigation to verify the location of existing utilities.

The Yard Piping and Road Improvements Project team and Operations and Maintenance (O&M) performed inspections of the 66- and 84-inch settled effluent, 24-inch mixed liquor, and 24- and 54-inch return activated sludge (RAS) pipelines.

The Filter Rehabilitation Project design consultant continued 90 percent design with the submittal due in July. The Switchgear M4 Replacement and G3 & G3A Removal Project team reviewed the 90 percent design submittal. The design consultant for the HVAC Improvements Project completed the hazardous materials survey in RWF buildings.

Look Ahead

The following key activities are forecasted for July and August 2019:

- The City will accept the Plant Instrument Air System Upgrade Project.
- The City will open bids for the Nitrification Clarifiers Rehabilitation – Phase 1 Project.
- The City will advertise the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project and Switchgear M4 Replacement and G3 & G3A Removal Project construction contracts.
- The City will advertise the Advanced Facility Control and Meter Replacement – Phase 2 and Filter Rehabilitation projects' contractor pre-qualification documents.
- Six projects will seek to advance through stage gates including:
    - Storm Drain Systems Improvements Project – Stage Gate 2: Confirm Project Alternative;
    - HVAC Improvements Project – Stage Gate 3: Authorization to Proceed;
    - Digested Sludge Dewatering Facility Project – Stage Gate 4: Authorization to Award DB Contract;
    - Switchgear M4 Replacement and G3 & G3A Removal Project – Stage Gate 5: Authorization to Bid;
    - Fire Life Safety Upgrades Project - Stage Gate 4: Authorization to Bid; and
    - Advanced Facility Control and Meter Replacement - Phase 2 Project - Stage Gate 5: Authorization to Bid.

Program Highlight – Project Initiation

In early 2014, the CIP implemented the PDM approach (see page 2; also see the May 2019 Monthly Status Report Program Highlight for more information) to systematically deliver capital projects at the RWF. Before work begins on any project at the RWF, it must be formally initiated (see Figure 2). The project initiation process ensures staff is working on projects that have defined need, scope, staffing resources, budget, and stakeholder visibility.

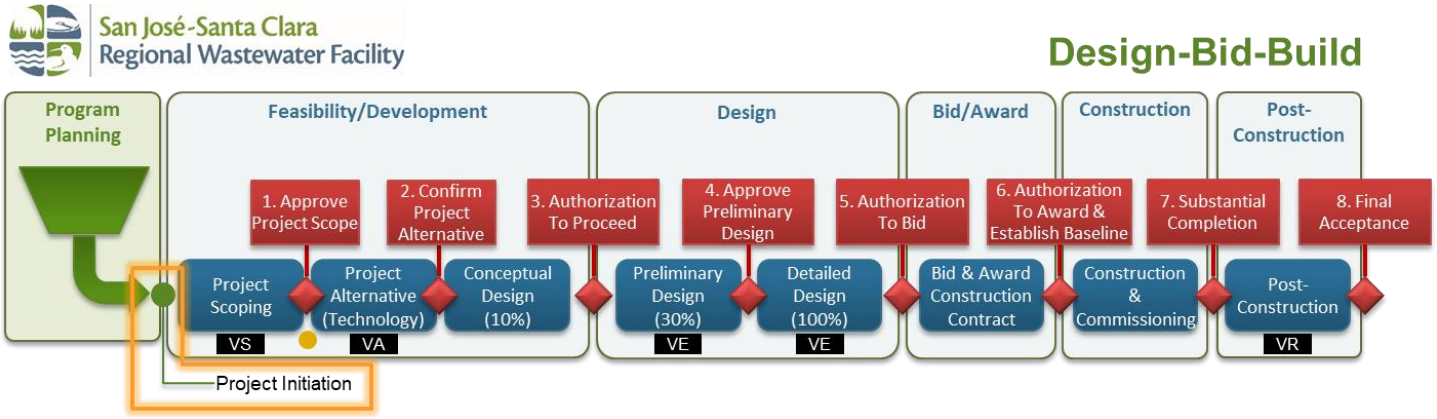


Figure 2: PDM with Project initiation highlighted

Proposed projects originate from either the CIP or O&M and are either planned or unplanned/emergency. The majority of planned CIP projects were identified during the program validation exercise, completed in early 2014, and are started according to current program priorities. A few planned projects are gap projects that were identified subsequent to validation. Planned CIP projects are initiated based on CIP project prioritization, resource constraints, and budget availability. Planned O&M projects are scheduled as facilities reach the end of their known useful life. Once in a long while, an unplanned/emergency CIP or O&M project is needed to repair or replace equipment or infrastructure at the RWF.

Appropriate staff complete the project initiation form, which summarizes the proposed project's key elements, including:

- Project name;
- Project scope, highlighting any variation of scope, schedule, or cost from the validation project summary, if applicable;
- Project urgency and if CIP or O&M will deliver the project;
- Proposed project resources, including project manager, project engineer, O&M support, environmental team lead, and other resources as needed;
- Project schedule, including major milestones;
- Project budget including a high level summary of the estimated total project cost, proposed budget appropriation(s), and current fiscal year budget;
- Project classification defined in terms of total project cost and complexity, which results in an overall project classification of high, medium or low. This information will be used to define the recommended project manager experience level and the stage gate, schedule, and risk management requirements;
- Preliminary environmental permitting expectations;
- Impacts on treatment processes and other facilities; and
- Any other pertinent considerations.

After the project initiation form is completed, it is agendized and discussed at the monthly RWF CIP/O&M Coordination Meeting. Attendees include ESD Assistant Director; CIP, O&M and Public Works Deputy Directors; and the CIP and O&M Division Managers. If there is consensus to inititate the project, the identified project manager will begin moving the project through the project scoping stage of the PDM. The project will also be formally set up in various program control tools, to allow proper tracking and management of budget and schedule. For CIP projects, a project team site will be created on the program's collaborative SharePoint site to facilitate document management.

The project initiation process serves as a tool to collect and organize the project details needed to facilitate effective CIP or O&M project delivery. This process ensures all stakeholders are aware of the project so the needed resources and budget are available and the program is able to successfully complete the project. The process also allows CIP and O&M leadership the opportunity to express any initial concerns and vote on whether to move ahead with the project before the project officially begins.

Program Performance Summary

Seven key performance indicators (KPIs) have been established to measure overall CIP success. Each KPI represents a metric that will be monitored on a regular 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 2018-2019

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	90%	95% 19/20 [1]	●	↑	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%							
Schedule	90%	33% 1/3	◆	→	33% 1/3	◆	→
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone.[2] Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	100% 3/3 [3]	●	→	100% 3/3 [4]	●	↑
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget.[2] Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure	$250M	$277M	●	↑	$277M[5]	●	↓
Measurement: CIP FY18-19 committed costs. Target: Committed cost meets or exceeds 70% of planned Budget. 70% of $358M = $250M. Therefore Fiscal Year End Green: >=$250M; Amber: $197M to $250M; Red: < $197M							
Safety	0	0	●	→	0	●	→
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Environmental	0	0	●	→	0	●	→
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Vacancy Rate[6]	10%	17% 14/83 [7]	▲	↓	17% 14/83 [8]	▲	↑
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

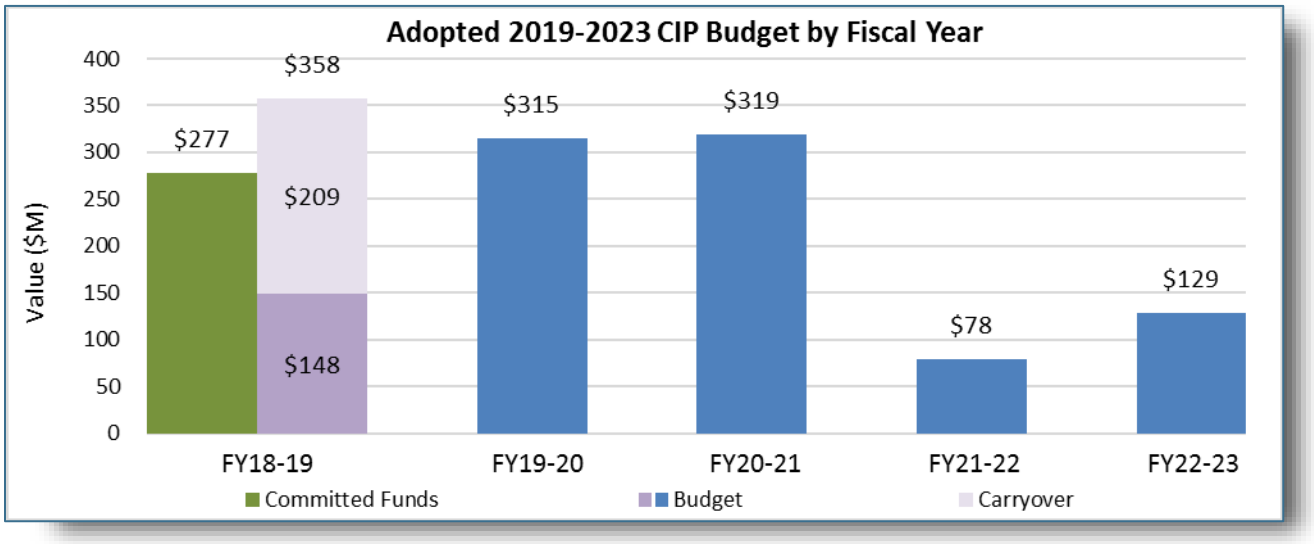
Notes

1. The Construction-Enabling Improvements Project passed Stage Gate 7: Substantial Completion and the Emergency Diesel Generators and Digester Gas Compressor Upgrades projects passed Stage Gate 7: Final Acceptance.
2. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
3. The City accepted the Construction-Enabling Improvements Project with project costs within 1 percent of the baseline value.
4. The Plant Instrument Air System Upgrade Project was originally anticipated to be accepted this fiscal year.
5. The fiscal year-end expenditure KPI decreased due to anticipated Owner Controlled Insurance Program costs coming in under budget.
6. The vacancy rate KPI measures CIP-approved positions (ESD and Public Works) and program management consultant full-time staff.
7. The vacancy count decreased by two.
8. The fiscal year-end Vacancy KPI increased as less positions were filled than originally anticipated.

Program Budget Performance Summary

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

Adopted 2019-2023 CIP Expenditure and Encumbrances



Notes:

Committed Funds: Total of expenditures and encumbrances.

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

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

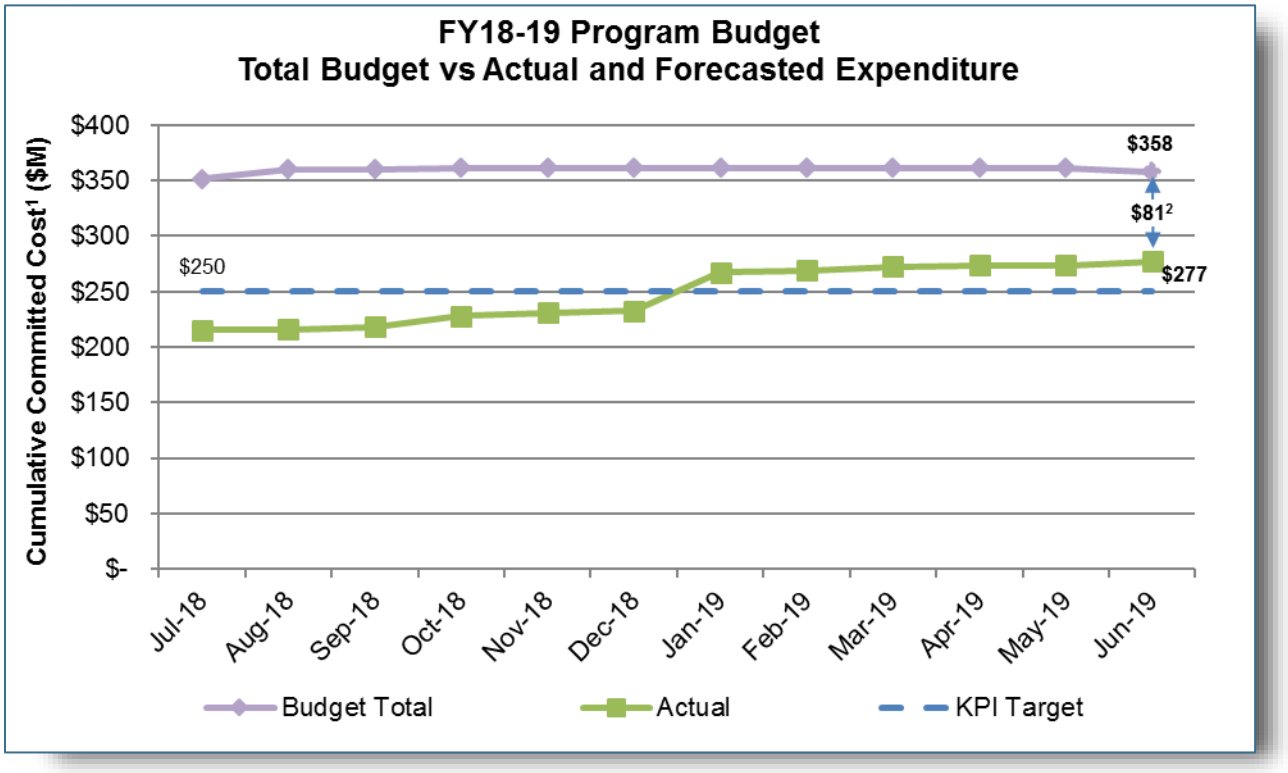
The FY18-19 budget is $185 million, which consists of $131 million in new funds and $54 million in rebudgets. For purposes of this monthly report, the adopted FY18-19 budget is adjusted from $185 million to $148 million due to the exclusion of certain appropriations that are not measured as part of the expenditure KPI. Excluded appropriations include City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Equipment Replacement Reserve; Ending Fund Balance; Public Art; SBWR Extension; State Revolving Fund Loan Repayment; and Urgent and Unscheduled Treatment Plant Rehabilitation. Similar adjustments have been made to the budgets for FY19-20 through FY22-23.

Carryover: Encumbrance balances at the end of the previous fiscal year are automatically carried forward to the current fiscal year as carryover funding to pay invoices for approved construction contracts and consultant agreements. FY18-19 carryover is $209 million.

Budget of $148.3 million and carryover of $209.3 million totals $358 million for FY18-19.

Fiscal Year 2018-2019 Program Budget Performance

The FY18-19 CIP budget is comprised of approximately $148 million in new funds, plus encumbered carryover of $209 million, for a total of $358 million. This excludes City Hall Debt Service Fund; Clean Water Financing Authority Debt Service Payment Fund; Debt Service Repayment for Plant Capital Improvement Projects (San José only debt service); Equipment Replacement Reserve; Ending Fund Balance; Public Art; SBWR Extension; State Revolving Fund Loan Repayment; and Urgent and Unscheduled Treatment Plant Rehabilitation items. Overall, the forecasted fiscal year-end committed funds exceed the fiscal year-end target by $27 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. Two construction contracts are now anticipated to be awarded in FY19-20 instead of FY18-19, based on updated schedules:
        i. Fire Life Safety Upgrades Project
        ii. Switchgear M4 Replacement and G3 & G3A Removal Project
    b. Several consultant service orders were not awarded in FY18-19:
        i. Aeration Tank Rehabilitation Project
        ii. Support Facilities Project
        iii. Tunnel Rehabilitation Project
    c. The Digested Sludge Dewatering Facility Project preliminary services contract and associated owner's advisor services are now anticipated to be awarded in FY19-20.
    d. The Digester and Thickener Facilities Upgrade Project design consultant services amendment is now expected to be executed in FY19-20.
    e. The Blower Improvement Project construction bids came in under budget.
    f. Several other minor encumbrances for consultant services are either lower than budgeted or are anticipated to be awarded in FY19-20.
    g. Several authorized positions remain vacant, resulting in lower personal services expenses than budgeted.
    h. The FY16-17 payment budgeted for the annual Owners Controlled Insurance Program premium covered the period through FY17-18. Funds rebudgeted from FY17-18 will be programmed in FY19-20.

Project Performance Summary

There are currently six projects in the construction and post-construction phases and an additional 14 projects in feasibility/development, design, bid and award, or design and construction phases (see PDM, page 2). Projects in the construction phase have established cost and schedule baselines and are monitored using the City's Capital Project Management System (CPMS). Green/red icons are included in the table below to indicate whether these projects are on budget and schedule.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]	Cost Performance[2]	Schedule Performance[2]
1. Construction-Enabling Improvements	Post-Construction	Aug 2018[3]	●	◆
2. Plant Instrument Air System Upgrade	Post-Construction	Nov 2018[3]	◆	◆
3. Cogeneration Facility	Design & Construction	Sep 2020	●	●
4. Digester and Thickener Facilities Upgrade	Construction	Nov 2020	◆	◆
5. Advanced Facility Control & Meter Replacement - Phase 1	Construction	June 2021	●	●
6. Blower Improvements	Construction	Sep 2022	●	●

Key:

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

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 pages 12 and 13.
3. Actual Beneficial Use date.

Project Performance – Pre-Baselined Projects

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

- The City completed negotiation of the commercial terms for the preliminary services agreement with the selected design-builder.

Digester and Thickener Facilities Upgrade

- Contractor Walsh installed pipe supports inside Digesters 5 and 6 for transfer return sludge and digester overflow piping. On Digesters 7 and 8, Walsh installed PVC lining and continued preparing for the final concrete pours for the seismic ring beams.
- Walsh completed the sludge screening building roof and concrete parapet walls and began installing foul air collection ducts. Walsh also finished placing a large concrete pad for the polymer tanks and hot water supply equipment.
- The contractor began turning and testing the DAFT tanks' collectors and skimmers. The project team began to prepare for DAFT commissioning activities in September and startup procedures in October.
- Walsh finished PCB mitigation efforts. The City will now submit the PCB mitigation completion report to the federal Environmental Protection Agency (EPA).

Facilities Package

96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation

- The City issued the Notice of Determination of Pre-Qualified Contractors identifying three firms qualified to bid the project. The City will advertise the construction contract in July.

Construction-Enabling Improvements

- The City filed the NOCA for the project on June 21, 2019.

HVAC Improvements

- Design consultant Kennedy/Jenks (K/J) submitted the final conceptual design report and opinion of probable construction cost (OPCC). The project team will seek to advance to preliminary design in July 2019.

Storm Drain Improvements

- Design consultant AECOM submitted the final condition assessment reports, alternative analysis report, and OPCC for the project. The project team will seek to proceed to conceptual design in July 2019.

Yard Piping and Road Improvements

- Owner's advisor (OA) Black and Veatch (B&V) completed the condition assessment field work for 24-inch mixed liquor, 24-inch and 54-inch RAS, and 66-inch and 84-inch settled effluent pipelines. B&V will submit the final condition assessment report in September 2019.

Liquids Package

Advanced Facility Control and Meter Replacement – Phase 1

- Contractor Overaa Construction installed aeration tank influent flow meters and associated piping in the Battery B secondary tunnel and new mounting stands for DO sensors and transmitters. Overaa also demolished the existing flow meters and associate piping in the nine RAS meter vaults.

Blowers Improvements

- In Building 40, Contractor Monterey Mechanical Construction (MMC) completed the demolition of the existing workshop walls and began installing new walls.
- In the Tertiary Blower Building, MMC began the demolition of the electrical equipment and bag filters in the air filter rooms to facilitate the conversion of a part of these rooms into a new electrical room.

Headworks

- Design-builder CH2M Hill Engineers, Inc. (CH2M) held two workshops to review the 30 percent design, and the City sent comments on the 30 percent design submittal.
- CH2M submitted a 30 percent cost estimate for City review. OA CDM Smith submitted an independent 30 percent cost estimate to aid the City's review. Next month, CH2M will complete the subsurface investigations, and the project team will conduct the value engineering workshop.

Power and Energy Package

Cogeneration Facility

- The design-builder CH2M poured the slab-on-grade equipment pads and foundations for the cogeneration building electrical and mechanical rooms and cooling towers and chillers.
- CH2M completed all CMU wall work facilitating the removal of scaffolding to allow the installation of exterior piping.
- CH2M installed the cogeneration building roof structural steel and bridge crane and began installing the roof pan-decking.
- CH2M and City representatives witnessed the successful factory acceptance testing of the 5,000 volt switchgear. The switchgear is anticipated to arrive at the RWF in July 2019.

Explanation of Project Performance Issues

Construction-Enabling Improvements Project

This project was originally scheduled to be substantially complete by mid-February 2017. Due to the extremely wet 2016-17 winter season, contractor Teichert Construction was unable to perform site work on several occasions between October 2016 and April 2017. Teichert was granted extra work days for weather-related delays and for extra work associated with several contract change orders. A new contract completion date of June 8, 2017 was established. However, Teichert's subcontractor, ModSpace, was slow to respond and regularly submitted late and incomplete documentation. This resulted in very late delivery of required portable trailers, which arrived in January 2018, approximately nine months later than the contract completion date.

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

Plant Instrument Air System Upgrade Project

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

Digester and Thickener Facilities Upgrade Project

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

The City has negotiated contract change orders for the unforeseen conditions discovered in 2016 and described below:

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

The City has negotiated contract change orders for the following issues discovered in 2017 and 2018:

- Digester structural redesign: The design consultant revised the structural drawings to address seismic concerns by enlarging the foundation ring beam at the base of each of the four digesters. The contractor provided a cost proposal associated with this revision and the City issued a final, global change order to cover work activities.
- Distributed control system architectural changes: The design guidelines for the distributed control system were developed after the project plans were completed. Several changes were required for fiber optic cable, electrical wiring,

patch panels, converters, communications instrumentation, and emergency power supply. Drawings, color-coding labeling, and process diagrams had to be revised to reflect these changes.

- Fire Department requirements: Fire permit requirements changed after the design was completed. The Fire Marshal required additional alarms and electrical connections. A new electrical fire suppression system was installed to meet current environmental requirements. At one structure, the Fire Marshall requires a full discharge test of the system.
- Structural issues: Designer B&C modified the west electrical building foundation design to avoid an unforeseen conflict and protect the structural integrity of an existing underground tunnel; provided a new design to anchor the pressure flow pipes in the DAFT gallery to the ceiling and floor slabs to avoid conflicts with multiple existing pipes; and redesign structural supports to meet code for the foul air and thickened sludge pipes attached to columns holding up the canopy over the thickened sludge pumps.
- During construction, Walsh discovered that the DAFT gallery underslab drains were not functioning properly. The City directed Walsh to replace the drain and pump system.
- Construction delays required the contractor to pay to extend a warranty on six liquid ring gas compressors.

Testing of soils and concrete for PCBs was completed, and the federal EPA issued a final conditional approval. In compliance with the EPA-approved, risk-based management plan, removal and disposal of all contaminated materials in all four affected digesters and all tunnel joints has been completed. All contaminated soils have been removed and disposed of and most of the impacted concrete has been encased or removed. The last portion of the work will be finished in June 2019. The project team anticipates submittal of final work reports to the EPA in August 2019.

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

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

To minimize further delays, the contractor is executing several tasks concurrently that originally had been planned in series.

Project Profile – Yard Piping and Road Improvements

The RWF has approximately 300,000 linear feet (LF) of piping that varies in age, material, condition, reliability, redundancy, and diameter (some pipes are as large as 12 feet in diameter). Of this piping, 67,000 LF are process pipes that carry gas, liquids, sludge, air, steam, and other process streams to and from the various treatment areas. Seventy percent of the pipes at the RWF are more than 25 years old, and 10 percent are more than 50 years of age. Based on a 2015 desktop study of RWF process pipes, 16 pipe systems, totaling 21,000 LF, were identified as high priority. This project will focus on rehabilitating and/or replacing these pipes. The process piping categorized as medium or low priority will be addressed as part of a separate, future project.

Figure 4: Manned entry and CCTV process piping inspection

In April 2018, the City hired B&V as the Owner's Advisor (OA) to provide professional services, including performing initial condition assessments, developing construction packages and work sequence plans, and assisting the City with design-build entity procurement and selection. At this point, B&V has conducted condition assessments on seven pipe systems during the summers of 2018 and 2019. Figure 5 shows the pipe systems assessed and planned to be included in this first phase of the project. Condition assessments are performed using a representative sampling approach for similar pipes within the same system or treatment area. For instance, the condition assessment of the eight secondary clarifiers' 24-inch return activated sludge lines only phycially inspected three of the lines. The condition of the remaining five lines is assumed to be similar to the inspected lines.

Based on B&V's recent assessments, two of the highest priority pipes requiring rehabilitation are the 78-inch primary effluent (PE) and the 96-inch PE pipes. Findings showed evidence of severe crown corrosion in both segments. These critical pipelines carry primary effluent from the west primaries effluent structure to the primary effluent junction box. Potential engineering solutions include cast-in-place pipe, concrete repair with epoxy liner, segmented slip lining, or high-strength carbon-fiber-reinforced polymer. Portions of construction will need to occur during the dry season. In addition, work will need to be sequenced in coordination with other CIP projects and RWF operations to minimize disruptions. The design-builder will remove these pipes and most of the planned pipes in this project from service during construction by the reuse of the reroute system procured and used last summer to facilitate the 78-inch settled sewage pipe replacement under the Digester and Thickener Facilities Upgrade Project.

Undertaking repairs on the RWF's extensive and complex piping network without disrupting the ongoing treatment process will require detailed planning and extensive coordination with O&M staff. The progressive design-build delivery method was chosen to ensure ongoing collaboration between the design and construction teams and City staff; for the ability to construct access and repairs during condition assessments; and to allow progressive development of scope as information is obtained.

The project has a construction budget of $85 million and is envisioned to be implemented in phases over an eight-year period. Each phase will consist of condition assessments, risk analysis, design, and construction. With B&V's assistance, the City is preparing procurement documents for a design-build entity. The project team anticipates advertising the design-build RFQ in winter 2019, completing negotiations in summer 2020, and awarding the contract in winter 2020.

