SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

SAM LICCARDO, CHAIR
PAT KOLSTAD, VICE CHAIR
PIERLUIGI OLIVERIO, MEMBER
DAVID SYKES, MEMBER
MANH NGUYEN, MEMBER
JOSE ESTEVES, MEMBER
JERRY MARSALLI, MEMBER
STEVEN LEONARDIS, MEMBER
JOHN GATTO, MEMBER

AMENDED AGENDA/TPAC

4:30 p.m. **May 19, 2016** **Room 1734**

1. ROLL CALL

2. APPROVAL OF MINUTES

A. April 14, 2016

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTOR'S REPORT

A. Directors Report (verbal)
- Monthly Progress Report

5. AGREEMENTS/ACTION ITEMS

A. Approval of an Ordinance Designating Additional Public Right-of-Way for Zanker Road

Staff Recommendations:
(1) Consider the Addendum to the Plant Master Plan EIR; and
(2) Approve an ordinance designating approximately 27,000 square feet along the west side of Zanker Road, located over a portion of the San José/Santa Clara Regional Wastewater Facility, as public right-of-way and accept the newly-dedicated right-of-way into the City's street system as part of Zanker Road to allow for construction-related traffic improvements on Zanker Road.

This item is scheduled for consideration by the Santa Clara City Council on on May 24, 2016, and the San José City Council on June 7, 2016.

B. 7995 – Master Consultant Agreements with Brown and Caldwell, AECOM Technical Services, Inc., and Black & Veatch Corporation, for General Engineering Services for the San Jose- Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendation: Approve Master Consultant Agreements with Brown and Caldwell, AECOM Technical Services, Inc., and Black and Veatch Corporation to provide general engineering services at the San José-Santa Clara Regional Wastewater Facility from the date of execution to June 30, 2021 in a total amount not to exceed of $5,000,000 each, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on May 24, 2016.

C. Report on Bids and Award of Construction Contract for 7382 – Digester and Thickeners Facilities Upgrade Project at the San Jose-Santa Clara Regional Wastewater Facility

Staff Recommendations:

(a) Adopt a Resolution
   (1) Approving the Digester and Thickener Facilities Upgrade Project Initial Study/Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program (File No. PP15-055).
   (2) Reporting on bids and award of construction contract for the 7382-Digester and Thickener Facilities Upgrade project to the low bidder, Walsh Construction Company II, LLC, to include the base bid less Revocable Item No. 5, in the amount of $107,925,000, and approve a 12.5 percent construction contingency in the amount of $13,490,625.
   (3) Authorizing the Director of Public Works to execute one or more change orders in excess of $100,000 for the duration of the Digester and Thickener Facilities Upgrade project, not to exceed the total contingency amount approved for the project.

(b) Adopt the following 2015-2016 Appropriation Ordinance Amendments in the San Jose- Santa Clara Treatment Plant Capital Fund:
   (1) Decrease the Energy Generation Improvements appropriation to the Environmental Services Department by $6,000,000;
   (2) Decrease the SBWR System Reliability and Infrastructure Replacement appropriation to the Environmental Services Department by $4,692,000;
   (3) Decrease the Tunnel Rehabilitation appropriation to the Environmental Services Department by $600,000;
   (4) Decrease the Ending Fund Balance – Unrestricted appropriation by $17,253,000; and
   (5) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department by $28,545,000.

This item is scheduled for consideration by the City Council on May 24, 2016.

D. Report on Bids and Award of Contract for the 6970 – Fiber Optic Connection Project at the San Jose-Santa Clara Regional Wastewater Facility

Staff Recommendation: Report on bids and award a construction contract for the 6970- Fiber Optic Connection Project to the second low bidder, Aegis ITS, Inc., in the amount of $271,692 and approval of a 15 percent contingency in the amount of $40,754.

This item is scheduled for consideration by the City Council on May 24, 2016.

E. Agreement with Santa Clara Valley Habitat Agency to Manage Burrowing Owl Habitat

Staff Recommendation: Adoption of resolution authorizing the City Manager to negotiate and execute an Agreement between the City of San José and the Santa Clara Valley Habitat Agency to manage the 201-acre burrowing owl habitat at the Regional Wastewater Facility for a term of five years.

This item is scheduled for consideration by the City Council on May 24, 2016.

F. Execute a Purchase Order with Pipe and Plant Solutions, Inc.

Staff Recommendations: Adopt a resolution authorizing the City Manager to:

(1) Execute a Purchase Order with Pipe and Solutions, Inc. (Berkeley, CA) to provide all labor and material to clean three anaerobic digesters at the Regional Wastewater Facility for the term June 7, 2016 through June 6, 2017, in an amount not to exceed $339,067;
(2) Approve a contingency of $50,000 in the event that unanticipated issues are identified during the performance of the work; and
(3) Exercise up to three additional one-year options to extend the term of the cleaning services for nine additional digesters that are scheduled for cleaning on a rotational basis through June 6, 2020, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on June 7, 2016.

G. Amendment to Master Service Agreement with Hydroscience Engineers, Inc.

Staff Recommendation: Approve the First Amendment to the Master Agreement with Hydroscience Engineers, Inc. for engineering services to allow for future adjustments to rates and charges, and to increase the rates for Hydroscience Engineers, Inc. and subconsultants.

This item is scheduled for consideration by the City Council on May 24, 2016.

H. San Jose/Santa Clara Water Pollution Control Plant 2017-2021 Proposed Capital Improvement Program

Staff Recommendation: TPAC approval of the San Jose/Santa Clara Water Pollution Control Plant 2017-2021 Proposed Capital Improvement Program.

The San Jose/Santa Clara Water Pollution Control Plant 2016-2017 Proposed Capital Improvement Program is scheduled for Council consideration on June 14, 2016, and for adoption on June 21, 2016.

I. San Jose/Santa Clara Water Pollution Control Plant 2016-2017 Proposed Operating and Maintenance Budget

Staff Recommendation: TPAC approval of the San Jose/Santa Clara Water Pollution Control Plant 2016-2017 Proposed Operating and Maintenance Budget

The San Jose/Santa Clara Water Pollution Control Plant 2016-2017 Proposed Operating and Maintenance Budget is scheduled for Council consideration on June 14, 2016, and for adoption on June 21, 2016.

6. OTHER BUSINESS/CORRESPONDENCE

A. Update on Task Force Discussions

B. Letter from Tributary Agencies to Mayor Liccardo dated May 5, 2016

C. Letter from Tributary Agencies to TPAC dated March 30, 2016

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Approval of a Design-Build Contract with CH2M Hill Engineers, Inc. for the Cogeneration Facility at the San Jose- Santa Clara Regional Wastewater Facility

Staff Recommendations:

(a) Approve the design-build contract with CH2M HILL Engineers, Inc. for the Cogeneration Facility at the San José-Santa Clara Regional Wastewater Facility in an amount not-to-exceed $5,655,000 for the performance of preliminary design services under the contract.

(b) Approve a design contingency in the amount of $565,000 for City-approved changes to the scope of preliminary design services.

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

(1) Negotiate and execute a definitive contract amendment with CH2M HILL to: (1) set a base guaranteed maximum price or lump sum amount in accordance with the contract, in an amount not-to-exceed $82,884,000 for the design-build work to be performed following the preliminary design services; (2) set a schedule for completion and acceptance of the design-build work required by the contract; (3) define the technical specifications and guaranteed performance capabilities for the Cogeneration Facility; (4) establish any additional professional services required by the City for transitioning the Cogeneration Facility to City control after acceptance , and the fee to be charged therefore; (5) establish the insurance requirements for the design-build work; and (6) subject to review and approval by the City Attorney's Office, amend other terms and conditions of the contract that are necessary to accomplish the foregoing;

(2) Negotiate and execute separate agreements and/or amendments to the contract to allow CH2M HILL to proceed with discrete portions of the design-build work prior to the City's execution of the definitive contract

amendment in an amount not to exceed $30,000,000, which amounts will be subject to the base guaranteed maximum price;

(d) Approve a construction contingency in the amount of $8,288,000 to pay for adjustments to the base guaranteed maximum price or if applicable, the lump sum amount, in accordance with the contract and to pay for the transition services after acceptance of the Cogeneration Facility.

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

(1) Execute change orders in excess of $100,000 up to the amount of the design contingency for changes to the scope of the preliminary design services, and up to the amount of the construction contingency for adjustments to the base guaranteed maximum price or lump sum amount during the performance of the design-build work;

(2) Negotiate and execute the necessary regulatory permits and public utility agreements in excess of $100,000 for the permitting, design, construction and inspection of utility connections associated with the new Cogeneration Facility, up to an aggregate amount of $600,000.

The proposed recommendations were approved by the City Council on April 26, 2016.

B. Master Consultant Agreement with HDR Engineering, Inc. for Engineering Services for the 7731 – Nitrification Clarifiers Rehabilitation Project at the San Jose- Santa Clara Regional Wastewater Facility

Staff recommendation:

(a) Approve a master consultant agreement with HDR Engineering, Inc. to provide engineering services for the 7731 – Nitrification Clarifiers Rehabilitation Project at the San José-Santa Clara Regional Wastewater Facility from the date of execution through December 31, 2023, in a total amount not to exceed $5,000,000, subject to the appropriation of funds.

The proposed recommendation was approved by the City Council on May 10, 2016.

C. Report on Request for Proposal for a Design and Construction Management System

Staff Recommendation:

(a) Accept the report on the Request for Proposal for the purchase and implementation of a Design Construction Management System for the Capital Improvement Program at the San Jose- Santa Clara Regional Wastewater Facility, and adoption of a resolution authorizing the City Manager to:

(1) Negotiate and execute an Agreement with Bentley Systems, Inc. (Exton, PA) for the purchase and implementation of a Design and Construction Management System, including software subscription, implementation, configuration, testing, training, and related professional services, taxes, maintenance and support for an initial five-year term commencing on or about May 1, 2016 and ending on or about July 31, 2021, with a

maximum compensation not-to-exceed $342,700 for the initial five-year term, subject to the appropriation of funds; and

(2) Execute change orders to cover any additional requirements for a not-to-exceed contingency amount of $100,000, subject to the appropriation of funds; and

(3) Execute one-year options to extend the term of the Agreement to provide ongoing software subscription, hosting, and technical support services after the initial five-year term, subject to the appropriation of funds.

The proposed recommendation was approved by the City Council on April 26, 2016.

D. Review of the Emergency Action for the Replacement of the Pond A18 Northern Gate Structure and Termination of the Action

Staff Recommendations:

(a) Review of the emergency action for the replacement of the Pond A18 northern gate structure at the San José-Santa Clara Regional Wastewater Facility; and

(b) Adopt a resolution terminating the emergency declaration for the replacement of the Pond A18's northern gate structure.

The proposed resolution was adopted by the City Council on April 26, 2016.

E. San Jose- Santa Clara Regional Wastewater Facility Capital Improvement Program Semi-Annual Status Report

Staff Recommendation:

(a) Accept the semi-annual status progress report on the San José-Santa Clara Regional Wastewater Facility Program for the period July through December 2015.

The proposed report was accepted by the City Council on April 26, 2016.

F. Audit of South Bay Water Recycling

Staff Recommendation:

(a) Accept the Audit Report on the efficiency and effectiveness of South Bay Water Recycling.

The proposed report was accepted by the City Council on April 26, 2016.

8. REPORTS

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

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

9. MISCELLANEOUS

A. The next monthly TPAC Meeting is June 9, 2016, at 4:30 p.m., City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

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

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please contact Melrose Cacal (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
City Hall, Council Chambers
Thursday, April 14, 2016 at 4:00 p.m.

1. ROLL CALL

Minutes of the Treatment Plant Advisory Committee convened this date at 4:02 p.m. Roll call was taken with the following members in attendance:

Committee Members: Jose Esteves, John Gatto, Lisa Gillmor (alternate), Steven Leonardis, Sam Liccardo, Teri Killgore (alternate), Manh Nguyen, Pat Kolstad, Pierluigi Oliverio

Absent: Committee Members: Jerry Marsalli, Dave Sykes

2. APPROVAL OF MINUTES

A. March 10, 2016
Item 2.A. was approved to note and file.
Ayes – 9 (Esteves, Gatto, Gillmor, Kolstad, Leonardis, Liccardo, Killgore, Nguyen, Oliverio)
Nayes – 0

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

A. Election of the Chair and Vice-Chair

Chair:

1. **Mayor Sam Liccardo was nominated by Committee Member Pat Kolstad to be Chair of TPAC.**

   Ayes – 9 (Esteves, Gillmor, Gatto, Killgore, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio)
   Nayes – 0

Vice Chair:

1. **Councilmember Pat Kolstad was nominated by Committee Member Gatto to be Vice Chair of TPAC.**

   Ayes – 9 (Esteves, Gillmor, Gatto, Killgore, Kolstad, Leonardis, Nguyen Oliverio)
   Nayes – 0

4. DIRECTORS REPORT

A. Directors Report (verbal)

- American Planning Association National Achievement for Plant Master Plan

  Director Kerrie Romanow highlighted three awards that the City of San José's Environmental Services Department (ESD) attained in April 2016:
  (1) The "American Planning Association National Achievement Award" for the Plant Master Plan in Environmental Planning
  (2) The Government Finance Officers Association recognized the City of San José with their "National Distinguished Budget Award" 26 years in a row
  (3) The California Public Information Officers Association awarded ESD with the "Excellence in Communications Award" for its quarterly, internal newsletter, "Green Matters"

- Update on the Digester and Facilities Upgrade project

  Program Manager Colin Page provided a summary of digester project bids and considerations. Six of the 18 digesters are currently out of service. Delaying the project would result in higher costs, risk of failure in the treatment process, and could potentially impact other Capital Improvement Program projects underway. The bidding process began on March 27, 2016. Five bids were received, ranging from $109 to $129 million with the Engineer's construction estimate at $85 million. The lowest bidder was Walsh Construction. The high bids were due to an increased cost in construction, materials, and a limited labor pool. In light of these considerations, staff does not anticipate that a deferral to a future procurement will yield better results.

  Due to the significant overage of this project, Assistant Director Ashwini Kantak discussed funding options, such as re-evaluating budgets for existing projects and determining which projects could be delayed or liquidated so the net impact would be zero. Additional funding is needed for the contingency and is included in the proposed budget. It is anticipated that staff will bring forward a recommendation to award in May or June. Current bid prices are effective until June 15, 2016.

- Monthly Progress Report

5. AGREEMENTS/ACTION ITEMS

A. Approval of a Design-Build Contract with CH2M Hill Engineers, Inc. for the Cogeneration Facility at the San José- Santa Clara Regional Wastewater Facility

Staff Recommendations:

(a) Approve the design-build contract with CH2M HILL Engineers, Inc. for the Cogeneration Facility at the San José-Santa Clara Regional Wastewater Facility in an amount not-to-exceed $5,655,000 for the performance of preliminary design services under the contract.
(b) Approve a design contingency in the amount of $565,000 for City-approved changes to the scope of preliminary design services.
(c) Adopt a resolution authorizing the City Manager or his designee to:
    (1) Negotiate and execute a definitive contract amendment with CH2M HILL to: (1) set a base guaranteed maximum price or lump sum amount in accordance with the contract, in an amount not-to-exceed $82,884,000 for the design-build work to be performed following the preliminary design services; (2) set a schedule for completion and acceptance of the design-build work required by the contract; (3) define the technical specifications and guaranteed performance capabilities for the Cogeneration Facility; (4) establish any additional professional services required by the City for transitioning the Cogeneration Facility to City control after acceptance , and the fee to be charged therefore; (5) establish the insurance requirements for the design-build work; and (6) subject to review and approval by the City Attorney's Office, amend other terms and conditions of the contract that are necessary to accomplish the foregoing;
    (2) Negotiate and execute separate agreements and/or amendments to the contract to allow CH2M HILL to proceed with discrete portions of the design-build work prior to the City's execution of the definitive contract amendment in an amount not to exceed $30,000,000, which amounts will be subject to the base guaranteed maximum price;
(d) Approve a construction contingency in the amount of $8,288,000 to pay for adjustments to the base guaranteed maximum price or if applicable, the lump sum amount, in accordance with the contract and to pay for the transition services after acceptance of the Cogeneration Facility.
(e) Adopt a resolution authorizing the City Manager or his designee to:
    (1) Execute change orders in excess of $100,000 up to the amount of the design contingency for changes to the scope of the preliminary design services, and up to the amount of the construction contingency for adjustments to the base guaranteed maximum price or lump sum amount during the performance of the design-build work;
    (2) Negotiate and execute the necessary regulatory permits and public utility agreements in excess of $100,000 for the permitting, design, construction and inspection of utility connections associated with the new Cogeneration Facility, up to an aggregate amount of $600,000.

This item is scheduled for consideration by the City Council on April 26, 2016.

Principal Engineer John Cannon presented on this item.

Committee Member Gatto inquired: (1) how the $82 million design build estimate was determined without beginning the preliminary design work to reach the GMP

and (2) what the next steps are if the contractor requested more funding after completing the $5.6 million preliminary design service. Mr. Cannon clarified that CH2M Hill submitted a design proposal based on their best estimate. The project is considered a progressive design build project. Staff will receive another estimate at 30 percent design. Director Romanow and Mr. Cannon added that the project can be scoped down (i.e. shrinking square footage) if costs are trending high. City staff can also bring this item, along with a list of milestones, to TPAC and Council, if further authorization is needed.

TPAC was unanimous in approving Recommendations (a) and (b) for Item 5.A.:

Ayes – 9 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio)
Nayes – 0
Absent – 0

TPAC separately voted on Recommendations (c) through (e). Committee Member Gatto asked for staff to bring back an update on the project to TPAC. There was concern regarding the impact of a material change to the project in order to keep it within the estimated budget. TPAC voted to approve Recommendations (c) through (e) provided staff return to TPAC to brief TPAC in the event there is a material change to the scope prior to taking action on (c) through (e).

A motion was made by Vice Chair Kolstad with a second by Committee Member Oliverio.

Ayes – 7 (Gatto, Gillmor, Killgore, Kolstad, Liccardo, Nguyen, Oliverio)
Nayes – **2** (Esteves, Leonardis)
Absent – 0

B. Master Consultant Agreement with HDR Engineering, Inc. for Engineering Services for the 7731 – Nitrification Clarifiers Rehabilitation Project at the San José- Santa Clara Regional Wastewater Facility

Staff recommendation:

(a) Approve a master consultant agreement with HDR Engineering, Inc. to provide engineering services for the 7731 – Nitrification Clarifiers Rehabilitation Project at the San José-Santa Clara Regional Wastewater Facility from the date of execution through December 31, 2023, in a total amount not to exceed $5,000,000, subject to the appropriation of funds.

This item is scheduled for consideration by the City Council on May 10, 2016.

Mr. Page provide an overview of critical improvements needed to enable continued regulatory compliance and long-term operational reliability.

Committee Member Gatto inquired if the money needs to be identified at the time of the design build contract, or if the payment can be done in increments if the project has a two or three year lifespan. Ms. Kantak clarified that this particular award was for consultant services; however for construction contracts, .the money is encumbered at the time the contract is awarded regardless of whether it's a design bid build or design build contract award.

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

Ayes – 9 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Liccardo, Leonardis, Nguyen, Oliverio)
Nayes – **0**
Absent – 0

C. Report on Request for Proposal for a Design and Construction Management System

Staff Recommendation:

(a) Accept the report on the Request for Proposal for the purchase and implementation of a Design Construction Management System for the Capital Improvement Program at the San José- Santa Clara Regional Wastewater Facility, and adoption of a resolution authorizing the City Manager to:
   (1) Negotiate and execute an Agreement with Bentley Systems, Inc. (Exton, PA) for the purchase and implementation of a Design and Construction Management System, including software subscription, implementation, configuration, testing, training, and related professional services, taxes, maintenance and support for an initial five-year term commencing on or about May 1, 2016 and ending on or about July 31, 2021, with a maximum compensation not-to-exceed $342,700 for the initial five-year term, subject to the appropriation of funds; and
   (2) Execute change orders to cover any additional requirements for a not-to-exceed contingency amount of $100,000, subject to the appropriation of funds; and
   (3) Execute one-year options to extend the term of the Agreement to provide ongoing software subscription, hosting, and technical support services after the initial five-year term, subject to the appropriation of funds.
   (4) Negotiate and execute an Agreement with Aconex (San Bruno, CA), the second ranked proposer, in the event staff is unable to finalize negotiations with Bentley Systems, Inc. within 60 days of Council approval.

This item is scheduled for consideration by the City Council on April 26, 2016.

Assistant Director Ashwini Kantak indicated that they are no longer seeking authority for Recommendation (4).

On a motion made by Committee Member Gatto and a second by Committee Member Oliverio, TPAC recommended approval of staff's amended recommendations, (a) 1-3, for Item 5.C.

Ayes – 8 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Nguyen, Oliverio)
Nayes – **0**
Absent – 1 (Liccardo)

D. Review of the Emergency Action for the Replacement of the Pond A18 Northern Gate Structure and Termination of the Action

Staff Recommendations:

(a) Review of the emergency action for the replacement of the Pond A18 northern gate structure at the San José-Santa Clara Regional Wastewater Facility; and
(b) Adopt a resolution terminating the emergency declaration for the replacement of the Pond A18's northern gate structure.

This item is scheduled for consideration by the City Council on April 26, 2016.

On a motion made by Committee Member Nguyen and a second by Committee Member Oliverio, TPAC recommended approval of staff's recommendations for Item 5.D.

Ayes – 8 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Nguyen, Oliverio)
Nayes – **0**
Absent – 1 (Liccardo)

E. San José- Santa Clara Regional Wastewater Facility Capital Improvement Program Semi-Annual Status Report

Staff Recommendation:

(a) Accept the semi-annual status progress report on the San José-Santa Clara Regional Wastewater Facility Program for the period July through December 2015.

This item is scheduled for consideration by the City Council on April 26, 2016.

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

Ayes – 8 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Nguyen, Oliverio)
Nayes – **0**
Absent – 1 (Liccardo)

F. Audit of South Bay Water Recycling

Staff Recommendation:
(a) Accept the Audit Report on the efficiency and effectiveness of South Bay Water Recycling.

This item is scheduled for consideration by the City Council on April 26, 2016.

City of San José Auditor Sharon Erickson answered questions from Committee Member Esteves and Committee Member Gatto about which findings TPAC should be aware. The Auditor noted that the purpose of the audit was to evaluate whether the program was at cost recovery. The Auditor recommended improving the tracking of expenditures, and including the amendment of the Integration Agreement with the Santa Clara Valley Water District as part of the overall discussion of recycled water that the City is having with the Water District.

On a motion made by Committee Member Esteves and a second by Vice Chair Kolstad, TPAC recommended approval of staff's recommendation for Item 5.F.

Ayes – 8 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Nguyen, Oliverio)
Nayes – **0**
Absent – 1 (Liccardo)

6. OTHER BUSINESS/CORRESPONDENCE

A. Discussion and direction on guiding principles for mediation of all outstanding disputes including the administrative claim, request for records, and potential amendments to the Master Agreements.

Item 6.A. was heard after the Director's Report.

Chair Liccardo provided TPAC a summary of additional guiding principles to ensure that necessary changes to the Master Agreement can be made in a timely manner in order for critical projects at the Plant to move forward:
(1) Ensure equity by allocating costs and risks and parties proportionally.
(2) Ensure consistency among all agencies by requiring uniformity of key terms of the agreement as to all similarly situated parties.
(3) Conserve time and staff resources by focusing on resolving the key obstacles to a settlement, while remaining sensitive to critical deadlines for financing and construction of essential projects.
(4) Identifying with specificity the information needed to make decisions, and making all relevant records available upon request, and avoiding the unnecessary expenditure of resources in responding to overly broad Public Records Act requests.

Committee Member Gatto indicated that in his meeting with Assistant Director Kantak that he had received helpful information. Committee Member Gatto suggested creating a task force comprised of staff and representatives, and two or three members from each side to minimize the cost of mediation and litigation.

Vice Chair Kolstad inquired if there are time constraints TPAC would need to work with to attain a resolution. Director Romanow and Ms. Kantak indicated that the agreement for the State Revolving Fund (SRF) loan application would need to be finalized in one month assuming that all agencies are participating.

Another suggestion was made by Chair Liccardo to create a hybrid option of Committee Member Gatto's suggestion and the additional guiding principles.

TPAC had a discussion on next steps based on the time constraints for the SRF loan. It was suggested that the two or three members each from Tributary Agencies and Owners, which would include both elected officials and staff, meet on an as needed basis within the next two weeks before pursuing mediation. Committee Member Gatto added that both parties can also narrow the scope of the dispute.

A motion was made by Vice Chair Kolstad with a second by Committee Member Oliverio to direct that a committee comprising of representatives from each side meet in the next two weeks to discuss a resolution to the outstanding disputes, and/or to narrow the scope of the dispute.

Ayes – 9 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Liccardo, Nguyen, Oliverio)
Nayes – 0
Absent – 0

B. Letter from Director Romanow to the Tributary Agencies dated April 7, 2016

Director Romanow noted that the correspondence from the Tributary Agencies dated March 30, 2016 will be included in the May TPAC meeting packet.

C. Letter from the Tributary Agencies dated February 26, 2016 to TPAC

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Election of the Chair

This item was deferred to the April 14, 2016 TPAC meeting, and was amended to include nominations for the Vice-Chair.

B. Confirmation of hearing date and procedures for Administrative Claim Hearing

TPAC confirmed the hearing date and procedures for the Administrative Claim Hearing during the March 10, 2016 TPAC meeting.

C. Construction Contingency Increase and Contract Change Order Authorization for the 7076 – Influent Magnetic Meter and Valve Replacement for Nitrification Clarifiers A-5 and A-6 Project at the San José- Santa Clara Regional Wastewater Facility

Staff Recommendations:

(a) Approve a $92,970 increase to the construction contingency amount of $27,030 for a revised total contingency in the amount of $120,000 and increase the original contract not-to-exceed amount from $297,330 to a total revised contract amount not-to-exceed $390,300.

(b) Adopt a resolution authorizing the Director of Public Works to negotiate and execute Contract Change No. 4 with JMB Construction, Inc. for the 7076 – Influent Magnetic Meter and Valve Replacement for Nitrification Clarifiers A-5 and A-6 Project extending the project completion date from February 17, 2014 to May 27, 2014 to May 27, 2016 for a total of 561 working days beyond the original contract completion date of February 7, 2014.

This item was approved by the City Council on March 15, 2016.

D. 2015- 2016 Budget Adjustments for the San José- Santa Clara Regional Wastewater Facility Capital Improvement Project

Staff Recommendations:

(a) Adopt the following 2015-2016 Appropriation Ordinance and Funding Sources Resolution Amendments in the San Jose- Santa Clara Treatment Plant Capital Fund:
   (1) Decrease the estimate for Earned Revenue by $4,219,000;
   (2) Decrease the Transfer to the Clean Water Financing Authority Debt Service 2015-2016 by $1,556,000; and
   (3) Decrease the Unrestricted Fund Balance by $3,643,000.

(b) Adopt the following 2015-2016 Appropriation Ordinance Amendments in the Sewer Service and Use Charge Fund:
   (1) Decrease the Transfer to the San José/Santa Clara Treatment Plant Capital Fund on or before June 30 by $980,000; and
   (2) Increase the Unrestricted Fund Balance by $980,000.

This item was approved by the City Council on March 22, 2016.

All items under Section 7 were approved to note and file.

Ayes – 8 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Nguyen, Oliverio)
Nayes – **0**
Absent – 1 (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 $1.08 million of services between $100,000 and $270,000.

Item 8.A. was approved to note and file.
Ayes – 8 (Esteves, Gatto, Gillmor, Killgore, Kolstad, Leonardis, Nguyen, Oliverio)
Nayes – 0
Absent – 1 (Liccardo)

9. MISCELLANEOUS

A. The monthly TPAC Meeting is May 19, 2016, at 4:30 p.m., City Hall, Room 1734. Please note that this is on the third Thursday of the month.

10. OPEN FORUM

11. ADJOURNMENT

A. The Treatment Plant Advisory Committee adjourned at 5:12 p.m.

Sam Liccardo, Chair
TREATMENT PLANT ADVISORY COMMITTEE

San José-Santa Clara Regional Wastewater Facility

Capital Improvement Program
Monthly Status Report: March 2016

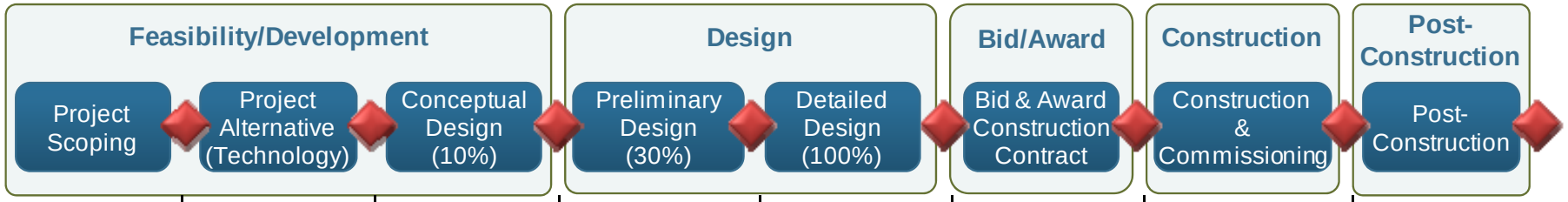
May 12, 2016

This report summarizes the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (RWF) for March 2016.