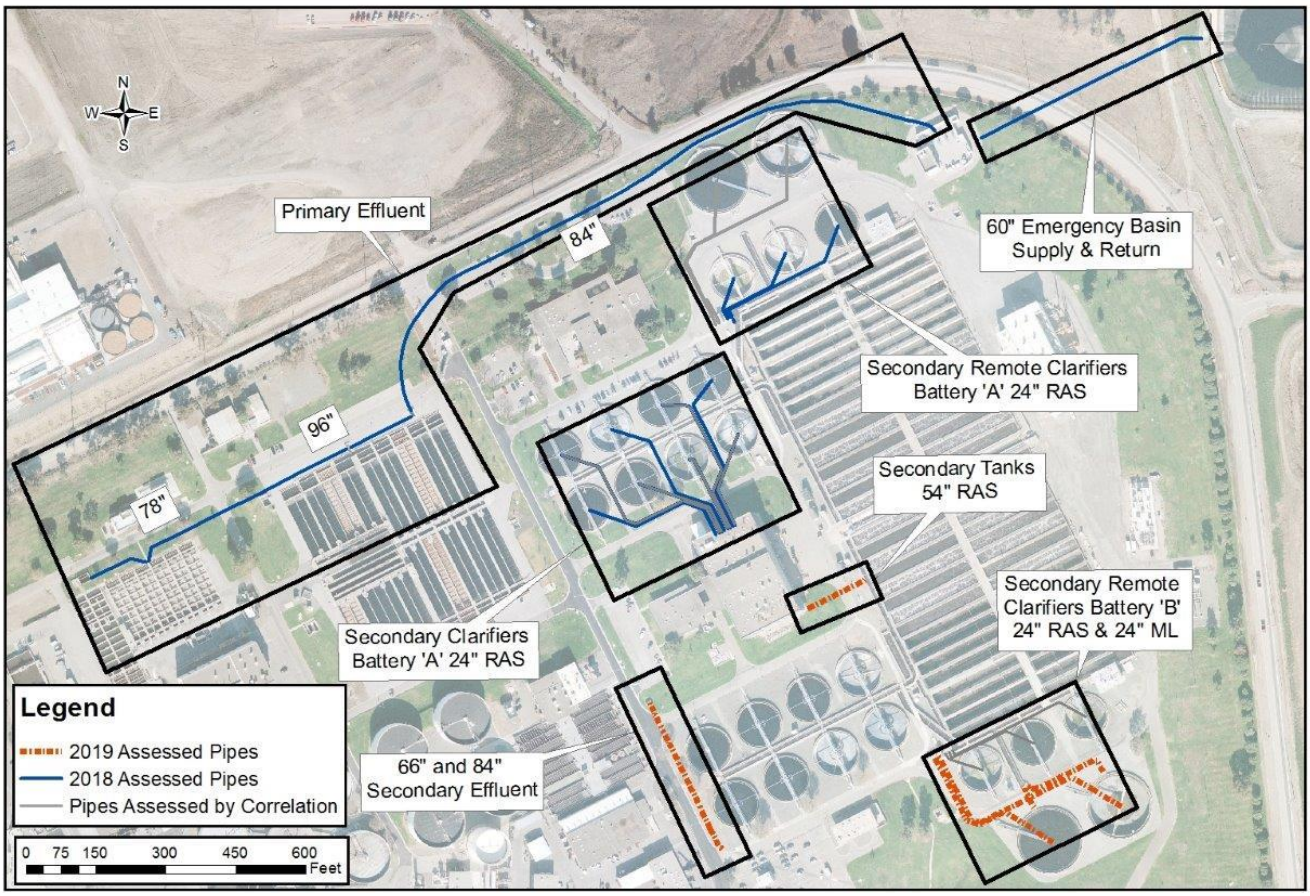


Figure 5: Systems Assessed as part of the 2018 and 2019 Condition Assessments

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

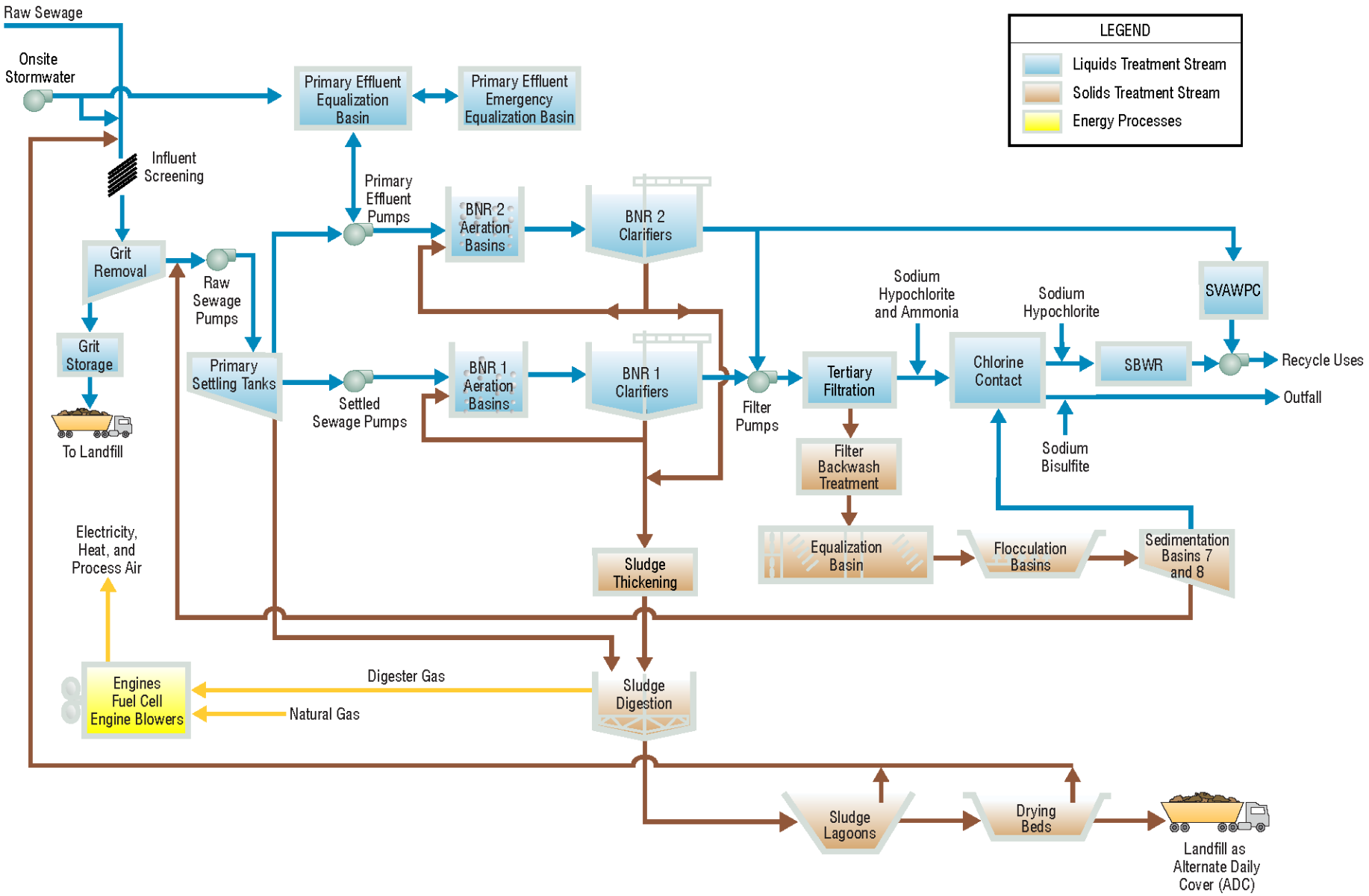


Figure 5 – Current Treatment Process Flow Diagram

Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

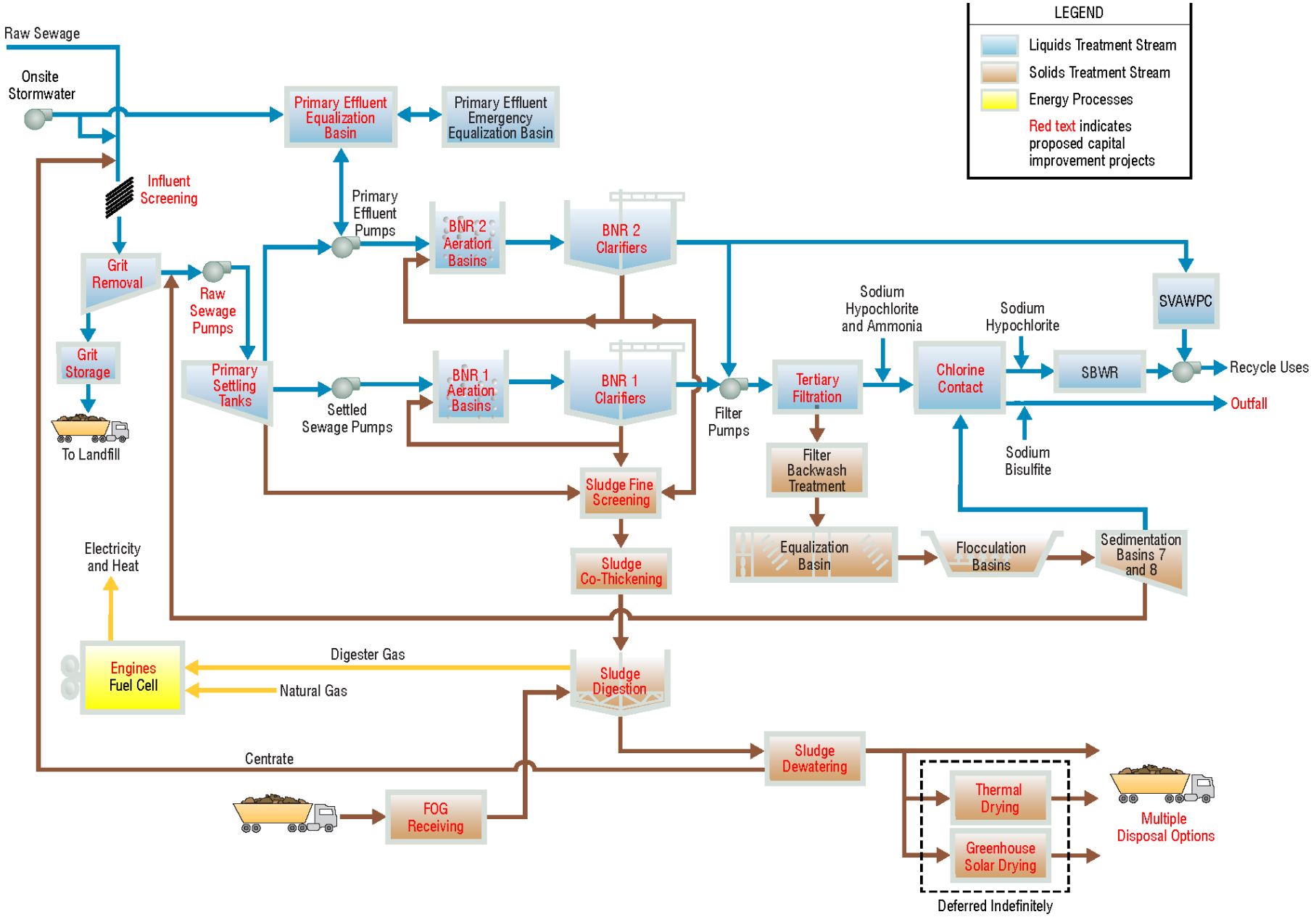


Figure 6 – Proposed Treatment Process Flow Diagram

Active Construction Projects – Aerial Plan

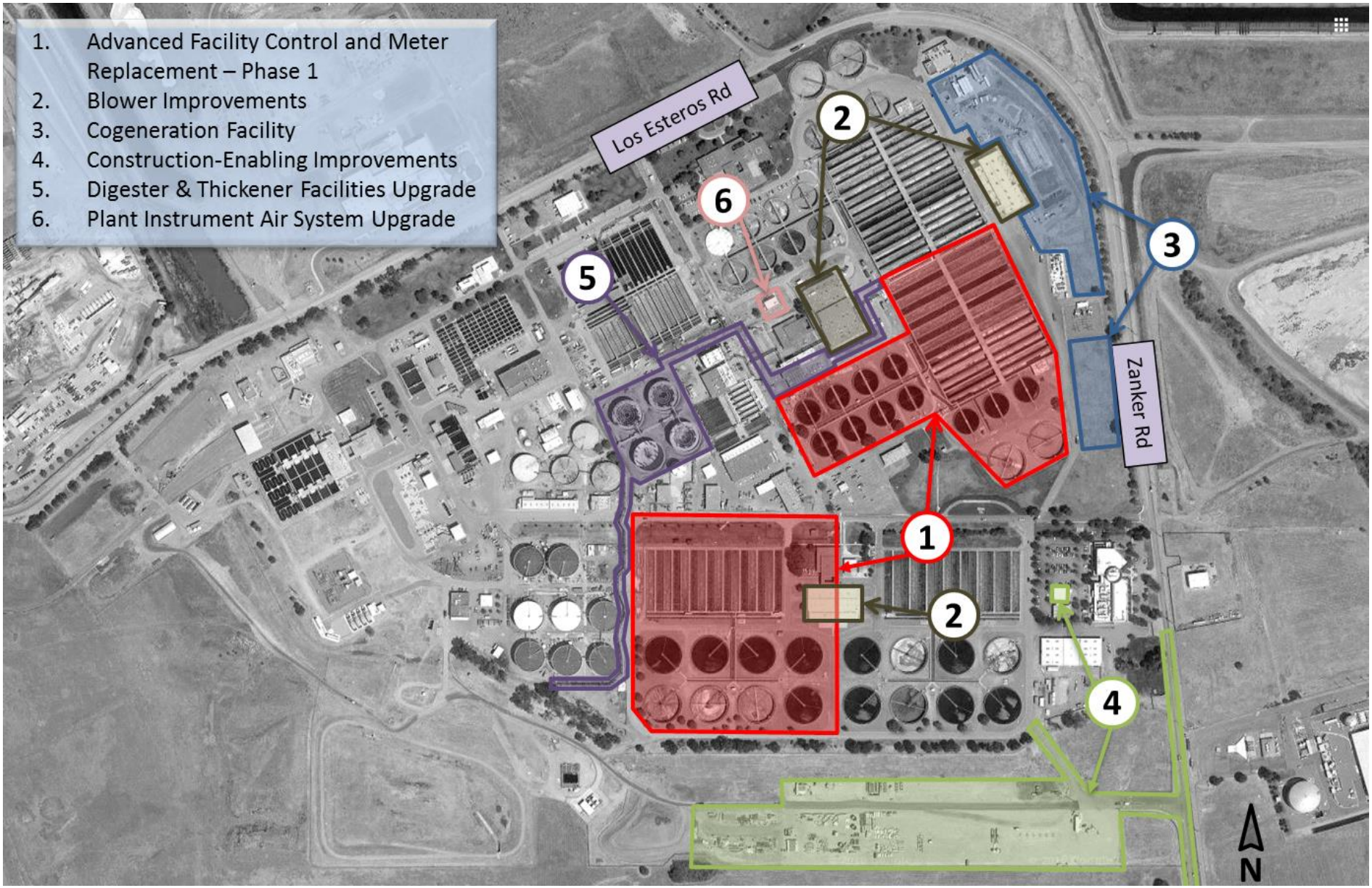


Figure 7: Active Construction Projects

San José-Santa Clara Regional Wastewater Facility

Capital Improvement Program

Monthly Status Report: July 2019

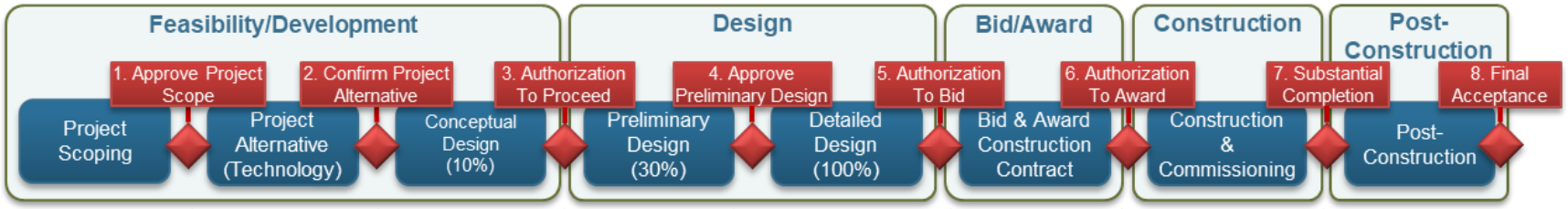
September 5, 2019

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

Report Contents

Project Delivery Models

Design-Bid-Build Active Projects



Final Effluent Pump Station and Stormwater Channel Improvements

Flood Protection

Storm Drain System Improvements

Facility Wide Water Systems Improvements

Advanced Facility Control and Meter Replacement – Phase 2

Filter Rehabilitation

Switchgear M4 Replacement and G3 & G3A Removal

96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation

Nitrification Clarifiers Rehabilitation – Phase 1

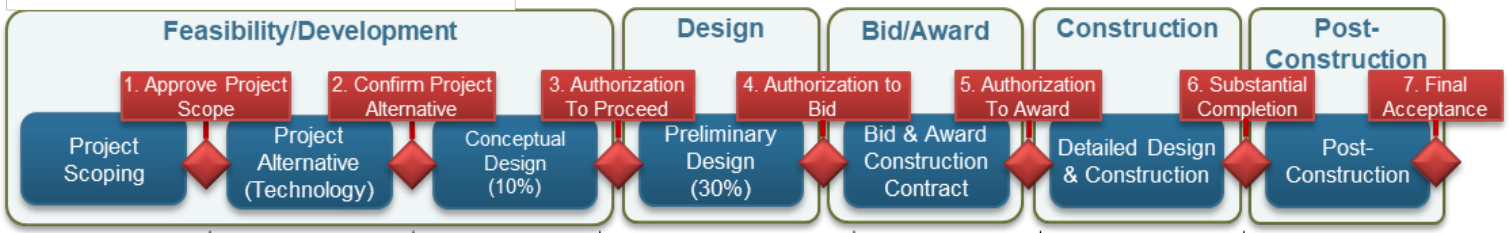
Advanced Facility Control and Meter Replacement – Phase 1

Blower Improvements

Digester & Thickener Facilities Upgrade

Plant Instrument Air System Upgrade

Low-Bid Design-Build Active Projects

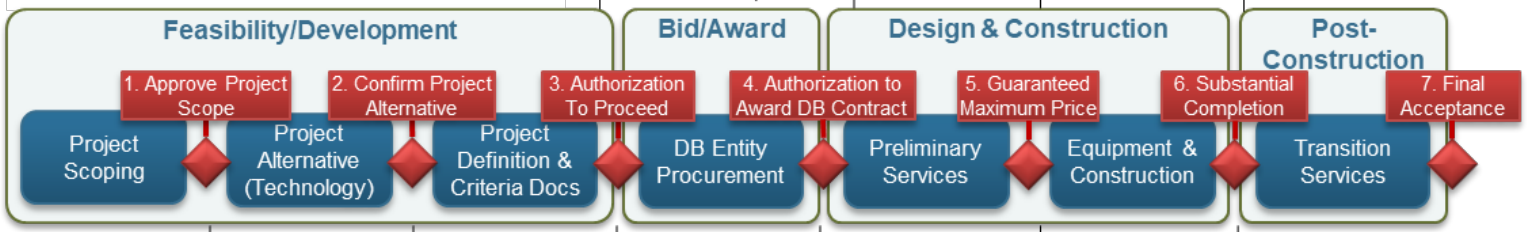


Fire Life Safety Upgrades

HVAC Improvements

Outfall Bridge and Instrumentation Improvements

Progressive Design-Build Active Projects

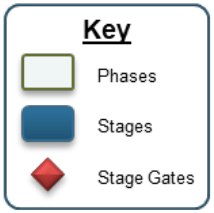


Yard Piping and Road Improvements

Digested Sludge Dewatering Facility

Headworks

Cogeneration Facility



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

Program Summary

July 2019

In July, the City issued the Notice of Completion and Acceptance (NOCA) for the Plant Instrument Air System Upgrade Project. The HVAC Improvements Project successfully passed Stage Gate 3: Authorization to Proceed of the Project Delivery Model (PDM). Staff also initiated the Final Effluent Pump Station and Stormwater Channel Improvements Project. The project will construct a new RWF effluent pump station in order to mitigate the effects of the U.S. Army Corps of Engineers' (USACE) shoreline levee project, which is intended to address projected sea level rise, but is also anticipated to disrupt the current gravity flow of the RWF's final effluent through the artesian slough to the Bay. The City is currently engaged in discussions with the USACE and the local project sponsor, the Santa Clara Valley Water District.

The Digester and Thickener Facilities Upgrade Project contractor finished the Digester 7 roof rebar in preparation for concrete placement. Preliminary testing of Dissolved Air Flotation Thickener (DAFT) tank collectors and skimmers was completed in readiness for commissioning activities. The contractor also commissioned the gas piping on the new elevated pipe rack from Digester 16, the first step in decommissioning all gas lines in the tunnels.

The Cogeneration Facility Project design-builder received and installed a new 5,000-volt switchgear and constructed a new 4,160-volt electrical duct bank south of existing Building 40. The design-builder also set in place gas treatment equipment, cooling towers, chillers, urea tanks, and oil storage tanks.

The Blower Improvements Project contractor continued construction of concrete masonry unit (CMU) walls in Building 40 and demolished the electrical equipment and bag filters in the air filter rooms to facilitate conversion to a new electrical room.

Figure 1: Digester 16 elevated gas line.

The Advanced Facility Control and Meter Replacement – Phase 1 Project contractor completed installation and pre-operational testing of new flowmeters in the remote secondary clarifier return-activated sludge meter vaults and the Battery B secondary tunnel.

On the Headworks Project, a value engineering workshop was held to review the 30 percent design and identify potential design improvements that could result in cost savings and/or process improvements. Staff also completed a review of the 30 percent project cost model.

The City received four construction bids for the Nitrification Clarifier Rehabilitation – Phase 1 Project, all below the engineer's estimate. The construction contract is expected to be recommended for award to the Treatment Plant Advisory Committee (TPAC) and City Council in October.

The City advertised the construction contract for the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project. Bids are due in late August. The Advanced Facility Control and Meter Replacement – Phase 2 Project team received statements of qualifications (SOQ) from three contractors as part of the pre-qualification process. The City expects to post a list of qualified contractors in August 2019.

For the Filter Rehabilitation Project, the City advertised pre-qualification documents for construction contractors. SOQs are due in August 2019. The design consultant submitted the 90 percent design and held a workshop to review the design.

The design consultant for the Switchgear M4 Replacement and G3 & G3A Removal Project submitted the 100 percent plans and specifications for City review.

Look Ahead

The following key activities are forecast for August and September 2019:

- The City will open bids for the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project.
- The City will advertise and open bids for the Switchgear M4 Replacement and G3 & G3A Removal Project.
- For the Filter Rehabilitation Project, the City will receive SOQs and issue a notice of determination of pre-qualified contractors.

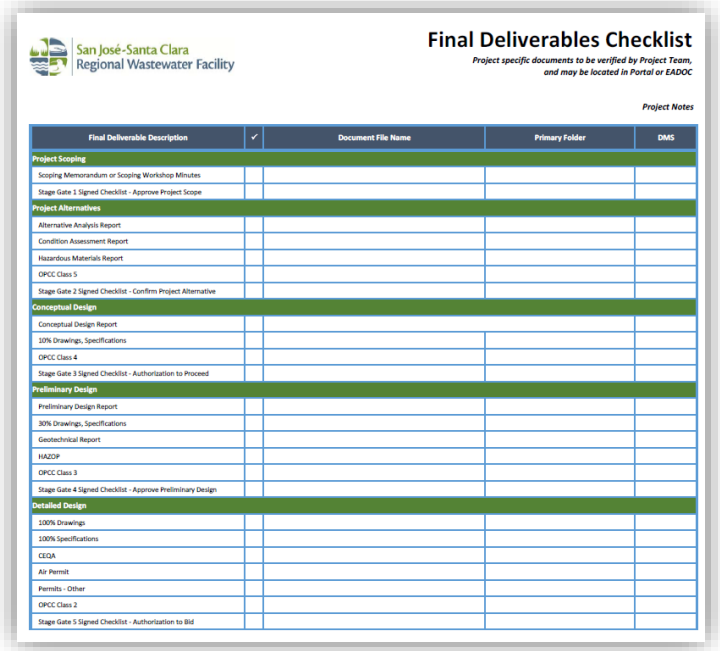
- Staff will make the following recommendations to TPAC and Council: (1) amend three general engineering master consultant agreements for various CIP projects to extend their terms; and (2) award the design-build contract for the Digested Sludge Dewatering Facility Project.
- Four projects will seek to advance through stage gates, including:
    - Digested Sludge Dewatering Facility Project – Stage Gate 4: Authorization to Award DB Contract;
    - Switchgear M4 Replacement and G3 & G3A Removal Project – Stage Gate 5: Authorization to Bid;
    - 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project – Stage Gate 6: Authorization to Award;
    - Fire Life Safety Upgrades Project - Stage Gate 4: Authorization to Bid.

Program Highlight – Project Closeout

Project closeout is the formal process of completing all project activities in accordance with City and CIP requirements as defined in the CIP PDM. During the closeout processes, project teams verify that all work has been completed and that all City and CIP processes have been executed. Overall completion of the project is formally recognized through the preparation and submission of final stage gate documentation.

The project manager is responsible for executing closeout processes, which typically include:

- Informing key stakeholders of project completion;
- Confirming receipt of key deliverables from construction contractors and engineering consultants, including as-built drawings and operations and maintenance (O&M) manuals;
- Closing consultant service orders and agreements, and reviewing consultant performance;
- Closing construction contracts and issuing the NOCA.
- Confirming final project costs, closing funding codes, and releasing the remaining budget;
- Confirming that project documents are filed in accordance with CIP document management requirements and stored in compliance with the City's public records policies;
- Verifying that O&M has the required information, documents, manuals, and spare parts necessary to operate and maintain the completed project; and
- Obtaining feedback on project delivery and performance; documenting lessons learned.



San José-Santa Clara Regional Wastewater Facility

Final Deliverables Checklist

Project specific documents to be verified by Project Team, and may be located in Portal or EADOC

Project Notes

Final Deliverable Description	✓	Document File Name	Primary Folder	DMS
Project Scoping				
Scoping Memorandum or Scoping Workshop Minutes				
Stage Gate 1 Signed Checklist - Approve Project Scope				
Project Alternatives				
Alternative Analysis Report				
Condition Assessment Report				
Hazardous Materials Report				
OPCC Class 5				
Stage Gate 2 Signed Checklist - Confirm Project Alternative				
Conceptual Design				
Conceptual Design Report				
10% Drawings, Specifications				
OPCC Class 4				
Stage Gate 3 Signed Checklist - Authorization to Proceed				
Preliminary Design				
Preliminary Design Report				
30% Drawings, Specifications				
Geotechnical Report				
HAZOP				
OPCC Class 3				
Stage Gate 4 Signed Checklist - Approve Preliminary Design				
Detailed Design				
100% Drawings				
100% Specifications				
CEQA				
Air Permit				
Permits - Other				
OPCC Class 2				
Stage Gate 5 Signed Checklist - Authorization to Bid				

Figure 2: Final Deliverables Checklist

Project teams perform closeout processes throughout the project delivery process, not just at the end of the project. At the end of each PDM stage, the team verifies the status of deliverables, agreements and other key documents and ensures that final versions of these documents have been prepared and retained. The CIP uses the term 'Final Deliverables' to denote the electronic and physical items that are required to be completed and/or handed over as the project proceeds. A Final Deliverables Checklist (see Figure 1) is required to be completed by the project manager as a record that each of these deliverables has been prepared/received. The checklist is grouped by PDM stage so that it can be completed incrementally as a project proceeds.

The checklist represents the minimum final requirements required by the CIP, but may be modified to reflect the unique deliverables of each project. The project team provides the file name of the document, location of the file folder, and the electronic document management system used. For the CIP, electronic documents are stored on the CIP Portal project site during the design phase and the construction management system during the construction phase.

With these formal project closeout processes, CIP leadership can ensure that all necessary work has been performed, administrative and procurement closures executed, that key stakeholders agree the work is complete, and that the project is providing its intended benefits. In capturing lessons learned, project closeout also leads to process improvements for future projects.

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
Stage Gates	90%	50% 1/2[1]	◆	→	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%							
Schedule[2]	90%	0% 0/0	N/A	N/A	0% 0/0	N/A	N/A
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone.[3] Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	0% 0/1[4]	◆	→	0% 0/1	◆	→
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget.[3] Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Expenditure[5]	NA	NA	●	→	NA	▲	→
Measurement: CIP FY19-20 committed costs. Target: Committed cost meets or exceeds 70% of planned budget. The adjusted fiscal year budget is still to be determined and will be reported next month.							
Procurement	80%	100% 1/1[6]	●	→	100% 8/8	●	→
Measurement: Number of consultant and contractor procurements advertised compared to planned for the fiscal year. Target: Green: >= 80%; Amber: 70% to 79%; Red: < 70%							
Safety	0	0	●	→	0	●	→
Measurement: Number of OSHA reportable incidents associated with CIP delivery for the fiscal year. Criteria: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Environmental	0	0	●	→	0	●	→
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: zero incidents; Amber: 1 to 2; Red: > 2							
Vacancy Rate[7]	10%	22% 19/86	◆	→	9% 8/86	●	→
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

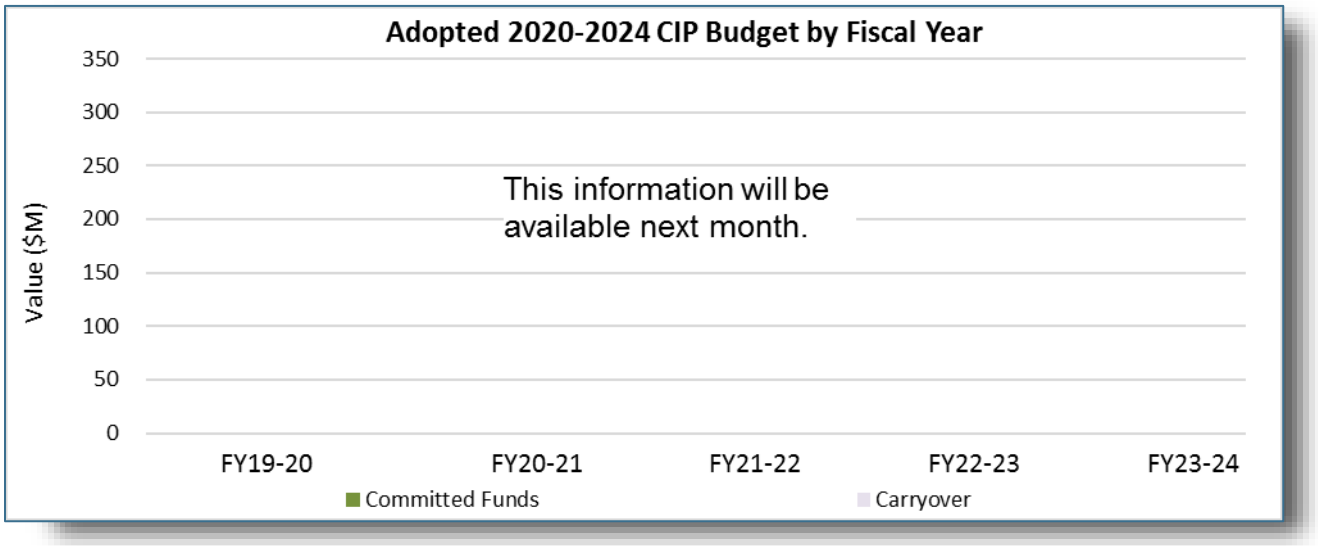
Notes

1. The HVAC Improvements Project passed Stage Gate 3: Authorization to Proceed and will start preliminary design. The Storm Drain System Improvements Project did not pass Stage Gate 2: Confirm Project Alternatives and will conduct additional analysis before repeating the stage gate.
2. The CIP does not anticipate any projects reaching Beneficial Use this fiscal year.
3. The baseline Beneficial Use date and the baseline budget for each project are established at construction contract award and execution.
4. The City accepted the Plant Instrument Air System Upgrade Project with project costs exceeding 1 percent of the baseline value in July.
5. Expenditure and adjusted fiscal year budget information will be available next month.
6. The City advertised the 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation Project construction contract.
7. The vacancy rate KPI measures CIP-approved positions, including ESD, Public Works, and program management consultant full-time staff.

Program Budget Performance Summary

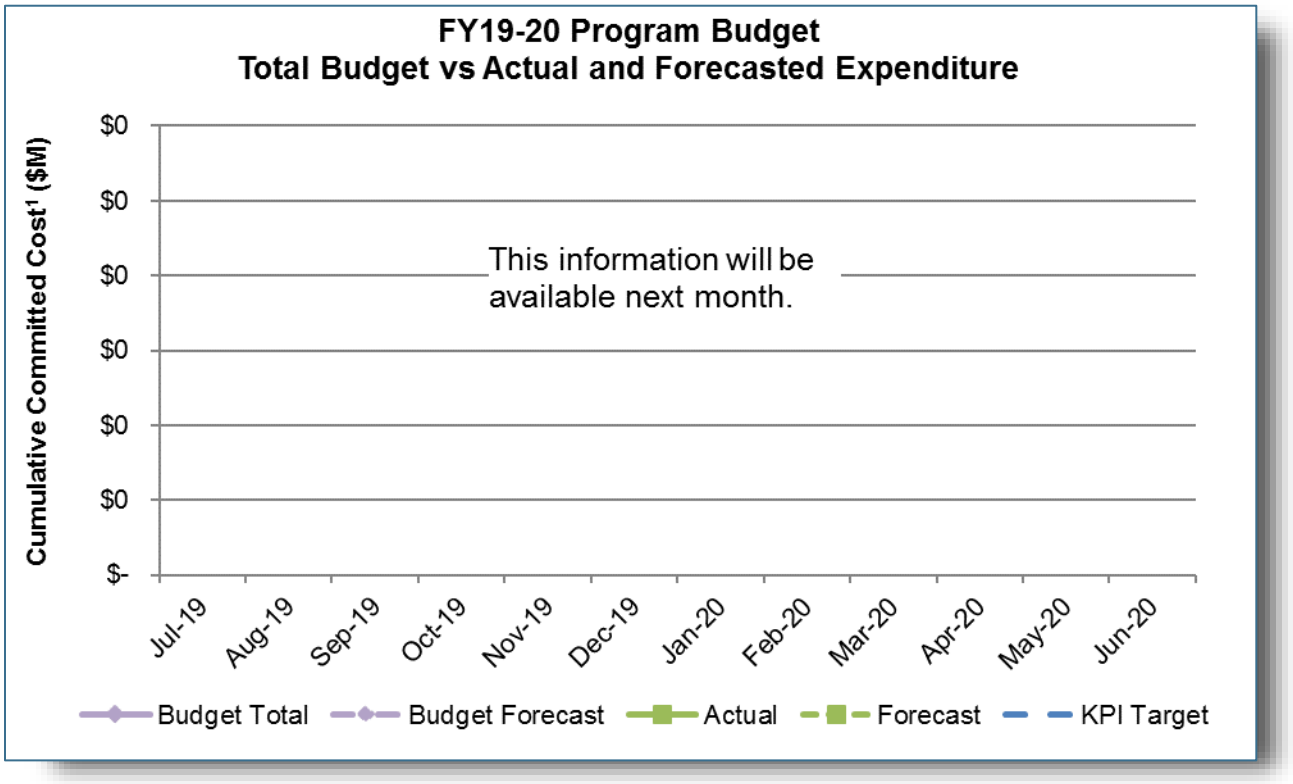
This section summarizes the cumulative monthly budget performance for fiscal year (FY)19-20 based on the Adopted 2020-2024 CIP.

Adopted 2020-2024 CIP Expenditure and Encumbrances



Fiscal Year 2019-2020 Program Budget Performance

The committed costs forecast for Fiscal Year 2019-20 are currently being finalized and will be included in next month's report.



Notes:

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

Project Performance Summary

There are currently five projects in the construction and post-construction phases and an additional 15 projects in feasibility/development, design, bid and award, or design and construction phases (see PDM, page 2). Projects in the construction phase have established cost and schedule baselines and are monitored using the City's Capital Project Management System (CPMS). Green/red icons are included in the table below to indicate whether these projects are on budget and schedule.

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]	Cost Performance[2]	Schedule Performance[2]
1. Plant Instrument Air System Upgrade	Post-Construction	Nov 2018[3]	◆	◆
2. Cogeneration Facility	Design & Construction	Sep 2020	●	●
3. Digester and Thickener Facilities Upgrade	Construction	Nov 2020	◆	◆
4. Advanced Facility Control & Meter Replacement - Phase 1	Construction	June 2021	●	●
5. Blower Improvements	Construction	Sep 2022	●	●

Key:

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

Notes

1. Beneficial Use is defined as work that is sufficiently complete, in accordance with contract documents, that it can be used or occupied by the City. Beneficial Use dates are reviewed as part of project schedule reviews.
2. An explanation of cost and schedule variances on specific projects identified in this table is provided on pages 13 and 14.
3. Actual Beneficial Use date.

Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]
1. 96-Inch and 87-Inch Settled Sewage Pipe Rehabilitation	Bid/Award	Nov 2020
2. Nitrification Clarifiers Rehabilitation – Phase 1	Bid/Award	Dec 2022
3. Digested Sludge Dewatering Facility	Bid/Award	Apr 2023
4. Outfall Bridge and Instrumentation Improvements	Design	Dec 2021
5. Switchgear M4 Replacement and G3 & G3A Removal	Design	Feb 2022
6. Advanced Facility Control & Meter Replacement - Phase 2	Design	Dec 2022
7. Fire Life Safety Upgrades	Design	Dec 2022
8. Headworks	Design and Construction	Dec 2022
9. Filter Rehabilitation	Design	Feb 2023
10. HVAC Improvements	Design	Mar 2023
11. Flood Protection	Feasibility/Development	Oct 2023
12. Storm Drain System Improvements	Feasibility/Development	Nov 2023
13. Facility Wide Water Systems Improvements	Feasibility/Development	Aug 2024
14. Final Effluent Pump Station and Stormwater Channel Improvements	Feasibility/Development	Jan 2025
15. 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

Digester and Thickener Facilities Upgrade Project

- Contractor Walsh placed concrete for heating exchanger and foam suppression equipment foundations at Digesters 5 and 6. On Digester 7, Walsh finished installing the PVC lining, as well as rebar installation on the roof, in preparation for future concrete placement. In the new sludge screening building, Walsh installed six sludge screen control boxes, fire system piping, and polymer and hydro-pneumatic tanks.
- Walsh completed preliminary testing of the collectors and skimmers inside the DAFT tanks.
- Walsh completed gas system modifications at Digester 16, and O&M staff commissioned new piping and transferred gas produced in that digester from the old tunnel pipe to the new pipe on the elevated rack.

Facilities Package

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

- The City advertised the construction contract for bids and held a pre-bid meeting. Bids are due in August 2019.

Fire Life Safety Upgrades

- The project team returned comments to the design consultant Kennedy/Jenks (K/J) on the draft 30 percent design, specifications, and construction cost estimate. K/J will submit the final 30 percent design in August 2019.

HVAC Improvements Project

- The project team passed Stage Gate 3: Authorization to Proceed and began preliminary design, which is anticipated to be completed in November 2019.

Storm Drain Improvements Project

- The project team presented at Stage Gate 2: Confirm Project Alternative and was directed to conduct additional flood risk analysis before repeating the stage gate, which is anticipated in December 2019.

Liquids Package

Advanced Facility Control and Meter Replacement – Phase 1 Project

- Contractor Overaa Construction completed installation and pre-operational testing of new flowmeters in the remote secondary clarifier return-activated sludge meter vaults and Battery B secondary tunnel. The project team anticipates completing functional testing in October 2019.

Advanced Facility Control and Meter Replacement – Phase 2 Project

- The City received three pre-qualification submittals from general contractors. The City will complete the pre-qualification evaluation and issue the notice of determination in August.

Blowers Improvements Project

- Contractor Monterey Mechanical Construction continued wall construction and demolished the electrical equipment and bag filters in the air filter rooms to facilitate conversion to a new electrical room in Building 40.

Filter Rehabilitation Project

- Design consultant K/J submitted the 90 percent design documents and conducted the 90 percent design workshop.
- The City advertised the pre-qualification documents for construction contractors. SOQs are due in August 2019.

Final Effluent Pump Station Project

- The City initiated the project. The project team will hold a project kickoff meeting in September 2019.

Headworks Project

- Design-builder CH2M Hill Engineers, Inc. (CH2M) completed subsurface investigations to identify potential existing utility conflicts within the project area footprint.
- The project team held a value engineering session on the 30 percent design to identify and analyze potential cost-saving and/or system process enhancement measures and reviewed the 30 percent project cost models submitted by CH2M and the City's owner's advisor.

Nitrification Clarifier Rehabilitation - Phase 1 Project

- The City received four bids, all below the engineer's estimate. Staff will recommend that Council award the construction contract in October.

Power and Energy Package

Cogeneration Facility Project

- Design-builder CH2M completed pouring the hot water loop anchor foundations in the aeration tank area, setting the stage for the hot water loop piping to be installed in the project tie-in location.
- CH2M also completed the 4160-volt electrical duct bank south of Building 40 and started work on the section north of Building 40. Additionally, they set the 5,000-volt switchgear into its permanent location. Next, CH2M will begin installing the conductors.
- Finally, CH2M set gas treatment equipment, cooling towers, chillers, urea tanks, and oil storage tanks in place.

Plant Instrument Air System Upgrade Project

- The City filed NOCA for the project on July 3, 2019.

Switchgear M4 Replacement and G3 & G3A Removal Project

- Design consultant Brown and Caldwell submitted the 100 percent plans and specifications for City review. The project team anticipates advertising the construction contract in August 2019.

Explanation of Project Performance Issues

Plant Instrument Air System Upgrade Project

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

Digester and Thickener Facilities Upgrade Project

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

The City has negotiated contract change orders for the unforeseen conditions discovered in 2016, described below:

- Major corrosion of an underground, 78-inch settled sewage pipeline and junction structure required construction of a temporary reroute so that the pipeline could be replaced during the 2018 dry season. In May of 2018, the contractor started full-time operation of this temporary pumping and pipeline system and began replacing the 78-inch settled sewage pipeline. This work was completed in late September 2018.
- A 36-inch biochemical oxygen demand pipe was found to be obstructing the new sludge screening building foundation. The contractor removed this pipe and relocated several gas drain vaults and associated piping prior to foundation construction
- Multiple conflicts between contract work and existing utilities required numerous relocations including water, natural gas, digester gas, landfill gas, storm drains, and sanitary sewer pipelines. The contractor completed necessary relocations and rerouting, especially near the new digester gas pipe rack footings. Many of these modifications also required design changes.
- Bay Area Air Quality Management District (BAAQMD) venting restrictions also delayed digester work. The contractor completed the temporary digester gas connections and the temporary system became operational in February 2018.

The City has negotiated contract change orders for the following issues discovered in 2017 and 2018:

- Digester structural redesign: The design consultant revised the structural drawings to address seismic concerns by enlarging the foundation ring beam at the base of each of the four digesters. The contractor provided a cost proposal associated with this revision and the City issued a final, global change order to cover work activities.
- Distributed control system architectural changes: The design guidelines for the distributed control system were developed after the project plans were completed. Several changes were required for fiber optic cable, electrical wiring, patch panels, converters, communications instrumentation, and emergency power supply. Drawings, color-coding labeling, and process diagrams needed to be revised to reflect these changes.
- Fire Department requirements: Fire permit requirements changed after the design was completed. The Fire Marshal required additional alarms and electrical connections. A new electrical fire suppression system was installed to meet current environmental requirements. At one structure, the Fire Marshall required a full discharge test of the system.
- Structural issues: Designer Brown and Caldwell (B&C) modified the west electrical building foundation design to avoid an unforeseen conflict and protect the structural integrity of an existing underground tunnel; provided a new design to anchor the pressure flow pipes in the DAFT gallery to the ceiling and floor slabs to avoid conflicts with multiple existing pipes; and redesigned structural supports to meet code regulations.
- During construction, Walsh discovered that the DAFT gallery under-slab drains were not functioning properly. The City directed Walsh to replace the drain and pump system.
- Construction delays required the contractor to pay for a warranty extension on six liquid ring gas compressors.

Testing of soils and concrete for PCBs was completed, and the federal Environmental Protection Agency (EPA) issued a final conditional approval. In compliance with the EPA-approved, risk-based management plan, removal and disposal of all contaminated materials in all four affected digesters and all tunnel joints has been completed. All contaminated soils have been removed and disposed of and most of the impacted concrete has been encased or removed. The last portion of the work will be finished in June 2019. The project team anticipates submittal of final work reports to the EPA in August 2019.

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

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

To minimize further delays, the contractor is executing several tasks concurrently that originally had been planned in series.

Project Profile – Digester and Thickener Facilities Upgrade

The anaerobic digestion process produces gas from biosolids, or sludge, which is used to generate power for the RWF. The RWF's 16 anaerobic digesters were constructed between 1956 and 1983. Currently, six of the 16 digesters are out of service because of age, structural damage, mechanical failure, or for cleaning. To maintain a viable biosolids processing capacity, the RWF needs eight to 10 operating digesters.

This project has four major components: (1) rehabilitation and conversion of four existing digesters from mesophilic to thermophilic digesters; (2) improvements to dissolved air flotation thickener (DAFT) tanks; (3) construction of a new primary sludge screening facility; and (4) construction of a new elevated pipe rack. Other project components include ancillary buildings for electrical and other equipment, a new gas flare, flow distribution boxes, and sampling station.

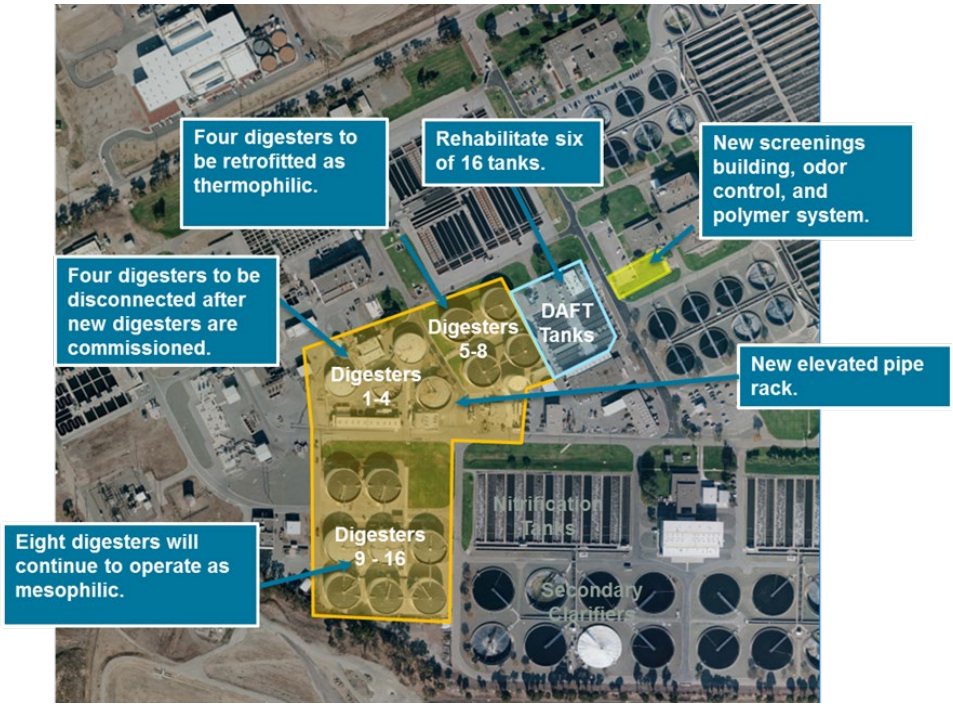


Figure 3: Project Layout

Digesters

Currently, all 16 digesters use a lower temperature digestion process called mesophilic. One of the recommendations from the Biosolids Transition Strategy, approved by TPAC and Council in late 2014, was to upgrade four digesters to run a higher temperature digestion process known as Temperature-Phased Anaerobic Digestion (TPAD) to improve gas production and reduce sludge volume, ultimately reducing the number of required digesters by half. Other digester improvements include new covers, sludge mixers, heating, electrical, instrumentation, and control systems.

Figure 4: DAFT covers and equipment

DAFT Tanks

DAFT improvements include new covers with a foul air vacuum system for odor control (See Figure 4), as well as upgrades to existing piping, tanks, mechanical equipment, and electrical and instrumentation components.

Sludge Screening Facility

A new primary sludge screening facility has been added to the process stream before the DAFT. The new facility combines and screens sludge from the primary settling tanks and the biological nutrient removal tanks prior to entering the DAFT, reducing system clogging and improving anaerobic process efficiency in the digesters.

Elevated Pipe Rack

A key component of the project scope is the relocation of digester gas lines from the tunnels to an elevated pipe rack system (See Figure 5) to reduce confined space and safety risks.

Figure 5: Elevated Pipe Rack Installation

Brown and Caldwell (B&C) performed design work from October 2013 to December 2015. The lowest responsive bidder on the project was Walsh Construction Company II, LLC with a bid of $107.9 million. Council awarded the contract to Walsh on May 24, 2016. The construction notice to proceed was issued on June 22, 2016. Construction completion is anticipated in November 2020. The total project budget is approximately $200.8 million.

The project has experienced numerous challenges, including unanticipated conditions, design changes, new regulations, and the discovery of hazardous materials, but the project team continues to work hard to make significant progress every month. Please refer to the Explanation of Project Performance Issues section on Page 13 for a description of challenges encountered during the project delivery.

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Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

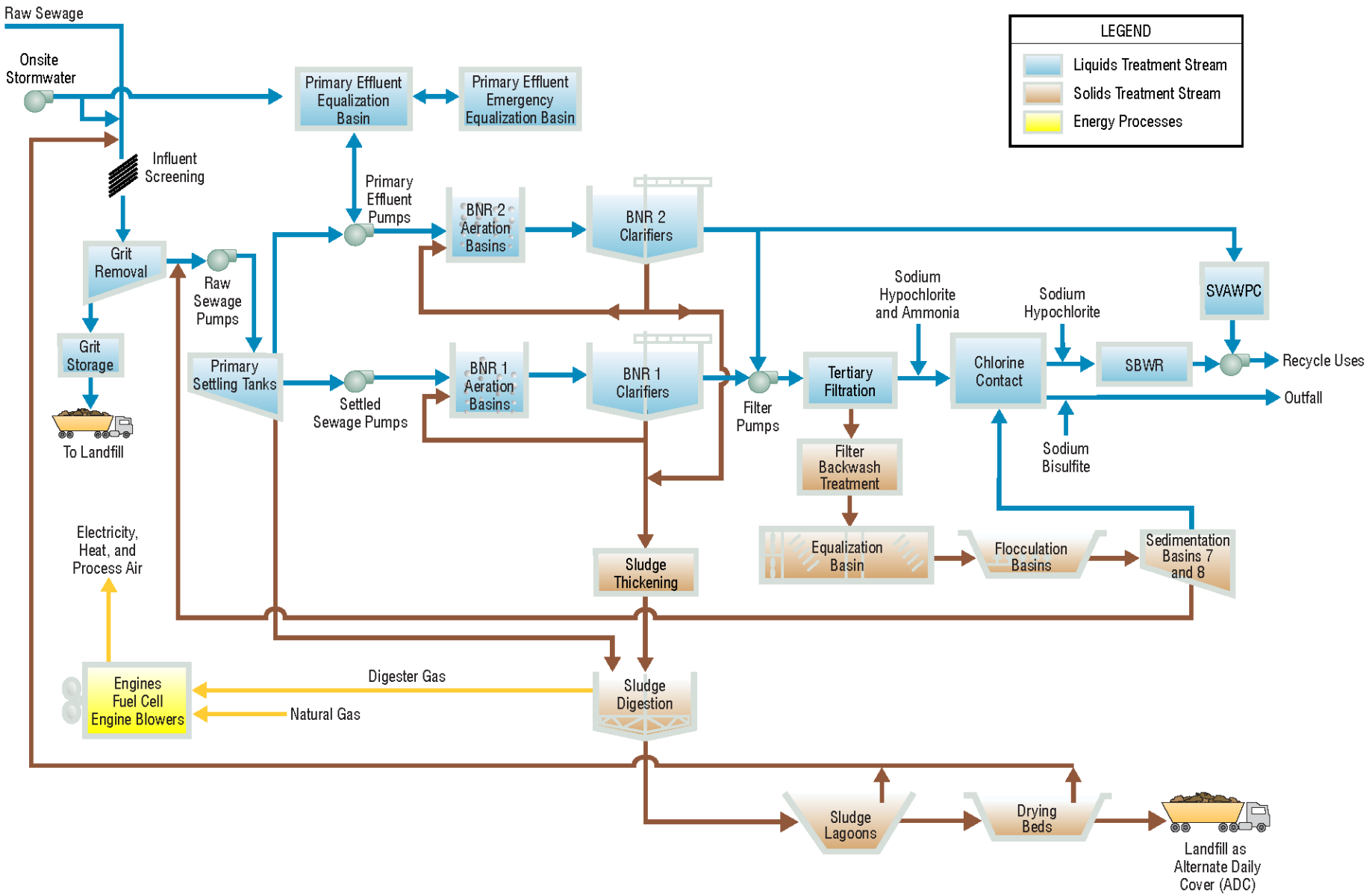


Figure 6 – Current Treatment Process Flow Diagram

Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

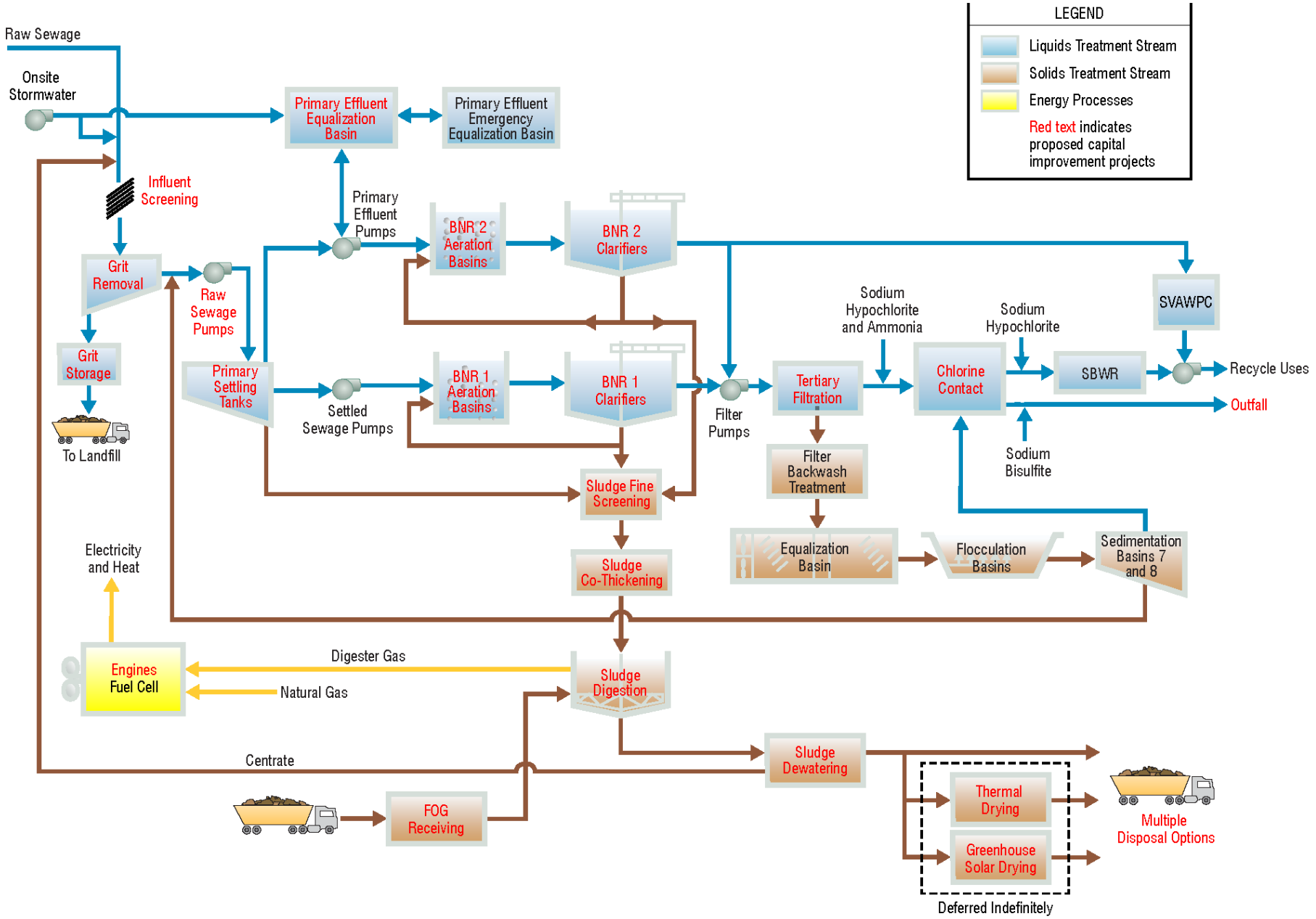


Figure 7 – Proposed Treatment Process Flow Diagram

Active Construction Projects – Aerial Plan

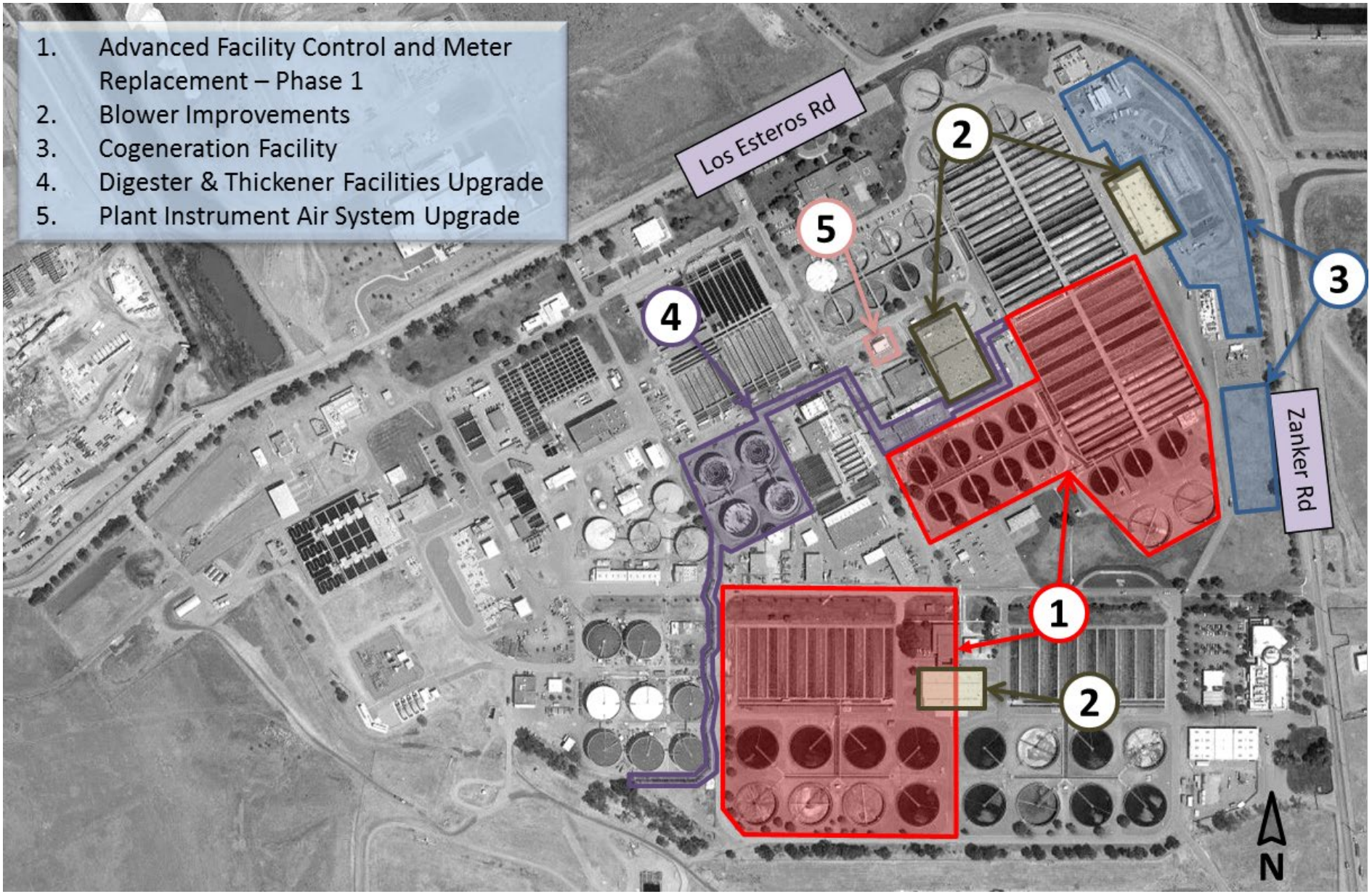


Figure 8: Active Construction Projects

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 09/24/19
FILE:
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): Environmental Services	**CEQA:** Not a Project, File No. PP17-002, Consultant services for design, study, inspection, or other professional services with no commitment to future action.	**Coordination:** Finance, City Manager's Budget Office, City Attorney's Office, the Treatment Plant Advisory Committee	**Dept. Approval:** /s/ Kerrie Romanow
Council District(s): Citywide			**CMO Approval:** 9-3-19

SUBJECT: AMENDMENTS TO MASTER CONSULTANT AGREEMENTS WITH AECOM TECHNICAL SERVICES, INC., BROWN AND CALDWELL AND BLACK & VEATCH CORPORATION FOR GENERAL ENGINEERING SERVICES AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY CAPITAL IMPROVEMENT PROGRAM

RECOMMENDATION:

(a) Approve the First Amendment to the Master Agreement with AECOM Technical Services, Inc. for the 7995 - General Engineering Services, extending the term from June 30, 2021 to June 30, 2024 at no additional cost to the City.
(b) Approve the First Amendment to the Master Agreement with Brown and Caldwell for the 7995 - General Engineering Services, extending the term from June 30, 2021 to June 30, 2023 at no additional cost to the City.
(c) Approve the First Amendment to the Master Agreement with Black & Veatch Corporation for the 7995 - General Engineering Services, extending the term from June 30, 2021 to December 31, 2023 at no additional cost to the City.

BASIS FOR RECOMMENDATION:

On May 12, 2016, the City entered into master consultant agreements with AECOM Technical Services, Inc., Brown and Caldwell, and Black & Veatch Corporation for a total not-to-exceed amount of $5,000,000 each and term through June 30, 2021. These master agreements have allowed the City to use as-needed professional engineering services for small, urgent, or unscheduled capital improvement projects at the San Jose-Santa Clara Regional Wastewater Facility (RWF).

Collectively, four projects have been started under the three master consultant agreements. These projects were identified as either small or critical projects that allowed for use of the agreements. All four projects were initially expected to be completed within the agreement term, but through scope refinement and design development, the construction schedules were updated and are now expected to extend past the original term of the agreements.

Under Service Order (SO) No. 2, Brown and Caldwell is providing detailed design services for the Switchgear M4 Replacement and G3/G3A Removal project. To maintain continuity and efficiency on this project, staff recommends extending the master agreement through June 30, 2023 to continue to provide engineering services through project completion.

AECOM is providing design services for two projects. Under SO No. 1, AECOM is providing engineering services through bid & award for the Outfall Bridge & Instrumentation Improvements project. Under SO No. 2, the consultant is providing engineering services through conceptual design for the Storm Drain System Improvements project. In order to complete both projects, staff recommends extending the master agreement through June 30, 2024.

Under SO No. 1, Black and Veatch is providing detailed design services for the Advanced Facility Control Meter Replacement- Phase 2 project. To maintain continuity and efficiency on this project through completion, staff recommends extending the master agreement through December 31, 2023.

COST AND FUNDING SOURCE:

No funding is needed to approve the amendments to the master agreements.

FOR QUESTIONS CONTACT: Napp Fukuda, ESD Assistant Director at (408) 973-5353

COUNCIL AGENDA: 9/24/19
FILE:
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Matt Cano

SUBJECT: SEE BELOW

DATE: August 21, 2019

Approved [signature] Date 9-3-19

SUBJECT: REPORT ON BIDS AND AWARD OF CONSTRUCTION CONTRACT FOR 8983 - ENVIRONMENTAL SERVICES BUILDING LAB HVAC DUCTING REPLACEMENT PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

Report on bids and award of contract for the 8983 – Environmental Services Building Lab HVAC Ducting Replacement Project to the sole bidder, Kinetics Mechanical Services, Inc., in the amount of $538,000, and approval of a fifteen percent contingency in the amount of $80,700.

OUTCOME

Award of the construction contract to Kinetics Mechanical Services, Inc. will enable the Environmental Services Building Lab HVAC Ducting Replacement Project (Project) to proceed. Approval of a fifteen percent contingency will provide funding for any unanticipated work necessary for the proper completion or construction of the Project.

BACKGROUND

The water quality laboratory, at the San José-Santa Clara Regional Wastewater Facility (RWF), plays a critical role in protecting public and environmental health, testing more than 70,000 samples per year to meet strict state and federal standards for discharged wastewater. The lab is located in the Environmental Services Building (ESB).

A condition assessment of the laboratory's exhaust ductwork that serves fume hoods, used for concentrated aids tests, identified severe corrosion damage of the exhaust ducting and other components associated with the chemical fume hoods. The Project will remove and replace corroded ducts, five fume hoods, and base cabinets in the laboratory.

The Project allows for 210 working days. Construction is scheduled to begin in October 2019 with substantial completion in July 2020.

ANALYSIS

Bids were opened on June 6, 2019, with the following results:

Contractor	Bid Amount	Variance Over/(Under) Amount	Variance Over/(Under) Percent
Kinetics Mechanical Services, Inc. (Livermore)	$538,000	$62,000	13%
Engineer's Estimate	**$476,000**	--	--

A single bid was received from Kinetics Mechanical Services, Inc., which is 13 percent higher than the Engineer's Estimate. Staff considers this as reasonable for the work involved.

The lower-than-expected number of bidders can be attributed to the high volume of construction work currently available, as well as the lack of contractors with specific prior work experience required for this project. Staff considers the bid submitted for this Project acceptable for the work involved and recommends award of the contract to Kinetics Mechanical Services, Inc.

Council Policy provided for a standard contingency of fifteen percent on public works projects involving building renovation projects. The standard contingency is appropriate for this project to account for the challenge of maintaining continuous operations at the RWF during construction, in addition to complex project interfaces with ongoing daily sample testing in the laboratory, potential utility conflicts, and other concurrent capital improvement projects underway by others.

EVALUATION AND FOLLOW-UP

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

POLICY ALTERNATIVES

Alternative 1: Direct City staff to reject all bids and re-bid the Project.
Pros: Re-bidding the Project may result in more bid proposals to be submitted.
Cons: Re-bidding will delay the construction schedule and increase project delivery costs.
Reason for not recommending: If the Project were to be re-bid, it does not assure more bid proposals or lower bids would be received. If this alternative is adopted, the construction schedule would be delayed for at least three to six months. The project delivery costs would increase due to staff efforts in the re-bidding process.

PUBLIC OUTREACH

The Project was advertised on BidSync.com on May 15, 2019 and advertised in the *San José Post Record.* This memorandum will be posted on the City's Council Agenda website for the September 24, 2019 City Council meeting.

COORDINATION

This Project and memorandum have been coordinated with the Departments of Planning, Building and Code Enforcement, Fire, and Finance, the City Manager's Budget Office, and the City Attorney's Office. This memorandum is scheduled to be heard at the September 12, 2019 TPAC meeting.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the September 12, 2019 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended September 24, 2019 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

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

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $538,000

Project Delivery	$290,000
Construction	$538,000
Contingency (15%)	$80,700
Total Project Costs	$908,700
Cost to Date Expenditures	$115,754
REMAINING PROJECT COSTS	**$792,946**

** Project delivery includes $104,000 for project management during design, $28,000 for bid and award, $124,000 for construction management, and $34,000 for post-construction and project closeout. The estimated project delivery cost is 54% of the construction cost, which is in line with project delivery costs for capital projects at other wastewater facilities.*

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

This is a lump sum contract. $538,000

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

4. FISCAL IMPACT: The Project will have no additional impact on the San José-Santa Clara Treatment Plant Operating Fund (Fund 513) or the General Fund.

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

BUDGET REFERENCE

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

Fund #	Appn #	Appn. Name	Total Appn	Amt. for Contract	2019-2020 Proposed Capital Budget Page*	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			**$792,946**			
Remaining Funding Available						
512	5690	Plant Infrastructure Improvements	$1,770,000	$538,000	V-157	06/18/2019 Ord. No. 30286

*The 2019-2020 Proposed Capital Budget was adopted by City Council on June 18, 2019, and incorporated changes as described in Manager's Budget Message #36 and the Mayor's June Budget Message for Fiscal Year 2019-2020.

CEQA

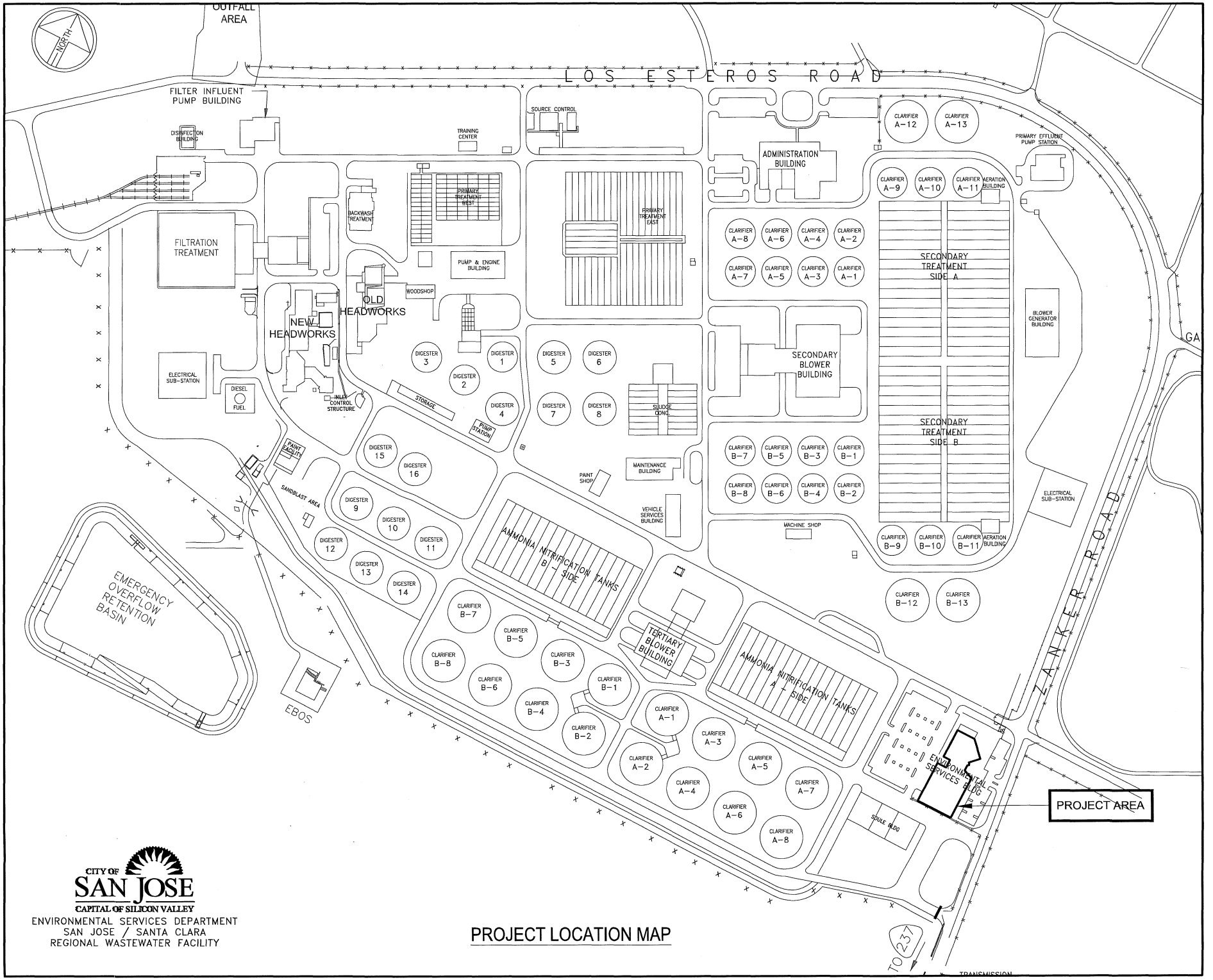
Exempt, File No. PP17-049, CEQA Guidelines Section 15301, Existing Facilities.

/s/
KERRIE ROMANOW
Director, Environmental Services Department

/s/
MATT CANO
Director of Public Works

For questions, please contact Napp Fukuda, Assistant Director, Environmental Services Department at (408) 793-5353.

Attachment A - ESB Lab HVAC Ducting Replacement Project Location Map



CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

ENVIRONMENTAL SERVICES DEPARTMENT
SAN JOSE / SANTA CLARA
REGIONAL WASTEWATER FACILITY

PROJECT LOCATION MAP

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 9/24/19
FILE:
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): Environmental Services	**CEQA:** Not a Project, File No. PP17-002, Consultant services for design, study, inspection, or other professional services with no commitment to future action.	**Coordination:** City Attorney's Office; City Manager's Budget Office The Treatment Plant Advisory Committee will consider this item on September 12, 2019	**Dept. Approval:** /s/ Kerrie Romanow
Council District(s): City-Wide			**CMO Approval:** 9-3-19

SUBJECT: FIRST AMENDMENT TO THE MASTER AGREEMENT WITH CORNERSTONE EARTH GROUP FOR ENVIRONMENTAL SUPPORT SERVICES

RECOMMENDATION:

Approve the First Amendment to the Master Agreement with Cornerstone Earth Group for environmental consulting services, increasing the amount of compensation by $500,000, for a total agreement not to exceed $1,000,000. No extension is being recommended on the term of the agreement, which expires on June 30, 2020.

BASIS FOR RECOMMENDATION:

On April 25, 2017, Council awarded a Master Agreement for Consultant Services for environmental consulting services in the amount of $500,000 to Cornerstone Earth Group following a competitive procurement. The Environmental Services Department (ESD) has issued nineteen Service Orders under this agreement, totaling $466,466 for various projects, including groundwater monitoring and contamination investigations at the former Story Road Landfill, an underground tank removal and soil cleanup oversight for Del Monte Park, and a variety of projects at the Regional Wastewater Facility (RWF) including pre-project contamination investigations of CIP projects for Headworks, Filtration, Sludge Dewatering and Nitrification Clarifiers.

As one of the City's on-call environmental consultants for the past several years, Cornerstone Earth Group has obtained extensive knowledge of environmental conditions at the Story Road Landfill and the RWF. Their technical expertise provided to these projects, as well as numerous other environmental-related projects, are commensurate with the expertise necessary to continue providing environmental support services. Increasing the compensation on this Master Agreement will allow Cornerstone to continue to provide environmental consulting services for several critical projects in Fiscal Year 2019-20 including Story Road landfill monitoring and contamination investigations, RWF CIP pre-project soil and groundwater contamination investigations and RWF Legacy Biosolids closure plans and regulatory assistance. In addition, ESD provides environmental support to various City Departments. There is a strong likelihood that new projects will occur in the next fiscal year that will require the support of Cornerstone.

Increasing the maximum total compensation from $500,000 to $1,000,000 (with no change in term) of the Cornerstone Earth Group's Master Agreement will allow the City to continue to meet the regulatory requirements and ensure public safety in the most cost effective and timely manner.

COST AND FUNDING SOURCE:

Services performed by Cornerstone under this agreement will be authorized by Service Orders. An appropriation is not required for execution of the Master Consultant Agreement, but is required for each Service Order authorized under this agreement. Future funding is subject to appropriation and, if needed, will be included in the development of future year budgets during the annual budget process.

FOR QUESTIONS CONTACT: Jennifer Voccola-Brown, Acting Environmental Sustainability Manager at 408-975-2594

COUNCIL AGENDA: 09/17/19
FILE:
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Matthew Cano

SUBJECT: **SEE BELOW**

DATE: August 21, 2019

Approved [signature] Date 9-3-19

SUBJECT: APPROVAL OF A DESIGN-BUILD CONTRACT WITH WALSH CONSTRUCTION COMPANY, LLC FOR THE DIGESTED SLUDGE DEWATERING FACILITY PROJECT AT THE SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Adopt a resolution adopting an Addendum to the Environmental Impact Report for the San José-Santa Clara Water Pollution Control Plant Master Plan Project in accordance with the California Environmental Quality Act (CEQA), as amended, and adopting a related Mitigation Monitoring and Reporting Program.

(b) Approve the design-build contract with Walsh Construction Company, LLC for the Digested Sludge Dewatering Facility at the RWF in an amount not to exceed $7,492,564 for the performance of Preliminary Services under the contract.

(c) Approve a design contingency in the amount of $749,256 for City-approved changes to the scope of Preliminary Services.

(d) Adopt a resolution authorizing the City Manager or his designee to:

  (1) Negotiate and execute separate amendments to the contract to direct Walsh Construction to repair critically deteriorated infrastructure that requires immediate repair, which may be discovered during subsurface investigations, in an amount not to exceed $500,000.

  (2) Negotiate and execute separate amendments to the contract to allow Walsh Construction to proceed with discrete portions of the Design-Build Work (referred to as "Early Work Packages") prior to the City's execution of the Definitive Contract Amendment in an amount not to exceed $10,800,000, which amounts will be subject to the base Guaranteed Maximum Price;

  (3) Negotiate and execute change orders in excess of $100,000 up to the amount of the approved contingency for changes to the scope of the Preliminary Services and/or Early Work Packages.

OUTCOME

Approval of staff's recommendations will allow for the performance of Preliminary Services and subsurface investigations for the Digested Sludge Dewatering Facility Project, by Walsh Construction Company, LLC, pursuant to the design-build contract. In addition, schedule driven activities could be initiated as early work packages, allowing for refinement of the Guaranteed Maximum Price (GMP) before it is presented to Council in 2020. The Preliminary Services contingencies will provide funding for additional work and unforeseen conditions that may be necessary for the effective completion of the Preliminary Services.

EXECUTIVE SUMMARY

The Digested Sludge Dewatering Facility (Project) will provide a new biosolids mechanical dewatering facility (Facility) to allow City to transition out of the existing solar drying. The current solar operation uses 750 acres of land and requires four years to dry sludge biosolids. The new dewatering facility will be built in an area of approximately 10 acres and will drastically reduce the process time to less than one day.

Construction of the new Facility will position the RWF to meet multiple objectives established previously in the Plant Master Plan (PMP) and the Biosolids Transition Strategy, as well as to position the facility to respond to emerging regulatory changes, specifically Senate Bill (SB) 1383. The Project is intended to: 1) reduce the footprint of the biosolids processing area and enable other land uses, 2) create flexibility to respond to future regulatory changes governing the allowable disposal of treated biosolids, specifically the potential impact of SB 1383, which calls for diversion of organics, including biosolids, from landfills, and 3) reduce odors in the community.

The dewatered cake to be produced in the new Facility is a desirable end product, which has been confirmed by market surveys completed by staff and their consultants, and it could be used for multiple beneficial uses, including composting, land application, as a component for liquid fertilizers and production of soil amendments.

In January 2016, the Director of Environmental Services and Director of Public Works approved the use of the progressive design-build (PDB) delivery method for the Project due to its complexity, the need to coordinate with multiple other projects, and uncertain requirements for integration with existing facilities. The PDB delivery method provides a single point of responsibility for both design and construction and increases the potential for innovative solutions to complex issues. Brown and Caldwell is assisting with the process by serving as the Owner's Advisor for the Project, providing support to City staff for the resolution of technical issues.

A design-build contract has been negotiated with Walsh Construction for Preliminary Services, which includes the completion of preliminary investigations required for the project, development of the design to a 60-percent level of completion, and development of the Guaranteed Maximum Price (GMP) that the City will pay to build the Facility. The tasks identified as part of these Preliminary Services are expected to be completed in 18 months.

Based on the price and contract terms established as part of the Preliminary Services, the Definitive Contract Amendment (DCA) will include the requirements to complete the construction, start up and commissioning and support services for this Project. Construction of the project is expected to take approximately 36-months, including site preparation activities. The contract also requires enrollment in the City's Owner Controlled Insurance Program (OCIP). The project is not subject to the Citywide Project Labor Agreement (PLA) since it was procured prior to the Council adopting these requirements.

The contract allows for the issuance of Early Work Package (EWP) during the Preliminary Services to shorten the overall project schedule and reduce risk, both of which have the potential to reduce overall project costs. Staff has identified the need for two EWPs to: 1) prepare the site for construction (including rough grading, site surcharge and utility connections) and 2) accelerate the completion of final design in preparation for GMP. Staff is requesting approval of Preliminary Services, authorization to negotiate and execute two EWPs, and approval of associated City-held contingencies as summarized below:

Preliminary Services (Design Phase, Design-Builder)	$7,492,564
Design Contingency (Owner-Controlled)	$749,256
Infrastructure Repair Contingency (Owner-controlled)	$500,000
Early Work Package No. 1 (Site Work) Not-to-Exceed Limit	$5,760,000
Early Work Package No. 2 (Final Design)	$5,030,000
Total Not-To-Exceed Amount	**$19,541,820**

The Project's current budget can be broken down as follows:

Preliminary Services (Design Phase, Design-Builder)	$7,492,564
Design Contingency (Owner-Controlled)	$749,256
Planning Level Construction Phase/GMP	$85,129,000
Construction Contingency @15% (Owner-controlled)	$12,769,000
Total Design and Construction	**$106,139,820**
Project Delivery	$21,829,822
Total Project Budget	**$127,969,642**

Completion of the Basis of Design Report (BDR) during early 2020 and 30% design in mid-2020 will allow Walsh Construction to provide a more accurate GMP estimate. Staff will return to Council in fall 2020 to recommend a GMP not-to-exceed amount and seek delegation of authority to the City Manager to negotiate and execute the final DCA and any additional EWPs that may be identified.

BACKGROUND

Project History and Purpose

The RWF is an advanced wastewater treatment facility that treats an average of 110 million gallons per day of wastewater collected from eight South Bay cities and four special districts. Biosolids resulting from the wastewater treatment process are first digested in anaerobic digesters, resulting in approximately 85 dry tons of digested sludge per day, and then transferred to open-air lagoons. The stabilization process in the open air lagoons lasts approximately three-and-a-half years, then the biosolids are moved to drying beds for another six months, resulting in Class A biosolids that are transported to the adjacent Newby Island landfill for use as an alternative daily cover (ADC) material.

In 2008, the RWF embarked on a master planning process to rehabilitate and upgrade its facilities and to explore potential process changes. The Plant Master Plan (PMP), adopted by the San Jose and Santa Clara City Councils in 2013, recommended a comprehensive Biosolids Management Plan (BMP) that would transition from the current open lagoons and drying bed process to an enclosed, mechanical dewatering and drying facility with the resulting dewatered biosolids hauled off-site. This transition was recommended to:

- Reduce potential odors in the community,
- Position the RWF to have multiple and diversified disposition options besides use of biosolids as ADC,
- Reduce the footprint of the lagoons and drying beds area to enable other land uses, and
- Create flexibility to respond to future regulations governing the disposal of treated biosolids.

An additional recommendation was to prepare a Biosolids Transition Strategy to further evaluate specific issues regarding implementation of this biosolids transition. This strategy was completed in 2014 and Council approved recommendations identified in this document in December 2014 and June 2015. One of the key recommendations was to proceed with the Project.

A summary of the studies and recommendations associated with the biosolids transition were presented previously as part of the information memo dated March 2, 2018, which is included as Attachment A to this memorandum.

As noted in Attachment A, while the closure of Newby Island Landfill is no longer an imminent risk to current RWF biosolids operations, recent legislation (California enacted Senate Bill 1383) that could possibly eliminate the option to send biosolids to Newby Island Landfill as early as January 1, 2022, has increased the urgency for the RWF to diversify its disposition options.