Report Contents

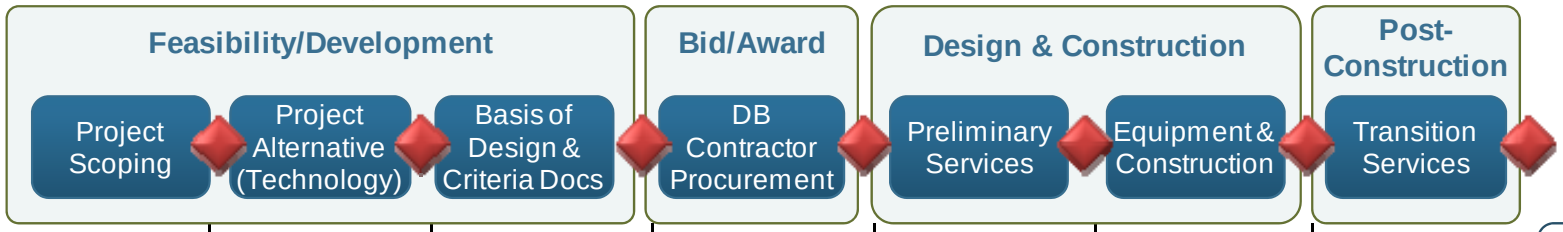
Project Delivery Model (PDM)

Design-Bid-Build Active Projects

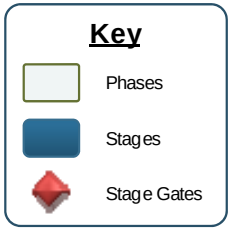


Lagoons & Drying Beds Retirement	Adv. Facility Control and Meter Repl.		Headworks Critical Improvements	Plant Instrument Air System Upgrade	***Construction-Enabling Improvements***	A5-A6 Nitrif. Mag. Meter & Valve Repl.	Digester Gas Storage Repl.
Outfall Bridge and Levee Improvements	Aeration Tanks Rehab.				Digester & Thickener Facilities Upgrade	Iron Salt Feed Station	Pond A18 N.Gate Repl
Switchgear S40/G3 Relay Upgrade	Blower Improvements				Fiber Optic Connection		
Yard Piping and Road Improvements	Facility-wide Water Systems						
	Filter Rehabilitation						
	Nitrification Clarifiers Rehab.						
	Support Building Improvements						

Design-Build Active Projects



Digested Sludge Dewatering	Cogeneration Facility		Digester Gas Compressor Upgrade	
Headworks Improv.			Emergency Diesel Generators	
New Headworks				



*Projects shown in ***bold and italics*** have advanced this reporting period

Program Summary

March 2016

In March, the CIP progressed on multiple fronts, including advancing the Cogeneration Facility Project through the Project Delivery Model (PDM) Authorization To Award stage gate process.

In additional developments, CIP staff:

- Advertised a Request for Qualifications (RFQ) for Owner's Advisor services for the Digested Sludge Dewatering Facility. This project will be delivered by the progressive design-build delivery method and will provide a new, dedicated mechanical dewatering facility to process digested sludge at the RWF.
- Advertised a construction contract valued at $3.0 million for the Construction-Enabling Improvements Project. This project will improve safe access to and from the RWF from Zanker Road and support increased construction activities associated with all CIP projects in the future.
- Received five bids ranging between $110 million and $129 million for the Digester and Thickener Facilities Upgrade Project. The bids received were significantly higher than the $85 million Engineers Estimate; work commenced to evaluate the bids, assess the reasons for the price variance, and recommend next steps.

Construction documentation for the Plant Instrument Air System Upgrade Project was finalized. The project is scheduled to pass through the Authorization to Bid stage gate and advertise for construction in April.

Design started on the Headworks Critical Improvements Project. Condition assessments on the aeration blowers also commenced, which will allow replacement and repair options to be evaluated in advance of design work scheduled to begin this summer.

Anderson Pacific Engineering Construction, Inc., began construction on the Iron Salt Feed Station Project. In addition, construction continued on the Emergency Diesel Generators and Digester Gas Compressor Upgrade projects. The Emergency Diesel Generator Project passed a number of significant milestones, including completion of the factory acceptance test for the switchgear and remote control panels, and onsite installation of the engine generator units.

Look Ahead

In April, staff will continue to move forward with consultant procurement efforts for projects including Nitrification Clarifiers Rehabilitation; Aeration Tank and Blower Rehabilitation; Facility Wide Water Systems Improvement; and Advanced Facility Control and Meter Replacement. Procurements for a number of programmatic services will also continue to advance, including General Engineering Services; Design and Construction Management Software (DCMS); Value Engineering and Peer Review Services; Construction Management and Inspection Services; and Audit Services. An RFQ for System Integrator Services prequalification is scheduled to be issued in April.

Staff will present recommendations on a number of projects to the Treatment Plant Advisory Committee (TPAC) and the City Council (Council) from April through June, including the Cogeneration Facility (design-build award, State Revolving Fund application); DCMS (purchase and implementation of software system); Nitrification Clarifiers Rehabilitation Project (consultant award); Construction-Enabling Project (construction award and right-of-way dedication); Pond A18 Northern Gate Structure (end of emergency declaration); the RWF Semiannual Status Report (status update); Digester and Thickener Facilities Upgrade Project (construction contract award); Aeration Tank and Blower Rehabilitation Project (consultant award); Facility Wide Water Systems Improvement Project (consultant award); Value Engineering and Peer Review Services (consultant award); General Engineering (consultant award); and Construction Management and Inspection Services (consultant award).

In addition, all CIP project managers and project engineers will continue formal staff training in April with a special session on council memo preparation and communications.

Program Highlight – Construction Administration Plan

It is an exciting time for the CIP as several more projects make the transition from design into construction. With over 30 separate projects valued at more than $1.4 billion to be constructed over the next 10 years, it is important that each project's construction be managed using a consistent set of processes and procedures. The Construction Administration Plan (CAP) has been prepared by the CIP Construction Management (CM) team to provide this guidance from pre-construction through project closeout.

While primarily intended as a tool for day-to-day use by the CM staff, all members of a project team including the project manager; Environmental; Safety; and Operations and Maintenance staff will also find the document a useful knowledge resource. The CAP complements and references other Program Execution Plan documents, such as the Design Guidelines; O&M Engagement Plan; and Incident Communication Plan, as well as existing City of San José standard specifications and other project delivery resources. Organized to mirror the PDM, the document includes sections on Authorities and Responsibilities; Design and Procurement Phases; Construction Management; Testing; Startup and Commissioning; and Project Closeout.

The CAP describes the various roles and responsibilities of each member of the Construction Management team, as well as communication, coordination, and other actions to be undertaken at each part of the construction process. The plan details key tasks for various phases of construction, such as pre-bid and pre-construction meetings; scheduling meetings; contractor submittal review; document management; change requests; inspections; commissioning plans; and project closeout. Flow charts show common processes and procedures for daily inspection reporting; change orders; invoicing; submittal review; and substantial completion/project closeout. Routine forms used throughout the construction and closeout phases are also included.

The CAP is reviewed and updated annually to capture new or evolving information. It is found on the CIP Portal along with other project delivery documents. The plan provides a comprehensive, clear, and consistent set of construction procedures to ensure that construction is carried out in an efficient and safe manner.

Figure 1 – Assoc. Engineer Rene Apelo and Sr. Inspector Allan Morgenroth Collaborate at the Digester Gas Compressor Upgrades Project

Program Performance Summary

Eight key performance indicators (KPIs) have been established to measure the overall success of the CIP. Each KPI represents a metric that will be monitored on a regular frequency. Through the life of the CIP, KPIs will be selected and measured that best reflect the current maturity of the program.

Program Key Performance Indicators – Fiscal Year 2015-2016

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	80%	100% (17/17)[1]			100% (25/25)[2]		
Measurement: Percentage of initiated projects and studies that successfully pass each stage gate. Criteria: Red: < 70%; Amber: 70% to 80%; Green: >=80%							
Schedule	85%	33% (1/3)			25% (1/4)		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. Criteria: Red: < 75%; Amber: 75% to 85%; Green: >=85%							
Budget	90%	100% (4/4)			83% (5/6)		
Measurement: Percentage of CIP projects that are completed within the approved baseline budget. Criteria: Red: < 80%; Amber: 80% to 89%; Green: >=90%							
Expenditure	$147M[3]	$76M			$199M[4]		
Measurement: CIP Fiscal Year 15/16 committed costs. Committed cost meets or exceeds 70% of planned Budget (70% of $210M = $147M							
Procurement	80%	93% (14/15)[5]			100% (16/16)		
Measurement: Number of consultant and contractor procurements for initiated projects and program-wide services advertised compared to planned for the fiscal year. Criteria: Red: < 70%; Amber: 70% to 79%; Green: >=80%							
Safety	0	0			0		
Measurement: Number of OSHA reportable incidents associated with CIP construction for the fiscal year. Criteria: Red: > 2; Amber: 1 to 2; Green: zero incidents							
Environmental	0	0			0		
Measurement: Number of permit violations caused by CIP construction for the fiscal year. Criteria: Red: > 2; Amber: 1 to 2; Green: zero incidents							
Staffing[6]	80%	53% (9/17)[7]			59% (17/29)[8]		
Measurement: Number of planned positions filled for the fiscal year. Criteria: Red: < 70%; Amber: 70% to 79%; Green: >=80%							

Notes

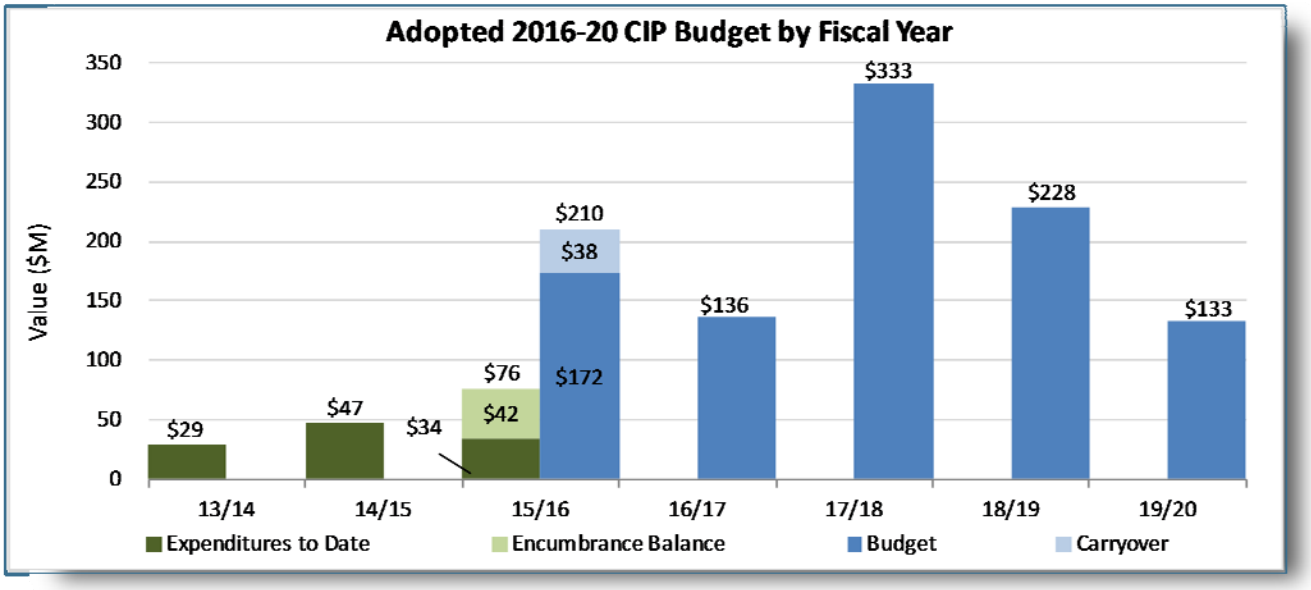
1. The number of completed stage gates increased from 16 to 17 for the Stage Gate KPI Fiscal Year to Date (YTD) as the Cogeneration Facility Project successfully completing its stage gate.
2. The Fiscal Year End Stage Gate KPI total has decreased by a net three projects.
3. Carryover in the amount of $7.5M was liquidated, reducing both the budget and the expenditure target. The expenditure target is reduced because the liquidated carryover will not be spent as anticipated. In addition, a budget action was approved by Council to reduce the Funds Transfer in the amount of $1.6M, due to removal of commercial paper funding in the FY15-16 budget. These actions reduced the CIP portion of the budget from $219M to $210M.
4. The forecast increase of $11.0M is due primarily to the Digester & Thickener Facilities Upgrade Project bid that came in approximately $23M higher than projected. This increase of $23M is offset by the liquidation of carryover (as explained in footnote #3) and the reduction of projected encumbrances totaling $4.5M, the most significant being the Cogeneration Facility Project Notice to Proceed (NTP) ($3M) that will be authorized in FY16-17.
5. The Procurement KPI Year to Date has increased from 12 to 14 as procurements were advertised in March for consultant services for the Digester Sludge Dewatering Facility Project; and the construction contract for the Construction-Enabling Improvements Project. The consultant services contract for the Support Building Improvements Project was expected to be advertised for bid in March, but is now expected to be advertised in April.
6. The City Staffing level KPI for planned recruitments for positions that are vacant at the start of the fiscal year is measured quarterly; all other KPIs are measured monthly. KPI measurement does not account for staff turnover throughout the fiscal year.
7. At the beginning of the fiscal year, the program expected to hire 10 positions in the third quarter. Of these 10 positions, two were filled. One additional hire in the first quarter was inadvertently uncounted, but has been added to the total this quarter.
8. The Fiscal Year End Staffing KPI has been revised to reflect current hiring expectations.

Program Cost Performance Summary

This section summarizes CIP cost performance for all construction projects and non-construction activities for FY15-16 and the 2016-2020 CIP.

Adopted 2016-2020 CIP Expenditure and Encumbrances

To accommodate the proposed increase in expenditures and encumbrances over the next five years, the City is implementing a long-term financial strategy to fund needed, major capital improvements while minimizing the impact to ratepayers. FY13-14 and FY14-15 expenditures have been adjusted to reflect the CIP portion of the Treatment Plant Capital Fund, Fund 512, excluding South Bay Water and Urgent and Unscheduled Cost ($2.6M and $1.5M, respectively).



Notes

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

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

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

Budget: Adopted FY 2016-2020 Budget. This is new funding plus rebudgeted funds.

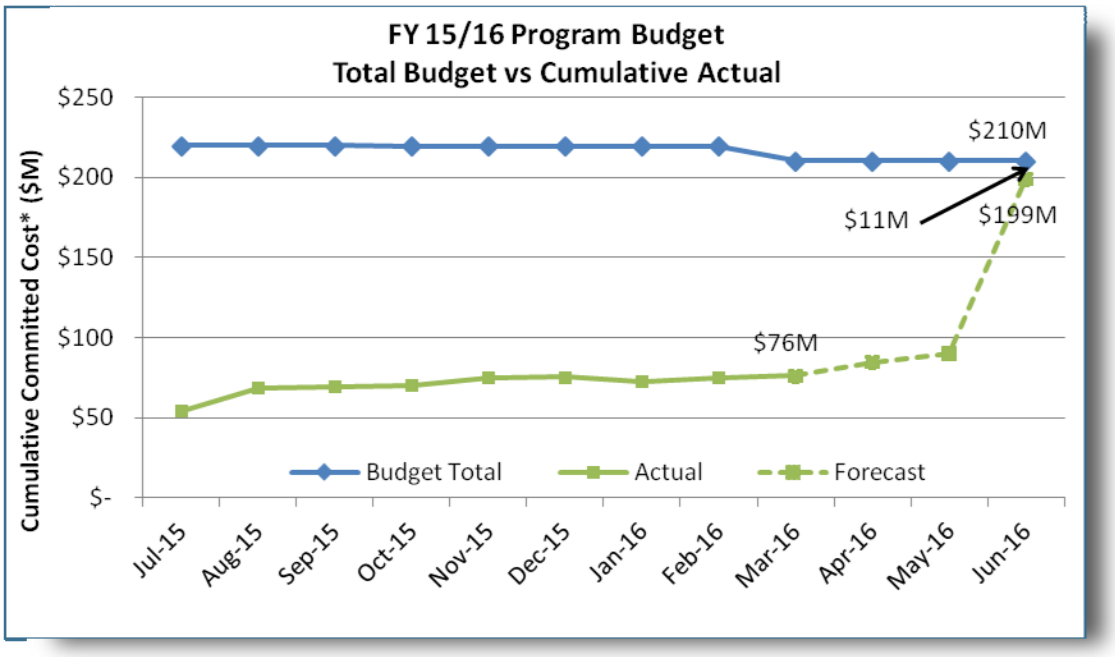
Carryover: Encumbrance balances at the end of a fiscal year become carryover funding. This is different from rebudgets, in that it is done automatically to utilize funding that was previously committed, but not yet paid.

Fiscal Year 2015-2016 Program Budget Performance

The fiscal year program budget has been reduced from $219 million to $210 million due to the following two factors:

1. Liquidation of encumbered carryover funding in the amount of $7.5 million; and
2. Reduction of funds transfer due to Council's approval to remove commercial paper funding from the budget in the amount of $1.6 million.

This budget represents the 2015-2016 budget of $172 million plus carryover of $38 million. The budget excludes Reserves, Ending Fund Balance, South Bay Water Recycling, Public Art, and Urgent and Unscheduled Rehabilitation items.



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

Project Performance Summary

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

Project Performance – Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]	Cost Performance[2]	Schedule Performance[2]
Pond A18 Northern Gate Structure	Post-Construction	Aug 2015[3]	*N/A*[4]	*N/A*[4]
Digester Gas Storage Replacement	Post-Construction	Nov 2015[3]		
A5-A6 Nitrification Mag. Meter & Valve Replacement	Construction	May 2016		
Digester Gas Compressor Upgrade	Construction	Oct 2016		
Emergency Diesel Generators	Construction	Dec 2016		
Iron Salt Feed Station	Construction	Sept 2017[5]		

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 being reviewed as part of project schedule reviews.
2. An explanation of cost and schedule variances on specific projects identified in this table is provided on page 12.
3. Actual Beneficial Use date.
4. Due to the emergency nature of the Pond A18 Northern Gate Replacement project, cost and schedule performance measurement criteria have not been applied.
5. Beneficial Use date updated to reflect actual contract NTP.

Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]
Construction-Enabling Improvements	Bid & Award	Feb 2017
Fiber Optic Connection	Bid & Award	Feb 2017
Cogeneration Facility	Bid & Award	Apr 2019
Digester & Thickener Facilities Upgrade	Bid & Award	July 2019
Headworks Critical Improvements	Design	Aug 2017
Plant Instrument Air System Upgrade	Design	Jan 2018
Blower Improvements	Feasibility/Development	Jan 2019
Adv. Facility Control & Meter Replacement	Feasibility/Development	June 2020
Switchgear S40 Upgrade, M4 Replacement, G3 & G3A Removal	Feasibility/Development	Jan 2021
Headworks Improvements	Feasibility/Development	April 2021
Outfall Bridge and Levee Improvements	Feasibility/Development	Nov 2021
Digested Sludge Dewatering Facility	Feasibility/Development	Dec 2021
Facility Wide Water Systems Improvements	Feasibility/Development	Mar 2022
Filter Rehabilitation	Feasibility/Development	Mar 2022
New Headworks	Feasibility/Development	Aug 2022
Nitrification Clarifiers Rehabilitation	Feasibility/Development	Aug 2022
Yard Piping and Road Improvements	Feasibility/Development	Aug 2022
Aeration Tanks Rehabilitation	Feasibility/Development	Sept 2023
Support Building Improvements	Feasibility/Development	Jan 2027
Lagoons & Drying Beds Retirement	Feasibility/Development	Mar 2027

Notes

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

Significant Accomplishments

The projects below are described under different "packages." In the CIP, packages are groups of projects organized within the same treatment process area.

Biosolids Package

Digester and Thickener Facilities Upgrade

- The City received five construction bids ranging between $110 million to $129 million. The bids received were above the $85 million Engineers Estimate. Staff expect to award this fiscal year.

Digester Gas Storage Replacement

- The contractor completed all work. The project team anticipates Project Acceptance and Notice of Completion in April 2016.

Digested Sludge Dewatering Facility

- Prospective bidders attended a site tour and presentation on March 17.
- The project team completed the final RFQ documents for the Owner's Advisor role. Bidding documents were released on BidSync. Statements of Qualifications (SOQ) documents are due April 18.

Facilities Package

Cogeneration Facility

- Staff completed final contract negotiations with the selected design-builder, CH2M. The contract is scheduled for Council approval in April.

Construction-Enabling Improvements

- This project has been advertised with bids due in early April.

Facility Wide Water Systems Improvements

- The City conducted interviews with three firms and expects to post the final consultant rankings in April.

Fiber Optic Connection

- The low bidder was unable to execute the contract; therefore, staff has begun discussions with the second-lowest bidder.

Liquids Package

Aeration Tanks and Blower Rehabilitation

- Staff conducted a site walk-through of the Tertiary Blower Building, Secondary Blower Building and Building 40 blowers in preparation for a condition assessment.
- Staff held consultant interviews and selected a consultant.

Iron Salt Feed Station

- The City issued the Notice to Proceed to the contractor. Beneficial Use is expected in September 2017.

Power and Energy

Emergency Diesel Generators

- The project team completed the factory acceptance test for the switchgear and remote control panels.
- The contractor installed the engine-generator units on their foundations.

Explanation of Project Performance Issues

A5-A6 Nitrification Magnetic Meter & Valve Replacement

In September 2014 during startup, the project team discovered that the actuators that had been specified and installed were incompatible with the available power supply. Engineering staff determined it would cost more to modify the electrical system than to order and install compatible actuators. Operations and Maintenance (O&M) staff requested that the actuators match the custom actuators used in the other 14 clarifiers. The City pursued various options to resolve the issue and received a proposal from the contractor to install new actuators based on a revised specification. A counterproposal was provided to the contractor in December. Discussions between senior management from both sides have been productive. A negotiated agreement to resolve all outstanding contract issues was concluded in January. A change order was issued on January 27 for the contractor to purchase replacement custom actuators, with lead time of between 12 to 14 weeks. Council approved the additional required funding in March. Contractor mobilization, actuator installation, wiring, troubleshooting, and punch list signoff will take a minimum of three weeks. Beneficial Use is forecast for late May 2016.

Digester Gas Storage Replacement

During a comprehensive review of the gas storage tank design submitted by design consultant Brown and Caldwell, it was noted that the removable piston legs used in the subcontractor's proposed design did not meet design standards and could cause problems with the tank's intended use. The contractor was granted a three-month, no-cost time extension to September 28 to complete design modifications to the gas holder support structure. Several owner-requested changes were evaluated during the pre-startup period, resulting in three additional change orders. All work requiring welding or other spark-producing activities was completed prior to the introduction of gas. The tank successfully passed its required leakage test and was commissioned in November 2015. The tank is in use, the project is within budget, and final contract closeout activities are expected to be completed in April 2016.

Emergency Diesel Generator

The schedule for completion is delayed approximately three months due to the following three factors:

1. Caterpillar, the supplier of the Emergency Diesel Generator system, encountered delays in developing the controls that interface with the existing RWF controls. Caterpillar is continuing to develop the controls and is scheduled to deliver them to the City by May 2016.
2. Additional time is required for Pacific Gas & Electric (PG&E) to approve and witness-test the installation and commissioning of the Emergency Diesel Generator equipment. The City Manager's Office is reviewing the work cost breakdown provided by PG&E.
3. The commissioning sequence for the existing facility cogeneration engines EG-1, EG-2, and EG-3 changed. The controls for the existing generators are being modified to load-share with the new emergency diesel generators. However, these units can be modified only after the new generators have been commissioned. This sequence change has extended the project completion date. After revisiting the rehabilitation sequence for the existing cogeneration generators, the project team determined the EG-1 engine modification and new generators' commissioning may be combined, which will reduce the schedule delay.

Project Profile – Emergency Diesel Generator Package 2A Project

The Emergency Diesel Generator Project is located in the southwest area of the RWF. In 2012, the RWF completed an Energy Management Strategic Plan. The plan assessed the RWF's energy systems, identified the need for emergency power in the event of power failure from the local utility company, and recommended building emergency power facilities for critical and secondary loads.

The project includes installation of four emergency diesel generators, each with the capacity to produce 3 megawatts (MW) of power. These generators are classified as Tier 4, the Environmental Protection Agency's (EPA) most efficient energy designation, because their advanced emission control technology reduces exhaust emissions by more than 90 percent, and their ultra-low-sulfur diesel technology reduces sulfur emissions to 15 parts per million (ppm). The generators will automatically start, synchronize, and energize the RWF electrical distribution system within five minutes of a power outage.

The project includes two, 25,000-gallon diesel fuel tanks that contain enough fuel to operate the four generators for 48 hours. Continuous emergency power generation is possible as long as there is a reliable fuel supply. The project also includes a storage building; emissions, fueling, control, and monitoring systems; and connection to RWF's Distributed Control System (DCS), switchgear, synchronizing panel, protective relays, and other components.

The project delivery method is low-bid design-build. The project team developed the 30 percent design drawings and specifications for a design-build entity to complete project design and construction. Council awarded the design-build contract to Anderson Pacific Engineering and Construction on June 17, 2014. The City provided the contractor with the Notice to Proceed on September 8, 2014. Currently, the project is under construction with the final design in progress. All emergency diesel generators, generators' enclosures, fuel tanks, exhaust systems, and control systems were delivered and installed on site with testing and commissioning to follow.

The advanced emission technologies allowed the City to obtain its Authority-to-Construct permit from the Bay Area Air Quality Management District without the installation of a Rypos emission filter unit, as originally designed. This resulted in a credit of $700,000 to the construction contract. Project startup testing and commission will commence in October 2016, with a Beneficial Use date expected by December 2016.