Construction of the new Facility will position the RWF to have diversified and multiple disposition options for its biosolids. Dewatered cake is a desirable end product based on previously completed market surveys and will ensure that the RWF has disposition options in compliance with the pending SB 1383 regulations. The new Facility will also reduce odors in the community and allow the RWF to reduce its biosolids processing operational footprint from 750 acres to 10 acres.

Project Description

The Project will construct a new dewatering building to house mechanical dewatering equipment; sludge and dewatered cake storage, conveyance, and truck load-out facilities; chemical feed station; pump station to return centrate to headworks; operations and maintenance space and storage; and associated mechanical, electrical, and instrumentation equipment. The Project scope will also include new sludge transfer pumps and sludge storage tanks; a new sludge export pump station and pipelines; vehicle storage and parking; and general civil work. The proposed sludge pumping facilities will transfer sludge from the existing digesters to the new dewatering building on the east side of Zanker Road, as illustrated in Attachment B. The dewatered sludge will be loaded into trucks and hauled away for a variety of beneficial re-uses. The Facility will be designed to process a wide range of digested sludge flows, loads, and characteristics. It will allow for future expansion to ultimate flow and load conditions and to accommodate potential future biosolids processing facilities.

Project Delivery Method

On January 1, 2015, Senate Bill 785 (Wolk) took effect and allowed the use of design-build by regional facilities, like the RWF, for projects valued over $1,000,000 as long as their respective governing bodies approved. Subsequently, on March 24, 2015, City Council adopted a resolution approving the use of low bid design-build and progressive design-build (PDB) as possible delivery methods for projects in the RWF's CIP and delegated authority to the Directors of Environmental Services and Public Works to determine the appropriate delivery method for each project. In January 2016, the PDB delivery method was determined to be appropriate for the Project due to its complexity, the need to coordinate with multiple other projects, and uncertain requirements for integration with existing facilities. Brown and Caldwell is assisting with the process by serving as the Owner's Advisor for the Project.

ANALYSIS

Design-Builder Selection Process

The City used a two-step selection process for procurement of the design-builder, in accordance with Public Contract Code, Sections 22160-22169 (State Law), which governs certain local agency design-build projects.

The first step of the selection process involved shortlisting design-builders based on qualifications. As part of this step, a Request for Qualifications (RFQ) was advertised on March 16, 2018, and Statements of Qualifications (SOQs) were received on May 9, 2018 by interested proposers. The RFQ consisted of a pre-qualification questionnaire intended to address the minimum general requirements that should be met by design-build firms (acceptable safety record, licenses and registrations, workers compensation history, etc.) and a requirement to list key personnel including their project experiences. The RFQ also required that the design-build firm had completed design-build projects similar in nature to the Project and were financially capable of performing the work.

Four design-build firms submitted SOQs:

- AECOM, as Engineer and General Contractor
- HDR Engineering, with Overaa Construction as General Contractor
- Jacobs Engineering, with Kiewit Construction as General Contractor
- Walsh Construction, with Black & Veatch as Engineer

Based on the submittals, the City determined that all four firms were qualified and eligible to submit proposals.

The second step of the selection process consisted of the submission and evaluation of technical proposals. A Request for Proposals (RFP) was issued on October 10, 2018 and the City received proposals from three firms on December 14, 2018. AECOM did not submit a proposal.

State Law allows the use of "best value" as a design-builder selection method so that competitive proposals can be evaluated by using the criteria and selection procedures specifically identified in the RFP. "Best value" selection is done through an evaluation of objective criteria that may include, but not be limited to price, features, functions, life-cycle costs, experience, and past performance. Responsive proposers are ranked based on a determination of the best value provided to the City. Key elements reviewed and scored during the RFP process included:

- Technical and management approach to meet Project objectives;
- A design-build price consisting of a Preliminary Services fee, general conditions fee, and design-builder fee;
- Approach to how life-cycle cost will be addressed during the Project cost evaluation process;

- A bonding capacity of at least $100 million;
- Ability to meet all insurance mandates as dictated by the RFP;
- Strategy for local subcontracting, commitment to providing a skilled and trained workforce, and labor peace; and
- The City's small and local business preference.

The selection panel, consisting of representatives from Environmental Services, Public Works, and a local labor union, evaluated the written proposals based on the key elements above and held interviews with the three candidate firms on January 29, 2019. Evaluations were based on the following criteria and scoring:

Evaluation Criteria	**Weight**
SOQ Score Carryover	20
Project Approach	25
Review of Indicative Design	5
Subcontracting & Workforce	5
Life-Cycle Cost	2
Price	13
Local Business Preference	5
Small Business Preference	5
Interview	20
Total	100

The rounded scores and final ranking were as follows:

Evaluation Criteria	**HDR**	**Jacobs/CH2M**	**Walsh**
SOQ Score Carryover	15.6	14.8	15.5
Project Approach	20.0	18.4	23.5
Review of Indicative Design	4.0	3.6	5.0
Subcontracting & Workforce	3.8	3.8	4.3
Life-Cycle Cost	1.7	1.0	1.5
Price	12.7	8.9	11.3
Local Business Preference	5.0	5.0	5.0
Small Business Preference	0.0	0.0	0.0
Interview	16.5	12.7	17.9
Total	79.3	68.2	84.0
Ranking	2	3	1

The selection panel unanimously ranked Walsh Construction as the highest ranked firm to execute the Project. While all three firms were well qualified, Walsh Construction distinguished itself from the other proposers during the interview phase by demonstrating a clear understanding of Project objectives, outlining innovative approaches to completing the Project, and confirming their highly experienced professionals were dedicated to the success of the Project. The Walsh Construction/Black and Veatch team has extensive design-build experience, including the design and construction of similar dewatering facilities. Walsh Construction has a local Bay Area office in Concord and has been successfully working with the City for the last three years on the Digester and Thickener Facilities Upgrade project. In addition, they have previously completed a total of seventeen (17) treatment plant projects with their engineering partner, Black and Veatch.

Design-Builder Contract Negotiations

A draft design-build agreement was included as part of the RFP process. This agreement was initially developed by City staff and the City Attorney's Office in consultation with attorneys from the City's outside design build counsel, Hawkins Delafield & Wood LLP (Hawkins). This agreement has been previously used in two other design build projects at the RWF, the Cogeneration Facility and Headworks projects, and it was tailored to accommodate specific requirements of the Project. Attachment C contains the key contract elements and terms.

Upon establishment of the proposer rankings, City staff negotiated all aspects of the design-build contract with Walsh Construction in order to finalize the terms of the agreement. Negotiations started in March 2019 and were completed in August 2019. The negotiations were completed with the intent of achieving the following goals:

- Develop a fixed and fair fee for the Preliminary Services consistent with industry standards;
- Ensure the City receives services commensurate with cost;
- Establish a detailed scope of services and realistic schedule and budget requirements;
- Establish a collaborative relationship with the Walsh Construction that will continue during the design process;
- Allow for aspects that will allow innovation to maximize value to the City; and,
- Equitably allocate risk and reward.

Although the terms of the contract apply to the entire Project, staff is requesting approval of only the Preliminary Services and authorization to negotiate two EWPs and associated City-controlled contingencies as summarized below:

Preliminary Services (Design Phase, Design-Builder)	$7,492,564
Design Contingency (Owner-Controlled)	$749,256
Infrastructure Repair Contingency (Owner-controlled)	$500,000
Early Work Package No. 1 (Site Work) Not-to-Exceed Limit	$5,770,000
Early Work Package No. 2 (Final Design) Not-to-Exceed Limit	$5,030,000
Total Not-To-Exceed Amount	**$19,541,820**

The Preliminary Services to be performed under this contract will include project management, preliminary investigations; preparation of Basis of Design Report; completion of detailed design to 60 Percent; development of Definitive Project Submittal (DPS) and GMP; and completion of the DCA.

As part of their proposal submittal, Walsh Construction was required to submit a lump-sum fee for the Preliminary Services reflecting the scope included in the RFP; this fee was used as the starting point for the negotiations with the City. As part of the negotiation process, City staff identified additional project requirements for the project, mostly related to additional preliminary investigations requirements. These studies and investigations are necessary to inform the design phase of the Project and reduce risks to the City during the construction phase. Preliminary investigations to be completed include geotechnical and hydrologic analysis, hazardous materials investigations, soils testing, underground utilities investigations, odor modeling and dewatering equipment testing. The final lump sum fee that is presented in this Memorandum reflects these City-identified additions. An owner-controlled construction contingency of $500,000 is being recommended in the event that the utility investigations, performed during Preliminary Services, discover critically damaged infrastructure that require immediate repair. This situation has been previously encountered in other recent projects at the RWF; therefore, Staff feels it is prudent to include this allowance for the Project.

Staff recognizes that despite the best efforts that have been made to develop an all-inclusive scope, there may be unknown conditions and changes to the design required to accommodate potential regulatory issues, changes in existing conditions or items identified by project stakeholders, so it is recommended to include a City-controlled design contingency amount to cover costs for City-approved changes to the Preliminary Services scope. Staff is recommending the allowance of a ten percent contingency for this purpose. All changes will be negotiated based on a detailed scope, pre-negotiated service fees schedule and allowable markups for the Design Builder, as established in the agreement.

In addition, City Staff is also recommending two EWPs for activities that should be completed prior to the final negotiation and approval of the GMP: 1) Site Preparation, and 2) Final Design of the Facility.

The purpose of EWP No. 1 (Site Preparation) is to complete time-intensive site work in advance of the main construction phase for the Facility. This work will include the relocation of existing utilities at the proposed site and work necessary to complete site preparation and foundation work. Traditional foundation work will most likely require the use of foundation piles; however, the preliminary geotechnical investigations results will inform the design-builder on the feasibility of completing site surcharge on the site. Surcharging the area for the new Facility may be a cost-effective measure compared to piling, however, the process can take anywhere from six months to one year during which time no other work at the site can proceed. This work cannot be completed within the Preliminary Services, since it requires a construction-type contract that includes all necessary requirements for safety, insurance, bonding, etcetera.

The purpose of EWP No. 2 (Final Design) is to allow the Design Builder to proceed with the final design while the GMP is being negotiated with the City, avoiding potential delays. In addition, if GMP negotiations are not successful and the City decides not to enter into contract with the Design Builder for the construction phase, the finalized design could be packaged and put out for bid for construction like any other traditional design-bid-build project, minimizing overall delay.

Both of these packages are schedule-driven and timely completion will reduce overall risk to the City. The costs included at this point are "not-to-exceed" amounts which will be subject to the base GMP.

Project Schedule

The Preliminary Services Work is projected to take 18 months and the subsequent Design-Build Work is anticipated to take 36 months, including Site Preparation. Key milestones for the project include:

October 2019	Notice to Proceed for Preliminary Services
July 2020	EWP No.1: Site Preparation
September 2020	Completion of 30% design and return to City Council for approval of not-to-exceed amount
November 2020	EWP No.2: Final Design
January 2021	Definitive Project Submittal
April 2021	Completion of GMP Negotiations and Notice to Proceed for Construction/Design-Build Work
November 2023	Project Completion

Project Budget
The Project's current budget can be broken down as follows:

Preliminary Services (Design Phase, Design-Builder)	$7,492,564
Design Contingency (Owner Controlled)	$749,256
Construction Phase/GMP	$85,129,000
Construction Contingency @ 15% (Owner-controlled)	$12,769,000
Total Design and Construction	**$106,139,820**
Project Delivery	$21,829,822
Total Project Budget	**$127,969,642**

The $85,129,000 GMP estimate included in the current project budget is based on a planning-level estimate from the Project Definition Report (representing approximately 5-percent design level of completion) developed by the Owner's Advisor. Construction costs at this level of design are considered to be within an accuracy of - 30% to + 50%, since most of the scope elements are still at an early stage of development. The current estimate also includes a 15% contingency.

It is anticipated that construction costs could be higher than this preliminary estimate after the Design Builder performs early investigations and progresses the design. If necessary, staff will make budget adjustments and continue to refine the costs after completion of the BDR and the EWPs, when a more definitive scope of work and construction cost estimate will be available.

Staff will also actively work with Walsh Construction during the design process and incorporate value engineering, evaluation of life-cycle costs, and validation of scope and cost elements to obtain the best value for the City. During development of the DPS, there will be an opportunity to evaluate construction costs through a transparent, open-book process. The Owner's Advisor will assist in validating the proposed costs to ensure the City receives a fair and competitive price to construct the Project.

EVALUATION AND FOLLOW-UP

Following the completion of the 30% design in September 2020, which will more clearly define the Project, staff will return to Council to seek delegation of authority to the City Manager to negotiate and execute the DCA, which will allow the construction phase Design-Build work to begin for the agreed upon GMP.

A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee and City Council on a semiannual basis. Monthly progress reports of the RWF CIP will also be submitted to the Treatment Plant Advisory Committee (TPAC) and posted on the City's website.

POLICY ALTERNATIVES

Alternative #1: Approve the Contract to authorize Preliminary Services, but do not authorize the City Manager to negotiate and execute contracts for two EWPs.
Pros: Postpones Council approval of EWPs until GMP scope and fee are completely defined.
Cons: Delays site preparation and completion of design, extending the project schedule, which increases project costs.
Reason for not recommending: Staff recommends authorizing the EWPs to reduce City-risk and avoid schedule delays. Additional authorization for other EWPs may be requested, if beneficial, as part of the next Project Council Memo to be submitted in 2020.

Alternative #2: Approve the Contract to authorize Preliminary Services and authorize the City Manager to negotiate and execute contracts for two EWPs, and the GMP.
Pros: Allows for identification of manufacturer-specific design requirements, which eliminate the risk of redesign costs, avoids potential delays of initial site work, which would increase project cost, and eliminates the need to return to Council if the initial budget is adequate.
Cons: At the current level of design completion, there is uncertainty regarding Project costs, thus the GMP recommendation to Council for approval at this point in time will need additional contingency to account for these uncertainties.

Reason for not recommending: Staff recommends waiting until completion of the 60% design and EWPs before authorizing the GMP in order to collect additional information and advance project design, which will improve the accuracy of the GMP.

PUBLIC OUTREACH

The RFQ was advertised on BidSync on December 10, 2018. This memorandum will be posted on the City's Council Agenda website for the September 24, 2019 Council Meeting following the TPAC meeting on September 12, 2019. Information about the procurement process was shared during a vendor open house event held at the RWF on February 8, 2017, which was well-attended by prospective consultants and contractors. Information on this event was posted to BidSync and the CIP Document Library on the City's website.

COORDINATION

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

COMMITTEE RECOMMENDATION/INPUT

This item is scheduled to be heard at the September 12, 2019, TPAC meeting. A supplemental memo with the Committee's recommendation will be included in the amended September 17, 2019 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 reliability and efficiency.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: $7,492,564

2. COST ELEMENTS

Preliminary Services (Design Phase, Design Builder)	$7,492,564
Design Contingency (Owner-controlled)	$749,256
Infrastructure Repair Contingency (Owner-controlled)	$500,000
EWP No. 1 (Site Preparation) Not-to-Exceed Limit	$5,770,000
EWP No. 2 (Final Design) Not-to-Exceed Limit	$5,030,000
Total Not-To-Exceed Amount	**$19,541,820**

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

4. FISCAL IMPACT: Operations and Maintenance (O&M) costs are anticipated to be elevated from their current level during the four-year transition period while the existing dewatering facilities are phased out of service, as operators will temporarily be required at the existing facilities as well as the new Facility. The Project involves replacing the existing solar dewatering facilities with a mechanical dewatering facility. However, the modern, more efficient equipment will result in decreased sludge drying time from 4 years (existing process) to instantaneous (i.e.: less than one day). The contract requires a life-cycle cost analysis as part of the Preliminary Services, which will more accurately define O&M costs.

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 40% to BOD and 60% to TSS.

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.

Fund #	Appn #	Appn. Name	Total Appn	Amt. for Contract	2019-2020 Proposed Capital Budget Page*	Last Budget Action (Date, Ord. No.)
512	7452	Digested Sludge Dewatering Facility	$12,519,000	$8,241,820	V-137	06/18/2019 Ord. No. 30286
Total Current Funding Available			**$12,519,000**	**$8,241,820**		

*The 2019-2020 Proposed Capital Budget was adopted by City Council on June 18, 2019, and incorporated changes as described in Manager's Budget Message #36 and the Mayor's June Budget Message for Fiscal Year 2019-2020.

Services performed by Walsh Construction under this contract will be authorized by Notice to Proceed. An appropriation is not required for the execution of this design-build contract, but is required for each contract authorization. There is adequate funding available in 2019-2020 to issue Preliminary Services. Future funding is subject to appropriation and, if needed, will be included in the development of future year budgets during the annual budget process.

CEQA

San José-Santa Clara Regional Wastewater Facility Digested Sludge Dewatering Facility Project Addendum, File No. PP18-018. An Addendum to the Environmental Impact Report for the San José-Santa Clara Water Pollution Control Plant Master Plan (SCH# 2011052074) was completed for the Project and posted to the City's website and the City's NewsFlash website on September 6, 2019 and is available at http://sanjoseca.gov/index.aspx?nid=4968. **Attachment D** includes the Mitigation Monitoring and Reporting Program (MMRP)

/s/
MATTHEW CANO
Director of Public Works

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Napp Fukuda, Assistant Director, Environmental Services, at (408)793-5353.

Attachment A: TPAC Information Memo on Biosolids
Attachment B: Dewatering Project Site Map
Attachment C: Key Contract Elements and Terms
Attachment D: Mitigation Monitoring and Reporting Program

Attachment A

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: February 28, 2018

Approved D. DeSyl Date 3/2/18

INFORMATION

SUBJECT: INFORMATION MEMO ON BIOSOLIDS TRANSITION AT THE SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY

BACKGROUND

At the November 9, 2017 meeting, the Treatment Plant Advisory Committee (TPAC) requested staff to agendize the biosolids transition at the San José-Santa Clara Regional Wastewater Facility[1] (RWF) for discussion at a future TPAC meeting. TPAC inquired about the purpose of the Dewatering Facility Project and implementation timing, especially considering a recent decision by the City of San Jose's Planning Commission to allow the Newby Island Landfill to increase its height and continue operating through 2041. One of the drivers for the biosolids transition as identified in the Plant Master Plan (PMP) was the anticipated closure of the Newby Island Landfill by 2025, along with other considerations such as positioning the RWF to have multiple disposition options for its biosolids and to be able to respond to future regulatory requirements.

This memo provides information on the biosolids transition including a review of the current solids treatment process; key milestones leading up to approval of the Biosolids Transition Strategy by TPAC and Council in May and June 2015, respectively; and a discussion on changes that have occurred since approval of the Biosolids Transition Strategy, including the Newby Island Landfill operating extension and recent developments related to solid waste regulations that may limit and/or remove the ability of wastewater agencies to continue sending biosolids to landfills within the State of California.

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

Description of Current Solids Treatment Process and Biosolids Management Practices

Wastewater treatment at the RWF is accomplished by using a series of physical, biological, and chemical processes to treat the liquids stream and the solids stream. The current treatment process generates approximately 85 tons of biosolids per day, which must be disposed of or beneficially reused. Biosolids resulting from the current solids treatment process are beneficially reused as alternate daily cover (ADC) at the Newby Island Landfill. In addition, methane gas, a by-product of the solids digestion process, is captured and used in internal combination engines to generate electrical power and heat for daily RWF operations.

Separated solids (or sludge) is thickened and processed through anaerobic digesters for 15 to 30 days to reduce pathogen content, sludge volume, and create biogas for beneficial reuse. The 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. On an annual basis, a portion of the dried biosolids are hauled off-site to the Newby Island landfill for use as ADC. This operation uses more than 750 acres of land and the treatment process takes approximately four years to complete from start to finish to achieve Class A biosolids. Because the lagoons and drying beds make up a large, uncovered footprint, the process has the potential for odor generation – this was confirmed through an odor study completed in 2015 which showed odor impacts to the adjacent Milpitas community based on the adopted odor goal of 5 dilution to threshold (5 D/T) at the established fence line.

Key Factors and Milestones Leading Up to Approval of the Biosolids Transition Strategy

Plant Master Plan (2008 -2013)

In 2008, the Environmental Serviced Department (ESD) embarked on a master planning process to rehabilitate and upgrade the wastewater treatment facilities at the RWF, to explore potential process changes, and guide compatible uses for the Plant buffer lands. The PMP incorporated guiding principles prepared by the City of Milpitas (Milpitas Guiding Principles[2]) and considered input from the City of Santa Clara, Tributary Agencies, community stakeholder groups, and the public. Extensive community engagement process was used to develop overarching environmental, economic, social, and operational goals for the RWF. In November 2013, TPAC recommended and Council approved the adoption of PMP and certified the final Environmental Impact Report. In December 2013, Santa Clara's City Council took similar actions.
One area of focus for the master planning process was biosolids management since treating wastewater at the RWF produces about 85 dry tons of solids each day. This current system is land-intensive and has historically been linked to odors in the area. Because of these issues and the anticipated closure of Newby Island Landfill in 2025, the adopted PMP recommended a new Biosolids Management Program (BMP) involving a variety of enclosed, odor controlled treatment processes with the resulting treated biosolids to be hauled off-site for processing and

[2] Link to the Milpitas Guiding Principles http://www.ci.milpitas.ca.gov/_pdfs/council/2011/011811/item_09.pdf

various beneficial reuse applications. The BMP also assumed a mix of Class A and Class B biosolids. Class A and Class B designations for biosolids relate to the level of pathogen reduction in the end product. Class B biosolids are considered stabilized sufficiently to reduce odors and attraction of vectors that could transmit pathogens and diseases. Class A biosolids are essentially pathogen free.

Recommendations related to the Biosolids Management Program per the adopted PMP include:

- Rehabilitation of the existing thickening facilities and mesophilic digesters and an evaluation of whether a different type of digestion process should be implemented
- Mechanical dewatering for all biosolids in an enclosed, odor-controlled facility to concentrate digested biosolids which reduces the volume and weight of material requiring transport to off-site processing and beneficial re-use locations
- Drying a portion of the dewatered biosolids using both thermal drying in an enclosed facility (20% of the biosolids) utilizing waste heat from a planned cogeneration facility and solar drying in enclosed greenhouses (10% of the biosolids)
- Decommissioning the existing open sludge lagoons and drying beds
- Additional processing and beneficial re-use at off-site composting facilities, land application sites and landfills

The adopted PMP also specified the following goals for the biosolids transition:

- Reduce odors in the community
- Position the RWF to have multiple and diversified disposition options
- Reduce the footprint of the biosolids processing area from 750 acres to about 160 acres to enable other land uses
- Create flexibility to respond to future regulatory changes governing the disposal of treated biosolids at landfills as well as changing market conditions related to beneficial reuse of treated biosolids.

Implementation of the BMP as envisioned by the adopted PMP assumed using a phased approach to implement new mechanical dewatering facilities, thermal drying facilities, and greenhouse drying facilities by 2023 and 2033, respectively; and to retire the lagoons and drying beds by 2025 (which included an assumption to use contract dewatering).

2011 Council Direction to Accelerate the Biosolids Transition

In response to community and stakeholder concerns (including those identified in Milpitas Guiding Principles) about odors emanating from the lagoons and drying beds, TPAC recommended (in May 2011) and Council directed (in September 2011) staff to accelerate the biosolids transition effort specifically calling for the RWF to cease discharging biosolids to the lagoons by 2018 followed by emptying of the lagoons and drying beds by 2024. This direction assumed the use of alternative project delivery methods (i.e., design-build and/or design-build-

operate) to achieve schedule acceleration, contract dewatering resulting in significant operating cost to the RWF, and foregoing field verification of dewatering process technologies.

After receiving this direction, staff retained Brown and Caldwell to initiate an in-depth study and implementation strategy for the biosolids transition, including conducting market surveys to assess the demand for biosolids, market interest and available capacities for accepting the large volume of biosolids generated by the RWF, cost paid by other agencies for off-site processing and disposition of biosolids, and private interest in the development of off-site biosolids processing facilities. Several other concurrent activities ensued during development of the Biosolids Transition Strategy, including a validation of the PMP projects, adoption of an Odor Control Strategy, completion of an Odor and Corrosion Control Study and Odor Implementation Plan for the RWF. These items are further discussed below.

2014 PMP Validation

In early 2014, the City completed a detailed project validation review process of all projects recommended in the adopted PMP, including those projects associated with the biosolids transition:

- Co-thickening of various sludge streams to increase digester feed concentration and include covers, ventilation, and odor control facilities for the system
- Addition of fine screening of sludge to reduce the maintenance effort required for all downstream biosolids treatment processes
- Rehabilitation of up to 10 anaerobic digesters, including upgrades to the gas mixing system, gas piping system, etc.
- Mechanical dewatering for all biosolids in an enclosed, odor-controlled facility
- Drying a portion of the dewatered biosolids using both thermal drying and solar drying in enclosed greenhouses
- Decommissioning of the existing open-air sludge lagoons and solar drying beds
- Pursuing multiple disposition options for beneficial re-use of biosolids at off-site facilities (i.e., composting, land application, soil amendment, ADC)
- Providing 180-day sludge lagoon storage

With the exception of one project, the validation effort confirmed the need to implement all of the projects recommended by the adopted PMP as related to the biosolids transition. The exception was to replace the PMP recommendation to build in 180-day sludge lagoon storage with a recommendation to build an enclosed four-day storage facility, which is more in line with best practices at other wastewater facilities.

Biosolids Transition Strategy, Odor Control Strategy and Implementation Plan (2014 - 2015)

On April 10, 2014, staff presented preliminary information on the Biosolids Transition Strategy to TPAC at a Biosolids Study Session. The Study Session provided an opportunity for TPAC and other stakeholders to provide input on the transition strategy. Discussion topics included a

summary of recommendations from the adopted PMP, an overview of biosolids management approaches, and various disposition options including potential options specific to the RWF. Staff also outlined steps to solicit interest from the open market and the methodology for conducting business case evaluations in order to bring back recommendations to TPAC and Council in fall 2014. Feedback from TPAC at the Study Session included consideration of odor impacts, expandability of the facility in the future, possibility of producing Class A biosolids instead of Class B biosolids, and impact on operation and maintenance costs.

Following the April 10, 2014 Study Session, staff returned to present a status update on the Biosolids Transition Strategy to the Transportation & Environment Committee (T&E), TPAC (special meeting), and Council on October 22, 2014, November 20, 2014, and December 2, 2014, respectively.

The outcome of these meetings included approval to proceed with temperature phased anaerobic digestion (TPAD) upgrades and deferral of thermal and greenhouse drying facilities, and direction to staff to return with additional odor and cost information for transitioning out of the lagoons and drying beds to help inform decision making on both the incremental cost benefit for various alternatives and timing of the biosolids transition, particularly with regards to then pending actions by the San Jose Planning Commission to allow the Newby Island Landfill to extend its height and continue operations beyond 2025 to 2041. Staff also recommended performing additional analysis on other potential siting locations for the new Dewatering Facility within the RWF's main operational footprint. Staff was also asked to bring back potential alternatives, if any, that would retain the use of the current lagoon and drying bed process and still meet the desired odor goal. Staff was directed by Council to perform the additional analyses and to bring back the remaining recommendations in spring 2015.

The staff report can be found at: http://sanjoseca.gov/DocumentCenter/View/37716

On May 14, 2015 and June 2, 2015, TPAC recommended and Council and approved the final Biosolids Transition Strategy Report. The approved biosolids transition strategy recommendations include:

- Proceed with implementation of the Digested Sludge Dewatering Facility and the Lagoon and Drying Bed Retirement projects
- Locate the Digested Sludge Dewatering Facility at a selected site across Zanker Road
- Direct staff to bring back recommendations on the size and makeup of the Biosolids Management Team (BMT) for City Council consideration as part of the annual budget process for 2016-2017
- Implement any future on-site processing facilities considering conditions at the time including starting small with pilots, demonstrations, and phasing and potentially participating in regional facilities and emerging technologies

In conjunction with making a recommendation to proceed with constructing a new dewatering facility sized to process 100 percent of sludge volume generated by the digestion process and decommissioning of the lagoons and drying beds, staff also recommended a new timeline for implementation these projects to allow for proper planning, environmental clearance, permitting,

procurement, design, construction, start-up and commissioning. The revised schedule, which was recommended by TPAC and approved by Council, shows a completion date of 2022 for the new dewatering facility and decommissioning of the existing lagoons and drying beds by 2027. In comparison, the adopted PMP assumed a completion timeline of 2023 for the first phase of the dewatering facility, and 2025 for decommissioning of the lagoons and drying beds.

The staff report can be found at:
http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516437

In parallel, an Odor Control Strategy was developed to establish an odor fence line and odor goals for the RWF. The Odor Control Strategy for the RWF was presented at the November 20, 2014 TPAC special meeting. TPAC recommended and Council approved the Odor Control Strategy at the December 2, 2014 City Council meeting. The staff report can be found at: http://sanjoseca.gov/DocumentCenter/View/37729.

After this, an Odor Implementation Plan was presented at the October 8, 2015 TPAC meeting. TPAC recommended and Council approved the Odor Implementation Plan at the October 27, 2015 City Council meeting. The staff report can be found at:
http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=1470&meta_id=539026

As part of the approval of the Odor Control Implementation Plan, staff was directed to defer odor control improvements for the Digested Sludge Dewatering Facility project because it was not necessary to mitigate on-site impacts at the southern odor fence line. However, for construction efficiency, ductwork elements necessary for building ventilation and the future odor control system would be included as part of the new dewatering facility. Construction of the actual odor scrubber system would be deferred until funding for this improvement could be identified, possibly as part of future development. The estimated capital cost related to odor control improvements for the dewatering facility is $6.59 M (2015 dollars), of which the odor control scrubber technology is the majority portion.

ANALYSIS

This section provides an update on the key biosolids transition projects (Digester and Thickener Facilities Upgrades Project, Digested Sludge Dewatering Facility Project, Lagoons and Drying Bed Decommissioning Project, and implementation of the Biosolids Management Team) since the June 2015 City Council direction. In addition, it summarizes changes and updates to existing conditions as well as current and future legislation that may affect the biosolids transition.

Updates on Key Biosolids Transition Projects

Digester and Thickener Facilities Upgrade Project (2013 to present)

The Digesters and Thickener Facilities Upgrade Project is currently under construction and expected to be substantially complete by fall 2020. This project will improve the anaerobic

digestion, digester gas conveyance system, and dissolved air flotation thickening systems. It also includes the construction of a new primary sludge screening facility. Based on the recommendations of the Biosolids Transition Strategy, this project will rehabilitate four existing mesophilic digesters facilities to operate as a TPAD system for improved biogas production and pathogen destruction as well as position the RWF to produce Class A biosolids (with the addition of batch tanks in the future) when there is increased market demand for Class A biosolids.

Digested Sludge Dewatering Facility Project (2015 to present)

Per the June 2015 Council direction, staff initiated the Digested Sludge Dewatering Facility Project, which will be delivered using a progressive design-build delivery method. The staff memo for this delivery method selection can be found in Attachment B.

In 2016, the City selected Brown and Caldwell to serve as the Owner's Advisor (OA). The staff report can be found at:
http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=2159&meta_id=597108

The OA has prepared technical memoranda evaluating alternatives and is preparing a Project Definition Report and CEQA documents. Staff is also currently preparing a Request for Qualifications for procurement of a Design Build (DB) entity, and anticipates advertising in spring 2018. Staff anticipates bringing forward a recommendation for selection of a DB entity to Council for approval in early 2019, followed by beginning of design phase. Construction is anticipated to begin in mid-2020, and substantial completion is expected by late 2022.

Lagoons and Drying Bed Decommissioning Project (2015 to present)

After Council approval in June 2015, staff conducted project scoping for the lagoon and drying beds decommissioning project, and recommended that O&M perform sludge removal and land maintenance of the decommissioned lagoon and drying beds until a future land use has been identified for that area. Future land use considerations will be looked at as part of the next major update to the PMP, which is anticipated to initiate in the 2023-2024 timeframe. Staff also recommended reducing the capital improvement scope to only construction of access ramps for lagoons. This re-scoping effort is anticipated to substantially reduce the project construction cost and annual O&M cost. Decommissioning of the lagoons and drying beds is expected to be completed by 2027.

Implementation of Biosolids Management Team (2016 to present)

After Council approval in June 2015, staff conducted surveys of six other peer large municipal agencies on the roles and responsibilities, makeup, and qualifications of their BMTs, as well as identified types and durations of typical biosolids contracts at these agencies. Staff has submitted a budget proposal to add an Environmental Service Program Manager position in FY 2018-19 to develop and lead the BMT; additional support positions be recommended in future years. This position add was initially planned for FY 2016-17, but was deferred to FY 2018-19 based upon the updated implementation schedule.

Over the next few months, staff will be further refining the implementation plan for the biosolids transition including developing a comprehensive contracting strategy and updating the previously identified dispositions options and market analysis in light of recently passed legislation related to biosolids disposition (discussed in the following section).

Changes to Existing Conditions and Future Regulations affecting Biosolids Transition

Extension of Newby Island Landfill Operation (2016 to present)

The City's contract with Newby Island Landfill expires in December 2020. During the development of the PMP and the Biosolids Transition Strategy, the potential closure of the adjacent Newby Island Landfill in 2025 was one of the drivers of the biosolids transition. In December 2016, the City of San José Planning Commission approved a plan to allow the landfill to increase in height and continue operation through 2041. A synopsis of the Planning Commission's action items can be found at:
http://www.sanjoseca.gov/DocumentCenter/View/63168

While the Newby Island Landfill operation has been extended, recent legislation could potentially limit the disposal of biosolids (considered an organic) to landfills (further discussed below).

Increased Focus on RWF Odors by BAAQMD (2015 to present)

The Bay Area Air Quality Management District (BAAQMD) has increased its focus on monitoring odors from the RWF biosolids operation, and is working closely with RWF staff when biosolids are hauled to Newby Island Landfill. BAAQMD has also placed strict requirements on other RWF Projects including Iron Salt Feed Station, Cogeneration Facility, and Digester and Thickener Facility Upgrades for fugitive emissions, particulates, and hydrogen sulfide emissions.

Regulatory Drivers affecting Biosolids Disposition (2016 to present)

Legislation recently enacted in California has introduced uncertainty for Publicly Owned Treatment Works (POTWs), including the RWF, on the long-term viability of disposition of biosolids as ADC at landfills which is, at present, the sole biosolids disposition practiced at the RWF. The key legislation impacting the disposition of biosolids at RWF is Senate Bill SB 1383 (2016) that sets a goal of diverting 50% of organic waste from landfills by 2020, and mandates diverting 75% of organic waste from landfills by 2025. Biosolids, such as those produced at the RWF, are included within the definition of organics to be diverted from landfills.

The text for Senate Bill 1383 can be found here:
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=2t01520160SB1383

CalRecyle and California Air Resources Board (CARB) have developed draft regulatory text to enact this legislation, and are considering the complete diversion of biosolids from landfills (including ADC) to reduce organic waste to landfills. Once finalized, this legislation could preclude the RWF from continuing to dispose of its biosolids at Newby Island Landfill (or any other California landfill) as soon as 2020. Regardless of the Newby Island Landfill extension, there is no guarantee that Newby Island Landfill will continue to accept the RWF's biosolids once the regulation is enacted.

Construction of the new Digested Sludge Dewatering Facility will position the RWF to have diversified and multiple disposition options for its biosolids. Dewatered cake is a desirable end-product based on previously completed market surveys and will ensure that the RWF has biosolids disposition options in compliance with the pending SB 1383 regulations. It is noted that the dewatering facility is not slated be operational until 2022, with the lagoon and drying bed sludge disposition continuing through 2027.

In November 2017, CalRecycle and CARB recently sought informal input from stakeholders, and the City provided comments to seek a waiver for RWF biosolids from being considered as organic material due to their low moisture and organic content and low potential to generate SLCPs. The intent of seeking this waiver is to allow the RWF sufficient time to come into compliance with the new regulations while the new dewatering facility is being constructed. Formal regulatory review on SB 1383 is expected to take place throughout 2018, with adoption of regulation in early 2019 and implementation in early 2020. The City is actively providing input to CalRecycle and CARB on this draft regulatory text.

Conclusion

This biosolids transition is driven by goals identified in the previously approved Biosolids Transition Strategy and the adopted Plant Master Plan. These include reducing odors in the community; positioning the RWF to have multiple and diversified disposition options for its biosolids with the potential closure of Newby Island Landfill; reducing the footprint of the biosolids processing area and enabling other land uses; and creating flexibility to respond to future regulatory changes governing the disposal of treated biosolids at landfills as well as changing market conditions related to beneficial reuse of treated biosolids.

While the Newby Island Landfill operation has been extended to 2041, it is still prudent for the RWF to have multiple diversified disposition options for biosolids. Reducing odors and enabling other land uses for the lagoon and drying bed area are still valid goals for the RWF. Furthermore, with imminent future regulation based on SB 1383, it is possible that the current biosolids disposition practiced at the RWF would not be in compliance as early as 2020.

The current RWF biosolids have a very limited disposition market due to its low moisture content. The adopted PMP had previously identified only one non-landfill disposition option (i.e., land application) for the RWF's dried biosolids; however, this option was deemed not viable due to limited receiving capacity and the need for special permits. Other possibilities, such

as hauling sludge directly from the digesters would require third-party contract dewatering and hauling, which is very cost-prohibitive due to the large volume of sludge generated by the RWF. A biosolids end-product with 20 to 30 percent moisture content, which can be achieved through dewatering, is most suitable for the biosolids disposition options allowable under SB 1383 (land application, composting, etc.).

Furthermore, the sites with allowable biosolids disposition (composting, land application etc.) under SB 1383 for future dewatered cake have limited capacity in the San Francisco bay area, and there is a potential for increased competition for this capacity from other POTWs. The RWF would benefit from continued implementation of the BMT at the earliest to allow for planning and negotiation of disposition contracts with these sites.

In summary, although the drivers for the biosolids transition may have changed slightly, they still remain valid and provide a rationale for continuing to implement the biosolids transition plan.

COORDINATION

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

/s/
KERRIE ROMANOW
Director, Environmental Services

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

Attachments:

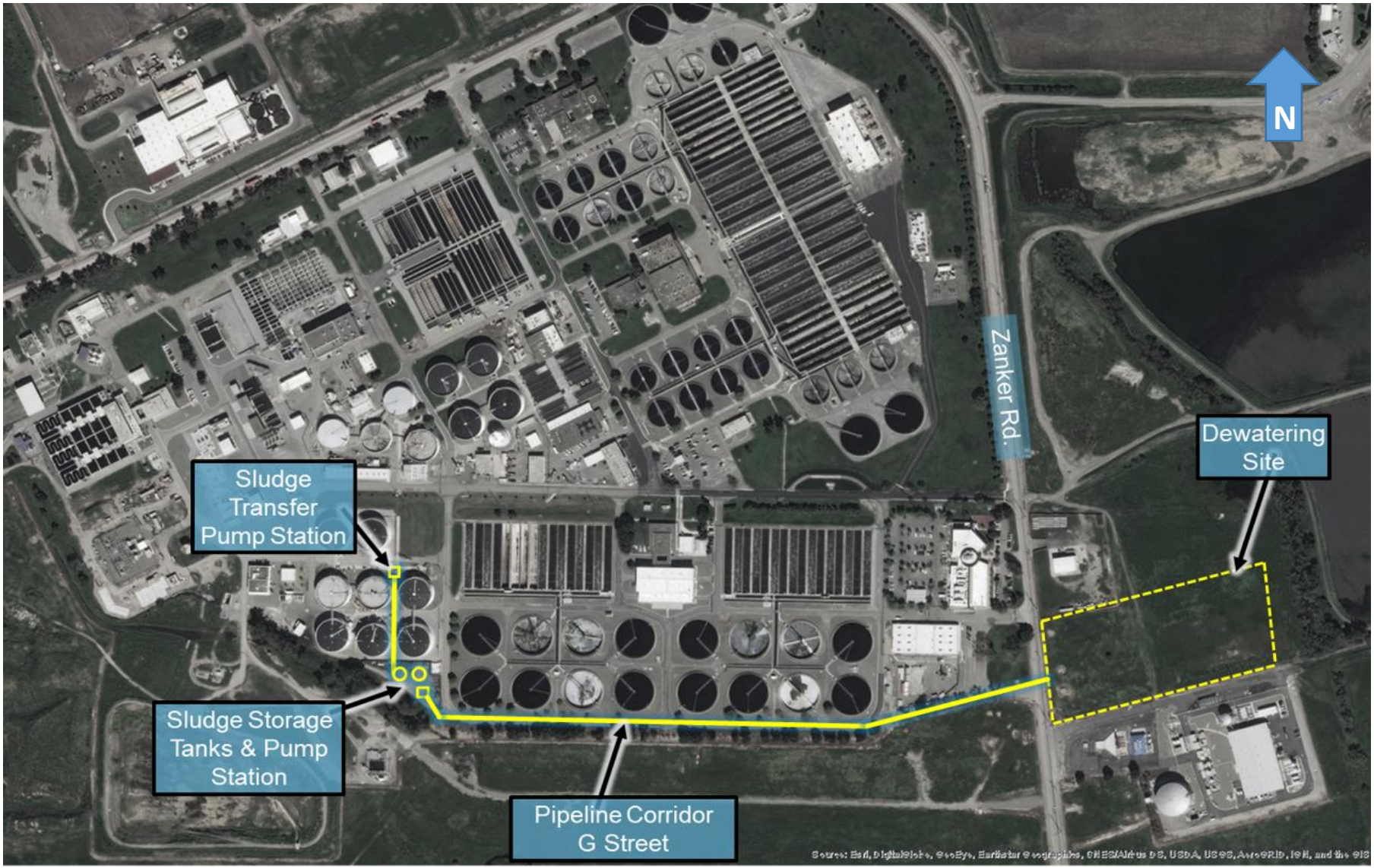
- Attachment A: Summary of items related to Biosolids Transition and Odor brought to TPAC and San José City Council
- Attachment B: Staff report on Decision to use Progressive Design-Build delivery method for the Digested Sludge Dewatering Facility Project

Attachment A: Summary of items related to Biosolids Transition and Odor brought to TPAC and San José City Council

Item	Date presented to TPAC	Date presented to City Council
Review of the Milpitas Guiding Principles for Plant Master Plan Reconstruction and Land Use Alternatives	December 9, 2010	December 14, 2010
Presentation of Preferred Alternative for the Plant Master Plan including biosolids transition	April 7, 2011	April 19, 2011
Preliminary information regarding odors and planned regional odor assessment study and accelerating schedule for biosolids projects. Supplemental Memo to Council to provide status update on working with stakeholders (City of Milpitas, McCarthy Ranch) in response to TPAC direction	May 19, 2011, August 11, 2011	September 13, 2011
Presentation of a packaged delivery approach for CIP and proposed timeline for Biosolids Transition Program	December 13, 2012	-
Update on packaged delivery approach for CIP and proposed timeline for Biosolids Transition	February 9, 2012	February 14, 2012
Adoption of Plant Master Plan	November 14, 2013	November 19, 2013
Presentation of RWF Odor Control Strategy	November 20, 2014	December 2, 2014
Biosolids Study Session	April 10, 2014	-
Biosolids Transition Strategy	November 20, 2014	December 2, 2014
Updated Biosolids Transition Strategy	May 14, 2015	June 2, 2015
RWF Odor Control Implementation Plan	October 8, 2015	October 27, 2015
Delivery Method for Digested Sludge Dewatering Facility Project	Information Memorandum dated January 19, 2016	Information Memorandum dated January 19, 2016
Approval of Master Consultant Agreement With Brown And Caldwell as Owner's Advisor for Digested Sludge Dewatering Facility Project	October 13, 2016	October 25, 2016

ATTACHMENT B
Dewatering Project Extents

New Digested Sludge Dewatering Facility and Project Extents
for the San José-Santa Clara Regional Wastewater Facility



ATTACHMENT C

Key Contract Elements and Terms

1. Preliminary Services –These services include preliminary investigations of existing site conditions, development of the Basis of Design Report, detailed design to a 60-percent level of completion, and development of the Definitive Project Submittal (DPS), which will include the GMP, and lead to the DCA, which will contain the terms and conditions for the Design-Build Work to complete the Project.

   As part of the procurement process, proposers were required to submit a lump-sum fee for the Preliminary Services, which was incorporated into the proposal rankings and further reviewed during contract negotiations. The agreed upon amount for Walsh Construction (Walsh) to perform the Preliminary Services is $7,492,564.

2. Definitive Project Submittal – As part of the Preliminary Services, Walsh is required to advance the design of the Project to a level (beyond the 60% level of completion) sufficient to produce the DPS, which will be completed and submitted to the City and will remain a firm offer by Walsh for at least 90 days. The DPS will include and be based on the technical specifications, acceptance standards, and other information, analysis, findings, and reports developed by Walsh during performance of the Preliminary Services, and will be prepared in accordance with the contract standards. The DPS will include a price submittal, a technical submittal, a commercial terms submittal, and an additional information submittal.

3. Definitive Contract Amendment - The Design-Build Work to be performed following the completion of Preliminary Services will be defined in the DCA, which will: (1) set a GMP for the Design-Build Price, (2) set a schedule for completion of the Design-Build Work; (3) define the technical specifications and guaranteed performance requirements for the Project, (4) identify Transition Services and associated fee; (5) establish the insurance requirements for the Design-Build Work; and (6) amend other terms and conditions of the contract necessary to accomplish the foregoing. The parties may, at the City's discretion, agree to convert the GMP into a lump sum price, subject to the not-to-exceed Project costs authorized by City Council.

   Should the parties fail to agree on the DCA, the City is under no obligation to proceed with any further work by Walsh, except in accordance with unfinished EWPs. The parties may, however, negotiate to enter into a separate agreement to fully complete the design (discussed previously as EWP No.2) and/or provide other City-requested services so the City can solicit bids for construction of the Project by separate contractors using the design-bid-build delivery method.

4. Early Work Packages (EWPs) - The contract allows the City to issue Early Work Packages before the parties execute the DCA if the Work can be done prior to design completion and if the EWPs will reduce City risk and/or shorten the Project schedule. In addition to the first two EWPs; 1) site preparation, and 2) final design, additional EWPs for the Project may be identified, if they can reduce City risk and/or shorten the Project

schedule, both of which can have potential for significant Project cost reduction. Additional EWPs will require separate amendments to the contract, and will contain terms and conditions for Walsh's performance of the Work and obligations should the parties fail to agree on the DCA.

5. Design-Build Work (Work) – The DPS and DCA define the price and contract terms for the Work, which will include construction of the Project. At the City's discretion, the Work may also include Transition Services in the form of assistance with operating the new facility for a specified period. Additional EWPs may be issued during the Preliminary Services phase in order to reduce City risk and/or shorten the Project schedule, both of which have potential for significant Project cost reduction.

6. Guaranteed Maximum Price (GMP) - The contract sets forth a process to allow the City and Walsh to negotiate a GMP for the Work. The GMP includes all costs for the performance of the Work, and cannot be adjusted except for specified reasons such as uncontrollable circumstances, changes to the contract's technical specifications, and City-directed changes. Except for funding of the EWPs, the City will not commit construction funds until the GMP has been successfully negotiated.

7. Design-Build Price – The Design-Build Price will be an amount equal to the sum of 1) Design-Build Costs, 2) Design-Builder Fee, and 3) General Conditions Fee, and it cannot not exceed the GMP. Further definition of these terms is provided below:

    a. Design-Build Costs – These costs include costs paid or incurred by Walsh in the proper performance of the Work, including third party professional service fees, subcontractors, Walsh's labor, materials equipment, supplies, Project-specific insurance premiums, and performance and payment bond premiums,

    b. Design-Builder Fee – The Design-Builder Fee is an amount equal to 8.9% of the Design-Build Costs (excluding Project specific insurance premiums, sales taxes, and performance and payment bond premiums), and is the amount attributable to profit, risk, mark-up and general or indirect overhead with respect to the Work.

        As part of their submittals, proposers were required to submit a Design-Builder Fee percentage, which was considered during proposal evaluations and ranking. Staff believes this fee is competitive based on a comparison with the Design-Build Fee proposed by the other proposers.

    c. General Conditions Fee – The "General Conditions Fee" is an amount equal to 11.2% of the Design-Build Costs, other than sales taxes. In general, this includes the general conditions costs, including Walsh's supervisory wages, field office and supplies and temporary utilities, as well as general conditions-related profit, risk, mark-up, and overhead.

        As part of their submittals, proposers were required to submit a General Conditions Fee percentage, which was considered during proposal evaluations and ranking. Staff believes this fee is competitive based on a comparison with the General Conditions Fee proposed by the other proposers.

8. Shared Savings – If the Work is completed under the GMP, the contract entitles Walsh to a 30% share of the difference. The City will retain the remaining 70% of this amount. This serves as an incentive to minimize costs and manage Design- Builder contingency use appropriately.

9. Liquidated Damages - The contract includes liquidated damages for delay. The daily amount for liquidated damages will be negotiated as part of the DCA. Currently the contract states: "The aggregate liability of the Design-Builder, with respect to any liquidated damages…shall not exceed an amount equal to 25% of the Design-Build Price."

10. Dispute Resolution – This contract requires formal partnering between the City and Walsh for the duration of the Project. Consistent with the City's Dispute Avoidance and Dispute Resolution Policy (S.J.M.C. Chapter 14.06), the contract provides that either the City or Walsh may voluntarily initiate a request for non-binding mediation in the event that other partnering opportunities available under the contract are unsuccessful. Mediation is not mandatory and either the City or Walsh may elect to proceed with litigation if a dispute cannot be resolved by the project team. Because of the collaborative nature of design-build contracts, significant disputes are less likely to occur, and it is anticipated that mediation and/or litigation is unlikely and would only occur if all other cooperative efforts by the project team fail.

11. Project Contingencies – The contract includes provisions for three contingencies.

    The two City-controlled Contingencies are: (1) a design contingency to cover costs for City-approved changes to the scope of Preliminary Services, and (2) a construction contingency to cover unanticipated costs of the Work that are not Walsh's responsibility under the contract. The construction contingency covers typical construction issues such as differing site conditions, force majeure events, and City-directed change orders. Expenditure of the City-controlled contingency will require a change order to be negotiated and executed by the City Manager or his designee.

    The contract also provides for a Design-Builder Contingency, which will be negotiated by the parties and established as part of the DCA. It covers unforeseen costs of the Work that neither Walsh's design manager nor the contractor could predict when the GMP was established. Walsh is entitled to receive payment from the Design-Builder Contingency with the City's right to monitor and verify the use of the funds. The Design-Builder Contingency is contained within the GMP. Walsh will be responsible for costs in excess of this contingency unless the contract otherwise entitles them to compensation. The amount not expended from the Design-Builder Contingency will return to the City.

12. Insurance – Walsh will be required to enroll in the City's Owner Controlled Insurance Program (OCIP) approved by City Council in June 2017. The OCIP provides commercial general/excess liability and workers' compensation insurance for all Contractors, regardless of tier, that are approved for participation in the insurance program. Additional coverages for builder's risk and pollution liability insurance are provided by the City outside of the OCIP:

Contractors of any tier are required to maintain insurance coverage that protects the City from liabilities arising from the Contractor of any tier's operations performed away from the Project site, for types of coverage not provided by the OCIP, and for operations performed in connection with excluded parties operating under Contractor or any tier's operations control or direction.

The City will pay all premiums associated with the OCIP coverages and the other coverages provided by the City. Walsh will pay all other premiums, including the premiums for the Additional Insurance Required from Enrolled Parties and Excluded Parties. The Required Insurance will be in place concurrent with the execution and delivery of this contract and remain in effect for the periods specified in the contract. Walsh's liability insurance, including professional liability, will not include any design-build or similar exclusions that would compromise coverages because of the design-build nature of the Work to be performed pursuant to this contract.

13. Subcontracting and Self-Performance – Walsh has submitted a draft subcontracting plan, which will be included in the contract and further developed during the Preliminary Services. This plan provides an overview of Walsh's proposed approach to engage subcontractors and to support them during execution of the Work; identifies the type of work or trades that will be required to complete the Project; describes the methods Walsh will utilize to engage local subconsultants and subcontractors; and describes the methods Walsh will utilize to engage with subconsultants and subcontractors classified as disadvantaged business enterprises.

    Walsh intends to maximize, to the greatest extent possible, local San José and Santa Clara County firms' participation in the Project through an outreach program that will be coordinated with the City's existing outreach program. Walsh intends to ensure that local firms and small, disadvantaged and women-owned business enterprises are made aware of all opportunities available to them to subcontract on the Project in-line with their interest, capabilities and areas of expertise, and to utilize such firms to the maximum extent possible consistent with this plan. This plan is intended to provide sufficient information on Project opportunities that will be available and communicate how local firms can participate or express an interest in bidding for those opportunities.

    As identified in its proposal, Walsh has identified Black & Veatch as their engineering partner for the Project. Walsh and Black & Veatch intend to self-perform approximately 50% of the construction work with market price validation by the Owner's Advisor. The balance of the Work will be competitively bid out by Walsh in accordance with contract requirements. Walsh's subcontracting plan will outline all work items to be self-performed and work to be bid out and awarded to subcontractors. Notwithstanding proposals to self-perform work, the contract allows the City to require Walsh to competitively bid out any or all of the Work in compliance with applicable law.

14. Skilled/Trained Workforce and Labor Peace Plan - Part of the RFP process to select a design-builder was the evaluation of the proposer's strategy for local subcontracting, commitment to providing a skilled and trained workforce, and labor peace plan. A representative of and a local labor union was a member of the interview panel that selected Walsh and Black & Veatch as the top ranked design-builder.

Ensuring a skilled and available workforce will be critical to successfully delivering the Project. Walsh and Black & Veatch possess a large skilled labor pool that will be key to ensuring on time project delivery with the highest levels of quality and craftsmanship. Black & Veatch maintains agreements with California registered apprenticeship programs and has successfully placed apprentices from various programs on their jobs. State Law, under which the Project will be performed, mandates certain apprenticeship requirements that will be adhered to under the contract.

Avoiding labor disputes and disruptions is another significant factor in delivering the Project in a timely manner. The Project requires the payment of local prevailing wages and requirements regarding prevailing wage are included in the contract. Black & Veatch is signatory to the trade unions required to complete the Project and has delivered more than a dozen union-staffed water and wastewater projects in the Bay Area, each of which was completed with no labor disruptions. A PLA is not required under the contract however the Walsh provided a detailed plan in their proposal to prevent labor disputes, conflicts and work stoppages on the Project.

15. Acceptance – Acceptance means demonstration by Walsh that the Acceptance Test has been conducted, the Acceptance Standards have been demonstrated and all other Acceptance Conditions have been achieved.

16. Transition Services - The contract includes provisions for providing Transition Services, following Project acceptance if desired by the operations and maintenance staff. In this event, Walsh would provide services generally consisting of advising and monitoring the City's operation and maintenance of the new Facility for a six-month or one-year period. Establishment of the Transition Services and the fee will be negotiated as part of the DCA. Payment for the Transition Services will be made from the construction contingency.

Attachment D

MITIGATION MONITORING AND REPORTING PROGRAM

San José-Santa Clara Regional Wastewater Facility Digested Sludge Dewatering Facility Project Addendum

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

August 2019

Planning File No. PP18-018

P R E F A C E

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program whenever it approves a Project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring or reporting program is to ensure compliance with the mitigation measures during Project implementation.

The Addendum to the Environmental Impact Report for the San José-Santa Clara Water Pollution Control Plant Master Plan concluded that implementation of the Project could result in significant effects on the environment and mitigation measures are required as a condition of Project approval. This Mitigation Monitoring and Reporting Program addresses those measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the Addendum concluded that the impacts from implementation of the Project would be less than significant.

The City of San José hereby agrees to fully implement the Mitigation Measures described below which have been developed in conjunction with the preparation of an Addendum for the proposed project. The City understands that these mitigation measures or substantially similar measures shall be adopted as conditions of approval to avoid or significantly reduce potential environmental impacts to a less than significant level.

The following abbreviations are used:

BAAQMD = Bay Area Air Quality Management District
CCR = California Code of Regulations
CDFW = California Department of Fish and Wildlife
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
CM = Construction Management Resources Team
DTSC = Department of Toxic Substance Control
ESD = Environmental Services Department
ET= Environmental Team Project Lead
HASP = Health and Safety Plan
HCP = Santa Clara Valley Habitat Conservation Plan
NAHC = Native American Heritage Commission
OSHA = Occupational Safety and Health Administration
PM = San José-Santa Clara Regional Wastewater Facility Capital Improvements Program - Project Manager
PBCE = Planning, Building and Code Enforcement
RWQCB = Regional Water Quality Control Board
SCCDEH = Santa Clara County Department of Environmental Health
SCVHA = Santa Clara Valley Habitat Agency
SVOCs = semi-volatile organic compounds
USACE= U.S. Army Corps of Engineers
USFWS = U.S. Fish and Wildlife Service
VOCs = volatile organic compounds

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
AIR QUALITY						
AQ-1	The Project could violate an air quality standard or contribute substantially to an existing or projected air quality violation.	**Bay Area Air Quality Management District (BAAQMD) Basic Control Measures** • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours.	1. Ensure that contract documents include a requirement for BAAQMD Basic Construction Measures. 2. Monitor to ensure that contractor implements measures in contract documents: • Include discussion of this mitigation measure in contractor environmental training sessions. • Post signage. • Maintain site inspection checklists. • Review contractor's equipment tune-up and emissions logs. • Notify PM and ET of non-compliance and ensure corrective action.	1. Design 2. Construction	1. Project Manager (PM) 2. Construction Management (CM)	1. Environmental Team (ET) 2. ET
BIOLOGICAL RESOURCES						
BIO-1	The Project could have a substantial adverse effect, either directly or through habitat modifications, on Congdon's tarplant and pappose tarplant.	**Mitigation Measure BIO-1: Reduce Impacts to Tarplant.** For purposes of reducing direct impacts to Congdon's tarplant and pappose tarplant, the project proponent shall: • Conduct surveys for Congdon's tarplant and pappose tarplant May 1st through October 31st (inclusive). This shall be conducted by a qualified biologist. • Avoid damaging or removing individuals of Congdon's tarplant and pappose tarplant while conducting the above activities whenever possible. • When mowing is necessary, conduct mowing in areas occupied by Congdon's and pappose tarplant (known natural and reseeded locations) before May 1st (to avoid the blooming season [May to mid-November]) or after seeds have been set (mid-November). Do not mow in areas with Congdon's and pappose tarplant from May to mid-November, even if those areas have burrowing owls or are part of the burrowing owl habitat management area. Mow no lower than 6 inches	The Project proponent shall prepare and submit to the satisfaction of the Planning Environmental Division Manager the following: • Signed electronic copies (pdf) of the plant survey; • Signed documentation of seed collection and post-construction seeding results if required; • Signed documentation of mowing and annual weed control activities; and • If reseeding is required, annual monitoring reports documenting success of the planted population. • Signed documentation of appropriate trail signage. • A report of any instance of noncompliance with these measures.	Prior to, during, and after ground disturbing activities	ET and qualified biologist	Department of Planning, Building and Code Enforcement (PBCE)

Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		in areas with Congdon's tarplant in order to minimize removal of tarplant foliage prior to flowering. Conditions in areas occupied by burrowing owl, and Congdon's tarplant and pappose tarplant will change over time, and conflicts between measures to reduce impacts to the tarplant and burrowing owl habitat management strategies (e.g., mowing) may arise. To adapt to changing conditions, this measure may require refinement by a qualified biologist in coordination with CDFW to ensure adequate protection of these species. If individuals of Congdon's tarplant and pappose tarplant cannot be avoided through the provisions listed above, the permanent loss of Congdon's and pappose tarplants shall be mitigated at a minimum mitigation-to-impact ratio of 1:1. To address permanent loss of Congdon's tarplant and pappose tarplant individuals, the following measures shall be implemented: • During October 1st and November 30th (inclusive) the project proponent shall track Congdon's tarplant and pappose tarplant within the area to determine when plants have set seeds. Once seeds have set, seeds from individuals of Congdon's tarplant and pappose tarplant from within the area shall be collected during October 1st or November 30th, inclusive prior to initiation of activities that will impact individuals, and immediately sown at reseeding location(s) to allow the plant to flower and produce seed before the end of the next blooming period, thereby avoiding a temporal loss (i.e., the species missing a flowering cycle). • Seed of Congdon's tarplant and pappose tarplant shall be applied either alone or as a component of the revegetation mix within the impact area for any temporary impacts and within a proposed replacement area for permanent impacts. The replacement area shall be determined in consultation with CDFW. • Areas seeded with Congdon's tarplant and pappose tarplant shall be monitored during the first 5 years following reseeding. Monitoring shall be conducted during the peak blooming period (May1 st – November 30th, inclusive). The planted population will be compared to a known reference population each time monitoring is conducted to accurately verify the degree of success of the planted population. • During the first year of monitoring, revegetation shall be considered successful if the species in 70% of the reseeded area are occurring at densities comparable to the reference population. If unsuccessful, seed shall be collected and sown in the unsuccessful areas prior to the rainy season that year. If reseeding is necessary at any point during the				

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		monitoring period, the monitoring period shall reset (extended by five years) for the affected area. • During each subsequent year of monitoring, revegetation will be considered successful if the species is found to be occurring in 80% of the reseeded area at densities comparable to the reference population. If revegetation is unsuccessful for two consecutive years, seed will be collected and sown in the unsuccessful areas prior to the rainy season that year. • During the final two years of monitoring, if seeding of previously unoccupied habitat is successful (plants occur in 80% of the reseeded area at densities comparable to the reference population), then the mitigation will be deemed successful and no additional monitoring will be required. If unsuccessful, the area will be deemed unsuitable habitat. In this case, revegetation of additional areas, determined in consultation with CDFW will occur, and an additional two years of monitoring will be conducted. For purposes of reducing indirect impacts on Congdon's tarplant and pappose tarplant, the project proponent shall: • Modify weed control activities, in areas of occupied Congdon's tarplant and pappose tarplant habitat. Broadcast herbicides will not be used in or around areas supporting Congdon's tarplant and pappose tarplant. In areas supporting Congdon's tarplant and pappose tarplant, herbicides will only be applied through spot treatment. Herbicide applications will be conducted by persons familiar with Congdon's tarplant and pappose tarplant and able to identify the species to avoid it. • Install informational and warning signs in areas adjacent to habitat occupied by Congdon's tarplant and pappose tarplant instructing people utilizing the site to stay clear of known occurrences.				
BIO-2	The Project could have a substantial adverse effect, either directly or through habitat modifications, on raptors and migratory birds.	**Mitigation Measure BIO-2d: Raptor and Migratory Bird Nest Measures.** If possible, construction shall be scheduled between September 1st and January 31st (inclusive) to avoid the nesting season. If Project construction is scheduled during breeding bird season (February 1st–August 31st, inclusive), City's Environmental Services Department (ESD) or its contractor shall retain a qualified wildlife biologist to conduct a survey for nesting raptors and	1. If possible, schedule construction between September 1st and January 31st (inclusive).	1. Construction	1. PM	1. ET

MITIGATION MONITORING AND REPORTING PROGRAM
DIGESTED SLUDGE DEWATERING FACILITY

Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		migratory bird nests within 7 days of the start of construction or after any construction breaks of 14 days or more, within 7 days prior to the resumption of construction. Surveys shall be performed for the Project areas and for suitable habitat within 300 feet. If an active nest is discovered, a no-disturbance buffer zone around the nest tree (or, for ground-nesting species, or nests identified on Facility buildings, the nest itself) shall be established. The no disturbance zone shall be marked with flagging or fencing that is easily identified and avoided by the construction crew, and shall not affect the nesting birds. In general, the minimum buffer zone widths shall be as follows: 100 feet (radius) for non-raptor species and 300 feet (radius) for raptor species; however, the buffer zone widths may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer zone widths and other avoidance measures may be modified based on consultation with CDFW and the USFWS. Buffer zones shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest. Construction activities that are scheduled to begin outside the breeding season (September 1st through January 31st, inclusive) can proceed without surveys. If possible, all necessary tree and vegetation removal shall be conducted before the start of breeding bird season to minimize the opportunity for birds to nest at the Project site and conflict with Project construction activities. ESD shall notify the PBCE Senior Environmental Planner when the mitigation actions will occur for approval prior to the start of construction.	2. Contract a qualified biologist to conduct surveys for nesting raptors and migratory birds within 7 days of start of project construction or within 7 days of start of construction after any construction breaks of 14 days or more (if construction commences between February 1st and August 31st, inclusive). If active nests are located during survey, establish buffer zones and consult with USFWS/CDFW as required.	2. Within 7 days prior to construction	2. ET and qualified biologist	2. CDFW, USFWS
			3. Monitor to ensure that contractor implements measures in contract documents regarding buffer zones and avoidance measures established by biologist and/or USFWS/CDFW: • Include discussion of this mitigation measure in environmental training sessions. • Maintain site inspection logs. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. ET or biological monitor	3. ET
			4. Submit reports, if applicable, to USFWS/CDFW per consultation requirements.	4. Construction	4. ET	4. USFWS, and/or CDFW
			5. Submit survey reports and any final compliance report, if applicable.	5. Construction	5. ET	5. PBCE
BIO-2 (cont.)	The Project could have a substantial adverse effect, either directly or through habitat modifications, on Western burrowing owls located at or near the Project site.	**Mitigation Measure BIO-2e: Western Burrowing Owl Measures.** To avoid or minimize direct impacts of Project activities on western burrowing owls, the City shall ensure the following procedures are implemented consistent with the HCP. This survey methodology is consistent with accepted survey protocols for this species. ***a Habitat Survey*** i Western burrowing owl habitat surveys shall be required in the Project area in all HCP modeled occupied habitat. Surveys are not required in sites that are mapped as potential burrowing owl nesting or only overwintering habitat. Modeled habitat types may change throughout the permit term based on the best available scientific data. Habitat surveys are required in both breeding and non-breeding seasons.	1. Retain a qualified biologist to conduct a habitat survey to map areas with burrows or burrow complexes that could support burrowing owls or occupied burrows in all HCP mapped occupied habitat. If suitable habitat is identified, perform two pre-construction surveys within 250 feet of construction activities, between 2 to 14 days prior to ground disturbing activities pre-construction surveys and establish buffer zones around active nests.	1. Pre-construction	1. ET/Qualified Biologist	1. ET/Habitat Agency, (CDFW)
			2. If suitable habitat is identified, ensure that requirements for compliance with nesting bird	2. Design	2. PM	2. ET

Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		ii Qualified biologist(s) shall conduct a pedestrian survey of the Project area and accessible areas within 250-feet of the Project area. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be no more than 50 feet and can be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the biologist's ability to detect burrowing owls; therefore, the biologist shall avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. The biologist shall map areas with burrows or burrow complexes that could support burrowing owls and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement).	buffer zones, if needed, are included in contract documents.			
			3. If avoidance of active nests is not feasible and construction occurs in breeding season, prepare an Avoidance, Minimization and Monitoring Plan for CDFW approval. If avoidance measures are not feasible, coordinate with CDFW for passive relocation.	3. Pre-construction	3. ET/Qualified Biologist	3. CDFW
BIO-2 (cont.)		iii To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 150 feet wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons. iv If suitable habitat is identified during the habitat survey, and if the Project does not fully avoid impacts to the suitable habitat, preconstruction surveys shall be required. Suitable habitat is fully avoided if the project footprint does not impinge on a 250-foot buffer around the suitable burrow. ***b Preconstruction Surveys*** i A qualified biologist shall conduct preconstruction surveys in all suitable habitat identified in the habitat surveys within 250 feet of construction activity, between 14 and 4 days prior to initiating ground disturbance related to Project construction activities. The 250-foot buffer zone shall be surveyed to identify burrows and owls outside of the Project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. As burrowing owls may recolonize a site after only a few days, time lapses between Project activities shall require subsequent take avoidance surveys including but not limited to a final survey conducted no more than 2 days prior to ground disturbance to ensure absence. A minimum of two surveys shall be conducted (if owls are detected on the first survey, a second survey is not needed). ii The preconstruction survey shall be a minimum of 3 hours, beginning 1 hour before sunrise and continuing until 2 hours after sunrise (3 hours total) or beginning 2 hours before sunset and continuing until 1 hour after sunset. Additional time may be required for large project sites. ***c Avoidance Measures*** The City shall employ avoidance measures described below to avoid direct take of individual burrowing owls during Project construction. *Breeding Season Avoidance Measures - February 1 to August 31 (inclusive)* i If preconstruction surveys identify evidence of Western burrowing owls within 250 feet of the Project area during the breeding season, the Project proponent shall avoid all nest sites that could be disturbed by Project construction activities during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following	4. Monitor prior to and during Project construction as required by the mitigation measure.	4. Pre-construction and Construction	4. CM/Qualified Biologist	4. ET
			5. Monitor to ensure that contractor implements measures in contract documents regarding avoidance measures established by the biologist: • Include in environmental training. • Monitor site inspection logs. • Notify PM and ET of non-compliance and ensure corrective actions.	5. Construction	5. CM/ET	5. ET
			6. Submit final compliance reporting documentation, if applicable	6. Post-construction	6. ET/CM	6. PBCE
			7. Submit Avoidance, Minimization and Monitoring Plan report, if required, to CDFW.	7. Post-construction	7. ET	7. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		fledging). Avoidance shall include establishment of a 250-foot no-disturbance buffer zone around active nest sites by a qualified biologist. ii If active nests cannot be avoided, construction may occur within 250 feet of active nest sites if 1) the nest is not disturbed, and 2) the Project proponent develops and implements an Avoidance, Minimization, and Monitoring Plan, subject to approval by CDFW the Habitat Agency overseeing the HCP. The plan shall incorporate the following criteria: 1. A qualified biologist shall monitor the owls for at least 3 days prior to Project construction to determine baseline nesting and foraging behavior (i.e., behavior without construction). The same qualified biologist shall monitor the owls during construction and find no change in owl nesting and foraging behavior in response to construction activities.				
BIO-2 (cont.)		2 If there is any change in owl nesting and foraging behavior as a result of Project construction activities, these activities shall cease within the 250-foot buffer. Construction shall not resume within the 250-foot buffer until the adult owls and juveniles from the occupied burrows have moved out of the project site. 3. If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the no-disturbance buffer zone may be removed. The biologist shall excavate the burrow to prevent reoccupation after receiving approval from CDFW. *Non-Breeding Season Avoidance Measures – September 1st to January 31st (inclusive)* i If preconstruction surveys identify evidence of Western burrowing owls within 250 feet of the Project area during the non-breeding season (September 1st to January 31st, inclusive), the Project proponent shall establish a 250-foot no-disturbance buffer around occupied overwintering burrows as determined by a qualified biologist. ii If occupied burrows cannot be avoided, construction may occur within 250 feet of overwintering burrows sites if: 1. A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction). 2. The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities. 3. If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities shall cease within the 250-foot buffer. 4. If the owls are gone for at least one week, the Project proponent may request approval from the HCP Habitat Agency for qualified biologist to excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the no-disturbance buffer zone shall be removed and construction may continue. Monitoring must				

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		continue as described above for the non-breeding season as long as the burrow remains active. ***d Construction Monitoring*** During construction, the no-disturbance buffer zones shall be established and maintained where applicable and based on the Project Avoidance, Minimization, and Monitoring Plan. A qualified biologist shall monitor the site consistent with the requirements described in the Avoidance Measures, described above, to ensure that buffers are enforced and owls are not disturbed. The qualified biological monitor shall prepare and perform an environmental training for all Project personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone. ***e Passive Relocation*** If avoidance measures described above cannot be implemented with the Project, Passive Relocation shall be implemented according to the protocol described in the HCP and in coordination with, and approval by CDFW.				
BIO-2 (cont.)	The Project could have a substantial adverse effect, either directly or through habitat modifications, on Western pond turtles located at or near the Project site.	**Mitigation Measure BIO-2b: Western Pond Turtle Measures.** a. Prior to the start of construction activities, the project proponent shall retain a qualified biologist to conduct preconstruction surveys for pond turtles in all suitable habitats (aquatic and upland) in the vicinity of the work site. Surveys shall take place no more than 72 hours prior to the onset of site preparation and construction activities with the potential to disturb turtles or their habitat. b. If preconstruction surveys identify active western pond turtle nests within the Project site, the biologist shall establish no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation shall be permeable to allow young turtles to move away from the nest following hatching. The radius of the buffer zone and the duration of exclusion shall be determined in consultation with the CDFW. The buffer zones and fencing shall remain in place until the young have left the nest, as determined by the qualified biologist. c. A qualified biologist shall monitor construction activities in the vicinity of suitable habitat within which western pond turtle is found (either during the survey or observed during construction), and remove and relocate western pond turtles in proposed construction areas to suitable habitat outside the project limits, consistent with CDFW protocols and handling permits. Relocation sites shall be subject to CDFW approval. d. If any turtles are found in the Project site, construction activities shall halt within 50 feet and the qualified biologist shall be notified. If the biologist determines the turtle is a western pond turtle, the turtle shall be relocated into nearby suitable habitat consistent with CDFW protocols and handling permits.	1. Ensure that requirements for compliance with any biological resources buffer zones and species protection are included in contract documents.	1. Design	1. PM	1. PBCE
			2. Retain a qualified biologist to perform preconstruction surveys. If active nests are located during the survey, establish buffer zones with fencing in consultation with CDFW.	2. Within 72 hours prior to onset of construction	2. ET and qualified biologist	2. N/A
			3. Monitor to ensure that exclusion fencing and buffer zones are implemented: • Include in environmental training. • Relocate turtles to suitable habitat, if encountered. • Maintain site inspection and monitoring logs, results of any consultation with CDFW. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. CM and qualified biologist	3. ET
			4. Submit reports, if applicable, to CDFW per consultation requirements. Submit final compliance monitoring report.	4. Post-construction	4. ET	4. ET/PBCE sign off