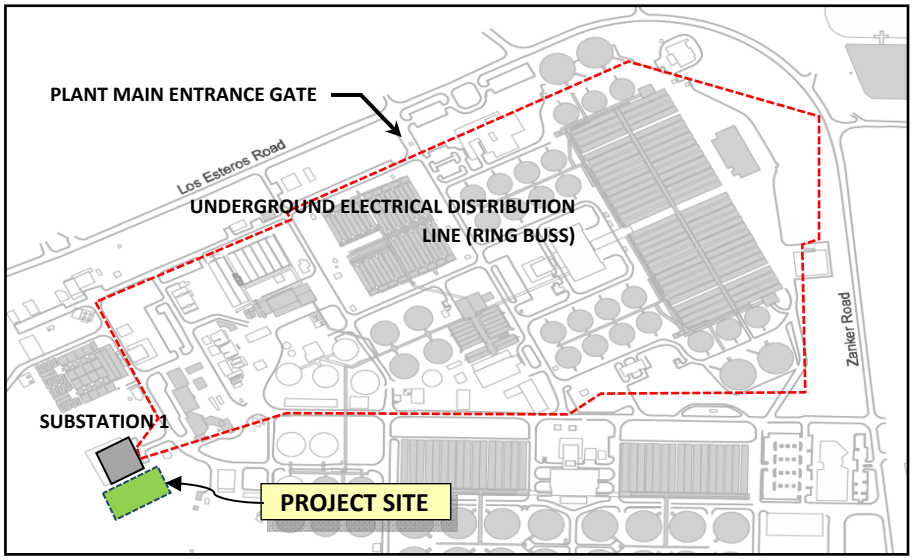


Figure 2 – Emergency Diesel Generator Location Map

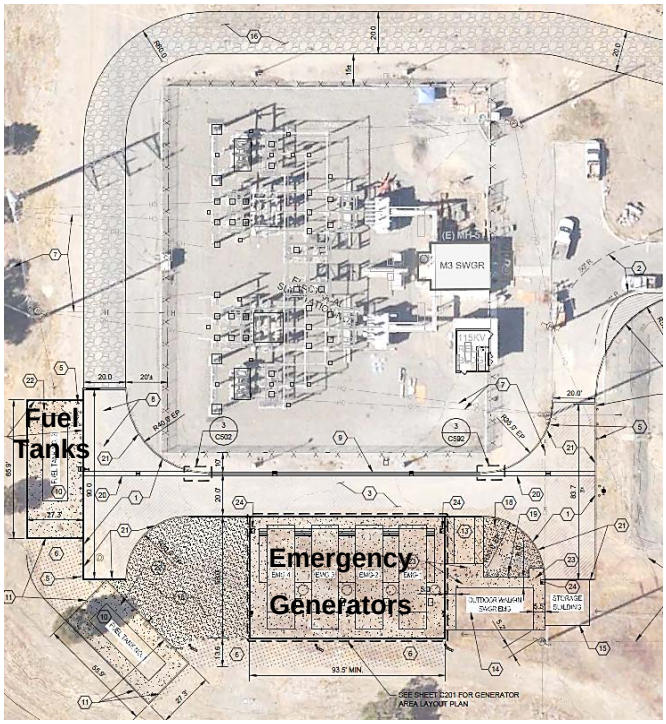


Figure 3– Project Site Layout

Figure 4 – Storage Building and Generators

Figure 5 – Generator Engines Installation

Figure 6 – Generator Enclosure Installation

Figure 7 – Generator Concrete Pads Installation

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

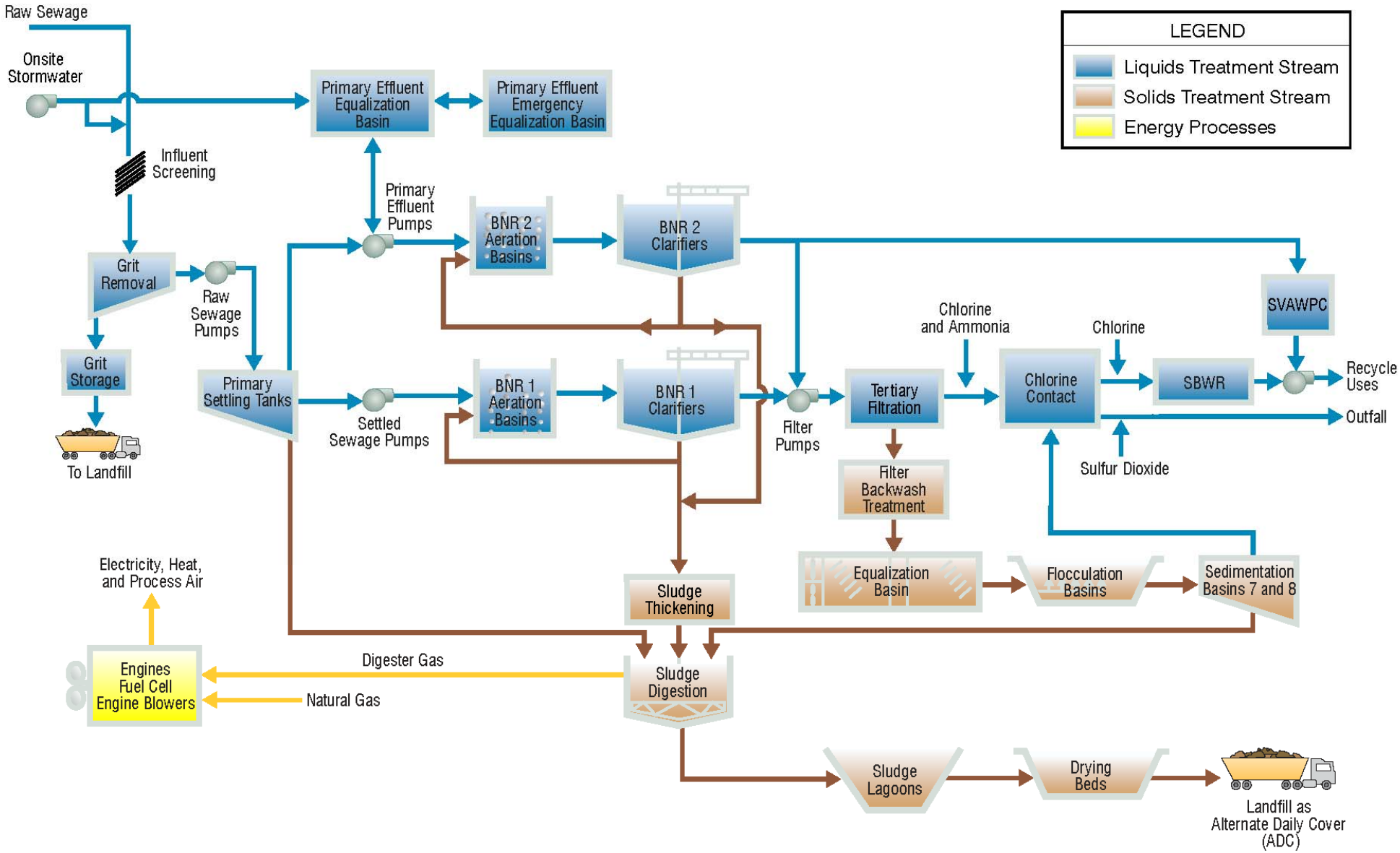


Figure 8 – Current Treatment Process Flow Diagram

Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

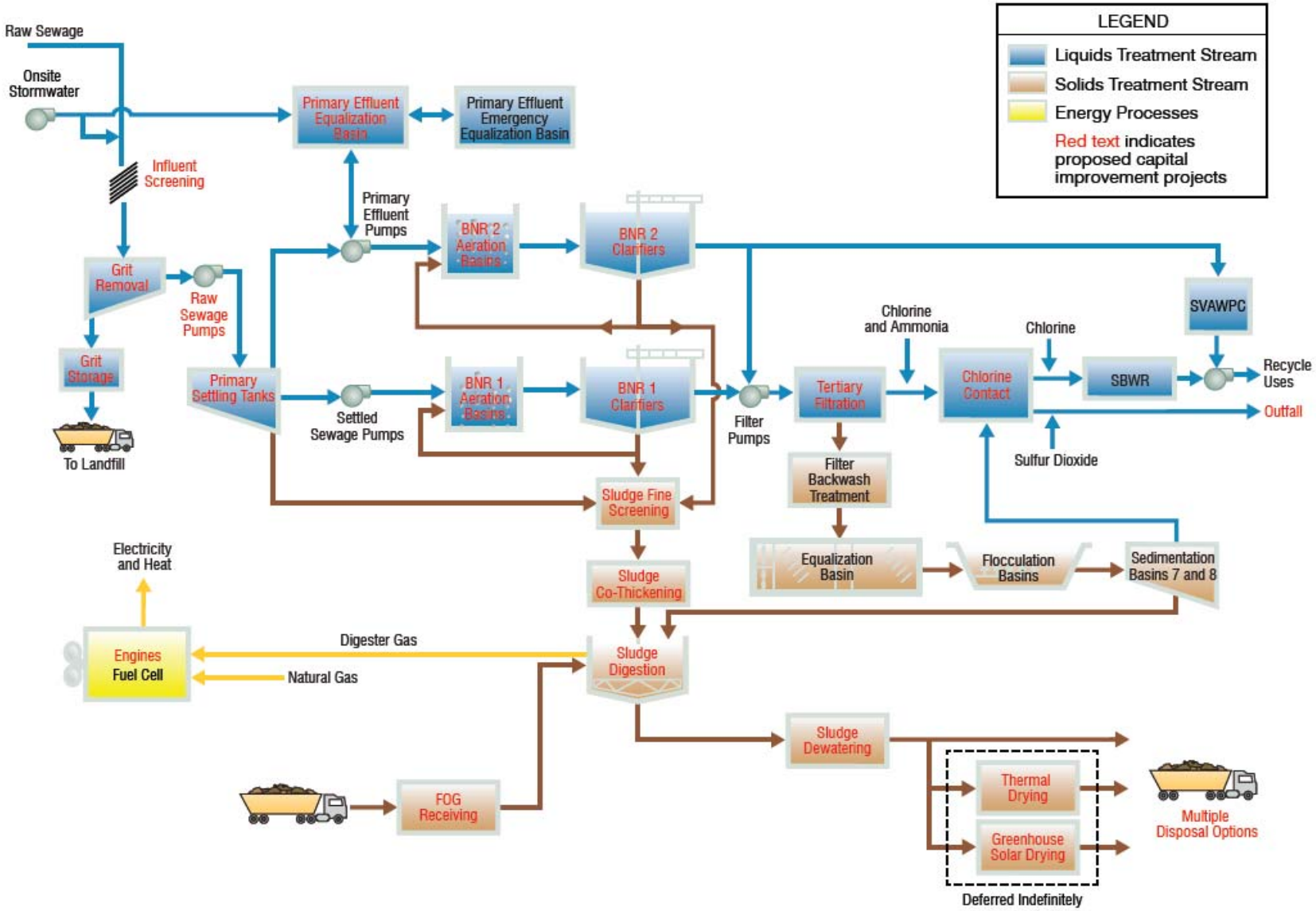


Figure 9 – Proposed Treatment Process Flow Diagram

Active Construction Projects – Aerial Plan

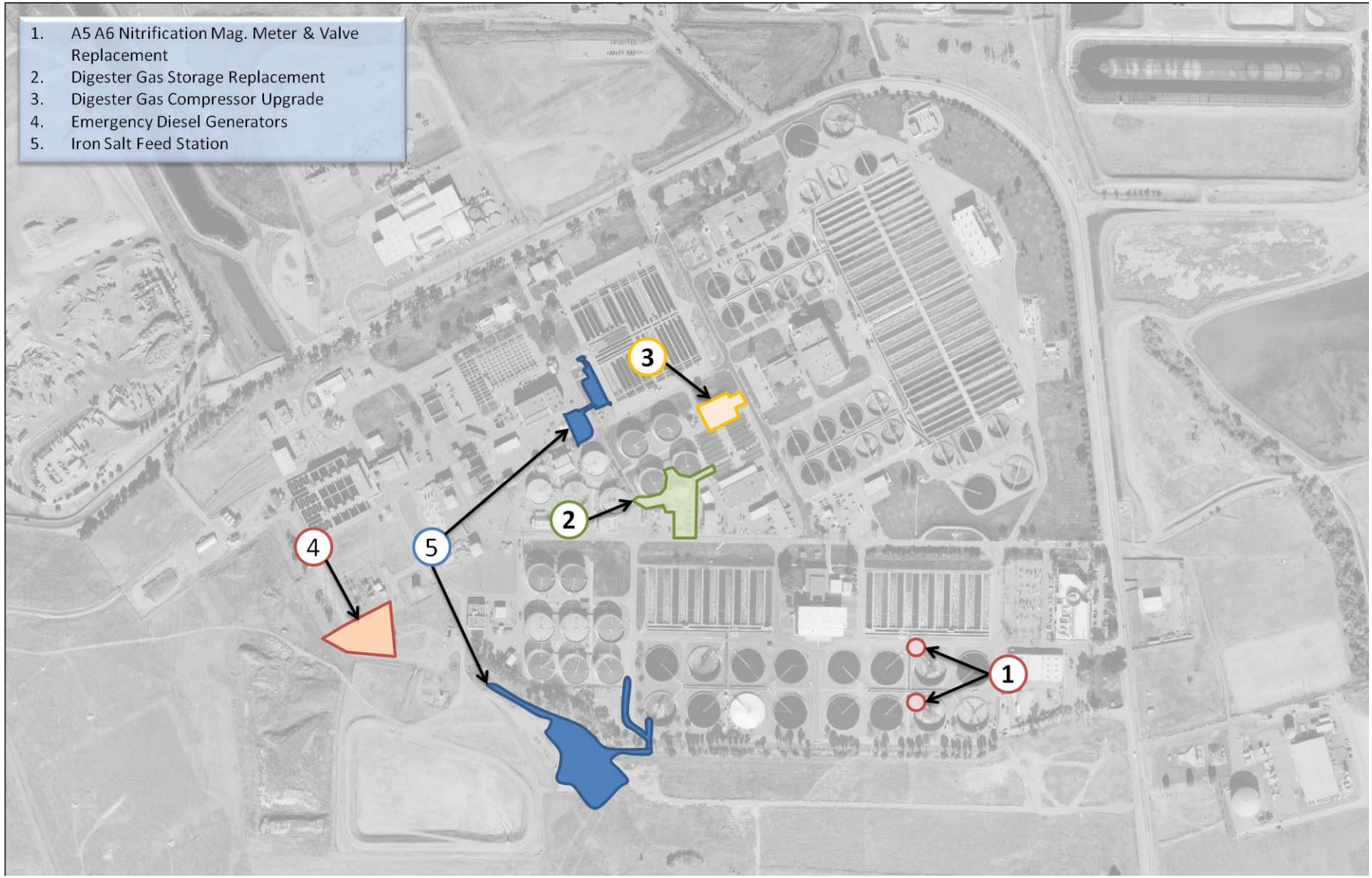


Figure 10 – Active Construction Projects

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 05/24/16
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): Public Works, ESD	**CEQA:** Addendum to Plant Master Plan EIR, File No. PP15-120	**Coordination:** PBCE, DOT	**Dept. Approval:** /s/ Barry Ng /s/ Ashwini Kantak
Council District(s): Citywide			**CMO Approval:** D-DSL

SUBJECT: APPROVAL OF AN ORDINANCE DESIGNATING ADDITIONAL PUBLIC RIGHT-OF-WAY FOR ZANKER ROAD

RECOMMENDATION:

1) Consider the Addendum to the Plant Master Plan EIR; and
2) Approve an ordinance designating approximately 27,000 square feet along the west side of Zanker Road, located over a portion of the San José/Santa Clara Regional Wastewater Facility, as public right-of-way and accept the newly-dedicated right-of-way into the City's street system as part of Zanker Road to allow for construction-related traffic improvements on Zanker Road.

BASIS FOR RECOMMENDATION:

In November 2013, the Plant Master Plan was approved by City Council, authorizing a 30-year, $2.2 Billion construction program that will address aging infrastructure, reduce odors, accommodate projected population growth, and comply with changing regulations that affect the RWF. As part of the Plant Master Plan EIR, the transportation and cumulative impact analyses identified the need to provide construction staging as mitigation to address the traffic-related impacts associated with construction of CIP-related improvements, including preparation of a Construction Traffic Management Plan.

Bids have been received for the 7987 - Construction Enabling Improvements Project (CEP) and the contract is scheduled for award in June 2016. The CEP addresses the EIR mitigation requirement by providing necessary infrastructure to support construction related activity throughout the RWF site. Improvements to be constructed as part of the CEP include the widening of Zanker Road to allow for the installation of a northbound turn lane and a southbound auxiliary/acceleration lane, both of which are required to allow for the safe flow of construction related traffic into and out of a new construction driveway while minimizing the impact to existing traffic on Zanker Road. The CEP also includes improvements on RWF property, including access improvements, security checkpoint, worker parking, contractor trailer and laydown areas, and office space for construction management support staff. The property being designated as additional right-of-way is for the sole purpose of accommodating the CEP, and construction traffic for the RWF over the next ten years.

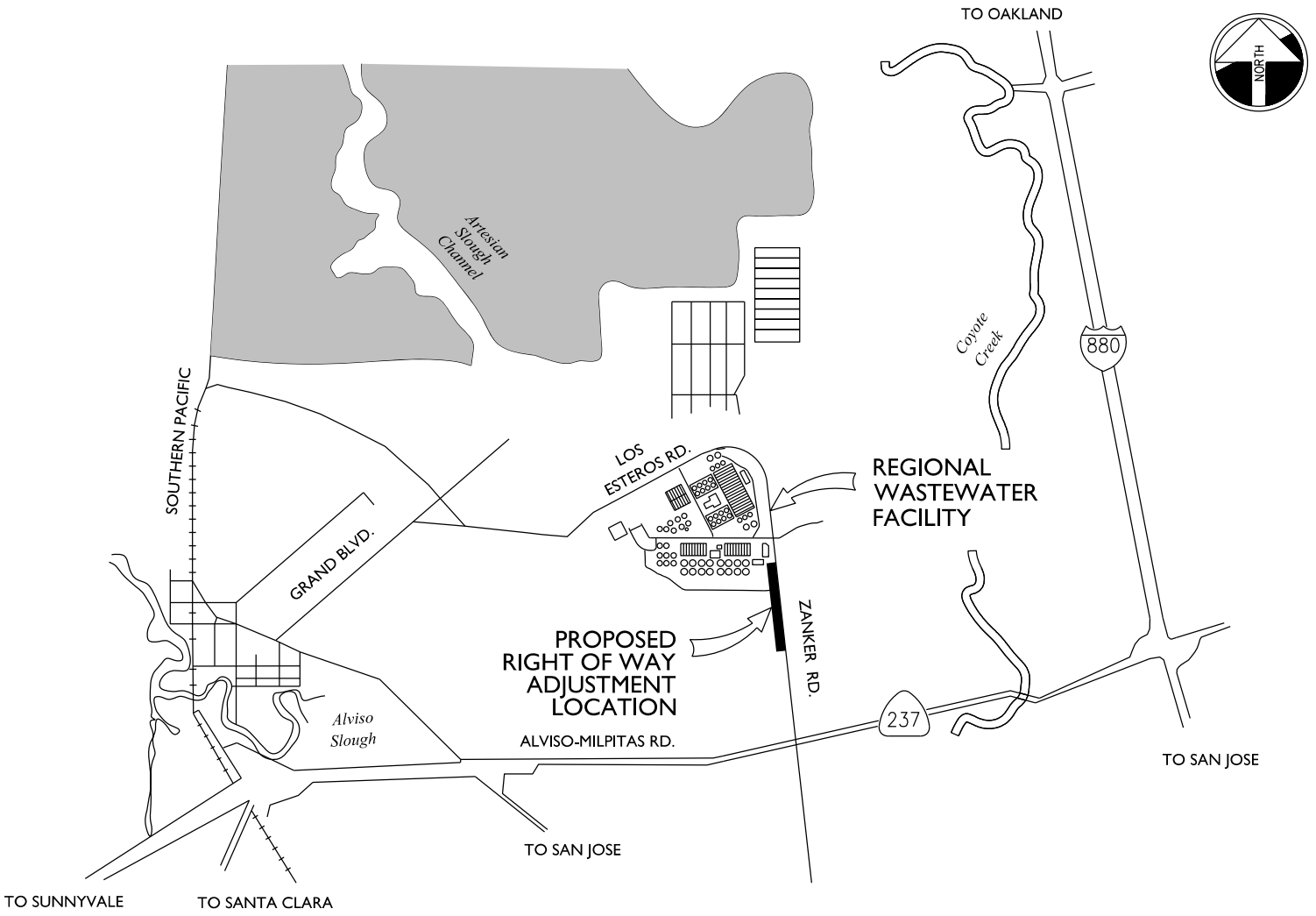
Construction of the access improvements will result in the southbound traffic lane on Zanker Road being shifted to the west onto current RWF property, requiring the dedication of the new right-of-way area. The proposed ordinance will expand the right-of-way in the locations described in the attached plat map and legal description to accommodate future street widening. See attached site map and exhibits. Since the RWF is co-owned by the City of Santa Clara, both the City and the City of Santa Clara must consent to the designation of additional right-of-way. The Santa Clara City Council is expected to adopt a resolution approving the dedication of the additional right-of-way area on May 24, 2016.

COST AND FUNDING SOURCE:

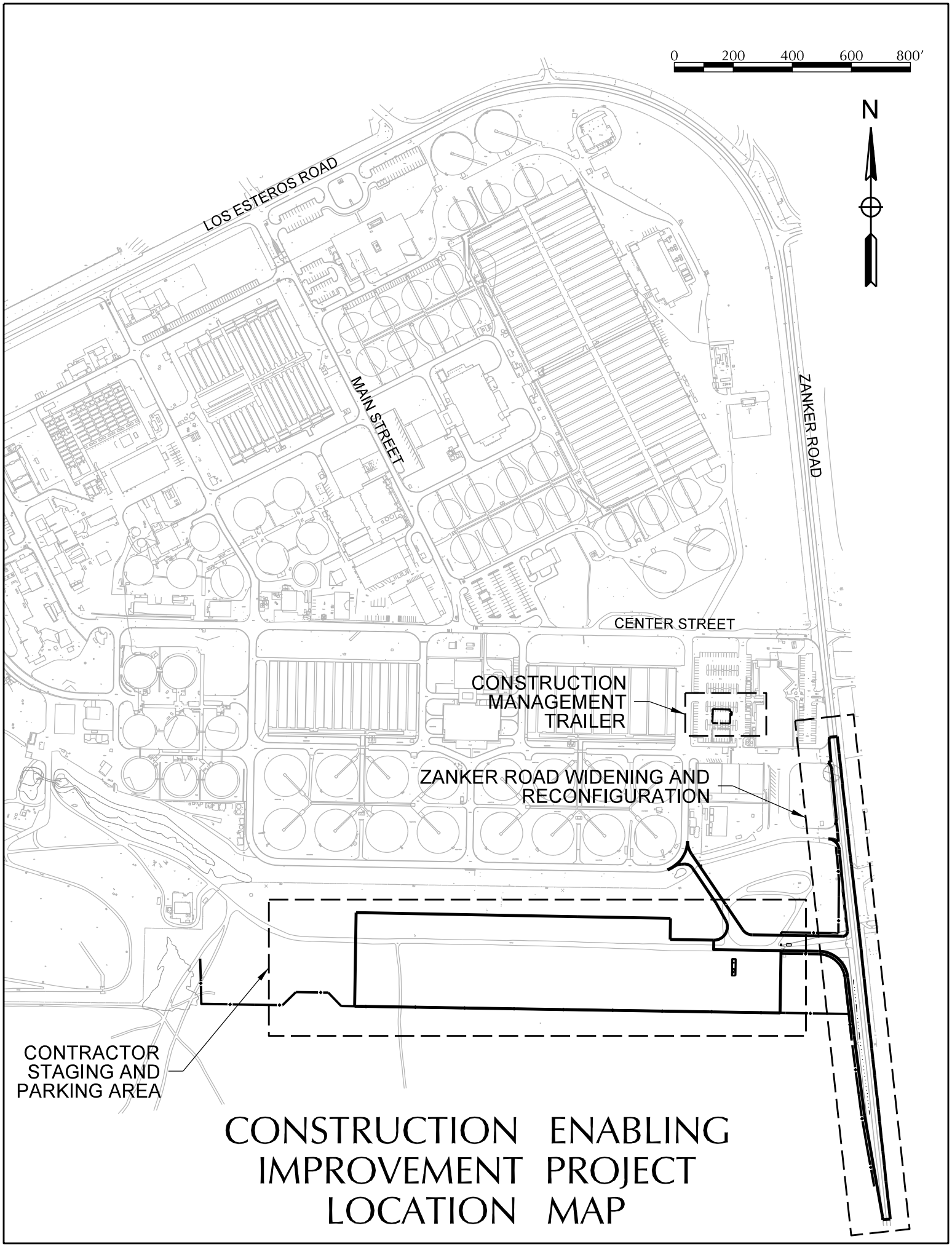
There is no purchase cost to the City in designating the RWF property as public right-of-way.

FOR QUESTIONS CONTACT: John Cannon, Principal Engineer, (408) 535-8340

Attachments – Site Map, Plat/Legal Description, Addendum to PMP EIR



LOCATION MAP



CONSTRUCTION ENABLING IMPROVEMENT PROJECT LOCATION MAP

EXHIBIT A
DESCRIPTION OF REAL PROPERTY

All that certain real property situate in the City of San Jose, County of Santa Clara, State of California, being a portion of the property described in Book 0188, of Official Records, at Page 628, filed January 10th, 1973, and a portion of the lands described as Parcel 1, in Book 9982 of Official Records, at Page 596, filed on August 22nd, 1972, County of Santa Clara, and being more particularly described as follows:

Beginning at a found iron pipe as shown on that certain Record of Survey, filed in Book 658, of Maps, at Page 6, said pipe being the northerly terminus of the line labeled "N 06°15'31" W – 898.90" and the most westerly terminus of the line labeled "N 74°54'17" W – 4619.74" said point being on the westerly right of way of Zanker Road;

Thence along said westerly right of way, South 6°15'31" East 898.90 feet;
Thence continuing along said westerly right of way, South 6°14'00" East 295.67 feet, to the TRUE POINT OF BEGINNING;
Thence leaving said right of way, along the new right of way of this description, along a non-tangent curve to the right from a radial bearing of North 72°20'52" West, with a radius of 48.00 feet, through a central angle of 24°28'53", for an arc length of 20.51 feet;

Thence along a line parallel to and distant 12.00 feet from said right of way, South 6°14'00" East 624.94 feet to a tangent curve to the right;
Thence along said curve with a radius of 11.00 feet, through a central angle of 97°07'24", for an arc length of 18.65 feet;
Thence North 89°06'36" West 2.66 feet;
Thence along a line parallel and 27.00 distant to said right of way, South 6°14'00" East 350.75 feet;
Thence leaving said parallel line, South 7°23'37" East 271.65 feet;
Thence South 10°06'21" East 318.35 feet to a point on said westerly right of way;

Thence along said westerly right of way North 6°14'00" West 1591.94 feet to the TRUE POINT OF BEGINNING.

The Basis of Bearing for this description is "N 06°15'31" W – 898.90" as shown on said Record of Survey, filed in Book 658, of Maps, at Page 6.

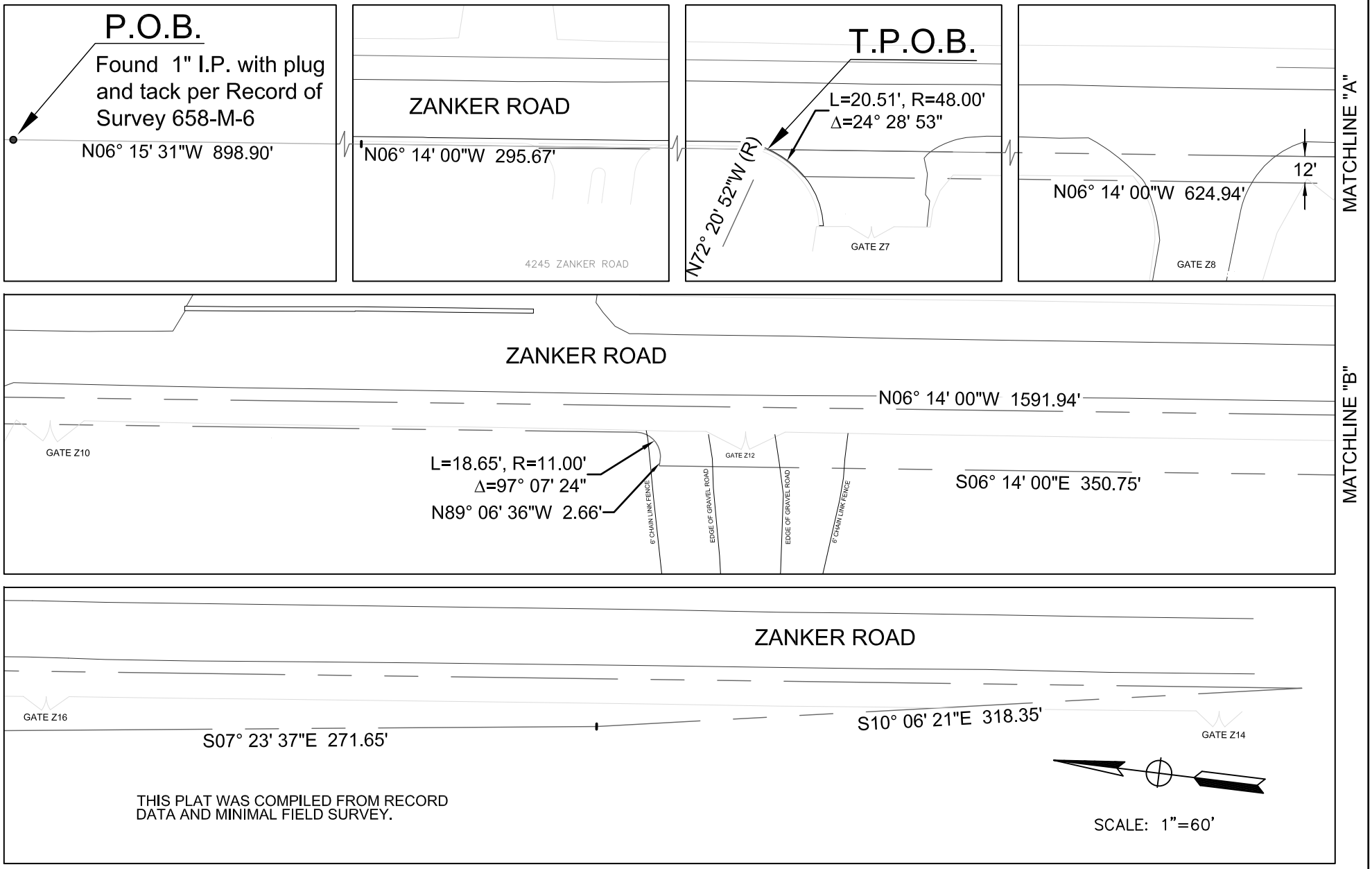
Plat labeled "A-1" to accompany this description and made a part hereof.

Contains approximately 27,201 +/- sq. ft. (0.62 ac).

This description, and plat attached, has been compiled from record data and minimal field survey.

The above description of real property was prepared by me, or under my supervision, in conformance with the requirements of Section 8726 (g, k, l, m) of the Business and Professions Code of the State of California.

Steve G. Choy, PLS 6672



CSJ PROJECT FILE: 16-093
SHEET 3 OF 3

EXHIBIT "A-1"
NEW RIGHT-OF-WAY FOR ZANKER ROAD

PREPARED BY
CITY OF SAN JOSE
SURVEY SECTION
MARCH 15th, 2016

Addendum to the Environmental Impact Report for the San José / Santa Clara Water Pollution Control Plant Master Plan (SCH# 2011052074)

CONSTRUCTION-ENABLING IMPROVEMENTS

File No. PP15-120

Prepared by

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

April 2016

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement
HARRY FREITAS, DIRECTOR

ADDENDUM TO THE SAN JOSÉ/SANTA CLARA WATER POLLUTION CONTROL PLANT MASTER PLAN FINAL ENVIRONMENTAL IMPACT REPORT (SCH# 2011052074)

Pursuant to Section 15164 of the CEQA Guidelines, the City of San Jose has prepared an Addendum to the San José/Santa Clara Water Pollution Control Plan Master Plan Final Environmental Impact Report (PMP FEIR) because minor changes made to the project, as described below, do not raise important new issues about the significant impacts on the environment.

File Number and Project Name: PP15-120 San José/Santa Clara Regional Wastewater Facility Construction-Enabling Improvements

This Project would provide the necessary infrastructure to support construction activity for the Plant Master Plan CIPs across the San José/Santa Clara Regional Wastewater Facility (Facility) site. It would include Facility access improvements, security, worker parking, contractor trailer, and laydown areas, and future construction management space requirements.

Location: The Project area is composed of approximately 13 acres of land located within the existing Facility at 700 Los Esteros Road. The Project area would be located south of the existing Facility operational area, along the south margin of the Facility.

Assessor's Parcel Number: 015-31-024 **Council District:** 4

The environmental impacts of this project were addressed by a Final EIR entitled, "San José/Santa Clara Water Pollution Control Plan Master Plan Final Environmental Impact Report," and findings were adopted by City Council Resolution No. 76858 on November 19, 2013. Specifically, the following impacts were reviewed and found to be adequately considered by the EIR:

- ☒ Land Use
- ☒ Traffic and Circulation
- ☒ Noise and Vibration
- ☒ Air Quality
- ☒ Greenhouse Gas Emissions
- ☒ Biological Resources
- ☒ Geology and Soils
- ☒ Hydrology
- ☒ Water Quality
- ☒ Hazardous Materials
- ☒ Public Services and Facilities
- ☒ Utilities and Service Systems
- ☒ Cultural Resources
- ☒ Aesthetics
- ☒ Energy
- ☒ Construction Period Impacts

ANALYSIS:

The proposed project was analyzed for environmental impacts resulting from providing a construction staging area and was found to be adequately analyzed in all resource areas by the San José/Santa Clara Water Pollution Control Plan Master Plan Final Environmental Impact Report.