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
BIO-3	The Project could have indirect impacts on the riparian wetland community.	**Mitigation Measure BIO-3a: Riparian Woodland Habitat Avoidance Measures.** Design of program-level Regional Wastewater Facility (RWF) improvements and planned land uses will avoid areas of riparian woodland habitat to the extent feasible. Riparian habitat impact avoidance shall be consistent with the City's General Plan Riparian Habitat Policy and HCP setbacks. To reduce impacts on riparian woodland habitat during development east of Zanker Road construction and maintenance activities, the project proponent and/or its contractor shall implement the following measures: • Minimize cutting and trimming of adjacent shrubs and trees during construction and maintenance activities to the maximum extent possible. Shrubs that need to be trimmed should be cut at least 1 foot above ground level to leave the root systems intact and allow for regeneration. • Contract a certified arborist to perform or oversee necessary trimming of riparian trees. Install orange construction barrier fencing around the boundaries of riparian habitat to be avoided prior to initiation of construction activities. The protected area shall be designated an environmentally sensitive area and would be clearly identified on the construction specifications. Fencing shall be maintained throughout the construction period.	The project proponent shall prepare and submit to the satisfaction of the Planning Environmental Division Manager contract language meeting the requirements of this mitigation measure as well as documentation of the qualifications of the certified arborist. Construction inspector shall monitor contractor compliance, report non-compliance and ensure corrective action.	Pre-construction (especially any ground disturbance including vegetation removal, grading, soil hauling etc.)	PBCE, CM, CDFW, U.S. Army Corps of Engineers (USACE), ESD	
BIO-3 (cont.)		**Mitigation Measure BIO-3c: Control of Non-Native Invasive Plant Species.** To minimize introduction and spread of non-native invasive plant species, the project proponent or its contractor shall implement the following: a. A qualified biologist or botanist shall conduct field training for construction workers to inform them about invasive species and methods to minimize spread of invasive species for the duration of all associated project and program activities mentioned above.	1. Ensure that requirements for control of non-native invasive species and revegetation are included in contract documents. **(Spec. BIO-3c)**	1. Design	1. PM	1. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		b. Revegetate areas disturbed during construction with approved native plant species. c. Remove invasive plant seeds and plant parts from all clothing, shoes, vehicles, and equipment prior to entering or working in or near any environmentally sensitive area, including riparian woodland habitat. d. Stage construction and maintenance equipment in weed-free areas. e. Gather and bag invasive plant seeds or plant parts found in the containment area and take them to an appropriate disposal facility. f. Implement the following measures to prevent the spread of noxious weeds and invasive plants when present. g. Educate crews in the use of weed-free materials when available, ensure vehicles leaving paved roads do not spread weeds in sensitive habitats (including salt marsh or upland refugia habitat for salt marsh harvest mouse, salt marsh wandering shrew, California clapper rail, California black rail, dusky footed woodrat, and all aquatic and wetland habitat); and h. Avoid entering patches of invasive plants to the maximum extent possible.	2. Monitor to ensure that contractor implements measures in contract documents regarding invasive plants and revegetation: • Include in environmental training. • Maintain site inspection logs. • Approve contractors's planting mix. • Notify PM and ET of non-compliance and ensure corrective action.	2. Construction	2. CM	2. ET
			3. Submit final compliance report, including documentation of revegetation.	3. Post-construction	3. ET	3. ET/PCBE sign off
BIO-4	The Project could have a substantial adverse effect on wetlands through direct removal, filling, hydrological interruption, or other means.	**Mitigation Measure BIO-4a: Wetland Avoidance Measures** Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional features. Prior to the beginning of any construction-related activities, the following measures shall be applied to protect potential jurisdictional features: 1. A protective barrier (such as silt fencing) shall be erected around water features adjacent to the Project at the "top of bank" or at the feature boundary to isolate them from Project activities and reduce the potential for incidental fill, erosion, or other disturbance; 2. Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities; 3. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the Project site until a representative of the City has inspected and approved the protection fencing; and 4. The City shall ensure that the temporary fencing is continuously maintained until the Project is completed. 5. Drainage from all proposed facilities where chemical spills could occur during Project operation shall be directed away from sensitive resources and/or include other measures to minimize potential for release of potential pollutants to the environment.	1. Ensure that wetlands are clearly designated on site plans and requirements for minimizing impacts to wetlands are included in contract documents.	1. Design	1. PM	1. ET
			2. Install construction fencing around designated wetlands according to delineation created by qualified biologist, and ensure that contractor erects signage for protection of environmentally sensitive areas.	2. Construction	2. CM/ET	2. ET
			3. Monitor to ensure that contractor implements measures in contract documents: • Include in contractor environmental training. • Maintain site inspection logs. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. CM/ET	3. ET
			4. Submit final compliance reporting documentation, if applicable.	4. Construction	4. ET	4. PBCE
			1. If wetlands cannot be avoided, retain a qualified biologist or permitting specialist to assist with preparation of resource agency permit applications to USACE, RWQCB, and	1. Design (and at least one year prior to construction)	1. ET	1. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		Mitigation Measure BIO-4b: Wetlands Restoration for Project-Level Improvements. If it is determined during the design phase that impacts on wetland habitat cannot be avoided, the City's ET shall obtain permits and approvals from the SCVHA, USACE, Regional Water Quality Control Board (RWQCB), and/or CDFW, as applicable. In order to ensure that the Project results in no net loss of wetland habitat functions and values, the City shall compensate for the loss of wetland resources through on-site restoration/creation, off-site protection and enhancement of riparian and wetland habitat, and/or purchase of mitigation credits consistent with the terms and conditions of USACE Regional General Permit 18 for implementation of covered activities in the HCP. On-site or off-site habitat restoration/creation and/or purchase of mitigation credits consistent with the terms and conditions of USACE Regional General Permit 18 shall be determined in consultation with the resource agencies, as applicable. The City shall prepare a mitigation plan, which shall include monitoring applicable requirements and success criteria.	CDFW. This may include preparation of a Restoration Mitigation Monitoring Plan (RMMP).			
			2. Ensure that requirements for compliance with resource agency permits are included in contract documents (specifications to be determined). This may include site restoration according to RMMP.	2. Design	2. PM	2. PBCE
			3. Monitor to ensure that contractor implements measures in contract documents regarding permit requirements: • Include in environmental training. • Maintain site inspection logs. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. CM and biological monitor	3. ET
			4. Submit reports, as applicable, to resource agencies per permit requirements.	4. Post-construction	4. ET and biological monitor	4. PBCE
			5. Perform post-construction compliance monitoring and corrective actions, as needed.	5. Post-construction / restoration	5. ET and biological monitor	5. PBCE, agencies
			6. Submit final compliance report to resource agencies, if applicable.	6. Post-restoration monitoring period	6. ET	6. PBCE
BIO-5	The Project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**Compensate for Removal of Protected Trees.** As part of the project condition of approval, the trees to be removed shall be replaced on-site or off-site at the accepted ratios or through payment of an in-lieu fee to Our City Forest to compensate for the loss of the trees. Protected trees that are lost shall be replaced at a minimum of four 24-inch box trees per tree removed. Tree replacement amounts shall be subject to the City's Arborist and/or PBCE, who would determine the final mitigation for impacts to protected trees. Replacement trees shall be planted in a suitable location on Facility property or on other City property, to be identified by the City Arborist and approved by PBCE.	1. Requirements for tree replacement or payment of in-lieu fees in accordance with City policies and guidelines shall be included in contract documents. Include the City's Tree Replacement Ratio information in the contract documents, if applicable.	1. Design	1. PM	1. ET
			2. Monitor contractor for compliance with tree replacement as specified by City policies and guidelines.	2. Construction	2. CM	2. ET
			3. Submit final compliance reporting documentation, if applicable.	3. Construction	3. ET	3. PBCE
		Mitigation Measure BIO-5b: Minimize Construction Effects on Protected Trees to be Retained. The project proponent shall implement the following tree-protection measures prior to and during project construction. • Retain a certified arborist to oversee protection of native trees to be retained on the project site.	1. Retain a qualified arborist to perform tree survey to identify ordinance trees, native trees, in project area and evaluate appropriate tree protection measures for trees to be retained.	1. Feasibility / Development	1. ET	1. N/A
			2. If trees in project area require pruning and/or protection, ensure that requirements related to tree protection are included in contract documents. (**Spec. BIO-5b**)	2. Design	2. PM	2. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		• Require that any tree or root pruning occurring for construction is first approved by the certified arborist. • Require that the certified arborist evaluate injuries to retained trees as soon as possible for appropriate treatment. With implementation of these conditions and measures, the Project would not result in any new or more significant impacts than those identified in the certified Plant Master Plan EIR.	3. If trees in project area to be protected, monitor to ensure that contractor implements measures in contract documents: • Include in environmental training. • Maintain site inspection checklists. • Notify PM and ET of non-compliance.	3. Construction	3. CM	3. ET
			4. Submit final compliance report, if applicable.	4. Post-construction	4. ET	4. PBCE
BIO-5	The Project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	**Mitigation Measure BIO-2: Western Burrowing Owl Measures**, as described above.				
CULTURAL RESOURCES						
CUL-1	Implementation of the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	**Mitigation Measure CUL-1a: Inadvertent Discovery of Archaeological Resources.** If prehistoric or historic-era archaeological resources are encountered by construction personnel during Project implementation, all construction activities within 100 feet shall halt and the contractor shall notify ESD personnel and the PBCE Senior Environmental Planner. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, hand stones, or milling slabs); and battered stone tools, such as hammer stones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. The City's ESD or its contractor shall retain a Secretary of the Interior-qualified archaeologist to inspect the findings within 24 hours of discovery. If it is determined that the Project could damage a historical resource as defined by CEQA (CEQA Guidelines §15064.5), construction shall cease in an area determined by the archaeologist until a mitigation plan has been prepared, approved by the PBCE Senior Environmental Planner, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who would be identified by the Native American Heritage Commission [NAHC]). If the Native American representative identifies the find as a tribal resource, ESD or its contractor shall proceed to Mitigation Measure CUL-1b. For archaeological resources, the archaeologist, in consultation with the PBCE Senior Environmental Planner and the City's Historic Preservation Officer, shall determine when construction can resume.	1. Ensure that measures related to archaeological discoveries are included in contract documents.	1. Design	1. ET and PM	1. ET
			2. Ensure that all personnel complete environmental training prior to beginning work. Monitor to ensure that the contractors implement measures in contract document.	2. Construction	2. ET and CM	2. ET
			3. Evaluate the potential discovery and advise the ET as to the significance of the discovery. If warranted, proceed with measures that may include the following: a. On-site preservation of resource; b. Archaeological monitoring program with prior review/approval of ET; or c. Archaeological testing program with prior review/approval of ET.	3. Construction	3. CM and qualified archeologist	3. ET PBCE, in consultation with City's Historic Preservation Officer (if there are archeological or tribal resources)
			4. Prepare a Final Archaeological Resources Report if warranted. Submit to ET for review and approval.	4. Construction	4. ET and qualified archeologist	4. PBCE
			5. Ensure that contract documents include measures related to discovery of human remains.	5. Design	5. ET and PM	5. ET

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		The preferred mitigation shall be preservation in place. If preservation in place is not physically or financially feasible, mitigation shall be data recovery through excavation. If preservation in place is selected as mitigation, the mitigation shall be accomplished through one of the four following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding the resource site into a permanent conservation easement. If preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to the satisfaction of the PBCE Senior Environmental Planner to recover the scientifically consequential information from the resource prior to any excavation at the resource site. Treatment for most of the resources that could be encountered shall consist of (but shall not necessarily be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.				
CUL-1 (cont.)		**Mitigation Measure CUL-1b: Inadvertent Discovery of Tribal Cultural Resources.** The Native American representative shall make recommendations to the City for the appropriate measures to treat the tribal cultural resource which shall be implemented in accordance with Section 15064.5 of the CEQA Guidelines.	1. Evaluate the potential discovery and advise the ET as to the significance of the discovery.	1. Construction	1. Native American representative, ET	1. PBCE
CUL-2	Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries.	**Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains.** If human remains are encountered by construction personnel during project implementation, all construction activities within 100 feet shall halt and the contractor shall notify the PBCE Senior Environmental Planner. ESD shall contact the Santa Clara County Coroner to determine whether or not the remains are Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall contact the NAHC within 24 hours. The NAHC would then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the City for the appropriate means of treating the human remains and any associated funerary objects which shall be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.	1. Include in environmental training. Monitor to ensure that the contractor implements measures in contract document including reporting human remains if encountered and suspending work in the vicinity.	1. Construction	1. ET and CM	1. ET
			2. Confirm identification of human remains, if needed. If human remains are confirmed, perform required coordination and notifications.	2. Construction	2. ET and qualified archaeologist	2. ET
			3. Monitor to ensure the appropriate disposition of human remains.	3. Construction	3. ET and qualified archaeologist	3. ET
			4. Submit final compliance report, if applicable.	4. Construction	4. ET	4. PBCE
GEOLOGY AND SOILS						
GEO-1	The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**Mitigation Measure CUL-2: Inadvertent Discovery of Paleontological Resources.** If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find and the contractor shall notify ESD personnel and the PBCE Senior Environmental Planner. ESD or its contractor shall retain a qualified paleontologist to inspect the findings within 24 hours of discovery to assess the nature and importance of the find and, if necessary, develop appropriate treatment measures in	1. Evaluate the potential discovery and advise the ET as to the significance of the discovery.	1. Construction	1. Qualified paleontologist, ET	1. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		conformance with Society of Vertebrate Paleontology standards, and in consultation with the PBCE Senior Environmental Planner.				
GREENHOUSE GAS EMISSIONS						
GHG-1	The Project's operational GHG emissions combined with the 30-year amortized construction emissions, would exceed the BAAQMD significance threshold for operation.	**Mitigation Measure GHG-1a: GHG Reduction Strategy Measures.** The following measures identified in the GHG Reduction Strategy shall be implemented: • An evaluation of post-2020 operational energy efficiency and associated design measures shall be completed for energy-intensive Facility improvements, such as the mechanical drying improvements. • The proposed number of parking spaces would not exceed requirements in the Municipal Code.	The project proponent shall prepare and submit to the satisfaction of the Director of PBCE or designee plans and specifications meeting the requirements of the mitigation measure. Project proponent shall submit prepare and submit to the satisfaction of the Planning Environmental Division Manager an evaluation of post-2020 operational energy efficiency meeting the requirements of this measure.	Design Post-Year 2020 Operations (for energy-intensive RWF improvements).	Director of Planning, Building & Code Enforcement	PBCE
HAZARDS AND HAZARDOUS MATERIALS						
HAZ-1	The Project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.	**Mitigation Measure HAZ-1a: Pre-Construction Hazardous Materials Assessment.** Prior to construction, ESD or its contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and groundwater quality. If the results reveal soils and/or groundwater contamination exist in excess of applicable regulatory screening levels (Environmental Screening Levels or California human health screening levels) for the proposed site use, the City shall contact the appropriate regulatory agency (the Santa Clara County Department of Environmental Health [SCCDEH], RWQCB, or DTSC), as appropriate. ESD or its contractor shall complete subsequent site investigations and/or remedial activities required by the regulatory agency to ensure that residual impact, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment. The results of the pre-construction hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure HAZ-1b, below, and the Soil and Groundwater Management	1. Evaluate project location with respect to known underground fuel tank leaks or spills and proximity to landfills. Assess need for subsurface sampling to evaluate potential presence of contaminants.	1. Feasibility / Development	1. ET and ESD's Hazardous Material Specialist	1. ET and ESD's Hazardous Material Specialist
			2. If warranted, retain a qualified environmental professional to prepare a workplan, conduct soil and groundwater sampling, and report results. Report shall provide recommendations for agency consultation and/or additional cleanup, depending upon findings.	2. Feasibility / Development	2. ET and qualified environmental professional	2. ET and ESD's Hazardous Material Specialist (RWQCB, DTSC, SCCDEH)
			3. Ensure that contract documents include site-specific sampling report and/or general information about potential soil and groundwater contaminants anticipated. If warranted, include site cleanup in project and prepare final cleanup report.	3. Design	3. PM and ET	3. ET
HAZ-1 (cont.)		Plan prepared in accordance with Mitigation Measure HAZ-1c, below, to determine whether: specific soil and groundwater management and disposal procedures for contaminated materials are required; excavated soils are suitable for reuse; and construction worker health and safety procedures for working with contaminated materials are required.	4. A copy of the pre-construction hazardous materials assessment shall be submitted to the Director of PBCE or designee for approval.	4. Construction	4. CM and ET	4. PBCE
		Mitigation Measure HAZ-1b: Health and Safety Plan. ESD or its contractor shall retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8	1. Ensure that contract documents include preparation of a Health and Safety Plan and documentation of compliance in accordance with the mitigation measure.	1. Design	1. PM	1. ET

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
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		CCR Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction. The HASP shall include the following information: • Results of sampling conducted in accordance with Mitigation Measure HAZ-1a. • All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. • Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP. • The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to 1) immediately stopping work in the vicinity of the unknown hazardous materials release; 2) notifying SCCDEH, RWQCB, or DTSC; and 3) retaining a qualified environmental firm to perform sampling, remediation, and/or disposal. • Documentation that HASP measures have been implemented during construction. • Provision that submittal of the HASP to ESD, or any review of the contractor's HASP ESD, shall not be construed as approval of the adequacy of the contractor as a health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.	2. Review contractor's Health and Safety Plan.	2. Design / Construction	2. PM and CM	2. ET
			3. Monitor compliance by the contractor, report non-compliance or discovery of suspect hazardous materials to PM and ET. Ensure corrective action, sampling, remediation and/or disposal as warranted. (Note contractor is solely responsible for health and safety of its employees).	3. Construction	3. CM and ET	3. ET and ESD's Hazardous Material Specialist
			4. A copy of the HASP shall be submitted to the Director of PBCE or designee.	4. Construction	4. CM and ET	4. PBCE
HAZ-1 (cont.)		**Mitigation Measure HAZ-1c: Soil and Groundwater Management Plan.** If hazardous materials or contaminated soil and groundwater above regulatory screening levels are identified under the pre-construction hazardous materials assessment, done in accordance with Mitigation Measure HAZ-1a, ESD shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The Soil and Groundwater Management Plan shall establish the sampling and laboratory analysis program which may include the following: 1)	1. Ensure that contract documents include a Soil and Groundwater Management Plan meeting the requirements of the mitigation measure and requirement for submittal of final compliance report documenting disposal of materials.	1. Design	1. PM	1. ET
			2. Review contractor's Soil and Groundwater Management Plan.	2. Design / Construction	2. PM, CM, and ESD's Hazardous Material Specialist	2. ET and ESD's Hazardous Material Specialist

Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		analysis of subsurface soil samples within the Project site for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and volatile organic compounds (VOCs) or any other chemicals of concern to evaluate the potential presence of contamination; 2) groundwater samples if subsurface excavations are anticipated to require dewatering; and 3) additional analyses for VOCs and semi-volatile organic compounds (SVOCs) for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills. The Soil and Groundwater Management Plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The Plan shall include the following information. • Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility. • Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils. • Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method to be used to analyze groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods. The Pre-Construction Hazardous Materials Assessment (HAZ-1a), Health and Safety Plan (HAZ-1b), and Soil Management Plan (HAZ-1c) shall be submitted to the PBCE Senior Environmental Planner for approval.	3. Monitor compliance by the contractor, report non-compliance or discovery of suspect hazardous materials to PM and ET. Ensure corrective action, sampling, remediation and/or disposal as warranted. 4. Review contractor's final compliance report and retain all manifests for hazardous waste disposal. 5. A copy of the Soil and Groundwater Management Plan shall be submitted to the Director of PBCE or designee	3. Construction 4. Construction 5. Construction	3. CM and ET 4.CM 5. ET and ESD's Hazardous Material Specialist	3. ET and ESD's Hazardous Material Specialist 4. ET and ESD's Hazardous Material Specialist 5. PBCE
HAZ-2	Construction requiring one lane closure of Zanker Road could interfere with the use of Zanker Road during evacuation of the Facility.	Implementation of **Mitigation Measure TR-1**, described below in Transportation and Circulation, notifying Facility personnel of the temporary closure of Zanker Road and instructing personnel to evacuate using Mike Tocce Lane.				
HYDROLOGY AND WATER QUALITY						
HYD-1	Any changes or increases in runoff from the Project sites need to be adequately characterized and drainage systems need to be planned in a manner that avoids significant impacts related to flooding	**Mitigation Measure HYD-1: Comprehensive Drainage Plan.** The City shall prepare and implement a comprehensive drainage plan for the future plant expansion area, the south and east of the Facility operational area. The plan shall be consistent with the provisions and requirements of the Municipal Regional Permit (NPDES Permit Order R2-2009-0074), as well as with the subsequent policies and guidance set forth by the relevant	1. Retain a qualified hydrologic engineer to prepare a Comprehensive Drainage Plan in accordance with the measure. The comprehensive plan will establish the framework and requirements for site drainage, and may establish phasing for development of detailed drainage design as development progresses (i.e. initially for CIP sites outside the existing operational area,	1. Feasibility / Development	1. PM	1. PCBE

Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		permittee(s) (e.g., the City of San José). This plan shall incorporate the following elements: • The storm drain system and treatment capacity shall be designed in a manner to accommodate peak conditions from a design storm. The City requires that the storm drain system have the capacity for a 10-year event; however, the comprehensive drainage plan shall also plan for a 100-year event. The plan need not avoid all ponding and flooding during a 100-year event, but shall consider where water would pool and flow and include measures to avoid draining excess runoff to offsite pumps, to avoid flooding structures, and to avoid the release of untreated sewage during a 100-year runoff event. • Actions necessary to prevent exceeding Headworks capacity and/or releasing of runoff offsite, as specified in the NPDES requirements, shall be identified and implemented. Such actions may include installation of additional pumping capacity or redirection of runoff to other surface waters (so long as such discharges are in compliance with NPDES requirements). • Proposed roads (including the Dixon Landing roadway east of the operational area) and recreational trails shall be designed to allow passage of surface water drainages, avoid fill within wetland habitats, and shall incorporate measures to reduce the impact of impervious surfaces on the rate and volume of stormwater runoff. The size and design of culverts, channels, cross drains, boardwalks, and/or bridges (as applicable) shall be determined based on drainage calculations that consider both a 10-year and 100-year storm event. The drainage plan shall also identify measures to ensure that current rates of groundwater infiltration are not decreased significantly by the increase in impervious area with implementation of proposed PMP land uses to the south and east of the operational area. Where soils are suitable, such measures might include bioswales, infiltration galleries, or other measures that promote stormwater retention and infiltration rather than offsite conveyance.	and later for proposed economic development).			
			2. Ensure project design complies with Comprehensive Drainage Plan and the requirements of this measure.	2. Design	2. PM	2. PBCE
			3. Ensure that drainage requirements are included in construction contract documents. (Spec HYD-1)	3. Design	3. PM	3. PBCE
			4. Ensure project construction includes drainage features as designed.	4. Construction	4. CM	4. ET
			5. A copy of the Comprehensive Drainage Plan shall be submitted to the PBCE Senior Environmental Planner.	5. Post-construction	5. ET	5. ET / PBCE sign off

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
TRANSPORTATION AND CIRCULATION						
TR-1	The temporary closure along Zanker Road south of the Facility operational area would increase traffic volumes on the detour roadways.	**Mitigation Measure TR-4: Implement Project Traffic Control Plan.** ESD or its contractor(s) shall prepare and implement a Traffic Control Plan to reduce traffic impacts on the roadways at and near the work site, as well as to reduce potential traffic safety hazards and ensure adequate access for emergency responders. ESD or its contractor(s) shall coordinate development and implementation of this plan with City departments (e.g., Emergency Services, Fire, Police, Transportation), as appropriate. To the extent applicable, the Traffic Control Plan shall conform to the Caltrans' *California Manual on Uniform Traffic Control Devices*, Part 6 (Temporary Traffic Control)[1] and San José Public Works Department's Temporary Traffic Control Manual.[2] The Traffic Control Plan shall include, but not be limited to, the following elements: • Circulation and detour plans to minimize impacts on local road circulation during road and lane closures. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone. • Identifying truck routes designated by City of San José and Santa Clara County. Haul routes that minimize truck traffic on local roadways shall be utilized to the extent possible. • Controlling and monitoring construction vehicle movement through the enforcement of standard construction specifications by onsite inspectors. • Scheduling truck trips outside the peak morning and evening commute hours to the extent possible. • Limiting the duration of road and lane closures to the extent possible. • Notifying Facility personnel of the temporary closure of Zanker Road and instructing personnel to evacuate using Mike Tocce Lane during Zanker Road closure. • Maintaining pedestrian and bicycle access and circulation during project construction where safe to do so. If construction activities encroach on bicycle routes or multi-use paths, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted that indicate the presence of such users. • Identifying detours for bicycles and pedestrians, where applicable, in all areas affected by project construction. • Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized. • Implementing roadside safety protocols. Advance "Road Work Ahead" warning and speed control signs (including those informing drivers of State legislated double fines for speed infractions in a construction zone) shall be posted to reduce speeds and provide safe traffic flow through the work zone. • Coordinating construction administrators of police and fire stations (including all fire protection agencies). Operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures, where applicable. • Repairing and restoring affected roadway rights-of way to their original condition after construction is completed.	1. Incorporate into contract documents a requirement that contractor prepare a traffic plan in accordance with requirements of Coordinated Transportation Management Plan and this measure.	1. Design	1. PM	1. ET
			2. Review contractor's traffic control plan.	2. Pre-construction	2. PM and CM	2. CM
			3. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance to PM and ET and ensure corrective action.	3. Construction	3. CM	3. CM
			4. Submit final compliance reporting documentation, if applicable.	4. Construction	4. ET	4. PBCE

[1] California Department of Transportation (Caltrans), *California Manual on Uniform Traffic Control Devices for Streets and Highways – Part 6: Temporary Traffic Control*, amended November 7, 2014.
[2] City of San José, Public Works Department, *Temporary Traffic Control Manual*, September 27, 2005, available online at http://www.sanjoseca.gov/index.aspx?NID=3464, accessed October 2015.

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
TRIBAL CULTURAL RESOURCES						
TRC-1, TRC-2	Implementation of the Project could cause a substantial adverse change in the significance of a tribal cultural resource pursuant to §21074.	Implement **Mitigation Measures CUL-1a. Inadvertent Discovery of Archaeological Resources and CUL-1b. Inadvertent Discovery of Tribal Cultural Resources** See Cultural Resources section, above.				
UTILITIES AND SERVICE SYSTEMS						
UT-1	The Project could affect other utilities during construction.	**Mitigation Measure UT-6: Coordination With Utility Service Providers and Develop Utility Avoidance Plan** Prior to construction, the project proponent shall coordinate with appropriate utility service providers and related agencies to determine the location of utilities and the City will incorporate into construction specifications the requirement that the contractor develop a plan to reduce service interruptions. The plan shall be approved by the City and submitted to appropriate utility providers. Utilities to be addressed in the plan shall include, but may not be limited to: water, recycled water, sewer, gas, electricity, telephone, cable. Coordination efforts shall include the following: • The project proponent shall coordinate with San Jose Municipal Water Supply (SJMWS) as the water purveyor to minimize or eliminate potential water interruptions. Such coordination efforts may include requiring the construction contractor to hot-tap28 existing water lines for new water line connections when possible to maintain service of existing water lines. Another option is to isolate construction areas and back feed water through alternate lines to provide continuous service.	1. Coordinate with appropriate utility service providers to determine the location of utilities.	1. Feasibility / Development	1. PM	1. ET / PBCE
			2. Incorporate into contract documents a requirement that the contractor develop a utility avoidance plan to reduce service interruptions and address potential construction effects on existing utilities. **(Spec UT-6)**	2. Design	2. PM	2. PBCE
			3. Review contractor's utility avoidance plan.	3. Pre-Construction	3. PM	3. N/A
			4. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance to PM and ET and ensure corrective action.	4. Construction	4. CM	4. ET
			5. Submit compliance report, if needed.	5. Post-construction	5. ET	5. ET/PCBE sign off
CUMULATIVE IMPACTS						
C-TR-1	The Project could have transportation impacts that are individually limited, but cumulatively considerable.	**Mitigation Measure C-TR-1**: **Implement Coordinated Transportation Management Plan.** Prior to construction, the City's contractor(s) shall develop a Coordinated Transportation Management Plan and work with other projects' contractors and appropriate City departments (e.g., Emergency Services, Fire, Police, Transportation) to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Project as well as planned Facility improvements and land uses, and to address the transportation impact of the overlapping construction projects within the vicinity of the Project. The transportation management plan shall include, but not be limited to, the following requirements:	1. Prepare a Coordinated Transportation Management Plan to outline requirements of project-specific transportation plans.	1. Feasibility / Development	1. CM and PM	1. CM
			2. Incorporate into contract documents a requirement to ensure that contractor prepare a traffic plan in accordance with requirements of Coordinated Transportation Management Plan and this measure.	2. Design/Pre-Construction	2. PM	2. ET
			3. Monitor to ensure that contractor implements measures in contract documents. Report	3. Construction	3. CM	3. CM

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		• Coordination of individual traffic control plans for the Project with nearby projects. • Coordination between the Project contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address: – Full and partial roadways closures – Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices – Bicycle/Pedestrian detour plans, where applicable – Parking along public roadways – Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites • Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects. • A comprehensive and continual outreach program to notify affected citizens (i.e., residents of Alviso, commuters, etc.) of all construction activity and roadway closures for the duration of the projects.	noncompliance to PM and ET and ensure corrective action.			
SOURCE: San José-Santa Clara Regional Wastewater Facility Digested Sludge Dewatering Facility Addendum, August 2019.						

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Julia H. Cooper

SUBJECT: **SEE BELOW**

DATE: September 5, 2019

Approved [signature] Date 9-5-19

SUBJECT: APPROVAL OF CITYWIDE INSURANCE RENEWALS

RECOMMENDATION

Adopt a resolution authorizing the Director of Finance to:

(a) Select and purchase City property and liability insurance policies for the period October 1, 2019 to October 1, 2020, at a total cost not to exceed $2,250,000, as well as an 18.0% contingency for additional property or assets scheduled, subject to the appropriation of funds with the following insurance carriers:
   (1) Factory Mutual Insurance Company for Property Insurance, including Boiler & Machinery and TRIA Coverage;
   (2) Beazley Syndicate 2623/623 at Lloyd's for Terrorism Insurance;
   (3) Old Republic Insurance Company, for Airport Owners and Operators Liability including War Risks & Extended Perils Coverage (including Excess Automobile and Employers' Liability) and Police Aircraft Hull & Liability including War Risks & Extended Perils Coverage;
   (4) QBE Specialty Insurance Company for Secondary Employment Law Enforcement Professional Liability;
   (5) Hartford Life and Accident Insurance Company for Accidental Death, Accidental Dismemberment, and Paralysis Policy for the Police Air Support Unit; and
   (6) Berkley Insurance Company for Government Fidelity/Crime Coverage.

(b) Select and purchase additional insurance coverage not-to-exceed $450,000 for the following products:
   (1) Up to $15 million in excess property coverage for the flood peril for locations in high and moderate hazard flood zones for the period October 1, 2019, to October 1, 2020, at a cost not to exceed $150,000 subject to the appropriation of funds;
   (2) Auto Liability insurance for Airport fleet vehicles including Shuttle Buses; Regional Wastewater Facility fleet vehicles; and Airport Shuttle Bus physical damage for the period October 1, 2019, to October 1, 2020, at a cost not to exceed $120,000 for the Airport and $100,000 for the Regional Wastewater Facility, subject to the appropriation of funds; and
   (3) Up to $25 million in Excess Auto Liability insurance for Airport fleet vehicles including Shuttle Buses for the period October 1, 2019, to October 1, 2020, at a cost not to exceed $80,000, subject to the appropriation of funds.

OUTCOME

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

BACKGROUND

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

To secure policies through best practices, the Finance Department annually reviews the City's insurance coverage and needs with the City's insurance broker, Arthur J. Gallagher Insurance Services ("Gallagher"). This includes analyzing the City's risk exposures, insurance market trends, product availability, and the City's historical approach to insuring for losses. Gallagher presents the City's risk portfolio to insurance carriers to obtain the best value insurance coverage, solicits competitive quotations from major insurance companies for all recommended products and presents the results to the Finance Department for consideration.

Staff compares and evaluates the quotes based on scope of coverage, cost, the insurer's financial strength and reputation on paying claims, and the insurer's availability of resources to provide industry-related services such as property evaluations, safety training, risk-related engineering services, and loss control. Based on the information and analysis, the Finance Department determines the appropriate insurance coverage and recommends the most advantageous insurance policies to the City Council.

ANALYSIS

The Finance Department completed the annual insurance renewal process for FY 2019 -2020 with Gallagher and recommends the insurance coverage described below.

In this annual insurance renewal cycle, changes in market conditions affecting all commercial policyholders, along with the City's natural catastrophe exposure (flood) and loss history in certain lines of coverage, contributed to negative/unfavorable changes to the renewal terms for property insurance as well as auto and airport liability insurance.

Appendix A reflects the best value coverage, renewal premiums and insurance carriers presented for FY 2019-2020. The quoted renewal premiums may change with the addition or deletion of insurable property prior to binding coverage or during the policy term.

Appendix B provides a comparison of insurance premiums by fund and type of insurance. This comparison shows that the aggregate cost of insurance and broker fees is $2,369,018 which is $755,057 more than last year's premium of $1,613,962, a 46.78% increase in total costs.

A. Insurance Coverage Recommended

1. All Risk Property including Boiler & Machinery Insurance

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

Property values increased by 3.1%, driven by inflation factors applied to determine the replacement cost of the City's real and personal property.

The market for commercial property insurance has changed significantly since the City's last annual renewal. Industry record catastrophe losses in 2017 and above average catastrophe losses in 2018 produced the worst back-to-back loss years on record. Policyholders with catastrophe exposure and losses are seeing rate increases excess of 15%[1].

Incumbent property insurer Factory Mutual ("FM") proposed the most competitive program for this term. The property insurance limit quoted by FM is $1.0 billion each occurrence with a $100,000 deductible per occurrence. For locations not in high and moderate hazard flood zones, the City has additional coverage for the loss peril of flood with annual aggregate limits of $100 million and a $500,000 per location deductible. For locations in high and moderate hazard flood zones, the FM proposal includes annual aggregate limits of $10 million.

A summary of key changes relative to the expiring program is provided below.

- Premium increase of $346,445, or 28.87% from the previous fiscal year renewal, excluding coverage under the Terrorism Risk Insurance Act ("TRIA")
- Reduction in policy limits from $1.5 billion to $1.0 billion per occurrence
- Reduction in limits applicable to the loss peril of flood for locations in high and moderate hazard flood zones (such as Mineta San José International Airport, the SAP Center, the Regional Wastewater Facility, and the San Jose McEnery Convention Center) from $25,000,000 to $10,000,000 per occurrence

[1] Willis Towers Watson Property Market Tracker (July 2019)

Due to changes in the program, staff is requesting authorization to select and purchase up to $15 million in excess property coverage for the flood peril for locations in high and moderate hazard flood zones at a cost not to exceed $150,000.

In addition to the insurance products procured last year, the City utilized risk engineering services to evaluate twenty-five (25) City-owned properties. Risk engineering services help identify common risks resulting in damage or destruction of property such as fire, flood, or other operational risks and are geared to finding solutions aimed to reduce property loss or disruption of use. Outstanding recommendations will be studied for implementation.

Insurance Carrier: Factory Mutual Insurance Company

Annual Premium (Net):	$1,546,445
Broker Fees:	88,500
Total Annual Costs:	$1,634,945

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

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

Escalating loss costs are driving rate increases in the commercial auto liability market[2]. Additionally, the City's recent claim history resulted in the incumbent carrier Traveler Indemnity Company of CT electing not to renew the program. Insurers currently considering the Airport program have indicated a significant premium increase and application of a sizable deductible where the Airport previously had a zero deductible program.

Staff is requesting authorization to select and purchase an Automobile Liability and physical damage policy for the Airport at a cost not to exceed $120,000, which is 74.42% higher than the premium paid last year.