No new or more significant environmental impacts beyond those identified in the San José/Santa Clara Water Pollution Control Plan Master Plan Final Environmental Impact Report have been identified, nor have any new mitigation measures or alternatives which are considerably different from those analyzed in the PMP FEIR been identified.

This Addendum will not be circulated for public review, but will be attached to San José/Santa Clara Water Pollution Control Plan Master Plan Final Environmental Impact Report, pursuant to CEQA Guidelines §15164(c).

Harry Freitas, Director
Planning, Building and Code Enforcement

3/28/2016
Date

Meenaxi R. P.
Deputy

Project Manager: Kieulan Pham

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Addendum to the Environmental Impact Report for the San José/Santa Clara Water Pollution Control Plant Master Plan

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CHAPTER 1
Background and Purpose of the Addendum

1.1 Background

The San José/Santa Clara Regional Wastewater Facility (Facility) treats domestic, industrial, and commercial wastewater from the cities of San José, Santa Clara, Campbell, Los Gatos, Monte Sereno, Cupertino, Milpitas, and Saratoga; and unincorporated Santa Clara County. In total, the existing service area covers roughly 300 square miles and contains a service population of approximately 2 million people (1.4 million residents and 600,000 workers).

Originally constructed in 1956, the Facility treats an average of 110 million gallons per day (mgd) of wastewater, with an existing capacity of 167 mgd. The Facility provides a tertiary level of treatment, in accordance with state and local regulations. It produces recycled water for industrial use and toilet flushes, and also discharges treated wastewater to the South San Francisco Bay. The City of San José (City) manages the Facility and the surrounding Facility lands, which together total approximately 2,680 acres. About half of this area consists of current and former lagoons and drying beds used for biosolids management, and lands that have provided a buffer between Facility operations and neighboring land uses.

The City was the lead agency for the San José/Santa Clara Water Pollution Control Plant Master Plan Environmental Impact Report (EIR) (Plant Master Plan EIR; State Clearinghouse No. 2011052074; City of San José File Number PP11-403).[1] The City adopted the EIR for the Plant Master Plan on November 19, 2013. The EIR evaluated potential environmental impacts that could occur as a result of implementing the Plant Master Plan, and provided applicable mitigation to reduce the intensity of potential environmental impacts. The mitigation measures (MM) called for coordinated traffic control planning and construction staging (Project) as a part of part of MM TR-4 (Implement Project Traffic Control Plan) and MM CR-2 (Implement Coordinated Transportation Management Plan [CTMP]), to address the traffic-related impacts associated with the Capital Improvement Projects (CIPs) as part of the Plant Master Plan, including preparation of the CTMP. The CTMP identified the need to provide construction staging, which is the subject of this addendum.

Subsequent to adoption of the EIR, the Project has undergone further development. Specifically, the City has identified the construction staging area location along the southern boundary of the site, as well additional support facilities for constructing staging. Because the City has proposed these changes following the EIR adoption, this addendum to the EIR is required to meet the requirements of the California Environmental Quality Act (CEQA).

[1] The legal name of the facility remains "San José/Santa Clara Water Pollution Control Plant" but beginning in early 2013, the facility's common name was changed to San José/Santa Clara Regional Wastewater Facility.

1.2 Project Location

The Project would be located in the northern area of Santa Clara County, within the City, near the northern margin. The Project area is composed of up to approximately 15 acres of land located within the existing Facility. The Project area would be located south of the existing Facility operational area (refer to **Figure 1-1**). The Project area is surrounded by existing wastewater treatment facilities to the north and west, Zanker Road to the east, and open space to the south.

1.3 Purpose of This Addendum

The CEQA Guidelines (Sections 15162 and 15164) require that a lead agency prepare an addendum to a previously adopted EIR if some changes or additions to the environmental evaluation of a project are necessary, but none of the following occurs:

1. There are no substantial changes in the project which require major revisions to the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. There are no substantial changes with respect to the circumstances under which the project is undertaken which require major revisions to the EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. No new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was adopted, which shows any of the following:

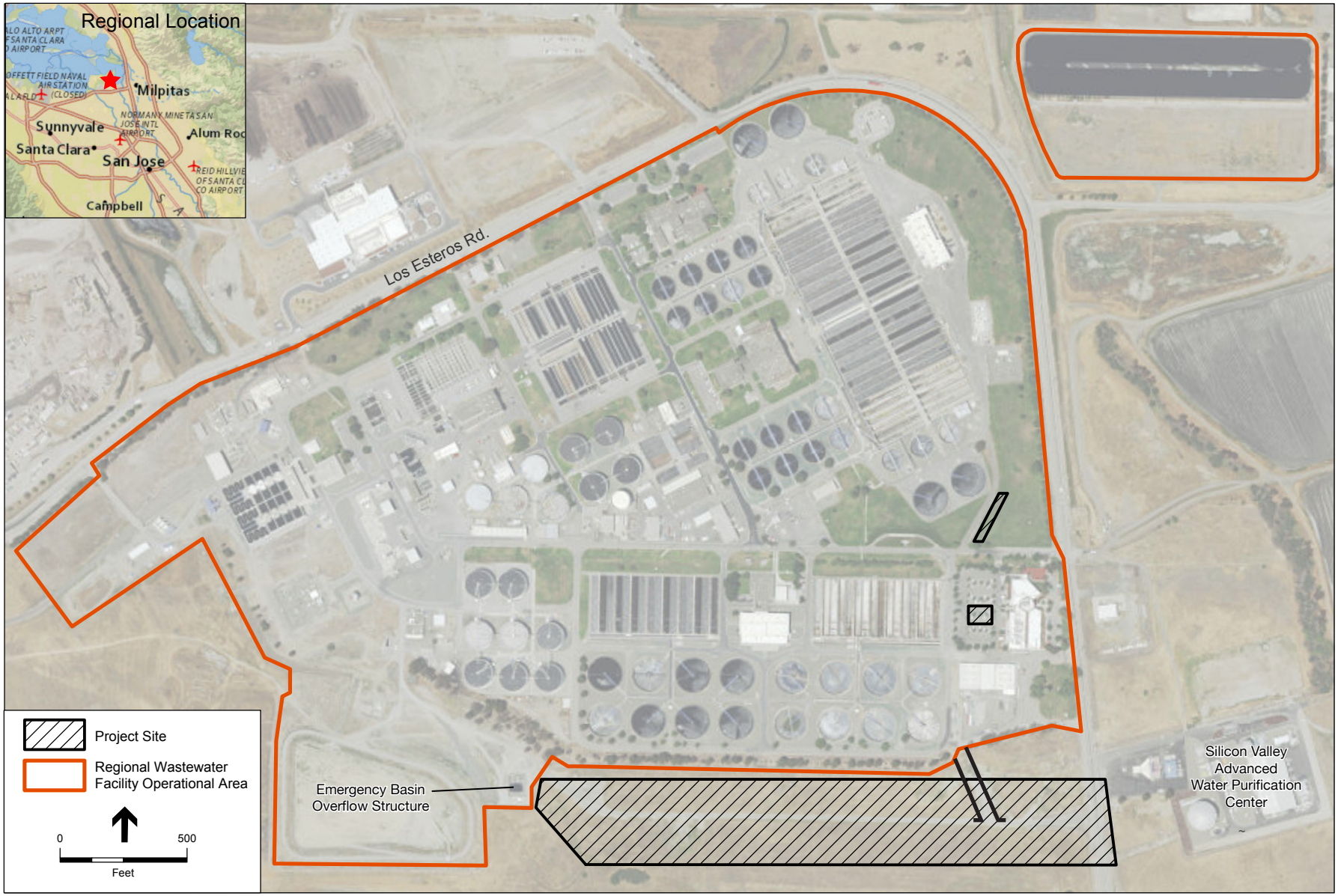
    a. The project will have one or more significant effects not discussed in the EIR;

    b. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative;

    c. The project will result in impacts substantially more adverse than those disclosed in the EIR; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The City has identified the construction staging area location along the southern boundary of the Facility operational area, as well additional support facilities for the constructing staging of the CIPs. This addendum documents that this potential change to the Project does not trigger any of the conditions described above. Specifically, given the Project description and knowledge of the Project site (based on the Project, site-specific environmental review, and environmental review prepared for the City's Plant Master Plan EIR), the City has concluded that the Project would not result in any new impacts not previously disclosed in the circulated EIR; nor would it result in a substantial increase in the magnitude of any significant environmental impact previously identified. For these reasons, an addendum to the approved EIR would be sufficient to meet the requirements of CEQA. According to the CEQA Guidelines Section 15164, an addendum need not be circulated for public review but can be included in or attached to the final adopted EIR. The City must consider the addendum with the adopted EIR prior to making a decision on the Project.



SOURCE: ESRI, 2013

San José/Santa Clara Regional Wastewater Facility Construction-Enabling Improvements Addendum . 131002.13

Figure 1-1

Project Location and Regional Wastewater Facility Operational Area

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CHAPTER 2
Project Description

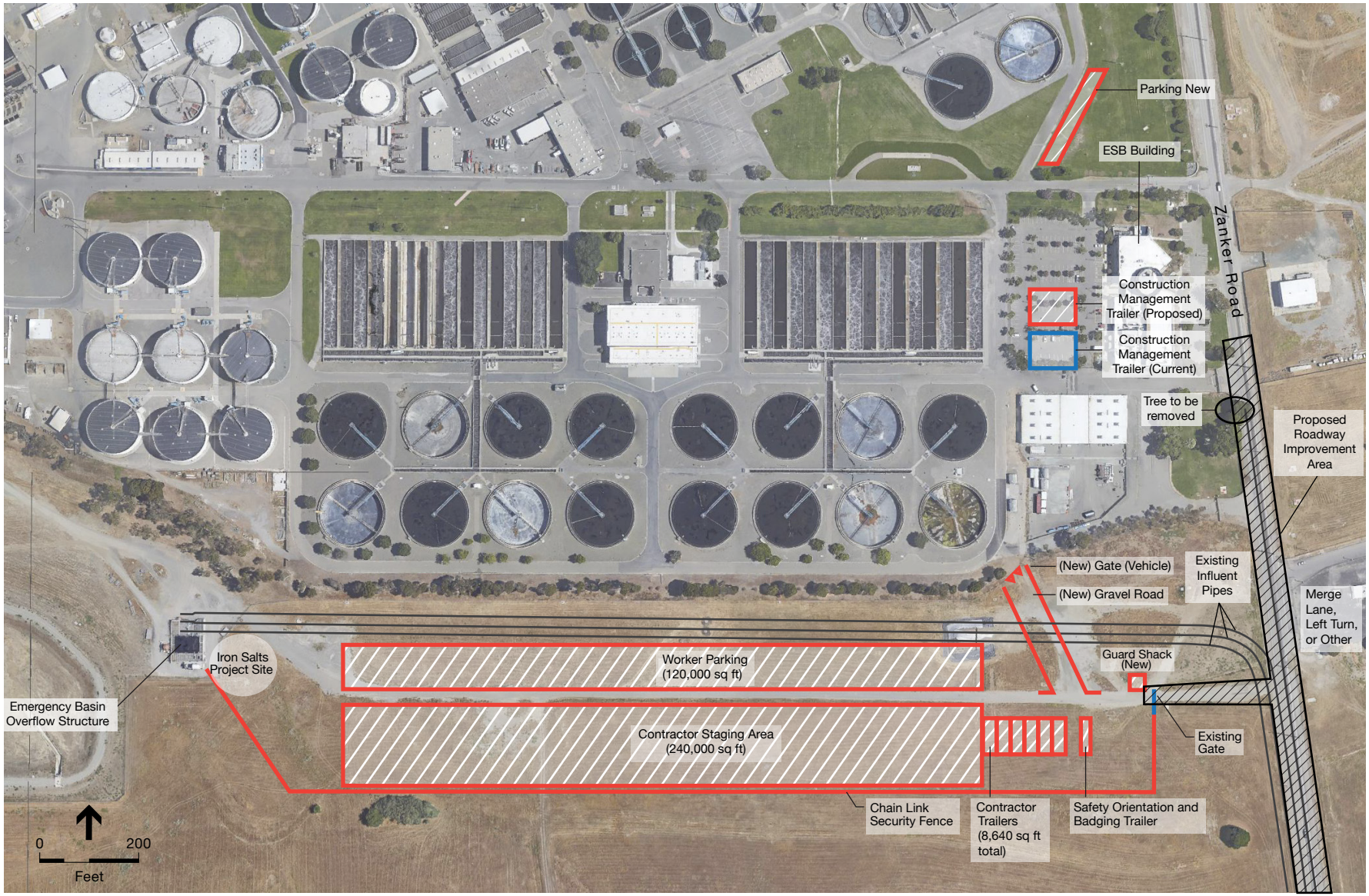
2.1 Summary of Previously Approved Project

The City has prepared a Master Plan for the Facility that addresses various CIPs needed to address aging infrastructure, reduce odors, accommodate projected population growth in the Facility's service area, and comply with changing regulations that affect the Facility. The Master Plan also includes a comprehensive land use plan for the Facility lands surrounding the Facility operational area. The Master Plan effort focuses on future planning efforts for the Facility and surrounding areas. The master planning effort identified both near-term and long-term (to year 2040) Facility improvements and land uses, which have been evaluated in the Plant Master Plan EIR. As part of the Plant Master Plan EIR, the transportation and cumulative analyses identified mitigation to address the traffic-related impacts associated with the CIPs, including preparation of the CTMP. The CTMP identified the need to provide coordinated traffic control planning and construction staging (Project). Specifically, MM TR-4 and MM C-TR included the following measures to provide:

- Sufficient staging areas for trucks accessing construction zones to minimize disruption of access to adjacent public rights-of-way.
- Storage of all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.
- Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites.

2.2 Proposed Changes to the Approved Project

Following adoption of the EIR, the City proceeded to move forward with the detailed design phase of the Project, including determining the location for the contractor staging and worker parking, as well as support facilities. This Project would provide the necessary infrastructure to support construction activity for the Master Plan CIPs across the Facility site. It would include Facility access improvements, security, worker parking, contractor trailer and laydown areas, and future construction management space requirements, as further described below and shown on **Figure 2-1**. All infrastructure components would be placed in areas that avoid sensitive habitats, including wetland features and potential burrowing owl burrows.



SOURCE: City of San José, 2015

San José/Santa Clara Regional Wastewater Facility Construction-Enabling Improvements Addendum . 131002.13

Figure 2-1
Proposed Project Components

2.2.1 Proposed Project Components

Contractor Staging and Worker Parking

The Project would require a total of approximately 700 construction-related truck trips and 500 worker vehicle trips spread over a six month period. The proposed contractor staging area is identified on Figure 2-1 and would be used for temporary storage of construction materials, for temporary equipment storage, and for temporary stockpiling of soil (further described below). The contractor staging area would encompass an area of approximately 240,000 square feet.

The working parking area would be located immediately north of the contractor staging area (as shown on Figure 2-1), and would be utilized for construction contractor employees parking of their vehicles during construction. This area could also be used for temporary parking of delivery vehicles during the construction period. The worker parking would encompass an area of approximately 120,000 square feet.

The staging and worker parking areas would be finished with a ground surface comprised of geo-grid with native material or geotextile fabric beneath 12 inches of aggregate base rock.

An additional approximately 1,600 square foot parking area to accommodate 20 parking spaces would be located near the northwest corner of Zanker Road and McCarthy Lane within the Facility operational area and east of the existing clarifiers (refer to Figure 2-1). The new parking area would be paved.

Temporary Structures

Numerous temporary construction support structures would be included within the Project site. All temporary structures would be placed on gravel and be connected to existing utilities (further described below).

A new approximately 200 square-foot guard shack would be located just west of the existing gate near Zanker Road. A new Safety Orientation and Badging trailer would be located just south of the new guard shack, comprised of approximately 720 square feet and a holding tank for greywater.

Contractor trailers have also been identified to serve as temporary/portable trailers for construction management and administration during construction. These facilities would include six double-wide trailers approximately 1,440 square feet each, located adjacent to the east side of the proposed contractor staging area. A new Construction Management (CM) trailer would also be included for the Project, occupying approximately 8,000 square feet and located adjacent to the current CM trailer in the parking lot west of the Environmental Services Building (ESB) (refer to Figure 2-1). The current CM trailer (located west of the existing ESB) would remain in place and be repurposed for additional staff.

The Project would also include a chain link fence, approximately six feet high and 2,000 feet long that would extend along the southern boundary the Project site from the gate/entrance off of Zanker Road to the existing fence south of the Emergency Basin Overflow Structure (EBOS). The fence would be placed to avoid any sensitive wetlands features south of the EBOS.

Pipeline Connections

Connections for water to the temporary contractor trailers described above would be provided via existing pipe under Zanker Road. The pipe would be constructed in a trench that would extend perpendicular from Zanker Road to the proposed trailers, using open-cut and cover construction techniques. Most pipes would range in size from two inches to eight inches and the trenches would be a maximum of approximately two feet wide by three feet deep. The new pipe would also extend from existing pipes in Zanker Road to the guard shack and Safety Orientation and Badging trailer. The new CM trailer would be served by existing utilities within the Facility.

Electrical Facilities

Overhead power would be provided to the site by PG&E from existing connections along Zanker Road. Initial power would then be distributed from a power pole to the guard shack, Safety Orientation and Badging trailer, and the contractor trailers via trenches. The trenches for power lines would be the same as those described above for the water line connections. From the metering point the new power lines would either be trenched or strung overhead from power poles. New power poles would be located along the boundary of the proposed worker parking area to provide for security lighting at the site.

The lines for power to the new CM trailer may extend from either Zanker Road or the existing power source north of ESB. The lines for power to the new CM trailer may be installed via trenches or overhead.

The Project would also include an electrical Service and Distribution Panel, as well as four transformers to support the new power connections. The transformers would range in size from 75 to 150 kilovolts-amps (kVA) and would be attached to the new power poles.

Roadway Improvements

The Project would include expanding the entrance between the proposed guard shack and Zanker Road (i.e., Construction Driveway) to include two inbound and one outbound lane, both approximately 15 feet wide. Improvements would also occur along Zanker Road to alleviate the potential for queued vehicles blocking through traffic along Zanker Road and to improve safety, including construction of a 12-foot wide northbound left-turn lane on Zanker Road for traffic entering the Construction Driveway. Roadway improvements could also include increasing the length of the proposed left-turn lane along Zanker Road from approximately 90 feet to 250 feet, adding an additional 15 feet inbound lane on the Construction Driveway between Zanker Road and the security checkpoint, and adding a 12 foot auxiliary lane on southbound Zanker Road to allow vehicles exiting the Construction Driveway to accelerate prior to merging into the traffic stream of through traffic along Zanker Road. Refer to **Figure 2-2** for the proposed roadway improvements. The roadway improvements would require the removal of one tree along the west side of Zanker Road between the existing Environmental Services Building and other support facilities building (refer to Figure 2-1).

SOURCE: Fehr Peers, 2015

San José/Santa Clara Regional Wastewater Facility Construction-Enabling Improvements Addendum . 131002.13

Figure 2-2
Proposed Roadway Improvements

Excavation, Grading, Paving, and Stockpiling

The Project would include grading and excavation activities, as well as stockpiling of dirt. The Project would initially use approximately 2.77 acres of the worker parking area to stockpile approximately 20,000 tons of aggregate base material for future project use. The entire area for worker parking and contractor staging would be graded to a maximum depth of one foot. The maximum depth of excavation for the utility poles would be five feet. As noted above, the water and power line trenches would extend to a maximum depth of two feet. Grading and paving would also be needed along Zanker Road to accommodate the roadway improvements described above.

2.2.2 Construction Characteristics

Construction of the proposed Project facilities is expected to occur over a total period of approximately six months with a tentative start date of July 2016 and a tentative completion date of January 2017. Proposed typical construction hours for the Project would be Monday through Friday, 7:00 am to 5:00 pm. However, the selected contractor may be required to work on Saturday and Sunday, or during extended hours to support a critical Project development timeframe. Construction activities would most likely be sequenced to include installation of fencing, then grading and groundcover for the worker parking and staging, followed by installation of utilities, and then the installation of temporary structures/trailers. However, some of these activities may overlap. The grading and groundcover activities would take approximately three weeks. Construction access would be through the existing entrance/gate off of Zanker Road, connecting to State Route (SR) 237. Trucks would then access the Facility operational area if necessary via the existing roadway adjacent to EBOS, or the gravel road adjacent to the northeast portion of the Project site.

Equipment required during Project construction would include the following: excavator/blade, large compactor, water tanker trucks, trailers to transport power poles, electrical line trucks, belly dump transfer trucks (for hauling material), and other large equipment typically used for minor to moderate earth-moving and site preparation. The stockpile materials would be transported in trucks for up to 1,000 dump truck trips over five months. Project construction would also include an average of five truck deliveries to the site daily. Truck trips would also include the pumping truck for the greywater holding tank, which would be emptied twice a week. Approximately five workers per day would commute to the site on average.

CHAPTER 3
Evaluation of Environmental Impacts

This chapter describes any changes that have occurred in the existing environmental conditions within and near the Project area, as well as environmental impacts associated with the Project, based on the current Project footprint.

As explained below, the following environmental issues have been adequately assessed in the adopted EIR. The existing analysis provided in the EIR adequately addresses environmental conditions and potential impacts relevant to **Agricultural and Forest Resources, Aesthetics, Geology and Soils, Land Use and Land Use Planning, Mineral Resources, Noise, Population and Housing, Public Services, and Recreation,** in that:

1) The nature, scale, and timing of the Project has not changed; and

2) There has not been a substantial change in the circumstances involving these issues on the proposed project site, nor in the local environment surrounding the site.

Therefore, no additional analysis of these topics is required. Other topics are considered in detail below. The discussion below describes the environmental impacts of the modified Project as it compares with the impacts of the approved project as addressed in the San José / Santa Clara Regional Wastewater Facility EIR (certified November 19, 2013). This Addendum only addresses those resource areas that would be potentially affected by the proposed changes to the approved project. As shown below, no new significant environmental impacts were identified.

3.1 Air Quality

3.1.1 Setting

The air quality setting relevant to the Project site, including applicable regulations and air quality conditions, has not appreciably changed since the certification of the EIR. The Bay Area Air Quality Management District (BAAQMD) maintains regional authority for air quality management in the Project area and vicinity. The BAAQMD's 2010 Clean Air Plan (CAP) serves as a multi-pollutant air quality plan to protect public health and climate in the Bay Area, and includes emissions control measures for stationary sources, mobile sources and transportation related sources. The CAP also includes control measure categories applicable to land use and local impacts, and energy and climate.

Sensitive receptors, as identified and discussed in the adopted EIR, have not changed and remain applicable to the proposed Project. The closest sensitive receptors to the Facility operation area are the residences located in the Alviso community approximately one mile (5,600 feet) west, while Oak Crest Estates is located approximately 0.9 mile (5,000 feet) southwest. George Mayne Elementary School, Curtner Elementary, and Anthony Spangler Elementary School, are located approximately 1.25 mile (6,500 feet) to the southwest, 1.8 miles (9,500 feet) to the northeast and 1.5 miles (7,920 feet) to the east of the Facility operation area, respectively.

3.1.2 Findings of Previously Certified EIR

The certified EIR identified significant and unavoidable impacts related to implementation of the Master Plan for the potential to conflict with the applicable air quality plan and for the potential to violate air quality standards during construction as project-related construction emissions even with mitigation measures incorporated were found to exceed the identified significance thresholds. The EIR identified less than significant impacts related to implementation of the Master Plan for the potential to violate air quality standards during operation, exposure of sensitive receptors to substantial pollutant concentrations, and objectionable odors.

3.1.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**						
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	☐	1-7
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒	☐	1-7
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐	☐	1,2,3,4,5

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒	☐	1,2,3
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒	☐	1,2,3

Air Quality Plan

The Project site is located within the San Francisco Bay Area Air Basin within the jurisdiction of the BAAQMD. The applicable air quality plan is the 2010 CAP that has been prepared to address ozone nonattainment issues in the Bay Area. For determining consistency of projects with the air quality plan, the BAAQMD recommends that agencies analyze the project with respect to the following questions: (1) does the project support the primary goals of the air quality plan; (2) does the project include applicable control measures from the air quality plan; and (3) does the project not disrupt or hinder implementation of any 2010 CAP control measures? If all the questions are concluded in the affirmative, BAAQMD considers the project to be consistent with the 2010 CAP.[2,3]

The primary goals of the 2010 CAP are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, and reduce greenhouse gas emissions and protect the climate. The BAAQMD-recommended measure for determining if a project supports the goals in the current CAP is consistency with BAAQMD thresholds of significance. If a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation measures, the project would be consistent with the goals of the 2010 CAP. As described in the adopted EIR, construction activities associated with the Master Plan would result in significant and unavoidable impacts related to the potential to conflict with the 2010 CAP. However, as indicated in the following discussion below, the construction and operational emissions that would be associated with the Project would not exceed the applicable significance thresholds; therefore, the Project would not conflict or obstructing implementation of the applicable air quality plan. In addition, the Project would be required to implement the BAAQMD recommended basic construction mitigation measures (listed below under Air Quality Standards) as part of the City's project conditions of approval.

Air Quality Standards

Construction Emissions

The Bay Area Air Basin experiences occasional violations of ozone and particulate matter (PM_{10} and $PM_{2.5}$) standards. Thus, during the construction phase of any given project, basin wide violations can occur. Construction activities associated with the Project would involve use of equipment and materials that would emit exhaust emissions containing ozone precursors (reactive organic gases [ROG] and nitrogen oxides [NOx]). Off-site vehicle activity associated with material transport and construction worker commutes would also generate emissions. Emission levels for these activities would vary

[2] Bay Area Air Quality Management District (BAAQMD), 2010. Bay Area 2010 Clean Air Plan, adopted September 15, 2010.

[3] Bay Area Air Quality Management District (BAAQMD), 2012. CEQA Air Quality Guidelines, revised May 2012.

depending on the number and types of equipment used, duration of use, operation schedules, and the number of construction workers.

Construction associated with the proposed Project would primarily involve earthwork activities to create staging areas, construction of temporary structures, providing utility connections to these structures, and access roadway improvements. Though construction emission estimates included in the certified EIR account for emissions associated with site preparation and earthwork activities, including those associated with the establishment of Master Plan CIP staging areas, this analysis conservatively assumes that the emissions associated with the Project would result in all new emissions not previously analyzed in the EIR.

Criteria pollutant emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from construction equipment would incrementally add to the regional atmospheric loading of these pollutants during the six-month construction period from May 2016 to November 2016. Air pollutant emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that would be generated by off-road construction equipment (e.g., excavators, graders, loaders) and on road vehicle trips (material delivery truck trips and worker commute trips) were estimated using the same methodology as that used in the EIR. The California Air Resources Board (CARB)'s Offroad emissions inventory database model was used to develop specific construction equipment ROG, NO_X, and PM_{10} emission factors for the San Francisco air basin for the year 2016. The Offroad database provides data for only NO_X, PM, and total hydrocarbons, so factors identified by CARB were applied to convert total hydrocarbon emissions rates to ROG emissions rates.[4] PM_{10} and $PM_{2.5}$ construction equipment exhaust emission factors were calculated by multiplying the PM emission factors by the mass fractions of PM_{10} and $PM_{2.5}$ emissions in diesel exhaust, as provided by South Coast Air Quality Management District's (SCAQMD's) *Final–Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds*.[5] Construction equipment emissions were calculated by multiplying the Offroad emission factors for different equipment with the number of each type of construction equipment proposed to be used and by the amount of use hours for each type of equipment.

Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from motor vehicles were calculated by multiplying the estimated vehicle-miles-traveled (VMT) for each type of vehicle to be used during the construction period by emission factors that were compiled by running CARB's EMFAC2014 Model. EMFAC2014 emission factors were obtained for average model years and average speed in Santa Clara County for the construction year 2016. The Project is expected to generate an average of five worker commute trips per day along with five material truck deliveries per day. In addition, two trips per week (i.e., four one-way trips) would be generated by the pumping truck used to empty the grey water holding tank. The exact end points for the daily trips are not known at this time, so the on-road emission estimates were developed under the assumption that each worker trip would be 25 miles round trip, and each haul truck trip would be 40 miles round trip. Daily emissions by vehicle class (i.e., light-duty gasoline-fueled trucks and heavy-duty diesel-fueled trucks) were estimated using the EMFAC2014 emission factors multiplied by the estimated Project-related vehicle trips and the estimated daily mileage traveled by the vehicles.

[4] California Air Resources Board (CARB), 2000. Public Meeting to Consider Approval of Revisions to the State's On-road Motor Vehicle Emissions Inventory, Technical Support Document, Section 4.13 – Factors for Converting THC Emission rates to TOG/ROG, May 2000.

[5] South Coast Air Quality Management District, 2006. Final – Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds, October 2006.

As described in Section 4.5.4.1 of the Plant Master Plan EIR, the BAAQMD's adoption of its significance thresholds in the BAAQMD Guidelines was rescinded by an Alameda County Superior Court decision that found that proper CEQA review of the thresholds did not occur. However, in August 2013, the California Court of Appeal reversed the Alameda County Superior Court judgment, and then the California Supreme Court granted review of the case; however, only to address whether or not CEQA requires an analysis of how existing environmental conditions will affect future residents or users of a proposed project. On December 17, 2015, the Supreme Court concluded that agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents, reversing the Court of Appeal's judgment on that issue. As of January 11, 2016, the BAAQMD has not yet released a formal response to the Supreme Court's Decision, and has not reversed its interim position that it no longer recommends that its thresholds identified in its *Air Quality Guidelines* (2011) be used to assess a project's significant air quality and GHG impacts. However, the Supreme Court Decision does not appear to be directly applicable to the review of the Master Plan facilities, including the Project, which would not include new future sensitive receptors. Therefore, consistent with the Plant Master Plan EIR, the analysis presented in this addendum continues to use the significance thresholds provided in the BAAQMD's *CEQA Air Quality Guidelines* updated in 2012.