Insurance Carrier: TBD
Requested Authorization: $120,000 (Net)

3. Automobile Liability for Regional Wastewater Facility (RWF) Fleet

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

[2] Willis Towers Watson Insurance Marketplace Realities – Spring 2019 Update

RWF's Automobile Liability program is also affected by the same changes driving the Airport's program as described in the preceding section, including significant premium increases and the need for a sizable deductible. Staff is requesting authorization to select and purchase an Automobile Liability policy for the RWF at a cost not to exceed $100,000, which is 160.57% higher than the premium paid last year.

Insurance Carrier: TBD
Total Annual Premium: $100,000 (Net)

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

This program provides coverage for damages that the City becomes legally obligated to pay because of bodily injury, property damage and personal injury resulting from airport operations. The program provides coverage for bodily injury and property damage caused by war and other perils. Additionally, the policy provides excess auto liability insurance coverage beyond the Airport's primary auto liability insurance program.

The City locked a three-year, guaranteed rate beginning in the 2015-2016 policy period which was extended for the 2018-2019 policy period. The $23,491 premium increase for the 2019-2020 policy period reflects changes in general market conditions over the four years where the City has maintained a guaranteed rate. The premium for the 2019-2020 policy period continues to be the best market rate as verified through a competitive process conducted this year.

The incumbent carrier Old Republic Insurance Company elected to reduce the excess auto liability limits from $50 million to $5 million. As such, staff is requesting authority to select and purchase up to $25 million in excess auto liability coverage for the Airport at a cost not to exceed $80,000.

Insurance Carrier: Old Republic Insurance Company

Annual Premium:	$58,725
War/Extended Coverage:	5,873
TRIA Coverage:	5,873
Total Annual Premium:	$70,471 (Net)

5. Secondary Employment Law Enforcement Professional Liability

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

The City renewal rate is $170.49 per Sworn Officer. Participating Sworn Officers all contribute $110 per year to obtain coverage and the number of Sworn Officers decreased slightly from 547 to 546 officers.

Insurance Carrier: QBE Specialty Insurance Company

Annual Premium:	$90,201
Surplus Lines Tax:	2,886
Total Annual Premium:	$93,087 (Net)

Total City Cost:	$33,027
Total Officer Cost:	$60,060

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

Police aircraft hull and liability insurance provides coverage for those amounts that the City becomes legally obligated to pay as damages due to bodily injury (including passengers) or property damage, as well as physical damage, for scheduled aircraft.

City aircraft currently includes a Cessna 182 and an Airbus H125 purchased in 2018. The City sold an American Eurocopter EC 120B in December 2018. The two aircraft are on the schedule with current hull values of $275,000 and $5,700,000, respectively. The program provides up to $50 million in aggregate liability coverage for bodily injury or property damage caused by war and other perils.

Despite a challenging pricing environment in the wider aviation market, the premium declined 24.01% primarily due to the sale. Staff verified through the competitive process that the existing rate remains a best rate for the City's existing aviation exposure.

Insurance Carrier:	Old Republic Insurance Company
TRIA:	Included
Total Annual Premium:	$46,388 (Net)

7. Government Crime Policy

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

The City maintained a fixed rate (annual premium) of $14,450, a rate which has been in place since FY 2017-2018.

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

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

This program provides an accidental death, accidental dismemberment, and paralysis benefit of $250,000 per person for accident or injury of any member of the Police Air Support Unit as defined in Section 5.3.8 of the San José Police Officer's Association (POA) Memorandum of Agreement (MOA) subject to an aggregate limit of $1,250,000 per accident. In 2016, the City added this insurance product to its annual renewal process.

This period, pricing increased over the expiring policy, driven by incumbent carrier National Union Fire Insurance Company of Pittsburgh, PA (dba AIG), deciding not to provide renewal terms because the number of members in the Police Air Support Unit fell below its underwriting threshold. The City is placing the policy with Hartford Life & Accident Insurance Company with a three-year rate guarantee at an annual cost of $9,263.

Insurance Carrier: Hartford Life & Accident Insurance Company
Annual Premium (first year of three-year rate guarantee)[3]: $9,263.00 per year

9. Terrorism Risk Insurance Act of 2002 (TRIA) and Terrorism Insurance

Terrorism Risk Insurance Act (TRIA) coverage provides an insurance mechanism (shared by private insurance carrier and federal government) for losses arising from acts of terrorism as certified by the Secretary of Treasury and defined by the Terrorism Risk Insurance Act (TRIA). It does not cover liability. Coverage is currently provided through

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

a temporary federal program for 85% of total aggregate loss up to $100 billion in aggregate losses with total losses being no less than $5 million. The cost of purchasing TRIA coverage is fully incorporated into the product cost analysis above, except for the All Risk Property Insurance program where FM has provided a quote for an incremental premium of $33,406.

Staff also received options for a stand-alone terrorism insurance policy to complement the TRIA coverage. Stand-alone terrorism insurance provides a broader definition of terrorism than TRIA and includes third party liability coverage. Staff is recommending purchase of a $10 million stand-alone terrorism policy for a premium of $17,009.

Insurance Carrier: Factory Mutual Insurance Company (TRIA)
Annual Premium: $33,406 (Net)

Insurance Carrier: Beazley Syndicate 2623/623 at Lloyd's
Annual Premium: $17,009 (Net)

B. Insurance Coverage Not Recommended

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

1. Earthquake

Earthquake coverage is provided through a separate product procurement. Coverage is limited to direct damages caused by earth movement, which is excluded on the All Risk Property coverage policy. Coverage for sprinkler damage and fire resulting from an earthquake is covered by the All Risk Property policy. In previous years, Staff has inquired into the total cost of earthquake insurance for the entire property schedule and found coverage to be cost prohibitive.

The City's broker confirmed rates and overall market conditions have not improved or changed for FY 2019-2020. The insurance markets that underwrite catastrophic coverage (flood, wind, and earthquake) have reduced available capacity along with increasing insurance rates. This pricing level, the minimum deductible of 5% of the values at risk, the relatively low limits of coverage available, and potential concerns about solvency (ability to pay) of the insurers make it uneconomical to purchase coverage citywide.

C. Future Considerations: Insurance Coverage

1. Cyber Liability

Staff intends to present a recommendation for the purchase and selection of Cyber Liability insurance at the City Council meeting on October 8, 2019.

EVALUATION AND FOLLOW-UP

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

PUBLIC OUTREACH

This item will be posted to the City's website for the September 17, 2019 Council Agenda.

COORDINATION

This memo has been coordinated with the Department of Aviation, the Department of Transportation, Police Department, Housing Department, Environmental Services Department, the City Manager's Office of Economic Development, as well as the City Manager's Budget Office and the City Attorney's Office.

COMMISSION RECOMMENDATION

This item is scheduled to be heard at the September 12, 2019 Treatment Plant Advisory Committee meeting.

COST SUMMARY/IMPLICATIONS

The estimated funding to pay for various insurance premiums in 2019-2020 was included in the 2019-2020 Adopted Operating Budget approved by the City Council on June 11, 2019. The recommend action includes authorization for an 18.0% contingency to schedule additional property or assets as required. Accordingly, the Administration will recommend any future minor budget adjustments, as necessary, across the City's various funding sources to ensure that the City is adequately protected.

BUDGET REFERENCE

The table below identifies the fund and appropriations recommended to fund the insurance premiums identified. In addition, costs associated with insuring the remaining SARA assets are estimated to be $651 in FY 2019-2020. The anticipated payment of these costs associated with asset management for the SARA is reflected on line 85 of the Recognized Obligation Payment Schedule (ROPS) as an enforceable obligation to maintain and protect the assets of the SARA allowed under the dissolution law.

Fund #	Appn #	Appn. Name	Total Appn.	Amount for Premium [a]	2019-2020 Proposed Budget Page [b]	Last Budget Action (Date, Ord. No.)
001	2001	Insurance Premiums	$769,367	$765,294	IX-7	06/18/2019 30286
001	2864	Police Officers' Professional Liability Insurance	$126,000	$93,087	IX-7	06/18/2019 30286
001	0502	Non-Personal/Equipment (Police Department)	$27,813,779	$55,651	IX-7	06/18/2019 30286
523	0802	Non-Personal/Equipment (Airport)	$45,690,740	$773,370	X-3	06/18/2019 30286
536	3405	Insurance Expenses [c] (Convention Center)	$331,000	$335,802	X-25	06/18/2019 30286
533	0512	Non-Personal/Equipment (Department of Transportation)	$8,570,217	$85,320	X -39	06/18/2019 30286
513	0762	Non-Personal/Equipment (Environmental Services Department)	$30,134,600	$239,956	X-77	06/18/2019 30286
515	0762	Non-Personal/Equipment (Environmental Services Department)	$37,341,901	$7,913	X-90	06/18/2019 30286
423	0762	Non-Personal/Equipment (Environmental Services Department)	$5,464,853	$8,247	X-48	06/18/2019 30286
346	0109	Loan Management (Housing Department)	$225,000	$3,727	X-52	06/18/2019 30286

[a] *The amount for premium is subject to change up until the beginning date of the new insurance policy. Therefore, current estimates are lower than the recommended contract amount. SARA is billed separately for its share of broker fees and premium costs. Premiums for the Airport (Fund 523) and Environmental Services Department (Fund 513) include Not to Exceed number for Auto Liability and Physical Damage (Airport only).*
[b] *The 2019-2020 Adopted Operating Budget was approved by City Council on June 11, 2019.*
[c] *Administration will recommend an increase to this appropriation as part of the 2018-2019 Annual Report scheduled for City Council review and approval on October 8, 2019. Insurance premiums are paid within 30 days of policy effective date.*

CEQA

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

/s/
JULIA H. COOPER
Director of Finance

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

Appendix A
Appendix B

APPENDIX A

1. ALL RISK PROPERTY AND BOILER & MACHINERY INSURANCE

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	Factory Mutual Insurance Company (FM)	Factory Mutual Insurance Company (FM)
Total Insurable Values	$ 3,848,319,097	$ 3,967,475,869
Limit of Liability	$1,500,000,000 subject to a $100,000 Deductible Per Occurrence	$1,000,000,000 subject to a $100,000 Deductible Per Occurrence
Boiler & Machinery	Included	Included
Earthquake	Excluded. Relatively low limits available 5% deductible, high premium-not recommended.	Excluded. Relatively low limits available 5% deductible, high premium-not recommended.
Flood	$100,000,000 but not to exceed $25,000,000 in high and moderate hazard flood zones, deductible is $1,000,000 per occurrence or 5% of TIV of locations of loss, whichever is greater. Locations are specified in the statement of values on file in Risk Management. Airport, Convention Center, and RWF are given a flat $10M (Airport & Convention Center) & $5M (RWF) flood deductible.	$100,000,000 but not to exceed $10,000,000 in high and moderate hazard flood zones, deductible is $1,000,000 per occurrence or 5% of TIV of locations of loss, whichever is greater. Locations are specified in the statement of values on file in Risk Management. Airport, Convention Center, and RWF are given a flat $10M (Airport & Convention Center) & $5M (RWF) flood deductible.
Other Sub-limits	Other sub-limits as outlined in the insurance policy on file in Risk Management	Other sub-limits as outlined in the insurance policy on file in Risk Management

	Current Program	Renewal Program
	10/01/2018-10/01/2019	**10/01/2019-10/01/2020**
Carrier	Factory Mutual Insurance Company (FM)	Factory Mutual Insurance Company (FM)
Terrorism and Non Certified Act of Terrorism	Included	Included for additional premium
Annual Premium for City	$1,200,000 Annual Premium	$1,546,445[1] Estimated Annual Premium
	TRIA Included	$33,406 Optional TRIA
	N/A	$17,009 Optional Standalone Terrorism
	Excess Flood Included	$150,000 Excess Flood
	$88,500 AJG Broker Fee	$88,500 AJG Broker Fee
	$1,288,500 Total Annual Premium	**$1,835,360 Total Annual Premium**
Engineering Services	Included in coverage	Included in coverage
Multiyear	Not Available	Not Available

[1] This includes a firm premium, $651, which will be directly invoiced to the City as SARA.

2. AIRPORT OWNERS AND OPERATORS LIABILITY

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	Old Republic Insurance Company	Old Republic Insurance Company
Coverage and Deductible	Airport Liability - $200,000,000 each occurrence combined single limit for bodily injury and property damage with a $50,000,000 each occurrence limit for personal injury, war risk liability at $200,000,000 each occurrence and in the annual aggregate and $50,000,000 Excess Automobile and Excess Employers Liability. Deductible: $0 each occurrence 3-Year Price Guarantee (see endorsement)	Airport Liability - $200,000,000 each occurrence combined single limit for bodily injury and property damage with a $50,000,000 each occurrence limit for personal injury, war risk liability at $200,000,000 each occurrence and in the annual aggregate and $5,000,000 Excess Automobile and Excess Employers Liability. Deductible: $0 each occurrence 3-Year Price Guarantee (see endorsement)
Annual Premium	$43,065 (incl. war premium)	$58,725
Optional TRIA and war premium (recommended for purchase)	$3,915	$11,746
Total (Including Taxes/Fees)	**$46,980 (Net)** [2]	**$70,471 (Net)**

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

3. SECONDARY EMPLOYMENT LAW ENFORCEMENT PROFESSIONAL LIABILITY

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	QBE Specialty Insurance Co. New York, New York	QBE Specialty Insurance Co. New York, New York
Limits of Insurance and Deductibles	$2,000,000 Each Occurrence $2,000,000 Annual Aggregate Subject to a $100,000 Deductible including Loss Adjustment Expense (LAE)	$2,000,000 Each Occurrence $2,000,000 Annual Aggregate Subject to a $100,000 Deductible including Loss Adjustment Expense (LAE)[3]
Average Rate per Officer	$170.17 (547 Sworn Officers at policy inception)	$170.49 (546 Sworn Officers at policy inception)
Annual Premium	**$90,198 (Net)**	**$90,201 (Net)**
Surplus Lines Taxes and Fees	$2,886	$2,886
Fees (if any)	None	None
Total (Including Taxes/Fees)[4]	**$93,084**	**$93,0874**

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

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	St. Paul/Travelers Hartford, CT	TBD
Coverage and Deductibles	Auto Liability-Fleet Only $1,000,000 Combined Single Limit (Any Auto) $1,000,000 UM/UIM (Owned Autos) Physical Damage-Buses Only Per Schedule Subject to $10,000 Comp/$25,000 Coll. Deductible $500 Comp/Coll. Deductible for Hired Physical Damage	TBD
Exposure	Number of Vehicles 92	Number of Vehicles 88
Average Rate Per Unit	$747.83	$TBD
Total[5]	**$68,801 (Net)**	**$TBD**

[3] LAE includes staffing and legal costs for processing claims.
[4] Participating Sworn Officers all contribute $110 per year to obtain coverage
[5] Includes $12,618 incremental net premium for adding coverage to 10 Zero Emissions Buses as of April 19, 2019

5. AUTOMOBILE LIABILITY-RWF FLEET

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	St. Paul Travelers Hartford, CT	St. Paul/Travelers Hartford, CT
Coverage	$1,000,000 Combined Single Limit (Any Auto) $1,000,000 UM/UIM (Owned Autos) $5,000 Medical Payments (Any Auto) $3,500 Property Damage UM	TBD
Exposure	Number of Units 46	Number of Units 57
Average Rate Per Unit	$816.55	$TBD
Total	**$38,378 (Net)**	**$TBD**

6. POLICE AIRCRAFT HULL AND LIABILITY

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	Old Republic Insurance Company	Old Republic Insurance Company
Coverage	Aircraft Hull and Liability- $50,000,000 each occurrence for liability. Hull coverage: Cessna $275,000 Eurocopter $1,750,000 Airbus H125 $5,700,000 Deductibles: Liability – NIL Hull – NIL Extended Engine Physical Damage: $10,000 per occurrence	Aircraft Hull and Liability- $50,000,000 each occurrence for liability. Hull coverage: Cessna $275,000 Airbus H125 $5,700,000 Deductibles: Liability – NIL Hull - NIL Extended Engine Physical Damage: $10,000 per occurrence
Annual Premium	$61,048	$46,388
Surplus Lines Taxes and Fees	NA	NA
War Liability & Hull--both aircraft	Included	Included
TRIA & War	Included on Both Hull & Liability	Included on Both Hull & Liability
Total	**$61,048 (Net)**	**$46,388 (Net)**

7. GOVERNMENT CRIME

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	Berkley Insurance Company	Berkley Insurance Company
Limits of Insurance and Deductibles	Employee Theft, Forgery, or Alteration and Inside the Premises-Theft of Money and Securities- $5,000,000 per occurrence subject to a $100,000 deductible per occurrence.	Employee Theft, Forgery, or Alteration and Inside the Premises-Theft of Money and Securities- $5,000,000 per occurrence subject to a $100,000 deductible per occurrence.
Sublimits of Insurance	Computer Fraud, Funds Transfer Fraud, and Money Orders and Counterfeit Money- $1,000,000 per occurrence subject to a $100,000 deductible per occurrence.	Computer Fraud, Funds Transfer Fraud, and Money Orders and Counterfeit Money- $1,000,000 per occurrence subject to a $100,000 deductible per occurrence.
Annual Premium	$17,000	$17,000
Surplus Lines Taxes and Fees	$0	$0
Total	**$14,450 (Net)**	**$14,450 (Net)**

8. LIFE AND ACCIDENTAL DEATH AND DISMEMBERMENT

	CURRENT PROGRAM 10/01/2018-10/01/2019	RENEWAL PROGRAM 10/01/2019-10/01/2020
Carrier	National Union Fire Insurance Company of Pittsburgh, PA	Hartford Life and Accident Insurance Company
Limits of Insurance and Deductibles	Blanket Accident & Health Policy (Accident Only; Injury Only) Principal Sum (loss of Life): $250,000; subject to an aggregate limit of $1,250,000 per accident	Blanket Accident & Health Policy (Accident Only; Injury Only) Principal Sum (loss of Life): $250,000; subject to an aggregate limit of $1,250,000 per accident
Annual Premium	$2,722	$9,263
Surplus Lines Taxes and Fees	NA	NA
Total (Including Taxes/Fees)	**$2,722 per year (year 3 of three-year fixed rate)**	**$9,263 per year (year 1 of three-year fixed rate)**

APPENDIX B
Allocation of Insurance Premiums by Fund & Type of Insurance

	2018-19 Premiums 12 Month	2019-20 Premiums Est. 12 Month	Percentage Increase / Decrease
General Fund-Fund 001			
Property Insurance [1]	$546,694	$750,844 *	37.34%
Government Crime	14,450	14,450	0.00%
AD&D	2,722	9,263	240.30%
Police Secondary [2]	93,084	93,087	0.00%
Police Air Support (Hull & Liability)	61,048	46,388	-24.01%
Subtotal	**$717,998**	**$914,032**	**27.30%**
Airport-Fund 523			
Property Insurance	$335,953	$502,899 *	49.69%
Liability Insurance	46,980	70,471	50.00%
Auto Liability / Physical Damage	68,801	200,000 **	190.69%
Subtotal	**$451,734**	**$773,370**	**71.20%**
ESD-Fund 513 (RWF)			
Property Insurance	$100,144	$139,956 *	39.75%
Auto Liability Insurance	38,377	100,000 **	160.57%
Subtotal	**$138,521**	**$239,956**	**73.23%**
ESD-Fund 515 (Municipal Water)			
Property Insurance	$5,720	$7,913 *	38.34%
Subtotal	**$5,720**	**$7,913**	**38.34%**
ESD-Fund 423			
Property Insurance	$5,008	$8,247 *	64.68%
Subtotal	**$5,008**	**$8,247**	**64.68%**
Convention & Cultural Affairs-Fund 536			
Property Insurance	$236,335	$335,802 *	42.09%
Subtotal	**$236,335**	**$335,802**	**42.09%**
General Purpose Parking-Fund 533			
Property Insurance	$47,271	$85,320 *	80.49%
Subtotal	**$47,271**	**$85,320**	**80.49%**
Sucessor Agency (SARA)			
Property Insurance	$8,020	$651 *	-91.88%
Subtotal	**$8,020**	**$651**	**-91.88%**
Housing-Fund 346			
Property Insurance	$3,355	$3,727 *	11.09%
Subtotal	**$3,355**	**$3,727**	**11.09%**
Total	**$1,613,962**	**$2,369,018**	**46.78%**

[1] Broker fees and TRIA/Terrorism costs included in the total costs in Appendix B

[2] Each Police Officer participating in secondary employment program pays $110 towards the preimum cost

[3] Allocated premium will be directly invoiced by the City to the Successor Agency (SARA)

* Includes not-to-exceed premium for excess property coverage for flood peril in high and moderate flood zones

** Not-to-Exceed Premium

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE

FROM: Kerrie Romanow

SUBJECT: **SEE BELOW**

DATE: September 3, 2019

Approved [signature] Date 9-3-19

INFORMATION

SUBJECT: UPDATE ON BIOSOLIDS DISPOSITION MARKET ASSESSMENT FOR THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

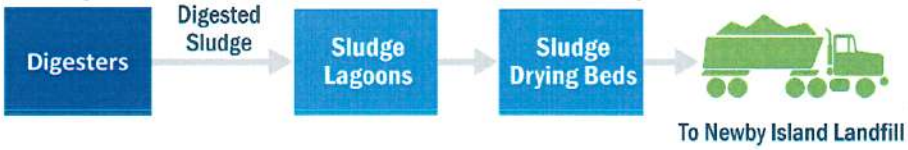
At the Treatment Plant Advisory Committee (TPAC) meeting on April 11, 2019, TPAC members inquired how dewatered biosolids will be managed upon completion of the Digested Sludge Dewatering Facility project. This memo provides a progress update on the biosolids management transition since the information memo dated March 2, 2018 (Attachment 1), by summarizing information from a recently completed biosolids disposition market assessment.

BACKGROUND

Current Biosolids Management Practices

At the San José-Santa Clara Regional Wastewater Facility (RWF), solids currently undergo anaerobic digestion to reduce the volume of solid organic material and generate methane gas. The digested material (sludge) is then pumped to open-air lagoons where it stabilizes for approximately three years before it is solar dried for approximately six months in open-air drying beds. All the solar dried materials (biosolids) are then hauled to the adjacent Newby Island Landfill and used as alternative daily cover (ADC). In 2018, this process resulted in the disposal of a total of 45,315 wet tons of biosolids comprised of 77 percent total solids.

Figure 1 – RWF's Current Biosolids Management Practices



Plant Master Plan

In November 2013, TPAC recommended and San José City Council approved the adoption of the Plant Master Plan (PMP) and certified its Environmental Impact Report. In December 2013, Santa Clara City Council took similar actions. This was the culmination of several years of an extensive community engagement process that was used to develop the PMP's overarching environmental, economic, social, and operation goals for the RWF. The PMP's goals with respect to biosolids were to:

- Reduce odors in the community;
- Position the RWF to have multiple and diversified disposition options;
- Reduce the footprint of the biosolids processing area to enable other land uses; and
- Create flexibility to respond to regulatory changes governing the disposal of biosolids as well as market changes related to the beneficial use of biosolids.

The overarching goals also incorporated the Milpitas Guiding Principles approved by TPAC on December 9, 2010, and subsequently by San José City Council on December 14, 2010.

The PMP acknowledged that the current biosolids treatment process generates odors and is very land intensive. The PMP also anticipated the closure of the Newby Island Landfill in 2025. For these reasons, the PMP recommended modifying the current biosolids treatment process to include a mechanical dewatering facility for all biosolids and allow the decommissioning of the existing open-air lagoons and drying beds. Adding a mechanical dewatering facility would also facilitate diversification by increasing the number of biosolids disposition options available to the RWF.

Biosolids Transition Strategy

On May 14, 2015, TPAC approved the Biosolids Transition Strategy that focused on how to meet the PMP's goals. Recommendations in the Biosolids Transition Strategy included:

- Proceeding with the design and construction of a new mechanical dewatering facility, since it would be required for on-site processing or off-site disposition service contracts, and the retirement of the RWF's lagoons and drying beds;
- Entering into service contracts for a variety of off-site disposition options, such as land application and composting, to manage the dewatered biosolids; and
- Deferring on-site thermal and greenhouse drying facilities to further process biosolids due to costs until regulatory or market conditions require a drier and/or different product (both facilities had been recommended as part of the PMP).

The Biosolids Transition Strategy concluded that, although diversification via land application and off-site composting service contracts would help achieve the PMP's diversification goal, changing the RWF's biosolids management practices would result in higher operational costs. Therefore, the Biosolids Transition Strategy also recommended that a portion of the RWF's biosolids be sent to landfills accepting dewatered biosolids to mitigate the higher costs of the other disposition options.

During the preparation of the Biosolids Transition Strategy, in 2014, staff issued a Request for Information (RFI) to gauge the private sector's interest in providing disposition services for the RWF's dewatered biosolids. Eleven companies responded to the RFI; however, only four companies offered to provide off-site biosolids disposition services (see Table 1).

Table 1 – Off-Site Biosolids Disposition Service Providers

2014 RFI Respondent	Services Offered
Liberty Composting	• Composting
Lystek	• Liquid Fertilizer Production
Synagro	• Composting • Land Application • ADC
Terra Renewal West [1]	• Land Application • ADC

[1] Terra Renewal West has been acquired and rebranded. It is now known as Denali Water Solutions.

Odor Control Implementation Plan

On October 8, 2015, TPAC approved the Odor Control Implementation Plan for the RWF, which consists of a phased approach for achieving the odor goal TPAC had adopted on October 13, 2014. Each phase has a corresponding odor fence line (see Figure 2). The first phase includes the completion of four capital projects, including the Digester and Thickener Facilities Upgrade project and Digested Sludge Dewatering Facility project. Phases 2 and 3 consist of odor control improvements that may be implemented after Phase 1 is completed and the adoption of a modified odor fence line if San José decides to make RWF lands no longer needed for treatment operations available for development, recreational use, or other purposes.

As part of the modeling conducted for the Odor Control Implementation Plan, it was concluded that decommissioning of the RWF's lagoons and drying beds is needed to meet the Phase 1 odor fence line.

Figure 2 – RWF Odor Fence Lines

Regulatory Changes

In September 2016, California enacted Senate Bill (SB) 1383 to reduce emissions of short-lived climate pollutants, such as methane, that result from the landfill disposal of organic material. The targets set by SB 1383 are a 50% reduction in the statewide disposal of organic waste by 2020, and a 75% reduction in the statewide disposal of organic waste by 2025. The bill requires CalRecycle to develop regulations that will reduce the amount of organic waste sent to landfills. CalRecycle's latest draft regulatory text includes biosolids in the definition of organic waste and states that disposition of organic waste at a landfill, even if it is used as ADC, constitutes landfill disposal. The latest regulatory text also sets a compliance date of January 1, 2022. Therefore, San José will be required to curtail its use of Newby Island Landfill for biosolids disposition in the near future.

In summary, despite changes in some of the original regulatory assumptions that supported the decision to transition from the current biosolids management practices, proceeding with the development of a mechanical dewatering facility is still necessary to meet the RWF's odor goals, shrink the land area used for biosolids management, and reduce the inherent risk that results from having a single biosolids disposition outlet or service provider. There are more disposition options for dewatered biosolids than there are for the solar dried biosolids currently produced by the RWF.

ANALYSIS

San José recently completed a biosolids disposition market assessment, which included interviews of wastewater agencies and service providers, to evaluate changes in capacity and costs for the available biosolids disposition options since the 2014 RFI and to better understand how other Bay Area and Southern California wastewater agencies manage their biosolids. Based on the market assessment, San José is developing a strategy to procure near-term beneficial use services to manage the RWF's dewatered and solar dried biosolids. San José will develop a longer term biosolids management strategy after implementing the near-term procurement strategy. The longer term biosolids management strategy may include partnering with a service provider to develop a new facility. Companies providing composting, fertilizer production, and storage services expressed interest in partnering during the 2019 market assessment.

Market Changes

Sixteen biosolids disposition service providers were interviewed as part of the 2019 market assessment, including four that responded to the 2014 RFI (which also included the three largest beneficial use service providers currently in the Bay Area—Synagro, Denali Water Solutions, and Lystek). Based on these interviews, the market assessment concluded that adequate capacity still exists to manage the estimated 122,000 wet tons (at approximately 22 percent total solids) the RWF's dewatering facility will produce; however, no single service provider currently has sufficient capacity to manage all of the RWF's dewatered biosolids (see Table 2). The limited capacity is a result of increasing demand for beneficial use services as wastewater agencies, particularly those in the Bay Area, seek to diversify away from landfills for their biosolids disposition, particularly in anticipation of regulatory changes (e.g., SB 1383).

Table 2 – Estimated Cumulative Capacity Available Among Interviewed Service Providers

Beneficial Use Service	Available Capacity [1]	
	2014	2019
Land Application	280,000	Unknown [2]
Composting	295,000	145,000
Liquid Fertilizer Production	0 [3]	100,000

[1] Expressed in wet tons per year.

[2] Synagro and Denali Water Solutions were unwilling to disclose their available capacity; however, both noted that they had land application capacity currently available or were confident that they could permit additional acreage to manage the RWF's biosolids during dry weather.

[3] Lystek's facility at the Fairfield-Suisun Sewer District was not operational in 2014.

The increasing demand has also resulted in price increases for the beneficial use services offered by the interviewed service providers. Prices have increased by at least $15 per wet ton (without hauling) for most disposition options since 2014 (see Table 3). In comparison, the price to dispose of the RWF's biosolids at Newby Island Landfill has increased by less than $3. The per ton cost was $23.30 in fiscal year 2014-2015 and is $25.41 in fiscal year 2019-2020.

Table 3 – Pricing for Off-Site Beneficial Use Service Options [1]

Beneficial Use Service	2014		2019	
	Low End	High End	Low End	High End
Land Application (dry season)	$20 [2]	$40 [2]	$20	$40
Land Application (wet season)			$35	$60
Composting	$20	$50	$37	$66
Liquid Fertilizer Production	$50	$60	$65	$85

[1] Prices are per wet ton rates and do not account for hauling costs.
[2] The 2014 Biosolids Transition Strategy did not evaluate whether there were price differences between the dry and wet weather seasons.

The market assessment also confirmed that application of biosolids on rangeland and agricultural land continues to be the most popular non-landfill beneficial use option in California, including the Bay Area. Biosolids are also commonly used to produce soil amendments, such as compost and fertilizers, because they contain nutrients essential for plant growth (e.g., nitrogen, phosphorous, and potassium). Beneficial use alternatives to land application are most popular during wet weather when land application capacity is most limited, particularly in Northern California. Capacity for wet weather land application is very limited due to federal, state, and some local regulations that attempt to prevent runoff from these sites from entering water bodies and impacting their water quality. For example, the counties of Solano and Merced have restricted biosolids land application to the dry weather season (i.e., April 15 to October 15 and April through November, respectively), regardless of the actual weather conditions.

Other Wastewater Agencies' Biosolids Management Practices

In general, Bay Area and Southern California wastewater agencies manage biosolids quite differently. Many Bay Area wastewater agencies land apply biosolids during the dry weather season and send biosolids to landfills during the wet weather season. In contrast, Southern California wastewater agencies tend to rely on landfills only as a backup option. Many Southern California wastewater agencies land apply their biosolids, send their biosolids to regional composting facilities, or do both year-round. For example, the City of Los Angeles, Sanitation Districts of Los Angeles County, and Orange County Sanitation District have all established a portfolio of several non-landfill beneficial use options to manage their biosolids. The City of Los Angeles' portfolio includes land application (off-site by contractors and at a city-owned farm by in-house staff), composting (by contractors and in-house staff), and deep well injection. The Sanitation Districts of Los Angeles County has collaborated with other wastewater agencies and service providers to develop regional composting facilities.

Additionally, the Sanitation Districts of Los Angeles County has contracts with several companies for land application and composting services. Their biosolids management practices entail a diversified program that utilizes various technologies, locations, haulers, and a mixture of public and private options to provide long-term stability and reliability. The Orange County Sanitation District has a diversified management portfolio that consists of contracts for composting and land application services in California and Arizona. In the future, the Orange

County Sanitation District plans to explore other options, such as soil blending and bioenergy, to diversify away from agricultural end uses. Their biosolids management practices balance costs with environmental and societal considerations such as reusing biosolids locally, reducing hauling distances, and increasing diversity of the portfolio.

Procurement Strategy for Dewatered Biosolids

In consideration of the market assessment's conclusion that no single service provider currently has sufficient capacity to manage all of the RWF's dewatered biosolids and consistent with PMP goals and the risk management practices of other large wastewater agencies, San José plans to implement a biosolids management program that will attempt to manage risks and cost.

The approach would be to procure multiple service contracts with various beneficial use service providers. Staff will be seeking to procure a set of service contracts that balances operational costs with the local management of biosolids to maximize environmental benefits/minimize environmental impacts. The amount, duration, and key terms of these service contracts have not yet been finalized as San José is developing a strategy on how to best procure the beneficial use services needed to manage the RWF's dewatered biosolids; however, it is anticipated that San José will procure at least two off-site biosolids disposition service contracts each for at least three years with a few options to extend. San José plans to finalize the procurement strategy in late 2019, and will then proceed to prepare the necessary documents for early procurement of the beneficial use services. Staff will recommend a final strategy to TPAC and San José City Council in early 2020, prior to the finalization and advertisement of the procurement documents.

Although the non-landfill beneficial use services might not be needed until SB 1383 regulations take effect in 2022, San José plans to solicit proposals for off-site disposition services by the summer of 2020 (see Table 4). The RWF will be competing with other Bay Area wastewater agencies, particularly the larger ones, such as the San Francisco Public Utilities Commission and East Bay Municipal Utilities District, also seeking to secure services and capacity for the limited beneficial use options. San José will be seeking service providers that have experience providing hauling and non-landfill beneficial use biosolids disposition services, are capable/permitted to handle a large amount of biosolids, and have backup facilities/sites, among other criteria. Thus, early procurement of these services may help keep costs low and/or incentivize service providers to increase the capacity of the limited beneficial use services.

Table 4 –Timeline for Procuring Near-Term Off-Site Biosolids Disposition Services

Activity	Date
Finalize Procurement Strategy	Late 2019
Recommend Final Procurement Strategy & Prepare Procurement Documents	Early 2020
Solicit Services	Summer 2020
Negotiate Service Contracts	Late 2020
Recommend Award of Service Contracts	Spring 2021
SB 1383 Regulations Take Effect	January 1, 2022

Activity	Date
Start Using Off-Site Disposition Services / Commission Digested Sludge Dewatering Facility	Spring 2023

Future Management of Solar Dried Biosolids

The RWF will produce both dewatered biosolids and solar dried biosolids for at least four years after the startup of the Digested Sludge Dewatering Facility but might need to curtail sending the solar dried biosolids to Newby Island Landfill after SB 1383 regulations take effect. As such, San José is also evaluating non-landfill beneficial use options for the RWF's solar dried biosolids. There are limited beneficial use options for the solar dried biosolids because the RWF's multi-year treatment process results in low moisture biosolids significantly devoid of organic content, especially when compared to mechanically dewatered biosolids. Soil blending is the most promising option; however, it is uncommon for a large wastewater agency to blend all of its annual biosolids production. Thus, staff is evaluating how to establish and ramp up an on-site soil blending operation, which may require extending the years the RWF's lagoons and drying beds are in use and the procurement of third-party services to develop, market, and distribute the soil blends. In early 2020, staff will also recommend a plan for managing the solar dried biosolids after SB 1383 regulations take effect to TPAC and San José City Council.

EVALUATION AND FOLLOW-UP

Staff plans to return to TPAC and San José City Council with a recommendation on the final the procurement strategy in early 2020.

COORDINATION

This memo has been coordinated with the Office of the City Attorney.

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Napp Fukuda, Assistant Director of Environmental Services, at (408) 793-5353.

Attachment 1 – Information Memo on Biosolids Transition at the San José-Santa Clara Regional Wastewater Facility dated March 2, 2018

ATTACHMENT 1

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: February 28, 2018

Approved D. DeSyl Date 3/2/18

INFORMATION

SUBJECT: INFORMATION MEMO ON BIOSOLIDS TRANSITION AT THE SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY

BACKGROUND

At the November 9, 2017 meeting, the Treatment Plant Advisory Committee (TPAC) requested staff to agendize the biosolids transition at the San José-Santa Clara Regional Wastewater Facility[1] (RWF) for discussion at a future TPAC meeting. TPAC inquired about the purpose of the Dewatering Facility Project and implementation timing, especially considering a recent decision by the City of San Jose's Planning Commission to allow the Newby Island Landfill to increase its height and continue operating through 2041. One of the drivers for the biosolids transition as identified in the Plant Master Plan (PMP) was the anticipated closure of the Newby Island Landfill by 2025, along with other considerations such as positioning the RWF to have multiple disposition options for its biosolids and to be able to respond to future regulatory requirements.