Construction emissions estimated for the Project are summarized below in **Table 3.1-1**. Additional assumptions used in these calculations, such as types and numbers of construction equipment used and their activity levels, are included in **Appendix A**. As shown in Table 3-1, estimated emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ associated with the proposed Project would not exceed the applicable significance thresholds.

TABLE 3.1-1
AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS[a]

Source	ROG	NOx	Exhaust PM_{10}[b]	Exhaust $PM_{2.5}$[b]
Average Daily Emissions (pounds/day)				
Offroad Construction Equipment	2.6	26.6	1.3	1.2
Onroad Vehicle Trips	1.0	10.0	0.5	0.5
Total Project Emissions	3.6	36.6	1.8	1.7
BAAQMD Construction Threshold	*54*	*54*	*82*	*54*
Significant Impact?	No	No	No	No
Maximum Annual Emissions (tons/year)[c]				
Pollutant Emissions	0.21	2.19	0.11	0.10

NOTES:
[a] Emissions were estimated using CARB EMFAC and Offroad emission factors along with construction equipment and vehicle data provided by the City. Additional information is included in Appendix A.
[b] BAAQMD's proposed construction-related significance thresholds for PM10 and PM2.5 apply to exhaust emissions only and not to fugitive dust.
[c] There are no BAAQMD's proposed construction-related significance thresholds for annual emissions.

As described above, the Project would be constructed over a six-month period in 2016. Table 4.5-6 in the Plant Master Plan EIR (Draft EIR page 4.5-25) included the average daily construction emissions estimates for WPCP improvements to be constructed in calendar year 2016. Based on the list of improvements to be constructed in 2016 under the Plant Master Plan EIR, it was determined that average daily construction

emissions estimates of ROG, PM_{10}, and $PM_{2.5}$ would not exceed the applicable significance thresholds; however, exhaust emissions of NO_X would exceed the significance threshold, a significant impact.

Since the approval of the Plant Master Plan, the project improvements to be implemented during 2016 have changed from what was included in Table 4.5-6 in the Plant Master Plan EIR. **Table 3.1-2** below includes the updated project improvements to be constructed in calendar year 2016, and the total average daily construction emissions for those projects that include calculated construction emissions.

As shown in Table 3-2, emissions estimates of ROG, PM_{10}, and $PM_{2.5}$ for the updated projects to be constructed during 2016 would not exceed the applicable significance thresholds; however, exhaust emissions of NO_X would exceed the significance threshold, a significant impact. (**IMPACT AQ-1**)

Pursuant to the City's project conditions of approval (Resolution 76858), the following mitigation measures (i.e., BAAQMD Basic Construction Measures and BAAQMD Additional Construction Measures), as included in the Plant Master Plan EIR, would be implemented to reduce project-level construction NO_X impacts.

Mitigation Measure

Mitigation Measure AQ-1: BAAQMD Basic Construction Measures

The BAAQMD recommends that projects implement a set of Basic Construction Mitigation Measures as best management practices regardless of the significance determination for emissions. Implementation of these BAAQMD recommended measures are required by the City as Conditions of Approval.

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. 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.
6. 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.
7. 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.
8. 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. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

TABLE 3.1-2
TOTAL AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS FOR 2016

Area	Project Title	Project Summary	Estimated Construction Schedule	Emissions (daily average pounds)			
				ROG	NO_x	PM_{10}	$PM_{2.5}$
Energy and Automation	Cogeneration Facility	Involves constructing a new cogeneration building to provide electric power to the Facility as well as providing digester heating and other heating needs. Project includes four engine generators; control panel; heat recovery, cooling, and starting air systems; emission control equipment; electrical switchgear; and other accessory items.	2016 - 2019	5.7	19	1.2	1.1
Facilities	Construction Enabling Improvements	Provides necessary infrastructure to support increased construction activity at the Facility including access improvements, security, worker parking, contractor trailer space, and laydown areas, along with future construction management space requirements.	2016	3.6	36.6	1.8	1.7
Headworks	Headworks Critical Improvements	Includes replacing existing climber screens and slide gate shaft as well as updating controls electronics.	2016 - 2017	N/A	N/A	N/A	N/A
Primary Treatment	Iron Salt Feed Station	Includes installation of iron salt feed station (chemical storage tank with containment, associated pumps, piping) to deliver chemical to incoming wastewater, improving plant performance (also provides odor control).	2016 - 2017	3.8	21.2	1.3	1.2
Secondary Treatment	Blower Improvements	Involves replacing blower motors, switchgear, control panels and installing variable frequency drives to provide process air fed into biological nutrient removal aeration tanks.	2017 - 2019	N/A	N/A	N/A	N/A
Solids Processing	Digester and Thickener Facilities Upgrade	Includes modifications to four of the existing anaerobic digesters, replacement of the digester gas pipeline and upgrades to six dissolved air flotation thickeners ("DAFTs") at the Facility, and a new waste biogas flare system.	2016 - 2019	3.83	35.23	1.76	1.76
Site Facility Improvements	Fiber Optic Connection	Entails extending an existing fiber optic conduit	2016	N/A	N/A	N/A	N/A
Site Facility Improvements	Plant Instrument Air System Upgrade	Includes construction of a new instrument air compressor building.	2016	1.0	8.6	0.5	0.5
			Total	**17.93**	**120.63**	**6.56**	**6.26**
			BAAQMD Significance Threshold	54	54	82	54
			Significant Impact?	No	Yes	No	No

SOURCES: San José/Santa Clara Regional Wastewater Facility Cogeneration Project Initial Study. File No. PP14-005, April 2014; San José/Santa Clara Regional Wastewater Facility Iron Salt Feed Station Initial Study. File No. PP14-098, May 2015; San José/Santa Clara Regional Wastewater Facility Digester and Thickener Facilities Upgrade Initial Study. File No. PP15-055, August 2015; San José/Santa Clara Regional Wastewater Facility Plant Instrument Air System Upgrade Project Initial Study. File No. PP15-114, January 2016. N/A – data not available

Mitigation Measure

Mitigation Measure AQ-2: BAAQMD Additional Construction Measures

The BAAQMD Additional Construction Mitigation Measures are specified by the Bay Area Air Quality Management District. They contain a performance standard (#10, see below) that requires a plan (Construction Emissions Minimization Plan) which demonstrates that project construction vehicles and equipment achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent air resources board (ARB) fleet average (i.e., a reduction from the year 2013 when the Plant Master Plan EIR was certified). The measure does not specify the method for achieving this reduction, and thus allowing for some flexibility in procedure. Two options that would achieve this objective include: Option 1) use of off-road equipment that meets or exceeds U.S. EPA Tier 4 off-road emissions standards; or Option 2) use of off-road equipment that have engines that meet or exceed U.S. EPA Tier 3 off-road emissions standards AND have installed a Level 1 diesel particulate filter (in addition to the other items included in the measure).

1. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

2. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

3. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.

4. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

5. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

6. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

7. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

8. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

9. Minimizing the idling time of diesel powered construction equipment to two minutes.

10. The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.

11. Use low Volatile Organic Compound (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).

12. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.

13. Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

BAAQMD's applicable measures would be implemented to ensure that impacts from the proposed Project would not result in any new or more significant impacts than those identified in the previously approved Plant Master Plan EIR, and therefore, impacts would be less than significant.

Dust. In addition to exhaust emissions, emissions of fugitive dust would also be generated by Project-related construction activities associated with grading and earth disturbance, workers and vehicles traveling on paved and unpaved roads, and etc. With regard to fugitive dust emissions, the BAAQMD Guidelines focus on implementation of dust control measures rather than comparing estimated levels of fugitive dust to quantitative significance thresholds.[6] Therefore, the BAAQMD's applicable Basic Construction Measures (see MM AQ-1) would be implemented to ensure that impacts identified in the certified EIR associated with fugitive dust emissions continue to be less than significant with the Project. Therefore, the impact would be the same as the approved project.

Operational Emissions

Upon completion of construction, the Project would enable construction of CIPs included under the Master Plan. The Project would not generate any other operational emissions. No additional vehicle trips would be generated than what was assumed for the analysis of impacts in the Plant Master Plan EIR. Therefore, the impact would be the same as the approved project.

Cumulative Increase in Criteria Pollutants

According to the BAAQMD, no single project will by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In addition, according to the BAAQMD *CEQA Air Quality Guidelines*, if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.[7] Alternatively, if a project does not exceed the identified significance thresholds, then the project would not be considered cumulatively considerable and would result in less-than-significant air quality impacts. As discussed above, the Plant Master Plan EIR disclosed significant and unavoidable impacts related to the potential to conflict with an applicable air quality plan and potential to violate air quality standards during construction of projects in 2016. Therefore the contribution of the approved Master Plan to cumulative air quality was also described as being significant. However, given the low level of emissions that would be associated with the Project over a temporary six-month period (as shown in Table 3-1 above), its contribution to the cumulative air quality impact in the area would not cause the cumulative impact to be substantially more severe than the impact disclosed in the certified EIR.

[6] Bay Area Air Quality Management District (BAAQMD), 2012. CEQA Air Quality Guidelines, revised May 2012.
[7] Bay Area Air Quality Management District (BAAQMD), 2012. CEQA Air Quality Guidelines, revised May 2012.

Sensitive Receptors

Construction activities associated with the Project would result in the generation of exhaust emissions that contain air pollutants, including particulate matter (PM_{10} and $PM_{2.5}$), the majority of which would be diesel particulate matter (DPM); a known toxic air contaminant (TAC). Exposure of sensitive receptors to TAC emissions could result in an elevated health risk. Under the California Environmental Protection Agency (Cal EPA) guidelines, DPM is used as a surrogate measure of carcinogen exposure for the mix of chemicals that make up diesel exhaust as a whole.

The nearest off-site sensitive receptors are located approximately 5,000 feet from the Facility operation area and 2,000 feet from the southern boundary of the Project site. The BAAQMD has identified a distance of 1,000 feet from the source to the closest sensitive receptor locations within which community health risk impacts are likely. Construction sources would be separated from the nearby receptors by a distance of at least 2,000 feet, which would help reduce exposure. Furthermore, as shown in Table 3.1-1, PM_{10} and $PM_{2.5}$ emissions associated with construction of the Project would be less than two pounds per day. At these emission levels, with the large buffer distance separating the sources and receptors, construction activities extending over a short duration of six months would not lead to a new significant impact from exposure to TACs. Therefore, the impact would be the same as the approved project.

Odors

The Project would result in temporary construction activities and staging areas and would not introduce any new permanent odor sources or sensitive receptors to the area. Therefore, the impact would be the same as the approved project.

3.1.4 Conclusion

With implementation of the measures included in the adopted EIR to reduce possible impacts associated with conflicts with implementation of an applicable air quality plan, violation of any air quality standards, or resulting in a cumulatively considerable net increase in criteria pollutants, the proposed Project would not result in any new or more significant impacts than those identified in the previously approved Plant Master Plan EIR. (**New Less than Significant with Mitigation Incorporation**)

The proposed Project would not result in additional exposure of sensitive receptors to substantial pollutant concentrations or create additional objectionable odors affecting a substantial number of people than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

3.2 Biological Resources

3.2.1 Setting

Biological resources located within the Project area reflect a portion of the same resources described in the adopted the Plant Master Plan EIR. Biological communities present within the Project area include disturbed/ruderal grassland, developed/landscaped, including paved and unpaved roads, mown/maintained areas, and existing facilities, which support weedy forbs, grasses, and limited wildlife, and seasonal wetlands, as shown in **Figure 3.2-1**. Figure 3.2-1 also displays the location of the Project area within the greater Facility boundary. The proposed Project would install a six-foot high and 2,000 foot long chain link fence along the southern boundary of the Project area from the gate/entrance off of Zanker Road to the existing fence south of the EBOS to discourage any sensitive wildlife from entering the Project area and contain Project related activity within the designated Project area. Setting discussions from the adopted Plant Master Plan EIR for biological resources in the Project area are otherwise applicable to the Project (see **Figure 3.2-2**).

Non-native Grassland

Non-native grassland habitat is typified by a dominance of non-native forbs that are adapted recently or persistently to disturbed conditions. Non-native grassland habitat exists in the majority of the Project area and has since populated locations disturbed previously by human activity, including Facility construction projects, such as pipeline installation and construction of associated structures. Although similar in appearance to a ruderal community, these areas are not considered truly ruderal as they do not reflect a chronically disturbed site. An example of a non-native community such as this is located directly south of the contractor staging area and has been inhabited mainly by wild oats (*Avena fatua*). However, ruderal areas persist in small unpaved areas frequently used by operations and maintenance vehicles, such as those near the Zanker Road gate on the east side of the Project area. Other vegetation found in non-native grassland habitats include grass species such as ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), foxtail barley (*Hordeum jubatum*) and Italian ryegrass (*Lolium multiflorum*). Non-native weedy forbs are more dominant in disturbed/ruderal habitat than in annual grassland. Heavy cover of weedy forbs including bristly oxtongue (*Helminthotheca echioides*), Italian thistle (*Carduus pycnocephalus*), milk thistle (*Silybum marianum*), bull thistle (*Cirsium vulgare*), black mustard (*Brassica nigra*), yellow star thistle (*Centaurea solstitialis*), stinkwort (*Datura stramonium*), and prickly lettuce (*Lactuca serriola*) were observed in disturbed/ruderal habitat in the Project area.[8]

Developed/Landscaped

Developed/landscaped area occurs in the proposed construction management trailer and roadway improvement areas. Developed portions of the Project area represent low-quality habitat value for plant and wildlife species and support only a small number of plant and wildlife species. Vegetation in developed/ landscaped areas is highly variable, ranging from nonexistent in paved areas to unmaintained lawn and ornamental shade trees. Accordingly, wildlife within this vegetation community is highly variable and was

[8] ICF International, 2012. Final Santa Clara Valley Habitat Plan. Prepared for the City of Gilroy, City of Morgan Hill, City of San José, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August 2012.

Proposed Project Components

SOURCE: ESA

NOTE: This figure represents a portion of the Project area to characterize existing biological features. The Project also includes a parking area not shown on this figure. Please refer to Figure 2-1 for reference to the complete Project area.

NOTE: GPS data were differentially corrected. Sub-meter accuracy (≤1 m) was attained for 65% of data; 99.85% is accurate within 5m.

San José/Santa Clara Regional Wastewater Facility Construction-Enabling . 131002.13

Figure 3.2-1

Wetlands and Burrowing Owl Survey

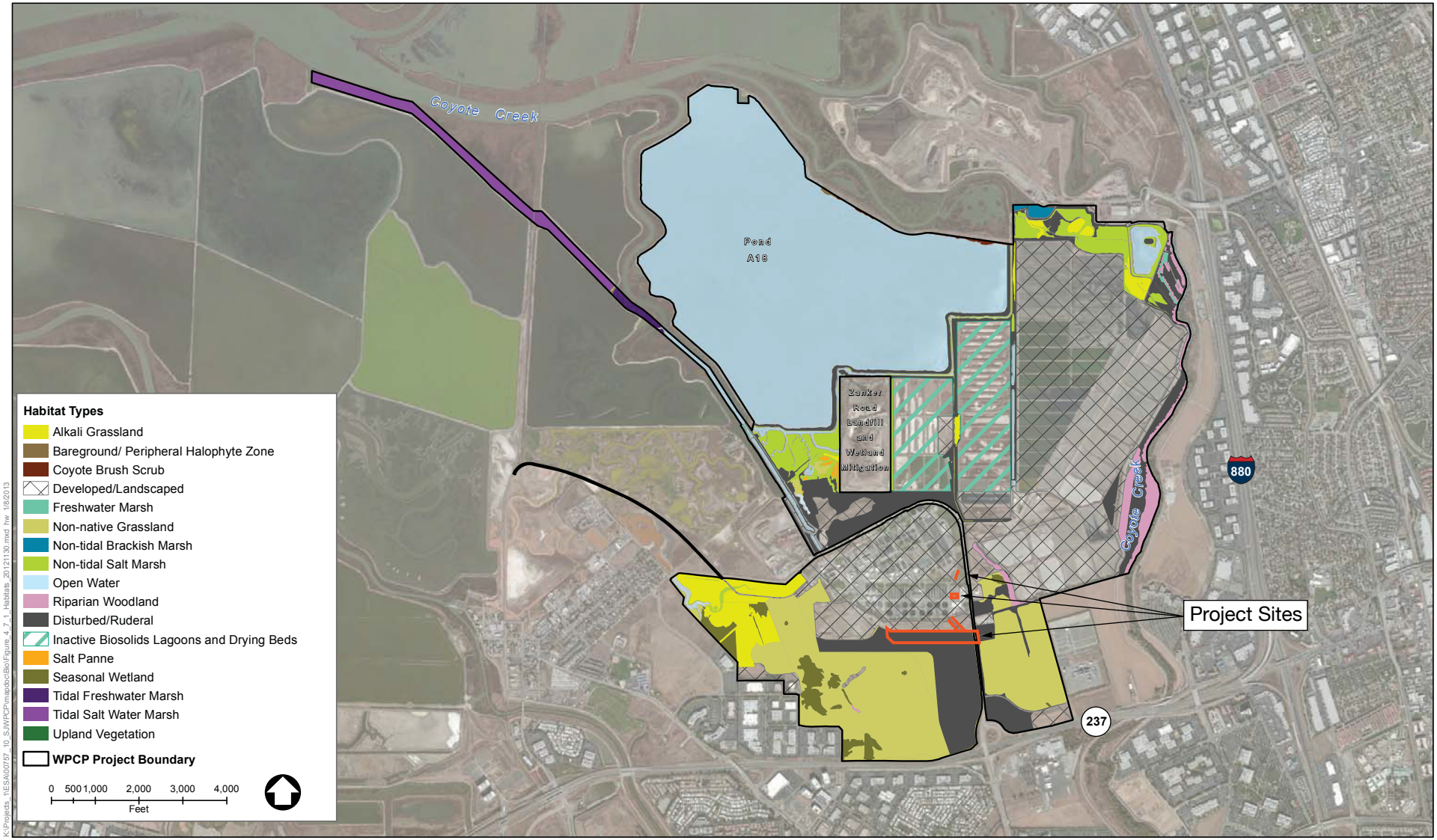


Figure 3.2-2
Existing Habitat near the Project Sites

typically observed in developed/landscaped areas that supported some degree of vegetation.[9] Portions of this vegetation community support European starling (*Sturnus vulgaris*), Canada goose (*Branta Canadensis*), western scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), and California ground squirrel (*Otospermophilus beecheyi*).

Seasonal Wetland

Seasonal wetlands were identified in the vicinity of the Project area during preparation of the Plant Master Plan EIR in 2013. Subsequent site visits during project planning for the Emergency Generators and Iron Salts projects acknowledged the presence of shallow depressions located in the construction area pipelines between Zanker Road and the EBOS facility. The shallow depressions appear to pond water or have saturated soil during some portion of the growing season and support a few plant species identified with seasonal wetlands, which differentiate them from the dominant surrounding non-native annual grassland vegetation during the spring and early summer. No documentation of the depressions have been submitted to regulatory agencies for review or verification of jurisdictional status. Dominant vegetation in seasonal wetlands found in the Facility boundaries includes, curly dock (*Rumex crispus*), Italian ryegrass (*Lolium multiflorum*), Mediterranean barley (*Hordeum murinum*), rabbitsfoot grass (*Polypogon monspeliensis*), and hyssop loosestrife (*Lythrum hyssopifolium*).

ESA Senior Ecologist Chris Rogers surveyed the areas south of the proposed Project between Zanker Road and the EBOS facility on March 6, 2015 (then referred to as Area G), using methods from the routine wetland delineation including description of vegetation, characterization of the soil and estimation of the hydrology. A summary memo submitted to Julie Benabente (City of San José) on March 12, 2015, described a large seasonal wetland, which was previously delineated as part of the Iron Salt project but is contained within the Area G boundary[10] (see Figure 3.2-1). Additionally, six small seasonal wetlands were identified within Area G, in the strip of grassland between Mike Tocce Lane and the proposed project's southern fence line. One seasonal wetland was located within the Area G boundary, near the Zanker Road gate, and five were located north of the Area G boundary. Two of these features correspond with the location of potential wetlands that were mapped during preparation of the Plant Master Plan EIR, but appeared much smaller than previously mapped in the Plant Master Plan EIR. With one exception, the features are very shallow depressions that support hydrophytic plant species that are distinct from surrounding non-native grassland that typifies the area. Evidence of surface ponding includes cracked soil, algal mats, and water-stained leaves. The one exception had saturated soils, but likely was the result of emptying a nearby flooded vault. This feature was not evident during a subsequent site visit on July 21, 2015.[11] Nonetheless, indicators of hydric soils are absent from all features. Furthermore, all of the depressions lack surface water connection under normal circumstances with navigable waters or their tributaries, such as Artesian Slough located northwest of the Project site, and are isolated and non-jurisdictional.

The seasonal wetlands formed since the completion of the EBOS pipeline construction (from Zanker Road to the EBOS is approximately 2,679 feet) and other construction related activities within the Project area's

[9] *Ibid*.

[10] Environmental Science Associates, 2015. Technical Memorandum: Area G Wetlands and Burrowing Owl Survey Results to Julie Benabente from Chris Rogers. March 12, 2015.

[11] Environmental Science Associates. 2015a. Memorandum to File: San José/Santa Clara Regional Wastewater Facility Construction Enabling Project Non-Jurisdictional Wetland Exemption. December 28, 2015.

shallow depressions in compacted backfill.[12] Several of the seasonal features are linear in shape, and are aligned with the recently constructed EBOS pipeline indicating that they are the result of settled or uneven backfill following construction. Although standard construction methods include compaction of backfilled pipeline trenches to prevent or minimize soil subsidence, some settling is a relatively common occurrence. With compaction, soil permeability is considerably reduced, and can result in small areas of ponded water incidental to the construction activity.

The seasonal features within the Project area are depressions that were formed as a result of construction activities, and are therefore exempt from regulation under the Clean Water Act. As noted above, the Project area has been subject to extensive excavation and use for construction-related purposes. The previous soil excavations and backfilling that created depressions on site are construction activities necessary for the purpose of completing the CIP projects described and analyzed in the Plant Master Plan EIR. The current condition of the site is preparatory to further use in a similar manner (i.e., additional pipelines and construction staging), which have been evaluated and planned for at the program level in the Plant Master Plan EIR. Earlier pipeline construction was a necessary precursor for sequencing of the future use. Since that time, further use of the site has been actively planned for by the City. Currently, the site is subject to planning and study for the construction of the proposed Project. At no time has the site been abandoned and subject to recapture under the Clean Water Act. Therefore, the shallow depressions would not be considered jurisdictional waters of the U.S. under current or possible revisions to the Clean Water Act rule, as further discussed under Regulatory Framework below.

Special Status Animals

Western Burrowing Owl (*Athene cunicularia*). A California species of special concern, western burrowing owl is a California resident that prefers open annual or perennial grasslands and disturbed sites with existing burrows, elevated perches, large areas of bare ground or low vegetation, and few visual obstructions. Ground squirrel colonies often provide a source of burrows and are typically located near water and areas with large numbers of prey species, primarily insects. Breeding takes place between March and August, with a peak in April and May.

The Santa Clara Valley Habitat Agency documents the Project area to provide western burrowing owl nesting habitat, as defined in the Santa Clara Valley Habitat Plan (Habitat Plan) discussion below. Furthermore, western burrowing owl surveys identified three potential burrowing owl burrows close to the Project area, one within approximately 65 feet south of the contractor staging area.[13] Additionally, a burrowing owl was observed approximately 450 feet south of the contractor staging area, although a burrow was not observed at this particular location.[14] Foraging and nesting is highly likely immediately south of the Project area.

Other Resident and Migratory Birds. Nesting birds could nest within the Project area trees, grasslands, or in adjacent suitable habitat. Raptors such as white-tailed kite (*Elanus leucurus*), a California Department of Fish and Wildlife (CDFW) fully protected species, red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), and Cooper's hawk (*Accipiter cooperi*) may nest

[12] *Ibid*.
[13] Environmental Science Associates, 2015. *Technical Memorandum: Area G Wetlands and Burrowing Owl Survey Results* to Julie Benabente from Chris Rogers. March 12, 2015.
[14] *Ibid.*

in landscaped trees found along the Facility southern boundary and Zanker Road near the Project area. Northern harrier (*Circus cyaneus*) has potential to forage within the open habitats and to nest in the alkali and non-native grasslands near the Project area. Additional birds that may nest in the Project area include black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), and Alameda song sparrow (*Melospiza melodia pusillula*). Project construction could disturb resident and nesting migratory birds.

3.2.2 Regulatory Framework

Federal Regulations

Federal Clean Water Act

On June 29, 2015, the U.S. Army Corps of Engineers (Corps) and U.S. Environmental Protection Agency (EPA) issued a Final Rule on the Definition of "Waters of the United States," which took effect on August 28, 2015 (80 FR 37054 – 37127). On October 9, 2015, the new rule was stayed by a Circuit Court of Appeals pending resolution of multiple legal challenges. This new rule is intended to resolve jurisdictional uncertainty following the *SWANCC,*[15] *Rapanos* and *Carabell*[16] decisions and provide a clear definition of waters and wetlands that are protected under the CWA. This new rule specifies several features that are jurisdictional by rule (Traditional Navigable Waters (TNW), interstate waters and wetlands, territorial seas, impoundments of water, tributaries, and all waters adjacent to these features), and provides exemptions previously recognized, but not necessarily codified (e.g., storm water control features created in dry land). Although some aspects of the new rule may change upon resolution of the legal challenges, this exemption is not among the issues named in the complaints, therefore it reasonable to assume that the exclusion by rule will remain in effect.

The new Clean Water Act rule clearly states the intent of the EPA and the Corps with regard to man-made excavations and notes that this and other exemptions codify "features and waters that he agencies have identified as generally not "waters of the United States" in previous preambles and guidance documents". The definition was published in the Federal Register (Vol. 80, No. 124), and states that the excavations subject to ponding due to construction-related activities are not jurisdictional under the Clean Water Act. One of these exemptions is applicable to the features within the Project area. It states:

> *Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water; 33 CFR 328.3(b)(4).*

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the former Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 United States Code 703, 50 Code of Federal Regulations [CFR] 21, 50 CFR 10). Most actions that result in taking or in permanent

[15] Case No. 99-1178
[16] Case No. 04-1034

or temporary possession of a protected species constitute violations of the MBTA. United States Fish and Wildlife Service (USFWS) is responsible for overseeing compliance with the MBTA.

Federal Endangered Species Act

The federal Endangered Species Act (ESA), enacted in 1973, protects fish and wildlife species (and their habitats) that have been identified by USFWS or NOAA Fisheries as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments in danger of extinction through all or a significant portion of their range; threatened refers to those likely to become endangered in the near future. The federal ESA is administered by USFWS and NOAA Fisheries.

State Regulations

California Porter-Cologne Water Quality Control Act

The Porter-Cologne Act provides a mechanism for protecting the quality of the state's waters through the State Water Resources Control Board (SWRCB) and nine RWQCBs. Neither the State Water Resources Control Board (SWRCB) nor the Regional Water Quality Control Board (RWQCB) have a separate wetland regulatory policy. Their role as it relates to wetlands is to certify that actions taken by the Corps are consistent with state water quality regulations and programs. As such, the SWRCB and RWQCB have adopted and follow the jurisdictional determinations made by the Corps when issuing water quality certifications under the Clean Water Act or Waste Discharge Requirements under the Porter Cologne Act. The SWRCB and RWQCB do not conduct independent wetland determinations and rely on the expertise of the Corps to review and verify wetland jurisdictional determinations, where they are necessary.

The SWRCB is undertaking the development of a draft wetland policy and, in the most recent version of the policy (Version 6.5 January 28, 2013), states that "*the Water Boards shall rely on the Corps' approved wetland delineation within the boundaries of the waters of the United States".* In addition, the draft policy proposes to adopt the same exemptions as the Corps and EPA as contained in 33 C.F.R. Part 328. While not presently approved, these draft documents provide an indication that the SWRCB's approach will be consistent with the positions of the Corps and EPA on these issues.

California Endangered Species Act

The California Endangered Species Act (CESA) protects wildlife and plants listed as endangered or threatened under the California Fish and Game Code, administered by California Department of Fish and Wildlife. CESA prohibits all persons from taking species that are state-listed as endangered or threatened except under certain circumstances; the CESA definition of take is any action or attempt to "hunt, pursue, catch, capture, or kill." Section 2081 provides a means by which agencies or individuals may obtain authorization for incidental take of state-listed species and species designated as fully protected under the California Fish and Game Code. Take must be incidental to, not the purpose of, an otherwise lawful activity.

Local Regulations

Santa Clara Valley Habitat Plan

Since the adoption of the Plant Master Plan EIR, the Habitat Plan was adopted.[17] The Habitat Plan is a conservation program intended to promote the recovery of endangered and threatened species, and enhance ecological diversity and function, while accommodating planned growth in approximately 500,000 acres of southern Santa Clara County. The Habitat Plan is a regional partnership between six local Partners (the County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, and the cities of San Jose, Gilroy, and Morgan Hill) and two Wildlife Agencies (CDFW and U.S. Fish and Wildlife Service [USFWS]).

The land preservation is both to mitigate for the environmental impacts of planned development and public infrastructure operations and maintenance activities as well as to enhance the long term viability of sensitive species.