This memo provides information on the biosolids transition including a review of the current solids treatment process; key milestones leading up to approval of the Biosolids Transition Strategy by TPAC and Council in May and June 2015, respectively; and a discussion on changes that have occurred since approval of the Biosolids Transition Strategy, including the Newby Island Landfill operating extension and recent developments related to solid waste regulations that may limit and/or remove the ability of wastewater agencies to continue sending biosolids to landfills within the State of California.

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

Description of Current Solids Treatment Process and Biosolids Management Practices

Wastewater treatment at the RWF is accomplished by using a series of physical, biological, and chemical processes to treat the liquids stream and the solids stream. The current treatment process generates approximately 85 tons of biosolids per day, which must be disposed of or beneficially reused. Biosolids resulting from the current solids treatment process are beneficially reused as alternate daily cover (ADC) at the Newby Island Landfill. In addition, methane gas, a by-product of the solids digestion process, is captured and used in internal combination engines to generate electrical power and heat for daily RWF operations.

Separated solids (or sludge) is thickened and processed through anaerobic digesters for 15 to 30 days to reduce pathogen content, sludge volume, and create biogas for beneficial reuse. The 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. On an annual basis, a portion of the dried biosolids are hauled off-site to the Newby Island landfill for use as ADC. This operation uses more than 750 acres of land and the treatment process takes approximately four years to complete from start to finish to achieve Class A biosolids. Because the lagoons and drying beds make up a large, uncovered footprint, the process has the potential for odor generation – this was confirmed through an odor study completed in 2015 which showed odor impacts to the adjacent Milpitas community based on the adopted odor goal of 5 dilution to threshold (5 D/T) at the established fence line.

Key Factors and Milestones Leading Up to Approval of the Biosolids Transition Strategy

Plant Master Plan (2008 -2013)

In 2008, the Environmental Serviced Department (ESD) embarked on a master planning process to rehabilitate and upgrade the wastewater treatment facilities at the RWF, to explore potential process changes, and guide compatible uses for the Plant buffer lands. The PMP incorporated guiding principles prepared by the City of Milpitas (Milpitas Guiding Principles[2]) and considered input from the City of Santa Clara, Tributary Agencies, community stakeholder groups, and the public. Extensive community engagement process was used to develop overarching environmental, economic, social, and operational goals for the RWF. In November 2013, TPAC recommended and Council approved the adoption of PMP and certified the final Environmental Impact Report. In December 2013, Santa Clara's City Council took similar actions.
One area of focus for the master planning process was biosolids management since treating wastewater at the RWF produces about 85 dry tons of solids each day. This current system is land-intensive and has historically been linked to odors in the area. Because of these issues and the anticipated closure of Newby Island Landfill in 2025, the adopted PMP recommended a new Biosolids Management Program (BMP) involving a variety of enclosed, odor controlled treatment processes with the resulting treated biosolids to be hauled off-site for processing and

[2] Link to the Milpitas Guiding Principles http://www.ci.milpitas.ca.gov/_pdfs/council/2011/011811/item_09.pdf

various beneficial reuse applications. The BMP also assumed a mix of Class A and Class B biosolids. Class A and Class B designations for biosolids relate to the level of pathogen reduction in the end product. Class B biosolids are considered stabilized sufficiently to reduce odors and attraction of vectors that could transmit pathogens and diseases. Class A biosolids are essentially pathogen free.

Recommendations related to the Biosolids Management Program per the adopted PMP include:

- Rehabilitation of the existing thickening facilities and mesophilic digesters and an evaluation of whether a different type of digestion process should be implemented
- Mechanical dewatering for all biosolids in an enclosed, odor-controlled facility to concentrate digested biosolids which reduces the volume and weight of material requiring transport to off-site processing and beneficial re-use locations
- Drying a portion of the dewatered biosolids using both thermal drying in an enclosed facility (20% of the biosolids) utilizing waste heat from a planned cogeneration facility and solar drying in enclosed greenhouses (10% of the biosolids)
- Decommissioning the existing open sludge lagoons and drying beds
- Additional processing and beneficial re-use at off-site composting facilities, land application sites and landfills

The adopted PMP also specified the following goals for the biosolids transition:

- Reduce odors in the community
- Position the RWF to have multiple and diversified disposition options
- Reduce the footprint of the biosolids processing area from 750 acres to about 160 acres to enable other land uses
- Create flexibility to respond to future regulatory changes governing the disposal of treated biosolids at landfills as well as changing market conditions related to beneficial reuse of treated biosolids.

Implementation of the BMP as envisioned by the adopted PMP assumed using a phased approach to implement new mechanical dewatering facilities, thermal drying facilities, and greenhouse drying facilities by 2023 and 2033, respectively; and to retire the lagoons and drying beds by 2025 (which included an assumption to use contract dewatering).

2011 Council Direction to Accelerate the Biosolids Transition

In response to community and stakeholder concerns (including those identified in Milpitas Guiding Principles) about odors emanating from the lagoons and drying beds, TPAC recommended (in May 2011) and Council directed (in September 2011) staff to accelerate the biosolids transition effort specifically calling for the RWF to cease discharging biosolids to the lagoons by 2018 followed by emptying of the lagoons and drying beds by 2024. This direction assumed the use of alternative project delivery methods (i.e., design-build and/or design-build-

operate) to achieve schedule acceleration, contract dewatering resulting in significant operating cost to the RWF, and foregoing field verification of dewatering process technologies.

After receiving this direction, staff retained Brown and Caldwell to initiate an in-depth study and implementation strategy for the biosolids transition, including conducting market surveys to assess the demand for biosolids, market interest and available capacities for accepting the large volume of biosolids generated by the RWF, cost paid by other agencies for off-site processing and disposition of biosolids, and private interest in the development of off-site biosolids processing facilities. Several other concurrent activities ensued during development of the Biosolids Transition Strategy, including a validation of the PMP projects, adoption of an Odor Control Strategy, completion of an Odor and Corrosion Control Study and Odor Implementation Plan for the RWF. These items are further discussed below.

2014 PMP Validation

In early 2014, the City completed a detailed project validation review process of all projects recommended in the adopted PMP, including those projects associated with the biosolids transition:

- Co-thickening of various sludge streams to increase digester feed concentration and include covers, ventilation, and odor control facilities for the system
- Addition of fine screening of sludge to reduce the maintenance effort required for all downstream biosolids treatment processes
- Rehabilitation of up to 10 anaerobic digesters, including upgrades to the gas mixing system, gas piping system, etc.
- Mechanical dewatering for all biosolids in an enclosed, odor-controlled facility
- Drying a portion of the dewatered biosolids using both thermal drying and solar drying in enclosed greenhouses
- Decommissioning of the existing open-air sludge lagoons and solar drying beds
- Pursuing multiple disposition options for beneficial re-use of biosolids at off-site facilities (i.e., composting, land application, soil amendment, ADC)
- Providing 180-day sludge lagoon storage

With the exception of one project, the validation effort confirmed the need to implement all of the projects recommended by the adopted PMP as related to the biosolids transition. The exception was to replace the PMP recommendation to build in 180-day sludge lagoon storage with a recommendation to build an enclosed four-day storage facility, which is more in line with best practices at other wastewater facilities.

Biosolids Transition Strategy, Odor Control Strategy and Implementation Plan (2014 - 2015)

On April 10, 2014, staff presented preliminary information on the Biosolids Transition Strategy to TPAC at a Biosolids Study Session. The Study Session provided an opportunity for TPAC and other stakeholders to provide input on the transition strategy. Discussion topics included a

summary of recommendations from the adopted PMP, an overview of biosolids management approaches, and various disposition options including potential options specific to the RWF. Staff also outlined steps to solicit interest from the open market and the methodology for conducting business case evaluations in order to bring back recommendations to TPAC and Council in fall 2014. Feedback from TPAC at the Study Session included consideration of odor impacts, expandability of the facility in the future, possibility of producing Class A biosolids instead of Class B biosolids, and impact on operation and maintenance costs.

Following the April 10, 2014 Study Session, staff returned to present a status update on the Biosolids Transition Strategy to the Transportation & Environment Committee (T&E), TPAC (special meeting), and Council on October 22, 2014, November 20, 2014, and December 2, 2014, respectively.

The outcome of these meetings included approval to proceed with temperature phased anaerobic digestion (TPAD) upgrades and deferral of thermal and greenhouse drying facilities, and direction to staff to return with additional odor and cost information for transitioning out of the lagoons and drying beds to help inform decision making on both the incremental cost benefit for various alternatives and timing of the biosolids transition, particularly with regards to then pending actions by the San Jose Planning Commission to allow the Newby Island Landfill to extend its height and continue operations beyond 2025 to 2041. Staff also recommended performing additional analysis on other potential siting locations for the new Dewatering Facility within the RWF's main operational footprint. Staff was also asked to bring back potential alternatives, if any, that would retain the use of the current lagoon and drying bed process and still meet the desired odor goal. Staff was directed by Council to perform the additional analyses and to bring back the remaining recommendations in spring 2015.

The staff report can be found at: http://sanjoseca.gov/DocumentCenter/View/37716

On May 14, 2015 and June 2, 2015, TPAC recommended and Council and approved the final Biosolids Transition Strategy Report. The approved biosolids transition strategy recommendations include:

- Proceed with implementation of the Digested Sludge Dewatering Facility and the Lagoon and Drying Bed Retirement projects
- Locate the Digested Sludge Dewatering Facility at a selected site across Zanker Road
- Direct staff to bring back recommendations on the size and makeup of the Biosolids Management Team (BMT) for City Council consideration as part of the annual budget process for 2016-2017
- Implement any future on-site processing facilities considering conditions at the time including starting small with pilots, demonstrations, and phasing and potentially participating in regional facilities and emerging technologies

In conjunction with making a recommendation to proceed with constructing a new dewatering facility sized to process 100 percent of sludge volume generated by the digestion process and decommissioning of the lagoons and drying beds, staff also recommended a new timeline for implementation these projects to allow for proper planning, environmental clearance, permitting,

procurement, design, construction, start-up and commissioning. The revised schedule, which was recommended by TPAC and approved by Council, shows a completion date of 2022 for the new dewatering facility and decommissioning of the existing lagoons and drying beds by 2027. In comparison, the adopted PMP assumed a completion timeline of 2023 for the first phase of the dewatering facility, and 2025 for decommissioning of the lagoons and drying beds.

The staff report can be found at:
http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516437

In parallel, an Odor Control Strategy was developed to establish an odor fence line and odor goals for the RWF. The Odor Control Strategy for the RWF was presented at the November 20, 2014 TPAC special meeting. TPAC recommended and Council approved the Odor Control Strategy at the December 2, 2014 City Council meeting. The staff report can be found at: http://sanjoseca.gov/DocumentCenter/View/37729.

After this, an Odor Implementation Plan was presented at the October 8, 2015 TPAC meeting. TPAC recommended and Council approved the Odor Implementation Plan at the October 27, 2015 City Council meeting. The staff report can be found at:
http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=1470&meta_id=539026

As part of the approval of the Odor Control Implementation Plan, staff was directed to defer odor control improvements for the Digested Sludge Dewatering Facility project because it was not necessary to mitigate on-site impacts at the southern odor fence line. However, for construction efficiency, ductwork elements necessary for building ventilation and the future odor control system would be included as part of the new dewatering facility. Construction of the actual odor scrubber system would be deferred until funding for this improvement could be identified, possibly as part of future development. The estimated capital cost related to odor control improvements for the dewatering facility is $6.59 M (2015 dollars), of which the odor control scrubber technology is the majority portion.

ANALYSIS

This section provides an update on the key biosolids transition projects (Digester and Thickener Facilities Upgrades Project, Digested Sludge Dewatering Facility Project, Lagoons and Drying Bed Decommissioning Project, and implementation of the Biosolids Management Team) since the June 2015 City Council direction. In addition, it summarizes changes and updates to existing conditions as well as current and future legislation that may affect the biosolids transition.

Updates on Key Biosolids Transition Projects

Digester and Thickener Facilities Upgrade Project (2013 to present)

The Digesters and Thickener Facilities Upgrade Project is currently under construction and expected to be substantially complete by fall 2020. This project will improve the anaerobic

digestion, digester gas conveyance system, and dissolved air flotation thickening systems. It also includes the construction of a new primary sludge screening facility. Based on the recommendations of the Biosolids Transition Strategy, this project will rehabilitate four existing mesophilic digesters facilities to operate as a TPAD system for improved biogas production and pathogen destruction as well as position the RWF to produce Class A biosolids (with the addition of batch tanks in the future) when there is increased market demand for Class A biosolids.

Digested Sludge Dewatering Facility Project (2015 to present)

Per the June 2015 Council direction, staff initiated the Digested Sludge Dewatering Facility Project, which will be delivered using a progressive design-build delivery method. The staff memo for this delivery method selection can be found in Attachment B.

In 2016, the City selected Brown and Caldwell to serve as the Owner's Advisor (OA). The staff report can be found at:
http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=2159&meta_id=597108

The OA has prepared technical memoranda evaluating alternatives and is preparing a Project Definition Report and CEQA documents. Staff is also currently preparing a Request for Qualifications for procurement of a Design Build (DB) entity, and anticipates advertising in spring 2018. Staff anticipates bringing forward a recommendation for selection of a DB entity to Council for approval in early 2019, followed by beginning of design phase. Construction is anticipated to begin in mid-2020, and substantial completion is expected by late 2022.

Lagoons and Drying Bed Decommissioning Project (2015 to present)

After Council approval in June 2015, staff conducted project scoping for the lagoon and drying beds decommissioning project, and recommended that O&M perform sludge removal and land maintenance of the decommissioned lagoon and drying beds until a future land use has been identified for that area. Future land use considerations will be looked at as part of the next major update to the PMP, which is anticipated to initiate in the 2023-2024 timeframe. Staff also recommended reducing the capital improvement scope to only construction of access ramps for lagoons. This re-scoping effort is anticipated to substantially reduce the project construction cost and annual O&M cost. Decommissioning of the lagoons and drying beds is expected to be completed by 2027.

Implementation of Biosolids Management Team (2016 to present)

After Council approval in June 2015, staff conducted surveys of six other peer large municipal agencies on the roles and responsibilities, makeup, and qualifications of their BMTs, as well as identified types and durations of typical biosolids contracts at these agencies. Staff has submitted a budget proposal to add an Environmental Service Program Manager position in FY 2018-19 to develop and lead the BMT; additional support positions be recommended in future years. This position add was initially planned for FY 2016-17, but was deferred to FY 2018-19 based upon the updated implementation schedule.

Over the next few months, staff will be further refining the implementation plan for the biosolids transition including developing a comprehensive contracting strategy and updating the previously identified dispositions options and market analysis in light of recently passed legislation related to biosolids disposition (discussed in the following section).

Changes to Existing Conditions and Future Regulations affecting Biosolids Transition

Extension of Newby Island Landfill Operation (2016 to present)

The City's contract with Newby Island Landfill expires in December 2020. During the development of the PMP and the Biosolids Transition Strategy, the potential closure of the adjacent Newby Island Landfill in 2025 was one of the drivers of the biosolids transition. In December 2016, the City of San José Planning Commission approved a plan to allow the landfill to increase in height and continue operation through 2041. A synopsis of the Planning Commission's action items can be found at:
http://www.sanjoseca.gov/DocumentCenter/View/63168

While the Newby Island Landfill operation has been extended, recent legislation could potentially limit the disposal of biosolids (considered an organic) to landfills (further discussed below).

Increased Focus on RWF Odors by BAAQMD (2015 to present)

The Bay Area Air Quality Management District (BAAQMD) has increased its focus on monitoring odors from the RWF biosolids operation, and is working closely with RWF staff when biosolids are hauled to Newby Island Landfill. BAAQMD has also placed strict requirements on other RWF Projects including Iron Salt Feed Station, Cogeneration Facility, and Digester and Thickener Facility Upgrades for fugitive emissions, particulates, and hydrogen sulfide emissions.

Regulatory Drivers affecting Biosolids Disposition (2016 to present)

Legislation recently enacted in California has introduced uncertainty for Publicly Owned Treatment Works (POTWs), including the RWF, on the long-term viability of disposition of biosolids as ADC at landfills which is, at present, the sole biosolids disposition practiced at the RWF. The key legislation impacting the disposition of biosolids at RWF is Senate Bill SB 1383 (2016) that sets a goal of diverting 50% of organic waste from landfills by 2020, and mandates diverting 75% of organic waste from landfills by 2025. Biosolids, such as those produced at the RWF, are included within the definition of organics to be diverted from landfills.

The text for Senate Bill 1383 can be found here:
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=2t01520160SB1383

CalRecyle and California Air Resources Board (CARB) have developed draft regulatory text to enact this legislation, and are considering the complete diversion of biosolids from landfills (including ADC) to reduce organic waste to landfills. Once finalized, this legislation could preclude the RWF from continuing to dispose of its biosolids at Newby Island Landfill (or any other California landfill) as soon as 2020. Regardless of the Newby Island Landfill extension, there is no guarantee that Newby Island Landfill will continue to accept the RWF's biosolids once the regulation is enacted.

Construction of the new Digested Sludge Dewatering Facility will position the RWF to have diversified and multiple disposition options for its biosolids. Dewatered cake is a desirable end-product based on previously completed market surveys and will ensure that the RWF has biosolids disposition options in compliance with the pending SB 1383 regulations. It is noted that the dewatering facility is not slated be operational until 2022, with the lagoon and drying bed sludge disposition continuing through 2027.

In November 2017, CalRecycle and CARB recently sought informal input from stakeholders, and the City provided comments to seek a waiver for RWF biosolids from being considered as organic material due to their low moisture and organic content and low potential to generate SLCPs. The intent of seeking this waiver is to allow the RWF sufficient time to come into compliance with the new regulations while the new dewatering facility is being constructed. Formal regulatory review on SB 1383 is expected to take place throughout 2018, with adoption of regulation in early 2019 and implementation in early 2020. The City is actively providing input to CalRecycle and CARB on this draft regulatory text.

Conclusion

This biosolids transition is driven by goals identified in the previously approved Biosolids Transition Strategy and the adopted Plant Master Plan. These include reducing odors in the community; positioning the RWF to have multiple and diversified disposition options for its biosolids with the potential closure of Newby Island Landfill; reducing the footprint of the biosolids processing area and enabling other land uses; and creating flexibility to respond to future regulatory changes governing the disposal of treated biosolids at landfills as well as changing market conditions related to beneficial reuse of treated biosolids.

While the Newby Island Landfill operation has been extended to 2041, it is still prudent for the RWF to have multiple diversified disposition options for biosolids. Reducing odors and enabling other land uses for the lagoon and drying bed area are still valid goals for the RWF. Furthermore, with imminent future regulation based on SB 1383, it is possible that the current biosolids disposition practiced at the RWF would not be in compliance as early as 2020.

The current RWF biosolids have a very limited disposition market due to its low moisture content. The adopted PMP had previously identified only one non-landfill disposition option (i.e., land application) for the RWF's dried biosolids; however, this option was deemed not viable due to limited receiving capacity and the need for special permits. Other possibilities, such

as hauling sludge directly from the digesters would require third-party contract dewatering and hauling, which is very cost-prohibitive due to the large volume of sludge generated by the RWF. A biosolids end-product with 20 to 30 percent moisture content, which can be achieved through dewatering, is most suitable for the biosolids disposition options allowable under SB 1383 (land application, composting, etc.).

Furthermore, the sites with allowable biosolids disposition (composting, land application etc.) under SB 1383 for future dewatered cake have limited capacity in the San Francisco bay area, and there is a potential for increased competition for this capacity from other POTWs. The RWF would benefit from continued implementation of the BMT at the earliest to allow for planning and negotiation of disposition contracts with these sites.

In summary, although the drivers for the biosolids transition may have changed slightly, they still remain valid and provide a rationale for continuing to implement the biosolids transition plan.

COORDINATION

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

/s/
KERRIE ROMANOW
Director, Environmental Services

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

Attachments:

- Attachment A: Summary of items related to Biosolids Transition and Odor brought to TPAC and San José City Council
- Attachment B: Staff report on Decision to use Progressive Design-Build delivery method for the Digested Sludge Dewatering Facility Project

ATTACHMENT 1

Attachment A: Summary of items related to Biosolids Transition and Odor brought to TPAC and San José City Council

Item	Date presented to TPAC	Date presented to City Council
Review of the Milpitas Guiding Principles for Plant Master Plan Reconstruction and Land Use Alternatives	December 9, 2010	December 14, 2010
Presentation of Preferred Alternative for the Plant Master Plan including biosolids transition	April 7, 2011	April 19, 2011
Preliminary information regarding odors and planned regional odor assessment study and accelerating schedule for biosolids projects. Supplemental Memo to Council to provide status update on working with stakeholders (City of Milpitas, McCarthy Ranch) in response to TPAC direction	May 19, 2011, August 11, 2011	September 13, 2011
Presentation of a packaged delivery approach for CIP and proposed timeline for Biosolids Transition Program	December 13, 2012	-
Update on packaged delivery approach for CIP and proposed timeline for Biosolids Transition	February 9, 2012	February 14, 2012
Adoption of Plant Master Plan	November 14, 2013	November 19, 2013
Presentation of RWF Odor Control Strategy	November 20, 2014	December 2, 2014
Biosolids Study Session	April 10, 2014	-
Biosolids Transition Strategy	November 20, 2014	December 2, 2014
Updated Biosolids Transition Strategy	May 14, 2015	June 2, 2015
RWF Odor Control Implementation Plan	October 8, 2015	October 27, 2015
Delivery Method for Digested Sludge Dewatering Facility Project	Information Memorandum dated January 19, 2016	Information Memorandum dated January 19, 2016
Approval of Master Consultant Agreement With Brown And Caldwell as Owner's Advisor for Digested Sludge Dewatering Facility Project	October 13, 2016	October 25, 2016

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Environmental Services Department

August 6, 2019

Tahsa Sturgis
1515 Clay Street, Suite 1400
Oakland, CA 94612

Also sent by email to Tahsa Sturgis at tahsa.sturgis@waterboards.ca.gov

Subject: Comment Letter – City of San José SCR, Response to Tentative Order from the City of San Jose, as Administering Agency for the San Jose-Santa Clara Regional Wastewater Facility

Dear Mr. Sturgis,

Thank you for providing the opportunity to comment on the Tentative Order - Site Cleanup Requirements (Tentative Order) for the San José-Santa Clara Regional Wastewater Facility (RWF or Facility) legacy biosolids ponds. The RWF has been an important and collaborative partner in the South San Francisco Bay Shoreline Levee Project (Shoreline Project or Project) for well over a decade, facilitating site visits, providing technical information, and identifying potentially available property that would either support or be incorporated into the project. As the Project nears construction, the RWF remains a critical partner in project success not just because of its vital role in treating wastewater for 1.5 million people, but also as the owner of properties within or adjacent to the proposed levee alignment.

The Tentative Order requires the RWF to submit a plan to clean the legacy biosolids ponds in time for a portion of the ponds to be transferred for a realignment of the Shoreline Project. The ponds have been retired for over 40 years with no additional discharge or disturbance. But for the Project, the ponds do not in fact pose an immediate threat to beneficial uses of the water of the state and public health. Additionally, but for the mandated cleanup, there would not be a potential disturbance of, and impact to, the aquatic features in these ponds. Essentially, the RWF is being required to cause a disturbance and then mitigate for it when these ponds left undisturbed do not pose an immediate threat.

We do acknowledge, however, that a clean-up could eventually be required and that this Project presents a unique opportunity for collaboration. We appreciate the opportunities to discuss the proposed order in-person and on the phone. The City of San José (City), as the majority owner of the Facility and administering agency of the RWF, submits the following preliminary comments and concerns on behalf of the RWF.

1. Tentative Order and Public Notice

The public notice and the Tentative Order identify the City of San José as the "Discharger." The RWF is subject to ORDER No. R2-2014-0034, NPDES Permit No. CA0037842 Waste Discharge Requirements for the San José/Santa Clara Water Pollution Control Plant (commonly called the San José-Santa Clara Regional Wastewater Facility), the discharger is identified as the City of San José, City of Santa Clara, and San José/Santa Clara Water Pollution Control Plant, a joint powers authority. The RWF treats wastewater for the benefit of various other cities and sanitary districts in South Bay. Please conform Discharger to refer to the RWF; or if the City of San Jose is identified, it should be identified as the administering agency for the RWF.

The Tentative Order incorrectly includes Los Altos and Sunnyvale. The cities and sanitary districts served by the RWF are City of Milpitas; Burbank Sanitation District (serving areas of unincorporated Santa Clara County); Cupertino Sanitation District (serving Cupertino); West Valley Sanitation District (serving Campbell, Los Gatos, Monte Sereno, and Saratoga); and Santa Clara County Sanitation Districts No.2 and No. 3 (serving areas of unincorporated Santa Clara County).

2. Timeline

The Tentative Order proposes an ambitious timeline to submit and comply with submittals of Task 1 - Closure Alternatives Analysis Plan (CAAP), Task 2 - Closure Plan, and implementation of the approved Closure Plan.

The City's ability to comply is dependent on actions and processes outside the City's control, including but not limited to, approvals from other regulatory agencies, and financial or institutional resource limitations. Specifically, the following factors will impact the City's ability to comply:

- Environmental permitting from US Fish and Wildlife Service, California Department of Fish and Wildlife, US Army Corps of Engineers, and California State Water Resources Control Board. Based on historical experience and circumstances, permitting can be known to take a year or longer for preparation, processing, and approval.
- Completion of environmental review pursuant to the California Environmental Quality Act depends on information and legislative approvals. Some of the information necessary for the review is from other agencies or must be coordinated with consultants.
- Construction procurement and activity will depend on market conditions, protests, and seasonal availability of the ponds.
- Project status with the Santa Clara Valley Water District and USACE could also impact the City's ability or need to comply with the timeline for cleanup.

In anticipation of these other factors, the City has proactively engaged the regulatory agencies, initiated the environmental review, and contracted with consultants for preliminary work and evaluations. While these efforts may facilitate the timeline to comply, the City will

require the Regional Water Board staff's assistance in ensuring the expeditious approval of necessary permits. The City would ask that the Tentative Order be modified to expressly state that the City shall not be penalized for failing to meet a deadline if the delay is due, in part, to factor(s) beyond its control.

3. Mitigation Requirements

The Tentative Order acknowledges that a realignment and restoration to include ponds 16-19 would result in higher quality habitat to the San Francisco Bay than the lower quality aquatic features in the existing ponds. Considering the higher value and extraordinary opportunity to restore tidal wetlands, the City does not believe it is reasonable to require additional mitigation requirements for the remaining ponds in addition to the transfer of ponds 16-19, without further negotiations on the potential property transaction. Additional mitigation requirements are particularly onerous in light of the City's current negotiations with the Santa Clara Valley Water District to sell Pond A18. Pond A18 was specifically purchased with wastewater ratepayer funds to provide for wetlands mitigation. Finally, the City has initiated biological surveys, and depending on the results of the report, additional mitigation may not be necessary because of the lower quality aquatic features in the remaining ponds. Given that the decision to impose additional mitigation requirements is a discretionary decision, we urge the Board to minimize the impact of the Project on our residents that would be asked to bear the cost of any additional mitigation.

4. Biosolids and Berm Material Quality Characterization

The Tentative Order requires additional sampling of the legacy biosolids and lagoon berm material for potential use in the ecotone foundation. See Section 2. Purpose and Need for Order and Task 1 of the SCR. The legacy biosolids have been tested and characterized three times. This past March, the City conducted additional sampling and analysis of the berm material in ponds 16 through 19 to accommodate USACE's stringent schedule. The results were compared to the Project's Quality Assurance Project Plan by the City's consultant and initial evaluation was shared with the Shoreline Project sponsors and the Regional Water Board staff. Evaluation of the data found that the material was reasonably homogenic and generally meets the ecotone foundation criteria. The City acknowledges that if the berm material can be used, use by the Project sponsors of the berm material would be mutually beneficial to the City because it would either (1) relieve the City of the cost to consolidate the material and Project sponsors of the cost to acquire additional material, or (2) the City may use the berm material for capping as part of the cleanup project.

Requiring additional sampling of the materials, however, would only serve to slow down the City's cleanup project, increase costs, and present risk of delays for the U.S. Army Corps of Engineers (USACE) and the non-federal sponsors of the Shoreline Project. The City discussed the need for additional sampling with the Regional Water Board staff who acknowledged additional sampling would increase time to complete project cost and the overall cost. It was agreed that the City would complete a gap analysis and identify if additional information was necessary to prepare the CAAP, then make recommendations for additional monitoring based on the findings. If additional evaluations are necessary, the findings can be shared with the Project sponsors.

Further analysis of materials for use should be an option for the City and not a requirement. Therefore, the requirement and references to further sample and evaluate the biosolids and berm materials for reuse should be removed from the Order. If the requirement to conduct the sampling is not removed, the City proposes that 1.b be changed to read as follows, "If determined necessary, include a work plan for additional sampling and analysis of the legacy biosolids and the legacy biosolids pond berms sufficient to characterize them for beneficial reuse or on-site consolidation. Results to be incorporated into Consolidation/Closure Plan (Task 2)."

Closure Options

Table 1 is out of date and likely does not reflect the new alternatives analysis that will be performed for Task 1. City requests that Table 1 be removed because the Tentative Order's required alternatives analysis will be reviewed by the Regional Water Board staff.

5. Other Considerations Related to the Shoreline Project

The City, as the administering agency for the RWF, must also consider the cumulative cost of the Project to the residents of San Jose, Santa Clara, and outside agencies.

- The City is currently negotiating the sale of Pond A18 with the Santa Clara Valley Water District. In order for the City to proceed, the City has requested a copy of the hydrologic study to better understand the impact of the Project on the RWF and the community of Alviso from the landward side. With this information, the City can proceed with more confidence that the Shoreline Project would in fact better protect the RWF and Alviso from flooding due to heavy rains and/or riverine overbanking.
- The Shoreline Project includes construction of an Artesian Sough Closure structure. The closing off of the Artesian Slough will accelerate the cost to the RWF to construct an effluent pump station. This was a cost that the City did not anticipate incurring for several years as a result of sea level rising; but now should be accounted for in either increasing fees and/or the Pond A18 sale.
- The proposed trail along the levee, as part of the Shoreline Project, also raises potential concerns that must still be resolved. The RWF has been the site of an active bomb disposal facility which serves the needs of law enforcement for San Jose, and on occasion other law enforcement agencies in the Bay Area. It is likely that an active detonation will suspend construction; or require the temporary closure of the trail. It is critical that any trail alignment selected by USACE and approved by the Water Board be coordinated with the RWF and the San Jose Police Department, so that the trail alignment would not bring members of the public closer to the bomb disposal facility, and if so, the appropriate safety and security measures are taken to protect the public and the RWF.

The City of San José acknowledges the benefits that the South San Francisco Bay Shoreline Project and its associated components bring to the community of Alviso and the RWF. It also appreciates the effort being put into the design and the coordination by USACE and other non-Federal Sponsors of

the project. We look forward to ongoing coordination with the Regional Water Board to ensure the efficient closure of the legacy biosolids ponds in a manner that is fair to the City and its stakeholders.

If you have any questions regarding these comments or would like to discuss them, please contact Jennifer Voccola-Brown, Interim Sustainability & Compliance Manager at (408) 975-2594 or jennifer.brown@sanjoseca.gov.

Sincerely,

FOR Kerrie Romanow
Director
City of San José, Environmental Services Department

cc: Dave Sykes, City Manager, City of San José
Gary Welling, Director of Water and Sewer Utilities, City of Santa Clara
LTC John D. Cunningham, District Commander and Engineer, San Francisco District, U.S. Army Corps of Engineers
Melanie Richardson, Chief Operating Officer, Santa Clara Valley Water District
Amy Hutzel, Deputy Executive Officer, California State Coastal Conservancy
Anne Morkill, Refuge Manager, San Francisco Bay NWR Complex U.S. Fish and Wildlife Service

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

JUNE 1, 2019 - AUGUST 31, 2019

	Description of Contract Activity [1]	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original Amount	Start Date	End Date	Additional Amount	Total Amount	Comments
1	25% SOLUTION SODIUM BISULFITE	18-19	26493	55784	UNIVAR USA, INC.	$660,000	07/01/18	06/30/19	$65,000	$725,000	INCREASE IN FINAL EFFLUENT FLOWS TO THE BAY RESULTING FROM INCREASED RAINFALL NECESSITATED ADDTL. BISULFITE
2	HARDWARE (PARTS), REPAIR, REPLACEMENT AND REBUILDING SERVICES FOR DCS AND VFDS	19-20	27075	57349	ABB INC	$750,000	06/01/19	05/31/20			
3	CONOCO PHILLIPS UNION 76 MOTOROILS	19-20	27748	57487	PACIFIC COAST PETROLEUM, INC.	$230,000	07/01/19	06/30/20			
4	BUILDING MAINTENANCE MATERIALS & SUPPLIES AS REQUIRED	19-20	27796	57007	GRAINGER, W W INC	$400,000	07/01/19	06/30/20			
5	REPAIR LEAKING & MISSING EXPANSION JOINTS	19-20	27801	57110	TUCKER CONSTRUCTION	$250,000	07/01/19	06/30/20			
6	SERVICES TO PROVIDE ALL LABOR,MATERIAL AND EQUIPMENT	19-20	27802	57940	PIPE AND PLANT SOLUTIONS INC	$389,067	07/01/19	06/30/20			
7	MECHANICAL MAINTENANCE SERVICES AT RWF	19-20	27805	57123	MONTEREY MECHANICAL CO	$270,000	07/01/19	06/30/20			
8	FRICTION & NON FRICTION PARTSINCLUDING BEARINGS, SEALS,	19-20	27891	57314	MOTION INDUSTRIES, INC.	$125,000	07/01/19	06/30/20			
9	ANIONIC EMULSION POLYMER FOR CHEMICALLY ENHANCED PRIMARY	19-20	27892	57494	POLYDYNE INC	$257,000	07/01/19	06/30/20			
10	LIQUID 12.5% SODIUM HYPOCHLORITE	19-20	28261	57240	UNIVAR USA INC	$995,000	07/01/19	06/30/20			
11	25% SOLUTION SODIUM BISULFITE	19-20	28262	57235	UNIVAR USA INC	$710,000	07/01/19	06/30/20			
12	FERRIC CHLORIDE (38% TO 42%)	19-20	28263	57238	THATCHER COMPANY OF CALIFORNIA	$1,837,500	07/01/19	06/30/20			
13	AQUEOUS AMMONIA	19-20	28265	57239	HILL BROS CHEMICAL CO	$162,000	07/01/19	06/30/20			
14	VALUE ENGINEERING FOR HEADWORKS	19-20		AC27754	HAZEN AND SAWYER	$183,890	06/28/19	09/30/19		$183,890	SERVICE ORDER #03 (MASTER AGREEMENT TERM 6/21/16-6/30/21, $5M)
15	PROJECT MANAGEMENT SERVICES FOR COGENERATION FACILITY	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$953,418	07/01/19	06/30/20	$683,976	$1,637,394	SERVICE ORDER #26 SECOND AMENDMENT (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
16	SUBJECT MATTER EXPERT SERVICES FOR VARIOUS PROJECTS	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$595,898	07/01/19	06/30/20	$216,170	$812,068	SERVICE ORDER #32 FIRST AMENDMENT (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
17	PROGRAM MANAGEMENT SERVICES	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$4,357,253	07/01/19	06/30/20		$4,357,253	SERVICE ORDER #34 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)

City Manager's Contract Approval Summary

For Procurement and Contract Activity between $100,000 and $1.3 Million for Goods and $100,000 and $320,000 for Services

	Description of Contract Activity [1]	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original Amount	Start Date	End Date	Additional Amount	Total Amount	Comments
18	SUBJECT MATTER EXPERT SERVICES FOR DIGESTER & THICKENER FACILITIES UPGRADE	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$219,967	07/01/19	06/30/20		$219,967	SERVICE ORDER #35 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
19	PROJECT MANAGEMENT SERVICES FOR BLOWER IMPROVEMENTS	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$515,034	07/01/19	06/30/20		$515,034	SERVICE ORDER #36 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
20	PROJECT MANAGEMENT SERVICES FOR FINAL EFFLUENT PUMP STATION	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$138,963	07/01/19	06/30/20		$138,963	SERVICE ORDER #37 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
21	PROJECT MANAGEMENT SERVICES FOR DIGESTED SLUDGE DEWATERING FACILITY	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$743,853	07/01/19	06/30/20		$743,853	SERVICE ORDER #38 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
22	PROJECT MANAGEMENT SERVICES FOR HEADWORKS	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$1,048,420	07/01/19	06/30/20		$1,048,420	SERVICE ORDER #39 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)
23	TESTING, STARTUP, COMMISSIONING READINESS ASSESSMENT SUBJECT MATTER EXPERT SERVICES	19-20		AC25704	STANTEC CONSULTING SERVICES, INC	$388,462	07/01/19	11/30/19		$388,462	SERVICE ORDER #40 (MASTER AGREEMENT TERM 9/24/13-6/30/23, $78M)