For the western burrowing owl, the Habitat Plan is committed to reversing the decline of this population in Santa Clara County and has established a burrowing owl fee, paid by the project applicant, to protect burrowing owl habitat and to fund conservation actions. The Burrowing Owl Fee Zone is determined by annual survey efforts that map the extent of nesting habitat occupied by western burrowing owls. Occupied nesting habitat is defined as a nesting site identified within the past three years plus 0.5 mile of foraging habitat surrounding the site. The proposed contractor staging area is located in the Burrowing Owl Fee Zone and the proposed worker parking area is located within 0.5 mile of foraging habitat, and therefore would be subject to the Burrowing Owl Fee Zone as well.

City of San José Tree Policy

According to the City of San José's *Tree Policy Manual & Recommended Best Practices*, trees located on City owned property are managed by different City departments. Each department performs tree related maintenance work without permit requirements. Removal of trees from these properties requires the posting of a courtesy notice to the public and review by the City Arborist's Office.[18] Conditions within the City of San José's Municipal Code, including section 13.32.130, provide protection for all trees to remain within or adjacent to the Project site.

3.2.3 Findings of Previously Certified EIR

The adopted Plant Master Plan EIR identified no impact under for potential effects on special-status plants, interference with the movement of any applicable native or migratory fish or wildlife species, nor would it present conflict with local policies or ordinances. The adopted EIR identified potential impacts to special-status wildlife species, riparian communities, wetlands, and protected trees, which were reduced to less than significant levels through application of mitigation measures.

[17] Santa Clara Valley Habitat Agency, 2012. Santa Clara Valley Habitat Plan. Prepared for City of Gilroy, City of Morgan Hill, City of San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. Prepared by ICF International. August 2012.

[18] City of San José, 2013. Tree Policy Manual & Recommended Best Practices. September 26, 2013

3.2.4 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
BIOLOGICAL RESOURCES — Would the project:						
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒	☐	1,2,9,11
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒	☐	1,2,10
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	☐	1,2
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒	☐	1,2
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	☐	1,2,12
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐	1,2,8,9

Special Status Species

Special-status species lists for this analysis were derived from the CDFW and USFWS for the Mountain View, Milpitas, Palo Alto, Cupertino, and Newark 7.5-minute U.S. Geological Survey quadrangles. In addition, findings of the adopted EIR surveys and literature review were used to compile the list of special-status species that may occur in the Project area. The compiled list of special-status species with the potential to occur in the Project area is displayed in **Appendix B**.

The proposed construction of the staging area and worker parking, as well as additional support facilities for construction have the potential to impact western burrowing owls and nesting bird habitat in the vicinity of the Project area. The proposed Project would not result in any new or more significant impacts to these resources than evaluated in the Plant Master Plan EIR, as further described below.

Western Burrowing Owl

Western burrowing owl nesting and foraging habitat within the Project area and its surroundings would likely be impacted by Project activities in the proposed contractor staging area and worker parking. Developed/landscaped area occurs within the roadway improvement areas and therefore these improvements would not impact Western burrowing owl nesting and foraging habitat. Permanent impacts to western burrowing owl would occur through the loss of nesting and foraging habitat in a portion of the 240,000 square feet of non-native grassland staging area due to the installation of geo-grid or geotextile fabric beneath 12 inches of aggregate base rock. Temporary noise and vibration impacts to potential nesting or foraging western burrowing owls within the vicinity of the Project area could occur as a result of construction activities such as grading, excavation, and stockpiling of dirt over the six month construction period, potentially overlapping with the breeding season between March and August **(IMPACT BIO-1**). However, impacts to western burrowing owls would be considered less than significant without additional mitigation as the Project would be subject to protection measures under the Habitat Plan, which has been adopted since the Plant Master Plan EIR was published. The Habitat Plan's Burrowing Owl Fee Policy would be implemented as a result of contractor staging and worker parking activities being subject to the Habitat Plan Burrowing Owl Fee. Mitigation Measure BIO-2e: Western Burrowing Owl Measures provided under the approved EIR for loss of nesting and foraging habitat would also be used under the proposed the Project.

Under the proposed Project, temporary and permanent impacts to western burrowing owl are less than significant and no additional mitigation is required; therefore, there is no change in impact. The adopted EIR Mitigation Measure pertaining to western burrowing owls is listed below.

Mitigation Measure

Mitigation Measure BIO-2e: Western Burrowing Owl Measures

Under the approved HCP, most but not all PMP-related impacts to burrowing owls would be covered. Specifically, of the 255.4 acres of impacts to burrowing owl habitat, 0.9 acre would fall outside the HCP boundary and would not be covered under the plan. Although 254.5 acres of impact would be covered under the HCP, the City intends to retain the existing 180-acre burrowing owl area as a conservation-related design feature, three (3) acres of which would be used to mitigate the 0.9 acre of impacts associated with project-level RWF improvements. The three-acre site would be managed as burrowing owl habitat in perpetuity. The City may partner with local organizations to maintain this 180-acre burrowing owl management site. Maintenance activities shall include mowing the 180-acre site three times during the year (except as noted below) to keep grasses short and thereby allow owls to detect predators: once in late-January or early February when owls are selecting nest sites; once in mid-May when just prior to young emerging from burrows; and a third time in mid-June or early July as young start to disperse. Mowing should focus on areas within 25 feet of known or potential burrowing owl burrows. Around occupied burrowing owl burrows, grasses will be kept to less than 5-inches tall, except in areas where Congdon's tarplant is present [those areas will not be mowed below 6-inches]. In areas where Congdon's tarplant are present the third round of mowing will be omitted since the plants will be flowering during that time. For details on how to determine if Congdon's tarplant are present refer to Mitigation Measure BIO-1. In addition, to reduce predation of owls by perching raptors, no trees shall be planted in the burrowing owl habitat area, including along roadways. To provide prey forage for the owls, ground squirrels will not be controlled.

Mitigation for impacts to burrowing owl are described below in greater detail:

> *For impacts within the Santa Clara Valley Habitat Plan Boundary:* The approved HCP covers PMP-related land uses east of Guadalupe River and Grand Boulevard, south of Los Esteros Road, and west of McCarthy Lane and Coyote Creek. It also covers the existing RWF operational area. The PMP components located within the HCP boundaries will pursue coverage for burrowing owl impacts under the HCP. This will be accomplished by paying the HCP's established burrowing owl fee or by contributing land to the Santa Clara Valley Habitat Plan Reserve System consistent with the Land In Lieu of Fee Program outlined in the HCP. Note that the Land In Lieu of Fee Program requires that all mitigation land meet the HCP's criteria for "Occupied Burrowing Owl habitat" and be within the Expanded Study Area for Burrowing Owl Conservation, both of which are described in the HCP. The City will utilize the avoidance measures outlined in Condition 15, Western Burrowing Owl [Chapter 6] of the HCP for burrowing owl. Implementation of these mitigation measures will reduce PMP-related impacts within the HCP boundary to less-than-significant. PMP land uses that fall outside the HCP boundary cannot be mitigated through the HCP without prior approval of all Santa Clara Valley Habitat Plan signatories, including the USFWS and CDFW. Therefore, project applicants in the non-covered areas will utilize the following mitigation strategy for impacts to burrowing owl.
>
> *For Impacts outside of the Santa Clara Valley Habitat Plan Boundary:* RWF project-level improvements that are outside the HCP boundary will result in 0.9-acre of impact to "Occupied Burrowing Owl Habitat." To mitigate the loss of the 0.9-acre of burrowing owl habitat the City shall place a conservation easement over three (3) acres of habitat in the RWF bufferlands that meets the "Occupied Burrowing Owl Habitat" criteria, as described in the HCP. Mitigation land shall be placed under a permanent conservation easement at or before the point in time when the RWF project-level, impacts occur. Management of those 3 acres could be coordinated with the Santa Clara Valley Habitat Agency and shall be consistent with the management of the other 177 acres in the burrowing owl habitat area. This mitigation measure will reduce RWF project-level impacts on burrowing owl to less-than-significant levels.

Other Resident and Migratory Birds

The Plant Master Plan EIR identified impacts to nesting resident or migratory birds that could utilize vegetation in or near the Project area. Similar construction activities as those described in the Plant Master Plan EIR would occur under the proposed Project, especially those that involve ground disturbance and the use of heavy machinery for roadway improvements, excavation/grading and stockpiling activities, which may affect nesting birds in the vicinity of the Project area (**IMPACT BIO-2**). The Plant Master Plan EIR identified pre-construction survey requirements and CDFW protocols to protect nesting activity, if any were to occur at the time Project construction begins. Implementation of EIR Mitigation Measure BIO-2d: Raptor and Migratory Bird Nest Measures, listed below, would reduce potential impacts to nesting birds to a less than significant level and no additional mitigation would be necessary. As a result, there is no change in impacts to nesting resident or migratory birds.

Mitigation Measure

Mitigation Measure BIO-2d: Raptor and Migratory Bird Nest Measures

If possible, construction shall be scheduled between September and January (inclusive) to avoid the nesting season. If Project construction is scheduled during breeding bird season (February 1–August 31), City's Environmental Services Department (ESD) or its contractor shall retain a qualified biologist to conduct a survey for nesting raptors and 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 area and for suitable habitat within 300 feet. If an active nest is identified, 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. 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, they may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer widths may be modified based on consultation with California Department of Fish and Wildlife (CDFW). Buffers 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 through January) can proceed without surveys. If possible, all necessary tree and vegetation removal should 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 will notify Planning, Building and Code Enforcement (PBCE) Senior Environmental Planner when the mitigation plan and mitigation actions will occur for approval.

Wetlands

As noted above in Section 3.2.1, depressions within the Project area that were formed as a result of construction activities, are exempt from regulation under the Clean Water Act. The Project site has been subject to extensive excavation and use for construction-related purposes. For these reasons, the activities proposed under the Project would not constitute as significant adverse impacts due to the historical presence of excavation and grading, and that these seasonally water filled features do not provide a unique habitat for wildlife species based on the surrounding landscape context. Furthermore, the City would adopt avoidance measures to minimize potential sedimentation or contamination of stormwater runoff generated from the Project site into potential jurisdictional wetlands, west of the Project site (**IMPACT BIO-3**). Implementation of the mitigation measure, as included below, would reduce this impact. This mitigation measure includes an update to the Mitigation Measure BIO-4a provided under the approved from the Plant Master Plan EIR to address the potential for stormwater runoff generated from the Project site to affect potential jurisdictional wetlands in proximity of the Project site. The adjusted mitigation measure does not change the original impact conclusion, nor is it considerably different from that analyzed in the previous EIR.

Mitigation Measure

Mitigation Measure BIO-3: Avoidance and Protection of Jurisdictional Waters. 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.

Due to the anticipated overlap of Project construction with that of the City's Iron Salts project, the Project would utilize avoidance measures relating to sensitive biological resources already implemented on site by the Iron Salts project, when applicable. In particular, the Iron Salts avoidance buffer would be adjusted during the Project pre-construction survey to provide the necessary aforementioned setbacks prior to Project construction-related activity.

Local Policies

The City of San José Tree Ordinance requires a Tree Permit Adjustment for the removal of any tree on industrial properties, and offers additional protections to trees measuring 56 inches in circumference or greater when measured two feet above ground level (City of San José Municipal Code Section 13.32.020 I). Trees protected under the ordinance are referred to as "Ordinance Trees". Removal of trees located on City owned property requires the posting of a courtesy notice to the public and review by the City Arborist's Office.[19] The proposed Project would result in the removal of one 36-inch diameter native tree along the west side of Zanker Road to accommodate the roadway improvements. Under these conditions, the City's typical mitigation is to plant five 24-inch box trees for each tree removed; however, final mitigation required is subject to approval by the Director of Planning.[20] Replacement trees can be planted in a suitable location on Facility property or on other City property, to be identified by the City Arborist. Implementation of the following project condition of approval would reduce Project impacts associated with removal of a tree to a less than significant level.

Compensate for Removal of Protected Trees. As part of the project condition of approval, the two trees to be removed would be replaced on-site or off-site, in consultation with the City Arborist, at the accepted ratios or pay an in-lieu fee to Our City Forest to compensate for the loss of the two trees. Protected trees that are lost as a result of the Project would be replaced at a minimum of four

[19] City of San José, 2013. Tree Policy Manual & Recommended Best Practices. September 26, 2013

[20] City of San José, 2015. Email correspondence from Russell Hansen, City of San José Arborist, to Aziza Amiri, City of San José Public Works Engineer. Tree Removal on Zanker Road. November 25, 2015.

24-inch box trees per tree removed. Tree replacement amounts shall be subject to the City's Director of Planning, who would determine the final mitigation for impacts to protected trees. Replacement trees can be planted in a suitable location on Facility property or on other City property, to be identified by the City Arborist and approved by the Director of Planning.

All other trees onsite or adjacent to the Project site, such as the willow stand directly south of the contractor staging area, shall be safeguarded from construction activities by conditions identified in the City of San Jose's Municipal Code 13.32.130 – Safeguarding Trees During Construction. Conditions include no construction equipment within the dripline of any trees and the use of barricades around tree trunks to prevent injury to trees.

Santa Clara Valley Habitat Conservation Plan

Similar to the approved project under the EIR, the proposed Project is subject to the Habitat Plan (effective October 14, 2013). The only species covered by the Habitat Plan that has suitable nesting and foraging habitat or the potential to occur with the Project area is the western burrowing owl. Loss of burrowing owl habitat that would result from activities proposed under the proposed Project could conflict with the burrowing owl conservation strategy described in the Habitat Plan. However, the Habitat Plan's Burrowing Owl Fee Policy and the adopted EIR Mitigation Measure BIO-2e: Western Burrowing Owl Measures, as described above, ensure burrowing owl habitat supports a stable or increasing burrowing owl population. Similar to the adopted EIR, these provisions are consistent with the management objectives and success thresholds defined in the Habitat Plan, resulting in no change in impact significance.

3.2.5 Conclusion

Project activities, such as those in the contractor staging area and worker parking area, would result in impacts to western burrowing owls that would be mitigated through the Burrowing Owl Fee Policy and measures identified in the adopted EIR. The proposed Project would not result in any new or more significant impacts. (**Same Impact as Approved Project [Less than Significant with Mitigation Incorporation]**)

The proposed Project would conduct pre-construction nesting bird surveys to ensure potential impacts to nesting birds is reduced to less-than-significant at the time construction commences. The proposed Project would not result in any new or more significant impacts to nesting birds. (**Same Impact as Approved Project [Less than Significant with Mitigation Incorporation]**)

The proposed Project would not conflict with the provisions of the adopted Santa Clara Valley Habitat Conservation Plan as a portion of the Project would be subject to the Burrowing Owl Fee Policy. (**Same Impact as Approved Project [Less than Significant with Mitigation Incorporation]**)

3.3 Cultural Resources

3.3.1 Setting

The environmental setting relevant to Cultural Resources for the Project site has not changed in comparison to that described in the adopted EIR. Setting discussions from the adopted EIR for historical resources, archaeological resources and human remains, and paleontological resources are applicable to the entire Project.

3.3.2 Findings of Previously Certified EIR

The adopted EIR identified no impact for potential to adversely affect a historical resource, a paleontological resource, or a unique geologic feature; it identified potential impacts to unknown archaeological resources and disturbance to human remains. These impacts were reduced to less than significant with implementation of mitigation measures providing for the inadvertent discovery of archaeological resources and inadvertent discovery of human remains.

3.3.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
CULTURAL RESOURCES — Would the project:						
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒	☐	1,2,13
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒	☐	1,2,13
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒	☐	1,2,13
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒	☐	1,2,13

Architectural/Structural Historical Resources

There are no architectural resources present in the Project site. No impacts would occur to built-environment historical resources as a result of the proposed Project. No mitigation is required.

Archaeological Resources

ESA completed a records search for the Project at the Northwest Information Center (NWIC) of the California Historical Resources Information System on August 1, 2011 (File No. 11-0118) and updated the search on February 12, 2015 (File No. 14-4014). ESA also conducted a surface and subsurface survey on July 21, 2015. The subsurface survey consisted of excavating 12 shovel test units (0.5 meters below ground

surface) to determine whether subsurface archaeological resources are within the Project site.[21] Background research indicates that prehistoric archaeological resources have been recorded within a one mile radius of the Project site; including archaeological site CA-SCL-528. This site consists of midden soil with bay and marine shell, fire-cracked rock, carbon and baked clay, faunal fragments, lithic debitage, and groundstone fragments. Human remains have also been uncovered at this location. Subsurface excavations have been completed in 1983, 2008, 2010, and 2015 to define site boundaries.

No archaeological resources were identified in the Project site during the current surface and subsurface surveys. Based on the results of the previous and current investigations, there is a low potential to impact archaeological resources during Project implementation.

While unlikely, the unanticipated discovery of archaeological materials cannot be entirely discounted (**IMPACT CUL-1**). To facilitate compliance with CEQA, project personnel shall be alerted to the possibility of encountering archaeological materials during construction, and informed of the proper procedures to follow in the event that such materials are found. In the event of an inadvertent discovery of subsurface archaeological materials during ground disturbing activities, implementation of the mitigation measure, as included below, would reduce this impact. This mitigation measure includes an update to Mitigation Measure CUL-3a from the Plant Master Plan EIR to include a "preservation in place" clause, per a recent court case ruling (Madera Oversight Coalition Inc., et al., vs. County of Madera, September 2011). The adjusted mitigation measure does not change the original impact conclusion, nor is it considerably different from that analyzed in the previous EIR.

Mitigation Measure

Mitigation Measure CUL-1: Accidental 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 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; and stone milling equipment (e.g., mortars, pestles, hand stones, or milling slabs); 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.

City's Environmental Services Department (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, 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]). In consultation with the PBCE Senior Environmental Planner, the archaeologist (and Native American representative) shall determine when construction can resume.

[21] ESA, Cultural Resources Survey Report, San José-Santa Clara Regional Wastewater Facility Construction Enabling Project. Prepared for the City of San José, July 2015.

The mitigation plan shall recommend preservation in place, as a preference, or, if preservation in place is not feasible, data recovery through excavation. If preservation in place is feasible, this may be accomplished through one of the 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 resources would consist of (but would 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.

Paleontological Resources

Excavation required for the Project would be within 5 feet of the ground surface. The Project site overlies young Holocene-age geologic units. Beneath a cap of artificial fill lies deposits of mud and silt associated with the present-day bay estuary (bay mud) and the distal edges of alluvial fans. These types of geologic deposits are too young (i.e., less than 10,000 years old) to have fossilized the remains of organisms, or to have preserved vertebrate fossils. While the bay mud may contain a variety of marine invertebrate remains and organic matter (mollusks, clams, fomanifera, microorganisms, etc.), such remains are not fossilized, are likely to exist in other Bay Mud deposits all around the Bay Area, and would not be considered significant or unique. For these reasons, in accordance with Society of Vertebrate Paleontology[22] standards, the paleontological potential of the site is low.

While the paleontological sensitivity of the units underlying the Project site is low, there is a remote possibility that fossils may nevertheless be discovered during excavations associated with the Project. Because the significance of such fossils would be unknown until examined by a qualified paleontologist, such an event represents a potentially significant impact on paleontological resources (**IMPACT CUL-2**).

If any fossils are discovered during ground disturbing activities, implementation of the mitigation measure from the Plant Master Plan EIR, as included below, would reduce this impact.

Mitigation Measure

Mitigation Measure CUL-2: Accidental 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

[22] Society of Vertebrate Paleontology (SVP). *Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines*, Society of Vertebrate Paleontology News Bulletin, Vol. 163, p. 22-27. 1995.

necessary, develop appropriate treatment measures in conformance with Society of Vertebrate Paleontology standards, and in consultation with the PBCE Senior Environmental Planner.

Human Remains

Based on previous subsurface excavations, the potential to discover human remains during ground disturbance of up to five feet is extremely low in the project area, nevertheless it cannot be entirely discounted (**IMPACT CUL-3**). To facilitate legal compliance, project personnel shall be alerted to the possibility of encountering human remains during construction, and informed of the proper procedures to follow in the event they are found. Implementation of implementation of the mitigation measure from the Plant Master Plan EIR, as included below, would reduce this impact.

Mitigation Measure

Mitigation Measure CUL-3: Accidental 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. If the remains are determined to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC). 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.

3.3.4 Conclusion

Implementation of the measures included in the adopted EIR would reduce possible impacts to buried cultural resources during construction to a less-than-significant level and the proposed Project would not result in any new or more significant impacts than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

Implementation of the project would not result in any new or more significant impacts to historic resources than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [No Impact]**)

3.4 Greenhouse Gas Emissions

3.4.1 Setting

The environmental and regulatory settings relevant to greenhouse gases (GHGs) not appreciably changed since the certification of the Plant Master Plan EIR. With regard to impacts from GHGs, both the BAAQMD and California Air Pollution Control Officers Association (CAPCOA) consider GHG impacts to be exclusively cumulative impacts; therefore, assessment of significance relative to the approved Plant Master Plan is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere.

In 2011, the City adopted the *Envision San José 2040 General Plan* (2040 General Plan). As part of the General Plan update, the City adopted a Greenhouse Gas Reduction Strategy in accordance with the BAAQMD CEQA Guidelines and CEQA Guidelines Section 15183.5. The GHG Strategy identifies policies and measures to reduce GHG generation within the City. Compliance with the City's 2040 General Plan and GHG Strategy would ensure that the Plant Master Plan that was evaluated in the adopted EIR is consistent with the State's AB32 goals.

3.4.2 Findings of Previously Certified EIR

The adopted EIR analysis determined that both project- and program-level improvements to be consistent with the General Plan the GHG Reduction Strategy up to the year 2020, and therefore impacts were determined to be less than significant. However, subsequent to year 2020, the proposed project- and program-level improvements analyzed in the EIR were found to make a cumulatively considerable contribution to City-wide emissions, which were determined by the EIR for the 2040 General Plan, to be significant and unavoidable by 2035 even with implementation of the measures contained in the GHG Reduction Strategy.

3.4.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
GREENHOUSE GAS* EMISSIONS — Would the project:						
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒	☐	1,2,3,14
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒	☐	1,2,3,14

* NOTE: GHGs include, but are not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride

Greenhouse Gas Emissions

GHG emissions worldwide cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in San José, the entire state of California, across the nation and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

The combustion of diesel fuel to provide power for the operation of various construction equipment results in the generation of GHGs. Construction emissions that would be associated with the Project were estimated using Project-specific information such as the types and number of construction equipment used, daily usage in terms of hours per day, and total days for each piece of equipment and their horsepower rating. Appendix A contains the data and assumptions used to estimate the construction-phase GHG emissions that would be associated with the Project.

Carbon dioxide (CO_2) and methane (CH_4) emissions for offroad construction equipment were estimated using 2016 CalEEMod emission factors (which are based on CARB's OFFROAD emissions inventory database model). The emission factor for nitrous oxide (N_2O) was obtained from The Climate Registry[23] (TCR) for diesel fuel combustion. N_2O and CH_4 emissions were multiplied by their respective global warming potentials (21 and 310) and added to the CO_2 emissions to obtain carbon dioxide equivalent (CO_2e) emissions.

GHG emissions from onroad motor vehicles used during construction were estimated using the same general methodology described for criteria pollutants from construction vehicles (refer to Section 3.1 Air Quality). Since the EMFAC2014 model provides GHG emission factors only for CO_2 emissions, N_2O and CH_4 emission factors for gasoline and diesel combustion were obtained from TCR.[24] GHG emissions in the form of CO_2e were calculated by multiplying the estimated total miles travelled by project-related worker vehicles and trucks by the GHG emission factors, then multiplying the N_2O and CH_4 emissions by their respective global warming potential, and then adding the CO_2, N_2O, and CH_4 emissions. The Project is expected to generate an average of five worker commute trips per day along with five material truck deliveries per day. In addition, two trips per week would be generated by the pumping truck used to empty the grey water holding tank. The exact end points for the daily trips are not known at this time, so the on-road emission estimates were developed under the assumption that each worker trip would be 25 miles round trip, and each haul truck trip would be 40 miles round trip. Daily emissions by vehicle class (i.e., light-duty gasoline-fueled trucks and heavy-duty trucks) were estimated using the EMFAC2014 emission factors multiplied by the estimated Project-related vehicle trips and the estimated daily mileage traveled by the vehicles.

Table 3.4-1 shows the GHG emissions estimated to be generated by construction activities that would be associated with the Project. As shown in the table, the improvements would generate a total of approximately 196 metric tons CO_2e. Refer to Appendix A for details on the calculations and assumptions used to estimate construction GHG emissions.

[23] The Climate Registry. Table 13.1 US Default CO_2 Emission Factors for Transport Fuels, 2011. Available: http://www.theclimateregistry.org/downloads/2009/05/2011-Emission-Factors.pdf.

[24] *Ibid*.

TABLE 3.4-1
TOTAL ESTIMATED GHG CONSTRUCTION EMISSIONS

Source	GHG Emissions (metric tons)			
	CO_2	CH_4	N_2O	CO_2e
Offroad Construction Equipment	142.4	0.01	0.004	143.9
Onroad Vehicle Trips	51.6	0.015	0.002	52.4
Total GHG Emissions				**196.3**

SOURCE: Appendix A.

Upon completion of construction, construction of CIPs included under the Master Plan would be enabled, the impacts of which have already been analyzed in the adopted EIR. The Project would generate very minimal operational GHG emissions. No additional vehicle trips would be generated by the Project than what was assumed for the analysis of impacts in the adopted EIR. Indirect GHG emissions would be generated due to electricity consumption in the construction trailers and other temporary structures. However, this would be minimal.

Conflict with Applicable GHG Emissions Policies or Plans

The City's GHG Strategy includes policies and measures to reduce GHG emissions. Adoption of a GHG Strategy provides environmental clearance for GHG impacts of proposed development as per the BAAQMD CEQA Guidelines and CEQA Guidelines Section 15183.5. Project evaluation in light of City requirements is provided for through an evaluation of Project conformance with the City's GHG Reduction Strategy.

In order to conform to the GHG Reduction Strategy, projects must be consistent with the Land Use/ Transportation assumptions in the 2040 General Plan and incorporate applicable features into the project that meet the mandatory implementation policies. The Project would not involve changes in land uses as envisioned under the 2040 General Plan, and therefore, would be consistent with the Land Use/ Transportation Diagram. Implementation of the Project would result in construction of temporary structures to facilitate construction of the CIPs over the next ten years and would be subject to the City's Green Building Ordinance to achieve operational emissions reductions consistent with the GHG Strategy. Additionally, as described above, it is anticipated that the Project would generate very minimal operational GHG emissions. Therefore, based on a review of anticipated Project emissions in comparison to the City's GHG Strategy and the BAAQMD CEQA Guidelines, the Project is expected to be consistent with the 2040 General Plan and GHG Strategy. Consequently, it would also not be considered to conflict with the State's AB 32 GHG emissions reduction goals. This impact would be the same as identified in the adopted EIR.

3.4.4 Conclusion

The proposed Project would not result in new or more significant impacts related to the generation of GHG emissions than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts related to conflicting with an applicable plan, policy or regulation for the reduction of GHG emissions than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

3.5 Hazards and Hazardous Materials

3.5.1 Setting

The environmental setting relevant to Hazards and Hazardous Materials for the Project site has not changed in comparison to that described in the adopted EIR. While the footprint of the Project site has changed as shown in Figure 1-1, the revised footprint would not intersect any additional known hazardous materials sites. Setting discussions from the adopted EIR for this resource area are therefore applicable to the entire Project area.

3.5.2 Findings of Previously Certified EIR

The adopted EIR identified no impact for potential public or private airport related safety hazards, for emission or handling of hazardous substances within a quarter mile of a school, or potential interference with emergency plans. The adopted EIR identified less than significant impacts for potential hazards associated with the release of hazardous building and construction materials, transport or use of hazardous materials, and potential exposure to fires. The adopted EIR identified potentially significant but mitigable to less than significant impacts for accidental release of hazardous materials into the environment, location on a hazardous materials site, and accident conditions related to rupture of subsurface utilities. Mitigation applied to these potential impacts included a pre-construction hazardous materials assessment, implementation of a health and safety plan, implementation of a soil and groundwater management plan, and coordination with regulatory agencies and utility providers.

3.5.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
HAZARDS AND HAZARDOUS MATERIALS — Would the project:						
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒	☐	1,2,3
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒	☐	1,2,3
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐	1,2,3
d) Be 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, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒	☐	1,2,3,15,16
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐	1,2,3

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐	1,2,3
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐	1,2,3
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒	☐	1,2,3,17

Release of Hazardous Materials

The Project construction would not include any demolition activities and therefore workers and the environment would not be exposed to hazardous building materials. Project construction activities would involve the use of fuels, lubricants and solvents. Storage and use of these construction items at the Project site could result in the accidental release of small quantities of hazardous materials, which could exposure construction workers to these materials and/or degrade soil, groundwater and surface water near the Project site, including the Artesian Slough. This impact would be potentially significant. Project construction would require preparation of a Storm Water Pollution Prevention Plan, and implementation of best management practices, to minimize the risk of a hazardous materials release during construction activities, further discussed under Section 3.5 Hydrology and Water Quality. With implementation of the Storm Water Pollution Prevention Plan and best management practices, potential adverse effects related to reasonably foreseeable upset and accident conditions involving the release of hazardous construction chemicals into the environment would not be more significant than those identified in the previously approved Plant Master Plan EIR.

The Project would also be used for temporary storage of construction materials and equipment, which could result in the accidental release of small quantities of hazardous materials. Currently there are hazardous materials stored at the Facility and used at various locations throughout the Facility. Hazardous materials are currently stored and used in accordance with the Facility's Hazardous Materials Business Plan (HMBP) and applicable regulations. The HMBP includes an emergency response/ contingency plan specifying procedures to contain a release or threatened release of hazardous materials, as well as required training for employees involved in hazardous materials handling. In addition, all chemical storage and handling associated with the proposed Project would be in accordance with specific requirements for the safe storage and handling of hazardous materials set forth in the San José Fire Code (California Fire Code with local City of San José amendments). With compliance with legal requirements for the storage of hazardous materials, impacts related to the storage of hazardous materials during Project operations would not be more significant than those identified in the previously approved Plant Master Plan EIR.

The Facility is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and documented releases of hazardous materials have been identified within and adjacent to the Facility. A database search of the California State Water Resources Control Board (SWRCB) GeoTracker database and the California Department of Toxic Substances Control (DTSC) EnviroStor database was performed to identify any new hazardous materials sites or uses at the Project site, in the Facility, and within a search radius of up to one mile from the Facility. No additional hazardous materials sites or other known hazardous materials spills were identified. However, the potential exists for workers to encounter hazardous materials in the soil during Project construction because the Facility is included on a list of hazardous material sites. Any hazardous materials encountered in excavated soil or groundwater during Project construction could result in a release to the environment, which could potentially expose construction workers, the public, and RWF plant personnel to hazardous materials and chemical vapors. For these reasons, the impact related to exposure to hazardous materials in soil and groundwater during construction of the Project and a reasonably foreseeable release of hazardous materials would be potentially significant. (**IMPACT HAZ-1**) However, implementation of mitigation measures identified in the Plant Master Plan EIR, and listed below, for potential upset and release of hazardous materials and location on a hazardous materials site would minimize potential impacts.

Mitigation Measures

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/or groundwater quality. ESD or its contractor shall conduct a site assessment including potential testing of soil and/or groundwater, and if testing reveals soil and/or groundwater concentrations that exceed applicable regulatory screening levels, the City shall contact the Santa Clara County Department of Environmental Health (SCCDEH) or Regional Water Quality Control Board (RWQCB), as appropriate, to secure regulatory oversight and the PBCE Senior Environmental Planner shall be notified.

The Pre-Construction Hazardous Materials Assessment may include the following: 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; groundwater samples if subsurface excavations are anticipated to require dewatering;. and 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 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 and the Soil and Groundwater Management Plan prepared in accordance with Mitigation Measure HAZ-1c 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. If the pre-construction hazardous materials assessment identifies the presence of soil and/or groundwater contamination at concentrations in excess of applicable regulatory screening levels

(Environmental Screening Levels [ESLs] or California human health screening levels [CHHSLs]) for proposed site use, ESD or its contractor shall complete site assessment and remedial activities required by the regulatory agency to ensure that residual soil and/or groundwater contamination, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment. A copy of the pre-construction hazardous materials assessment shall be submitted to the PBCE Senior Environmental Planner for approval.

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 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, the following: immediately stopping work in the vicinity of the unknown hazardous materials release; notifying SCCDEH and 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.

A copy of the HASP shall be submitted to the PBCE Senior Environmental Planner for approval.

Mitigation Measure HAZ-1c: Soil and Groundwater Management Plan

If ground-borne hazardous materials 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, subject to review by the PBCE Senior Environmental Planner, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The 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.

Other Hazards

The Project site would be located south of the existing Facility operational area, along the south margin of the Facility. The nearest airports to the project are the Norman Y. Mineta San José International Airport, located approximately three miles south of the Project site and the Moffett Federal Airfield, located approximately six miles west of the Project site. There are no private airstrips within two miles of the Project site. There are no schools within 0.25-mile of the Project site. The Project would not be closer to any school or airport, than what was in the adopted EIR, such that additional impacts could occur.

Santa Clara County does not have an adopted emergency response plan or emergency evacuation plan that designates specific emergency response or evacuation routes within the Facility. The Project site is located within the Facility, so the Project would not include changes that would affect emergency response such that additional impacts could occur compared to what was in the adopted EIR.
The Project site is not located within identified high fire hazard areas. The Project would not include any changes that would increase exposure to wildfires, such that additional impacts could occur compared to what was in the adopted EIR.

The potential exists during Project construction activities, including grading and excavation, that subsurface and overhead utilities (e.g., a high-pressure natural gas line or electrical line) might be inadvertently damaged. Such damage to utilities could fatally injure construction workers, damage

equipment, and initiate fires. Because of the greater risk involved in excavating around high-pressure gas lines and the potential for catastrophic results, this impact would be considered a significant hazard to the public. Utility clearance is part of the standard construction process for projects at the Facility by requiring advance coordination with utility providers for protection of subsurface utilities and protection for utilities during construction, further described below in Section 3.7 Utilities and Service Systems. With implementation of this utility clearance process, the Project would not result in any new or more significant impacts to utilities during construction than those identified in the previously approved Plant Master Plan EIR.

3.5.4 Conclusion

The proposed Project would not result in additional demolition activities that would release hazardous building materials, than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in additional delivery, transport, or use of hazardous materials that could result in new or more significant impacts related to the accidental release of construction hazardous materials, or the transport or use of hazardous materials, than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Implementation of the measures included in the adopted EIR would reduce possible impacts associated exposure to hazardous materials in soil and groundwater during construction during construction to a less than significant level and the proposed Project would not result in any new or more significant impacts. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

The proposed Project would not result in new or more significant impacts to airports, private airstrips, schools, or emergency response than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [No Impact]**)

Implementation of the measures included in the adopted EIR would reduce possible impacts subsurface and overhead utilities during construction to a less than significant level and the proposed Project would not result in any new or more significant impacts. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation])**

3.6 Hydrology and Water Quality

3.6.1 Setting

Setting information relevant to hydrology and water quality within the Project area remains the same as discussed in the adopted EIR. While the footprint of the Project site has changed as shown in Figure 1-1, the revised footprint would not intersect any additional know hydrologic features, but would be located just south of the Artesian Slough. The setting discussions from the adopted EIR for this resource area are therefore applicable to the entire Project area.

3.6.2 Findings of Previously Certified EIR

The adopted EIR identified no impact related to placing housing within a 100-year flood hazard area and exposure of people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. The adopted EIR identified less than significant impacts for degradation of receiving waters due to generation and emission of construction-related water quality pollutants, reduced water quality downstream of the project site due to stormwater discharges during project operations, alteration of downstream/ receiving water quality, and increased risks associated with coastal flooding. The adopted EIR identified potentially significant but mitigable to less than significant impacts for potential for increased scour and erosion from restoration of Pond A18, alteration of pond or downstream water quality due to proposed operations of Pond A18, increased risk of flooding due to runoff associated with increases in impervious area, potential to cause saltwater intrusion of regional groundwater sources, and depletion of groundwater supplies or interference with groundwater recharge.

3.6.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
HYDROLOGY AND WATER QUALITY — Would the project:						
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒	☐	1,2,3
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒	☐	1,2,3
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒	☐	1,2,3

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☐	☒	☐	1,2,3
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒	☐	1,2,3
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒	☐	1,2,3
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	☐	1,2,3,18
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒	☐	1,2,3,18
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒	☐	1,2,3
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	☐	1,2,3

Water Quality

Construction

Construction activities associated with the proposed Project would be expected to include the use of heavy equipment, such as excavator/blade, compactor, and dump trucks. Such equipment would be required for grading and excavation, and the construction of facilities. The use of these types of machinery within the Project site would disturb surface sediments and could result in the release of sediment and other water quality pollutants to natural waters. Potential pollutants associated with the use of construction equipment could include, but would not be limited to, spilled fuels, oil, lubricants, antifreeze, or hydraulic fluid. Also, the use of heavy machinery including grading and stockpiling of soils would disturb and loosen surface sediments. During storm events, these potential pollutants, including sediment, could become entrained in stormwater runoff, and be transported into nearby drainage systems or in some cases, directly into natural waterways located on or adjacent to the Project site.

Drainage from the Project site eventually discharges into the San Francisco Bay. Therefore, discharges from construction activities could result in the degradation of water quality within the San Francisco Bay, as well as other tributaries that receive stormwater from the Project site – namely, Coyote Creek and Artesian Slough. Degradation of water quality along these waterways could in turn affect beneficial use, and could result in exceedance of San Francisco Regional Water Quality Control Board (RWQCB) standards.

The proposed Project would result in the disturbance of at least one acre of surface area during construction. As such, construction would require the City and/or contractor to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) through development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Adherence to the General Construction Permit would be required to implement construction related stormwater control measures, including best management practices (BMPs) that would minimize the discharge of potential water quality pollutants associated with construction activities. Adherence to these conditions would ensure that emissions from the project site during construction would be minimized. Therefore, impacts related to degradation of receiving waters due to generation and emission of construction-related water quality pollutants would not be more significant than those identified in the previously approved Plant Master Plan EIR.

Operation

The Proposed project operation would not result in discharge of treated wastewater, so there would be no increase in wastewater beyond what is already permitted most recent update to the wastewater discharge NPDES permit (Order No. R2-2009-0038 and NPDES Permit No. CA0037842). Therefore, the proposed Project would not violate any water quality standards or waste discharge requirements.

The proposed roadway improvements at Zanker Road would result in the installation of additional impervious surface areas on site. Runoff from impervious surfaces can contain a variety of potential water quality pollutants. These may include, but may not be limited to, oils, greases, brake dust, trash, sediments, and other potential pollutants that may collect on hardscape surfaces. During storm events, these potential water quality pollutants can become entrained in stormwater and be discharged from the site of the impervious surfaces. Discharge of these potentially polluted waters can then result in the degradation of water quality downstream in receiving waters.

Under existing conditions, all discharges of stormwater from the Facility are regulated via adherence to conditions of coverage under the State Water Resources Control Board's (SWRCB)'s Industrial Storm Water General Permit Order 97-03-DWQ (General Industrial Permit). The General Industrial Permit also requires the development of a SWPPP and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce stormwater pollution are described. Adherence to the requirements of the associated SWPPP, other stormwater pollution control measures, and ongoing stormwater quality monitoring that would be implemented under the General Industrial Permit, would ensure that potential reductions to discharges of stormwater quality would be minimized.

Stormwater from these uses could also be conveyed via existing municipal separate storm sewers, and therefore would be required to adhere to the requirements of the existing Municipal Regional Stormwater NPDES Permit (also referred to as MRP). Adherence to the conditions of the MRP would ensure that operation period discharges of stormwater would maintain compliance with associated standards sufficient to protect receiving water quality and maintain downstream beneficial use. Adherence to permit conditions would be sufficient to protect receiving water quality, and the Project would not result in any new of more significant impacts than those identified in the previously approved Plant Master Plan EIR.

Groundwater

The proposed Project does not include installation of any groundwater supply wells and thus would not lower the local groundwater table through operation of onsite groundwater wells. The following discussion on construction effects on groundwater is consistent with the analysis in the Plant Master Plan EIR.

The limited site-specific groundwater studies suggest that groundwater levels fluctuate seasonally, between approximately -2 to -6 feet NAVD88, corresponding to as little as 1.1 feet below ground in the lowest regions of the Facility and the surrounding area, including the Project site. Therefore, installation of facilities is likely to require dewatering operations because installation of the pipeline connections and utility poles would require excavation deeper than the local groundwater table.

Groundwater dewatering involves the removal of water from the excavation at a rate equal to or greater than the rate of groundwater entering the excavation. This is typically accomplished by the use of surface pumps, submersible pumps, and in some cases, by the use of extraction wells placed at a given distance around the excavation location. The purpose of dewatering is to lower the water table to below the depth of excavation to provide access to desired depth. Pumps extract the water from the excavation and pipes discharge the water to open ground, tanks or directly to receiving water sources.

The impact to groundwater during construction of the proposed Project facilities would be temporary and confined to the immediate vicinity of the excavation. The affected groundwater would be from the shallow aquifer, which is not used as a source of municipal drinking water. Further, the influence of pumping (i.e., cone of depression) would not extend far from the excavation and would never be greater than the depth of the excavation. For these reasons, the Project would not result in any new of more significant impacts of construction excavation with respect to depletion of groundwater supplies, than those identified in the previously approved Plant Master Plan EIR.

Drainage, Runoff and Flooding

Construction and operation of the proposed Project would require installation of impervious surfaces and modifications to the existing, local drainage characteristics. These proposed changes could increase the volume and rate of stormwater runoff generated from the Project area and subsequently lead to increased flooding. Impervious surfaces essentially eliminate the process of infiltration, allowing a larger volume of precipitation to be transformed to surface runoff and conveyed more efficiently through the drainage network. As such, without proper drainage designs and/or pumping capacity, the proposed change in impervious surface area could result in earlier and larger peak flow rates during storm events and lead to an increase in flooding or ponding.

Construction

During the construction of the proposed Project, grading and excavation activities could result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment in the runoff. If graded areas and/or soil stockpiles are not managed properly and protected against stormwater flows, high sediment loads in stormwater runoff could clog drainage pipes, cause water pumps to malfunction, or otherwise decrease the carrying capacity of drainage channels, potentially resulting in increases in localized ponding or flooding.

As discussed previously, the proposed Project would result in the disturbance of at least one acre of surface area during construction and therefore would be required to obtain coverage under the General Construction Permit, through development and implementation of a SWPPP. The SWPPP is mainly focused on preventing detrimental effects on water quality; since increases in runoff can have a negative impact on water quality, a SWPPP must include measures to control the overall runoff volume and rate from construction sites. The SWPPP must also protect exposed soils from being entrained by stormwater runoff. These measures have the beneficial effect of controlling flooding that might otherwise be caused by construction activities and preventing excessive sediment loads in stormwater runoff. Therefore, the impact of flooding due to increased runoff caused by construction activities under the proposed Project would not be more significant than those identified in the previously approved Plant Master Plan EIR.

Operation

The proposed Project includes improvements to Zanker Road, which would increase impervious surfaces within the area and could contribute to slight increases in runoff. Given the minor changes proposed and the minimal amount of new impervious surfaces proposed, and that the majority of the area where the roadway improvements would take place is already paved, the effects of improvements on the rate and volume of runoff is expected to be minimal.

FEMA has mapped the entire site within the 100-year coastal floodplain (FEMA Zone AE). The Project does not propose the construction of housing; therefore, the Project would not place housing within a 100-year flood hazard area and no direct impacts related to this would occur. The proposed Project would include structures and development mapped in the FEMA 100-year floodplain. Increasing the development within the 100-year floodplain increases the risks associated with coastal flooding. The increased risks associated with coastal flooding would be reduced through implementation of the City's standard floodproofing requirements, listed below, which are based on FEMA flood certifications and require development of an evacuation plan and floodproofing of flood-prone structures.

City Standard Floodproofing Requirements for New Non-Residential Structures

a) Elevate the lowest floor above 12.00' NAVD88 or *floodproof to the same elevation*. For insurance rating purposes, the building's floodproofed design elevation must be at least one foot above the base flood elevation to receive rating credit.

b) An Elevation Certificate (FEMA Form 81-31) for each proposed structure, based on construction drawings, is required prior to issuance of a building permit. Consequently, an Elevation Certificate for each built structure, based on finished construction is required prior to issuance of an occupancy permit.

c) If the structure is to be floodproofed, a Floodproofing Certificate (FEMA Form 81-65) for each structure, floodproofing details, and, if applicable, a Flood Emergency Operation Plan and an Inspection & Maintenance Plan are required prior to the issuance of a Public Works Clearance.

d) Building support utility systems such as HVAC (heating, ventilation, and air conditioning, electrical, plumbing, air conditioning equipment, including ductwork, and other service facilities must be elevated above the base flood elevation or protected from flood damage.

Compliance with the City's standard conditions for floodproofing would ensure impacts related to increases in coastal flood risk remain the same as those identified in the previously approved Plant Master Plan EIR.

Inundation

This project would not cause substantial increases in exposure to risks involving seiche, tsunami, or mudflow. Potentially, a tsunami could enter San Francisco Bay through the Golden Gate; however, it would be greatly attenuated if it were to reach the Project site, and would not be expected to cause substantial damage. Therefore, impacts related to inundation by tsunami would be the same as those identified in the previously approved Plant Master Plan EIR. The Project site is not located adjacent to steep slopes that would result in mudflow hazards and no impacts would occur.

3.6.4 Conclusion

The proposed Project would not result in new or more significant impacts related to the violation of water quality standards or waste discharge requirements, or substantially degradation of water quality than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts related to groundwater supplies than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts related to drainage, surface runoff, or flooding than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts related to inundation than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [No Impact]**)

3.7 Transportation and Traffic

3.7.1 Setting

Setting information relevant to transportation and traffic for the Project remains the same as discussed in the adopted EIR. Construction access would be through the existing entrance/gate off Zanker Road, connecting to State Route (SR) 237. Trucks would then access the Facility operational area via the existing roadway adjacent to the EBOS, or the gravel road adjacent to the northeast portion of the Project site. The setting discussions from the adopted EIR for this resource area are therefore applicable to the entire Project area.

3.7.2 Findings of Previously Certified EIR

The adopted EIR identified no impact related to air traffic patterns as the project would not introduce new air traffic or interfere with existing air traffic. The adopted EIR identified less than significant impacts for conflicts with applicable transportation and traffic plans, affects to levels of service at the Congestion Management Program (CMP) study intersections and freeways, increases in traffic-related hazard, and conflicts with adopted policies, plans, and programs supporting alternative transportation. The adopted EIR identified potentially significant, but mitigable to less than significant, impacts for effects to levels of service at the study intersections and freeways, and emergency access. The adopted EIR identified significant and unavoidable impacts to established measures of effectiveness for travel mode share and travel speeds in transit corridors specific to the economic development portion of the Plant Master Plan evaluated in the EIR.

3.7.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
TRANSPORTATION AND TRAFFIC — Would the project:						
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒	☐	1,2,3,19
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒	☐	1,2,3,19,20
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☒	☐	1,2

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	☐	1,2
e) Result in inadequate emergency access?	☐	☐	☐	☒	☐	1,2,3
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒	☐	1,2

Trip Generation

Project construction would include an average of five truck deliveries to the site (10 one-way trips) daily. Truck trips would also include the pumping truck for the greywater holding tank, which would be emptied twice a week. Approximately five workers per day would commute to the site on average; generating approximately 10 one-way trips per day (with workers assumed to commute to/from the work site during the peak traffic hours). In general, the great majority (95%) of project trips are assumed to access the site via SR 237 (at the Zanker Road interchange), with the remaining five percent of the trips accessing the site via Zanker Road south of SR 237.

Levels of Service

The operation of a local roadway network is commonly measured and described using a grading system called Level of Service (LOS). The LOS grading system qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating free-flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long delays). This LOS grading system applies to both roadway segments and intersections.

Legislation that created the CMP excludes certain types of traffic from a determination of conformance with CMP traffic LOS standards. Construction traffic is one of these exclusions; for this reason, traffic generated by construction from the proposed Project would not conflict with the CMP and does not require LOS analysis.

Intersections

Access to the Project site from the regional roadway network is limited to Zanker Road. As reported in the adopted EIR, Zanker Road serves an average daily traffic (ADT) volume of approximately 3,600 vehicles north of the SR 237 ramps. The most likely intersections that could be affected by an increase in traffic trips would be the Zanker Road/SR 237 Westbound Ramps and Zanker Road/SR 237 Eastbound Ramps intersections. Both of these intersections are part of the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP). According to the VTA's 2012 Annual Monitoring and Conformance Report, these two intersections operate at LOS B during the peak

hours. The AM and PM peak hours typically occur within the two-hour periods from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m., respectively.

As described above, the two closest intersections to the Project site currently operate at acceptable LOS conditions (LOS B), and the ADT on Zanker Road north of the SR 237 ramps is approximately 3,600 vehicles. The Project would add approximately 10 one-way worker vehicle trips per day (i.e., five commute trips during each of the AM and PM peak hours). The five truck deliveries per day would be spread over the 10-hour (7:00 a.m. to 5:00 p.m.) work day. Under the Plant Master Plan EIR, it was determined that the near-term plant improvements are anticipated to add 17 new vehicle trips during the AM peak period and 21 new vehicle trips during the PM peak period to the nearby roadways. It was determined that the addition in those trips would not substantially increase the critical delay or volume-to-capacity ratio at the two study intersections, and the intersections would continue to operate at acceptable service levels (LOS B). Because the Project would add fewer trips than those evaluated under the Plant Master Plan EIR, the intersections would continue to operate at acceptable service levels (LOS B), and the Project would not result in any new or more significant impacts as those identified in the previously approved Plant Master Plan EIR.

Freeways

Because the Project site is at the northern border of San José and is generally bounded by SR 237 and I-880, a majority of the Project traffic would access the site via these two freeways and the SR 237 and I-880 segments immediately adjacent to the Project site could most likely be affected if there was an increase in traffic trips. In general, SR 237 is fairly congested during both peak traffic periods and has limited capacity to accommodate additional growth in traffic. Northbound I-880 is the peak commute direction during the morning, and southbound is the peak commute direction during the evening. I-880 has slightly more capacity to accommodate additional growth in traffic, though it does have constraints in the peak directions of travel. Data published by Caltrans indicate that the AADT on I-880 is about 175,000 vehicles south of SR 237 and 205,000 vehicles north of SR 237.[25]

According to VTA's 2012 Annual Monitoring and Conformance Report, the following freeway segments closest to the Project site currently exceed VTA's LOS E standard during the specified peak hour:

- SR 237, Eastbound, Great America Parkway to North 1st Street (PM peak hour)
- SR 237, Eastbound, North 1st Street to Zanker Road (PM peak hour)
- SR 237, Eastbound, McCarthy Boulevard to I-880 (PM peak hour)
- SR 237, Westbound, I-880 to McCarthy Boulevard (PM peak hour)
- SR 237, Westbound, McCarthy Boulevard to Zanker Road (PM peak hour)
- SR 237, Westbound, Zanker Road to North 1st Street (PM peak hour)
- SR 237, Westbound, North 1st Street to Great America Parkway (PM peak hour)
- I-880, Southbound, SR 237 to Great Mall Parkway (AM and PM peak hours)

[25] California Department of Transportation (Caltrans), 2015 *2014 Traffic Volumes on California State Highways*, available online at http://traffic-counts.dot.ca.gov/index.htm ; accessed October 2015.

All other freeway segments closest the Project area operates at acceptable LOS conditions during the peak hours.

CMP guidelines require that freeway segments to which a proposed development is projected to add trips equal to or greater than one percent of the freeway segment's capacity must be evaluated. Under the Plant Master Plan EIR, it was determined that the near-term plant improvements are anticipated to add approximately one to 12 vehicles per hour per lane to the freeway segments, which results in adding less than one percent of capacity to any study freeway segments. As described above, the Project would add approximately five commute trips during each of the AM and PM peak hours, and no more than one truck delivery per hour over the 10-hour work day. Because the Project would add fewer trips than those evaluated under the Plant Master Plan EIR (and add less than one percent of capacity to any study freeway segments), the proposed Project would not result in any new or more significant impacts on study freeway segments as those identified in the previously approved Plant Master Plan EIR.

Construction

As discussed in Chapter 2, Project Description, one of the components of the Project would be roadway improvements between the proposed guard shack and Zanker Road, and along Zanker Road. The construction of these roadway improvements would require closure of one travel lane on Zanker Road during construction hours, resulting in one-way alternate traffic flow around the construction zone. The temporary lane closure along Zanker Road would reduce the roadway capacity and disrupt circulation along the roadway. Such a reduction in roadway capacity would be considered a significant impact. (**IMPACT TR-1**) In order to reduce any potential impacts, implementation of mitigation measures identified in the adopted Plant Master Plan EIR, and listed below would minimize potential impacts.

Mitigation Measures

Mitigation Measure TR-1: 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)[26] and San José Public Works Department's Temporary Traffic Control Manual.[27] 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.

[26] 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.

[27] 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.

- 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.
- 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.

With implementation of the above measure, the construction activities associated with the Project would not result in any new or more significant impacts to roadway capacities than those identified in the previously approved Plant Master Plan EIR.

Public Transit, Bicycle, and Pedestrian Facilities

The Project site and its immediate environs are not directly served by transit, although a limited number of VTA bus routes operate in the area. The Great America Amtrak and Altamont Commuter Express station is located approximately two miles from the Project site, but there is no transit connectivity between the Project site and the station. Existing transit service does not serve the Project area directly, and the Project would not conflict with any planned transit facilities nor would the Project prohibit access to such facilities.

The Project site currently has very limited pedestrian access, and no sidewalks are provided within the Project site. The Project would not affect any existing or planned pedestrian facilities nor would the project conflict with any plans or policies associated with such facilities and users of such facilities.

The Project would not directly or indirectly eliminate alternative transportation corridors or facilities, nor would the Project include changes in adopted policies, plans, or programs that support alternative

transportation. As a result, the Project would not conflict with adopted policies, plans, and programs that support alternative transportation.

There is a Class I trail that extends south of and parallel to SR 237 starting at the Zanker Road/SR 237 Westbound ramp intersection and heading west. There is also a Class I bicycle path north of and parallel to SR 237, starting at the Zanker Road/SR 237 Westbound ramp and continuing east toward the northern stretch of Coyote Creek Trail/Bay Trail. Additionally, there are Class II bicycle lanes provided on Zanker Road, south of the SR 237 Eastbound ramp intersection. The widening of Zanker Road at the proposed Construction Driveway and construction traffic are not anticipated to change the general character of the roadway facilities for pedestrian and bicycle users. Therefore, the Project would not conflict with any existing bicycle facilities, nor would the Project restrict or prohibit access to bicycle facilities or result in a disturbance to users of such bicycle facilities. However, to provide an option for pedestrians and bicyclists who may prefer not to use Zanker Road during construction activities, signage would be placed as part of implementation of the Traffic Control Plan (described above under Mitigation Measure TR-1) directing bicyclists to an alternate routes near the Facility. Bicyclists who currently connect to the San Francisco Bay Trail via Zanker Road and Los Esteros Road would be directed by signage to use the following optional alternate routes:

- Take the Class II bicycle lane on Zanker Road north of the SR 237 interchange and turn right into the Class II lane on Holger Way,
- Turn right to continue on Holger Way and travel in the Class II lane,
- Turn right onto North First Street and travel in the buffered Class II lane,
- Turn right onto the Nortech Parkway and travel in the Class II lane,
- Turn left onto Disk Drive and travel in the Class II lane,
- Continue onto Grand Boulevard. From Grand Boulevard, bicyclists can continue north and connect to the San Francisco Bay Trail.

Signs providing a notice of the increased construction activity and a map of the alternate route would also be placed at the San Francisco Bay Trail and Coyote Creek Trail access points.

Air Traffic

As was discussed in the Plant Master Plan EIR, the Project would not introduce new air traffic or interfere with existing air traffic, and therefore have no impact related to air traffic patterns.

Traffic Related Hazards

The Project is not anticipated to increase demand for transit, bicycle, and pedestrian facilities nor result in the need for additional infrastructure to support such transportation facilities. As discussed above, there is no existing transit service to the Project site, and there is limited bicycle and pedestrian activity in the vicinity of the Project site. Additionally, there are no sidewalks within the Project site vicinity, and there are no existing bicycle facilities that would be adversely affected by any Project-generated traffic. The proposed improvements to Zanker Road are intended to alleviate the potential for queued vehicles (waiting to turn into the site) to block through traffic along Zanker Road and to improve safety. Overall, the Project would not alter roadway geometries or provide new roadway design features that would result in

traffic safety hazards for vehicles, bicyclists, and pedestrians along nearby roadways. As discussed above, implementation of a Traffic Control Plan during construction of the Zanker Road improvements would reduce potential impacts to traffic safety. Based on these findings, the Project would not result in any new od more significant impacts to traffic safety hazards than those identified in the previously approved Plant Master Plan EIR.

Emergency Access

Existing access to the Project site is gained via Zanker Road, from North 1st Street, and along Los Esteros Road. The Project would include improvements to Zanker Road, which would require temporary closure of one travel lane during construction. However, one-way alternate traffic flow would be maintained on the open travel lane, and implementation of Mitigation Measure TR-1 (Implementation of a Traffic Control Plan), would reduce potential impacts to emergency access during construction of the Project.

Because access would be maintained to the site for both emergency and general (public) vehicles and the Project would not create any obstructions that would impede access in the event of an emergency, the project would not result in inadequate emergency access.

3.7.4 Conclusion

The proposed Project would not generate more vehicle trips than those identified in the previously approved Plant Master Plan EIR, and therefore would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, or conflict with an applicable congestion management program. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Implementation of the measures included in the adopted EIR would reduce possible impacts associated with a reduction in roadway capacity and potential impacts to emergency access during construction of the Project to a less than significant level, and the proposed Project would not result in any new or more significant impacts. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

The proposed Project would not result in new or more significant impacts to public transit, bicycle and pedestrian facilities, or traffic-related hazards than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

3.8 Utilities and Service Systems

3.8.1 Setting

The environmental setting relevant to Utilities and Service Systems for the Project site has not changed in comparison to that described in the adopted EIR. While the Project includes utility connections to existing facilities as described in Chapter 2, there would be no expansion of utility service beyond the Facility. Setting discussions from the adopted EIR for this resource area are therefore applicable to the entire Project area.

3.8.2 Findings of Previously Certified EIR

The adopted EIR identified no impact related to: exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board; the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, which could cause significant environmental effects; and adequate capacity to serve the projected demand in addition to the wastewater treatment provider's existing commitments. The adopted EIR identified less than significant impacts for the construction of new or expansion of existing water treatment facilities, water supply availability to serve the project from existing entitlements and resources, sufficient permitted capacity to accommodate the solid waste disposal needs during construction and operation, and compliance with statutes and regulations related to solid waste. The adopted EIR identified potentially significant, but mitigable to less than significant, impacts for disruption of regional or local utilities. The adopted EIR identified significant and unavoidable impacts related to the construction of new or expansion of existing water treatment facilities and water supply availability to serve the project from existing entitlements and resources specific to the economic development portion of the Plant Master Plan evaluated in the EIR.

3.8.3 Impacts Discussion

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
UTILITIES AND SERVICE SYSTEMS — Would the project:						
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	☐	1,2,3
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐	1,2,3
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐	1,2,3
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒	☐	1,2,3

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	☐	1,2,3
e) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒	☐	1,2,3,21
f) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐	1,2,3

Wastewater

As described in Plant Master Plan EIR, the objectives of the Plant Master Plan include changing Facility treatment processes to accommodate population growth and meet future water quality regulations. The Master Plan includes various CIPs needed to address aging infrastructure, reduce odors, accommodate projected population growth in the Facility's service area, and comply with changing regulations that affect the Facility. The proposed Project would provide the necessary infrastructure to support construction activity for the Master Plan CIPs across the Facility site. Refer to Sections 3.1 through 3.6 for a description of impacts and mitigation measures associated with construction of the proposed Project. The potential for the Project to require or result in the construction of new or expansion of existing water facilities is addressed below.

The proposed Project would result in the need for five workers per day and this small increase in employees is estimated to result in an increase in potable water usage. Potable water sources for the Facility and surrounding lands is delivered from the SFPUC, and does not require treatment at a water treatment plant. The projected increase in workers is therefore not expected to require expansion of this system.

Because the Project would support the wastewater improvements and not require expansion of the treatment system, the project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Water Supply

Water service for the WPCP and surrounding lands in North San José and Alviso is provided by the San José Municipal Water System (SJMWS), which purchases water from the San Francisco Public Utilities Commission (SFPUC) and delivers it to the Alviso and North San José area.

During construction of the proposed Project, the contractors would likely use publicly available recycled water (available on-site) for most construction uses. Approximately 10 percent of treated water from the Facility is conveyed to the South Bay Water Recycling (SBWR) distribution system. A 60-inch recycled water pipeline originates at the Facility and extends south to a location just north of the intersection of Zanker Road and SR 237. A 30-inch recycled water pipeline also intersects this 60-inch line and runs east

and west through the bufferlands, connecting to a network of pipes located east of Zanker Road and south of SR 237. Consequently, construction would not significantly affect water supplies.

As discussed above, the proposed Project would result in the need for five workers per day and this small increase in employees is estimated to result in an increase in potable water usage; however this increase would not require additional water supply entitlements. In addition, water connections to the temporary contractor trailers would be via an existing pipe within Zanker Road. Therefore, the Project would not result in any new or more significant water supply impacts than those identified in the previously approved Plant Master Plan EIR.

Storm Drainage

There are no public storm drain lines located in Zanker Road or in Los Esteros Road within the Project area. The nearest connection to the City's storm drain system is located in Nortech Parkway, west of the Project site. Most stormwater runoff drains towards the western corner of the Facility adjacent to the Alviso community and New Chicago Marsh. Surface water runoff that collects in this area drains to New Chicago Marsh through a culvert under Grand Boulevard. All storm drainage on Los Esteros Road and Zanker Road drains to either the Facility or to the pump stations that eventually return the water to the Facility. All stormwater up to the 100-year recurrence interval on the existing Facility operational area is intercepted and routed either to the headworks or to the primary effluent equalization basin.

The proposed Project does not include new stormwater drainage facilities or the expansion of existing facilities. In addition, operation of the proposed Project would also be required to comply with the requirements of the General Industrial Permit and the existing MRP. For additional discussion regarding the increased risk of flooding due to runoff, refer to the discussion in Section 3.5 Hydrology and Water Quality, above.

As discussed previously, the proposed Project would result in the disturbance of at least one acre of surface area during construction and therefore would be required to obtain coverage under the General Construction Permit, through development and implementation of a SWPPP. Since increases in runoff can have a negative impact on water quality, a SWPPP must include measures to control the overall runoff volume and rate from construction sites. These measures have the beneficial effect of controlling stormwater runoff that might otherwise be caused by construction activities. Because the project would include measure to control the amount of stormwater runoff, the proposed project construction would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities.

Solid Waste

The proposed Project would comply with all applicable regulatory requirements related to solid waste. Specifications for construction of the proposed Project would contain requirements for the handling, storage, cleanup, and disposal of hazardous materials; including petroleum-based products, cement, or other construction pollutants. Refer to Section 3.4, Hazardous Materials and Hazards, for additional information on hazardous materials associated with construction of the proposed Project and how hazardous materials would be handled if encountered during construction.

Construction activities associated with the Project, such as roadway improvements and earthwork (i.e., grading, excavation), would produce solid waste. Waste from the Project may be disposed at any of the following facilities; Guadalupe Landfill, Kirby Canyon Landfill, Newby Island Landfill, Zanker Material Processing Facility, and Zanker Road Landfill. **Table 3.7-1** below lists landfills in Santa Clara County and the estimated closure year, remaining capacity, and maximum daily waste processing capacity of each.

TABLE 3.7-1
SUMMARY OF SANTA CLARA COUNTY LANDFILLS

Landfill	Location	Estimated Closure Month/Year	Remaining Capacity (cubic yards)	Max Waste Accepted/Day (tons)[a]
Newby Island Landfill	1601 Dixon Landing Road, Milpitas, CA	01/2041	21,2000,000	4,000
Zanker Road Landfill	705 Los Esteros Road, San José, CA	08/2015	700,000	1,300
Guadalupe Landfill	15999 Guadalupe Mines Road, San José, CA	01/2048	11,055,000	1,300
Kirby Canyon Landfill	910 Coyote Creek Golf Drive, Morgan Hill, CA	12/2022 [b]	57,271,507	2,600

NOTE: NA = Not available

[a] Alternative daily cover does not count towards the maximum waste accepted per day.

[b] This estimated closure date, provided at CalRecycle' s Solid Waste Information System (SWIS) website, is apparently based on the landfill's 1993 Solid Waste Facility Permit (available at the CalRecycle SWIS website) which shows 2022 as the estimated closure year. In 2013 Sunnyvale extended its contract for disposal at Kirby Canyon Landfill to 2031, indicating the landfill's current expected site life is at least that long.

SOURCE: CalRecycle, 2015. Solid Waste Information System (SWIS)–Facility/Site Listing.

Considering the currently undeveloped nature of the Project site, the majority of construction waste is expected to be soil from grading and excavation. As long as soils slated for off-site disposal are not contaminated with hazardous materials or have otherwise been screened appropriately for the proposed use, soils could be used onsite for backfill or as landfill cover at the various Santa Clara County landfills summarized in Table 3.7-1 and are not considered waste. Although the disposition of waste has not been determined, considering the remaining capacity amounts at the Newby Island, Guadalupe, and Kirby Canyon Landfills (Table 3.7-1) and that capacity estimates account for all planned development, there should be sufficient capacity to handle waste resulting from the proposed Project. In addition, construction would comply with the City's mandatory Construction and Demolition Diversion Deposit Program and any applicable recommendations of the Zero Waste Strategic Plan's Construction and Demolition Program in effect at the time of construction, which would substantially reduce impacts to Santa Clara County landfills.

Operation of the proposed Project would result in an increase in solid waste generation from the additional workers on-site. However, as noted above, based on the remaining capacity amounts at the Newby Island, Guadalupe, and Kirby Canyon Landfills (Table 3.7-1), there should be sufficient capacity to handle waste resulting from operation of the proposed Project. In addition, solid waste generation would be reduced through compliance with the City's Zero Waste Strategic Plan, *Envision San José 2040 General Plan* policies, existing regulations, and local programs.

Because construction and operation of the proposed Project would comply with all applicable regulatory requirements and local programs related to solid waste, the Project would not result in any new or more significant solid waste impacts than those identified in the previously approved Plant Master Plan EIR.

Utility Service

Construction of the proposed Project components, including roadway improvements, could result in utility service disruption if construction activities in public rights-of-way require closure of utility lines during construction. Potentially affected utilities may include water, recycled water, sewer, gas, electricity, telecommunications, cable, and other infrastructure. In addition, the project would require connection to existing PG&E power lines along Zanker Road. Although there would be no interruption in Facility operations during construction of proposed Project, other utilities could be affected during construction. Utility clearance is part of the standard construction process for projects at the Facility. During design, projects incorporate the Facility GIS utility maps into plan drawings and if there are close clearances that need to be confirmed, a third party utility company is employed during the design stage. Utility drawings are also provided to contractors and before breaking ground, contractors must conduct potholing to confirm utility clearance, in addition to calling USANorth prior to any digging. With implementation of this utility clearance process, the Project would not result in any new or more significant impacts to utilities during construction than those identified in the previously approved Plant Master Plan EIR.

3.8.4 Conclusion

The proposed Project would not result in new or more significant impacts to wastewater treatment requirements or wastewater treatment facilities than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts to water supplies than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts to storm water drainage facilities than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

The proposed Project would not result in new or more significant impacts to landfill capacity and solid waste regulations than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Implementation of the measures included in the adopted EIR would reduce possible impacts associated with interruption to existing utilities during construction of the proposed Project to a less than significant level, and the proposed Project would not result in any new or more significant impacts. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

3.9 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporation*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*	*Checklist Source(s)*
11. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:						
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒	☐	1-21
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒	☐	1-21
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒	☐	1-21

3.9.1 Discussion

Direct or Indirect Impacts to the Quality of the Environment; Fish, Wildlife, or Plant Species, Habitat, or Community; California Prehistory or History; Human Beings

As discussed in the sections above, the modified Project would have the same impacts to air quality, biological resources, cultural resources, greenhouse gas emissions, hazardous materials, hydrology and water quality, transportation and traffic, or utilities and service systems as the Project analyzed in the approved Plant Master Plan EIR.

Impacts to air quality, water quality, and hazardous materials by the modified Project could directly affect human beings, and all CEQA impacts discussed above could indirectly affect human beings. However, implementation of the mitigation measures, General Plan policies, and conditions of approval; and compliance with applicable federal, state, and local regulations as discussed in the approved Plant Master Plan EIR and in this addendum would reduce these impacts to a less-than-significant level. This addendum has identified no other direct or indirect adverse effects on human beings.

Cumulatively Considerable Impacts

As noted in Section 2.2.2, Construction Characteristics, Section 3.1 Air Quality, and Section 3.7, Transportation and Traffic, construction of the modified Project could overlap with construction of other

projects at the Facility. Therefore, implementation of Mitigation Measure C-TR (see below) as described in the approved Plant Master Plan EIR would reduce the modified Project's contribution to any potential traffic impacts to the surrounding network; and ensure that the modified Project would not result in any new or more significant traffic impacts than those identified in the approved Plant Master Plan EIR.

Mitigation Measures

Mitigation Measure C-TR: 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:

- 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.

3.9.2 Conclusion

Implementation of the modified Project would not result in new or more significant impacts related to the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, eliminate important examples of the major periods of California history or prehistory, or cause substantial direct or indirect adverse effects on human beings than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Implementation of the modified Project would not result in new or more significant individually limited but cumulatively considerable impacts than those identified in the previously approved Plant Master Plan EIR. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

Checklist Sources

1. CEQA Guidelines and professional expertise of consultant.

2. Project plan/description and site review, including revised Project description.

3. San José/Santa Clara Water Pollution Control Plant Master Plan Environmental Impact Report; State Clearinghouse No. 2011052074; City of San José File Number PP11-403. November 19, 2013.

4. Federal Emergency Management Agency (FEMA), 2009, Flood Insurance Rate Maps, Santa Clara County, California.

5. Bay Area Air Quality Management District (BAAQMD), 2012. CEQA Air Quality Guidelines, revised May 2012.

6. California Air Resources Board (CARB), 2000. Public Meeting to Consider Approval of Revisions to the State's On-road Motor Vehicle Emissions Inventory, Technical Support Document, Section 4.13 – Factors for Converting THC Emission rates to TOG/ROG, May 2000.

7. South Coast Air Quality Management District, 2006. Final – Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds, October 2006.

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9. Santa Clara Valley Habitat Agency, 2015. Multi-Phase Project Burrowing Owl Fee Policy.

10. ICF International, 2012. Existing Conditions Report: San José/Santa Clara Water Pollution Control Plant Master Plan. Prepared for San José /Santa Clara Water Pollution Control Plant.

11. California Department of Fish and Game, 2012. Staff Report on Burrowing Owl Mitigation. March 7, 2012.

12. City of San José, 2015. Email correspondence from Russell Hansen, City of San José Arborist, to Aziza Amiri, City of San José Public Works Engineer. *Tree Removal on Zanker Road*. November 25, 2015.

13. Cultural Resources Survey Report. San José-Santa Clara Regional Waste Water Facility Construction Enabling Improvements Project. August 2015.

14. The Climate Registry (TCR), 2015. Emission Factors for Transport Fuels, 2015. Available: http://www.theclimateregistry.org/wp-content/uploads/2015/04/2015-TCR-Default-EF-April-2015-FINAL.pdf

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18. Federal Emergency Management Agency (FEMA), 2009, Flood Insurance Rate Maps, Santa Clara County, California.

19. VTA, 2012. 2012 Monitoring and Conformance Report. May 2012.

20. Caltrans, 2015. 2014 Traffic Volumes on California State Highways.

21. CalRecycle, 2015. Solid Waste Information System (SWIS)–Facility/Site Listing.

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CHAPTER 4
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CHAPTER 5
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APPENDIX A
Air Quality Study

ESTIMATION OF CONSTRUCTION EMISSIONS - CRITERIA POLLUTANTS

Offroad Equipment	Number	hp	hours/day	No. of days used	Emission Factors (lb/hr)				Emissions (lbs)			
					ROG	NOx	PM10	PM2.5	ROG	NOx	PM10	PM2.5
Concrete Truck	1	320	2	3	0.12	1.27	0.048	0.044	0.69	7.62	0.29	0.26
Crane	1	150	8	2	0.07	0.74	0.040	0.037	1.17	11.85	0.64	0.59
Backhoe	1	100	6	90	0.04	0.35	0.027	0.024	20.42	186.45	14.36	13.21
Forklift	1	89	1	20	0.05	0.47	0.037	0.034	1.10	9.45	0.74	0.68
Paver	1	126	8	3	0.07	0.71	0.035	0.032	1.58	16.94	0.84	0.77
Rollers	2	81	8	3	0.05	0.42	0.031	0.028	2.27	20.02	1.47	1.36
Plate Compactor	1	8	6	15	0.05	0.19	0.017	0.016	4.20	17.23	1.54	1.42
Excavator	1	163	8	15	0.05	0.50	0.025	0.023	5.52	60.21	2.96	2.73
Large Compactor	1	350	6	15	0.11	1.34	0.049	0.045	9.47	120.29	4.43	4.08
Water Tanker Truck	1	172	8	120	0.07	0.62	0.034	0.032	63.57	596.80	33.09	30.44
Trailer for power poles	1	167	8	1	0.08	0.81	0.043	0.039	0.61	6.50	0.34	0.31
Electical line truck	2	167	4	5	0.08	0.81	0.043	0.039	3.07	32.50	1.71	1.57
Belly dump transfer truck	8	172	8	12	0.07	0.62	0.034	0.032	50.86	477.44	26.47	24.35
Dump truck	4	400	4	80	0.12	1.27	0.048	0.044	147.59	1624.66	61.29	56.39
								Total offroad Criteria Pollutant Emissions (lbs)	312.1	3188.0	150.2	138.2
								Number of construction workdays	120	120	120	120
								Average daily offroad criteria pollutant emissions (lbs/day)	2.6	26.6	1.3	1.2

Onroad Vehicles	Miles/ round trip	Round trips/week	Emissions Factors (g/mile)				Emissions (lbs/day)			
			ROG	NOx	PM10	PM2.5	ROG	NOx	PM10	PM2.5
Delivery Truck trips (T7 Ag)	40	29	1.8692	19.4471	1.0594	1.0136	0.96	9.95	0.54	0.52
Employee commute trips (LDT1)	25	25	0.0742	0.2446	0.0033	0.0030	0.02	0.07	0.00	0.00
						Daily onroad Criteria Pollutant Emissions (lbs/day)	0.98	10.01	0.54	0.52
						TOTAL Average criteria pollutant emissions per day (lbs/day)	3.6	36.6	1.8	1.7
						BAAQMD Thresholds (lbs/day)	54	54	82	54
						Significant (yes/no)?	No	No	No	No
						TOTAL Annual criteria pollutant emissions (tons/year)	0.21	2.19	0.11	0.10

NOTES:

1. Construction equipment type, number, hp and activity data provided by the City.

2. All emission rates were derived using the 2011 Offroad emissions inventory database. PM10 and PM2.5 emissions are based on PM emissions with PM10 and PM2.5 fractions applied to the PM emission factors (SCAQMD, 2006); PM = PM10, PM2.5 = PM X 0.92

3. ROG and TOG emissions are based on THC emissions with conversion factors recommended by CARB (2000). ROG = HC*1.26639; TOG = HC*1.4447

4. OFFROAD emission factors for "Off highway trucks"were used for water tanker truck, belly dump transfer truck and dump truck.

4. OFFROAD emission factors for "Other Construction Equipment" used for forklift, plate compactor, large compactor, trailer for power poles and electrical line truck.

5. EMFAC2014 emission factors used for onroad vehicles.

REFERENCES:

CARB (California Air Resources Board), 2000.

SCAQMD (South Coast Air Quality Management District). 2006.

ESTIMATION OF CONSTRUCTION EMISSIONS - GHG

GHG Emission Factors

GHG Emissions Factors for Diesel Exhaust - For Offroad Equipment

Fuel	CO_2 (g/gal)	N_2O (g/gal)	CH_4 (g/gal)
Diesel Fuel	8,777.50	0.256	0.576

Notes: Emission factors obtained from TCR, 2015, Tables 13.1 and 13.7.

GHG Emissions Factors for Vehicle Exhaust - For Onroad Vehicles

Vehicle Type	Emission Factors (grams/mile)		
	CO_2	N_2O	CH_4
Light-Duty Trucks LDT1 (gas	354.53	0.02	0.20
Delivery Truck -T7 Ag (diesel)	1,784.96	0.05	0.46

Notes: CO2 on-road emission factors were derived using EMFAC2014 for 2016; CH4 and N20 emission factors are from TRC, 2015, Table 13.4.

GHG Emissions Summary

Emissions Source	CO_2e
Offroad Construction Equipr	143.9
Onroad Vehicles	52.4
Total	196.3

GHG Emissions Calculation

Offroad Construction Equipment

Equipment	hp	Total Hours	Diesel Fuel Consumption		Total Emissions (metric tons)			
			gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Concrete Truck	320	6	7.40	44.4	0.39	0.00	0.00	0.39
Crane	150	16	2.21	35.4	0.31	0.00	0.00	0.31
Backhoe	100	540	1.59	858.6	7.54	0.00	0.00	7.61
Forklift	89	20	1.75	35.0	0.31	0.00	0.00	0.31
Paver	126	24	3.40	81.5	0.72	0.00	0.00	0.72
Rollers	81	48	1.69	81.2	0.71	0.00	0.00	0.72
Plate Compactor	8	90	0.91	82.2	0.72	0.00	0.00	0.73
Excavator	163	120	2.88	346.1	3.04	0.00	0.00	3.07
Large Compactor	350	90	7.71	694.2	6.09	0.00	0.00	6.16
Water Tanker Truck	172	960	3.12	2,994.6	26.29	0.00	0.00	26.56
Trailer for power poles	167	8	3.26	26.1	0.23	0.00	0.00	0.23
Electical line truck	167	40	3.26	130.4	1.14	0.00	0.00	1.16
Belly dump transfer truck	172	768	3.12	2,395.7	21.03	0.00	0.00	21.25
Dump truck	400	1280	7.40	9,475.9	83.17	0.00	0.01	84.04
			Total	16,226.3	142.4	0.004	0.01	**143.9**

Onroad vehicle trips

Vehicle Type	Trips	Miles per Trip	Total Emissions (metric tons)			
			CO_2	N_2O	CH_4	CO_2e
Light-Duty Truck	600	25	5.32	0.00	0.00	5.48
Heavy-Duty Truck	648	40	46.27	0.00	0.01	46.92
			51.6	0.002	0.015	52.4

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2016
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK
Santa Clara	2016	LDT1	Aggregated	Aggregated	GAS	61074.78622	1928620.569	371464.827	0.074160322	0	0.405168132	0.363071552
Santa Clara	2016	LDT1	Aggregated	Aggregated	DSL	76.3331285	1664.884533	372.3846329	0.206094526	0	0	0
Santa Clara	2016	LDT1	Aggregated	Aggregated	ELEC	57.68353946	1660.202206	338.1959053	0	0	0	0.004883985
Santa Clara	2016	T7 Ag	Aggregated	Aggregated	DSL	123.9660961	2061.401551	0	1.869230167	5.240492797	0	0

ROG_RUNLOSS	ROG_RESTLOSS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS	TOG_RESTLOSS	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX
1.327997619	0.604370262	0.859177114	0.097589762	0	0.443197	0.363071552	1.327997619	0.604370262	0.859177114	2.43427734	0	5.286348322
0	0	0	0.234624916	0	0	0	0	0	0	1.228942006	0	0
0	0.00455972	0.017500761	0	0	0	0.004883985	0	0.00455972	0.017500761	0	0	0
0	0	0	2.127976257	5.965902137	0	0	0	0	0	7.393415776	14.97771905	0

NOx_RUNEX	NOx_IDLEX	NOx_STREX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW	PM2_5_RUNEX	PM2_5_IDLEX
0.244552059	0	0.300614129	354.5295683	0	80.37716	0.003271007	0	0.004508786	0.008000002	0.036750011	0.003019052	0
1.24701262	0	0	381.4411561	0	0	0.163698884	0	0	0.008000002	0.036750011	0.156617343	0
0	0	0	0	0	0	0	0	0	0.008000002	0.036750011	0	0
19.44713359	24.27367344	0	1784.958363	1932.223546	0	1.059442174	0.955760522	0	0.03600001	0.061740018	1.013611174	0.914414745

PM2_5_STREX	PM2_5_PMTW	PM2_5_PMBW	SOx_RUNEX	SOx_IDLEX	SOx_STREX
0.004162795	0.002000001	0.015750005	0.003579876	0	0.000899
0	0.002000001	0.015750005	0.003641474	0	0
0	0.002000001	0.015750005	0	0	0
0	0.009000003	0.026460008	0.017029337	0.018434316	0

Calendar Year	Air Basin	Equipment Class	Equipment Type	HorsepowerBin	ScenBSFC	BSFC (gal/hr)	ScenNOx	NOx (lb/hr)	ScenPM	PM (lb/hr)	ScenHC	HC (lb/hr)	ScenActivity	ScenAvgHP
2016	SF	Construction and Mining	Bore/Drill Rigs	50	42572.65	1.17	0.59	0.23	0.04	0.02	0.08	0.03	5135.48	39.27
2016	SF	Construction and Mining	Bore/Drill Rigs	120	260145.73	2.08	3.07	0.35	0.18	0.02	0.20	0.02	17638.99	82.33
2016	SF	Construction and Mining	Bore/Drill Rigs	175	303765.43	3.90	3.26	0.59	0.15	0.03	0.21	0.04	10974.78	148.54
2016	SF	Construction and Mining	Bore/Drill Rigs	250	430319.37	5.35	3.78	0.67	0.11	0.02	0.21	0.04	11321.49	207.75
2016	SF	Construction and Mining	Bore/Drill Rigs	500	478939.12	8.86	3.69	0.97	0.11	0.03	0.21	0.05	7608.65	349.18
2016	SF	Construction and Mining	Bore/Drill Rigs	750	660955.44	16.16	4.23	1.47	0.14	0.05	0.25	0.09	5757.24	611.96
2016	SF	Construction and Mining	Bore/Drill Rigs	1000	519558.29	23.86	0.47	3.06	0.01	0.06	0.01	0.10	306.66	919.00
2016	SF	Construction and Mining	Bore/Drill Rigs	9999	176082.74	69.24	2.26	12.64	0.06	0.31	0.08	0.45	358.05	2666.67
2016	SF	Construction and Mining	Cranes	50	13879.01	0.66	0.23	0.16	0.02	0.02	0.07	0.05	2944.13	40.63
2016	SF	Construction and Mining	Cranes	120	331060.50	1.32	9.60	0.54	0.71	0.04	0.95	0.05	35380.67	88.95
2016	SF	Construction and Mining	Cranes	175	873741.75	2.21	20.58	0.74	1.12	0.04	1.60	0.06	55571.38	147.88
2016	SF	Construction and Mining	Cranes	250	1475888.83	3.24	32.65	1.02	1.48	0.05	2.28	0.07	64197.88	217.00
2016	SF	Construction and Mining	Cranes	500	2260720.58	5.00	38.36	1.21	1.58	0.05	2.49	0.08	63622.50	336.11
2016	SF	Construction and Mining	Cranes	750	595796.15	8.43	7.74	1.55	0.27	0.06	0.43	0.09	9956.02	567.19
2016	SF	Construction and Mining	Cranes	1000	139478.22	13.88	4.91	6.94	0.24	0.34	0.36	0.52	1415.30	937.60
2016	SF	Construction and Mining	Cranes	9999	10742.67	15.33	0.07	1.51	0.00	0.04	0.00	0.08	98.64	1030.00
2016	SF	Construction and Mining	Crawler Tractors	50	42309.02	1.03	0.73	0.25	0.09	0.03	0.24	0.08	5786.35	42.51
2016	SF	Construction and Mining	Crawler Tractors	120	1873993.76	1.94	40.93	0.60	3.45	0.05	4.00	0.06	135728.34	86.86
2016	SF	Construction and Mining	Crawler Tractors	175	2039600.33	3.31	41.18	0.95	2.27	0.05	3.16	0.07	86687.59	149.54
2016	SF	Construction and Mining	Crawler Tractors	250	2056576.34	4.51	37.27	1.16	1.44	0.04	2.29	0.07	64272.21	202.85
2016	SF	Construction and Mining	Crawler Tractors	500	5519111.72	7.61	86.79	1.70	3.36	0.07	5.41	0.11	102095.02	340.69
2016	SF	Construction and Mining	Crawler Tractors	750	2145980.30	12.66	30.38	2.55	1.12	0.09	1.84	0.15	23866.87	570.11
2016	SF	Construction and Mining	Crawler Tractors	1000	284136.96	18.48	6.36	5.87	0.19	0.17	0.34	0.31	2165.11	828.17
2016	SF	Construction and Mining	Crawler Tractors	9999	150115.44	32.50	2.86	8.79	0.08	0.23	0.13	0.41	650.30	1526.50
2016	SF	Construction and Mining	Excavators	50	1694110.49	0.79	22.04	0.15	1.64	0.01	3.08	0.02	303630.45	35.74
2016	SF	Construction and Mining	Excavators	120	2199594.73	1.60	31.43	0.32	2.30	0.02	2.62	0.03	193894.05	81.78
2016	SF	Construction and Mining	Excavators	175	4633335.17	2.88	56.75	0.50	2.79	0.02	4.11	0.04	226207.88	146.04
2016	SF	Construction and Mining	Excavators	250	5890234.66	4.31	64.83	0.67	2.05	0.02	3.83	0.04	192212.16	218.47
2016	SF	Construction and Mining	Excavators	500	9769108.40	6.46	82.89	0.78	2.67	0.03	5.19	0.05	212868.97	328.64
2016	SF	Construction and Mining	Excavators	750	884702.77	11.30	9.00	1.63	0.30	0.05	0.54	0.10	11019.62	577.94
2016	SF	Construction and Mining	Excavators	1000	99304.69	16.59	1.66	3.94	0.04	0.11	0.08	0.19	842.79	842.88
2016	SF	Construction and Mining	Excavators	9999	193437.46	30.67	2.13	4.81	0.06	0.13	0.11	0.24	888.05	1569.14
2016	SF	Construction and Mining	Graders	50	11186.32	0.86	0.21	0.23	0.03	0.03	0.08	0.09	1824.74	39.16
2016	SF	Construction and Mining	Graders	120	300957.33	1.91	8.56	0.77	0.71	0.06	0.90	0.08	22180.79	91.00
2016	SF	Construction and Mining	Graders	175	2800369.54	3.19	68.05	1.10	3.82	0.06	5.52	0.09	123753.14	147.95
2016	SF	Construction and Mining	Graders	250	4871894.03	4.36	81.97	1.04	2.66	0.03	4.76	0.06	157221.09	204.35
2016	SF	Construction and Mining	Graders	500	1388374.74	6.20	15.36	0.97	0.60	0.04	1.15	0.07	31550.63	293.17
2016	SF	Construction and Mining	Graders	1000	13434.31	16.81	0.37	6.66	0.01	0.23	0.02	0.42	112.52	796.00
2016	SF	Construction and Mining	Graders	9999	189250.25	42.01	3.75	11.82	0.11	0.36	0.21	0.67	634.30	1992.80
2016	SF	Construction and Mining	Off-Highway Tractors	50	701079.35	0.94	10.22	0.19	0.96	0.02	2.32	0.04	104814.10	37.66
2016	SF	Construction and Mining	Off-Highway Tractors	120	893435.75	1.69	15.05	0.40	1.21	0.03	1.38	0.04	74518.08	74.53
2016	SF	Construction and Mining	Off-Highway Tractors	175	763252.48	3.57	10.31	0.68	0.52	0.03	0.74	0.05	30121.55	158.08
2016	SF	Construction and Mining	Off-Highway Tractors	250	638883.98	4.79	9.50	1.01	0.33	0.04	0.57	0.06	18767.88	213.84
2016	SF	Construction and Mining	Off-Highway Tractors	500	1800144.82	7.50	17.38	1.03	0.60	0.04	1.08	0.06	33789.91	334.44
2016	SF	Construction and Mining	Off-Highway Tractors	750	453000.36	12.90	4.86	1.97	0.16	0.06	0.28	0.11	4945.56	573.53
2016	SF	Construction and Mining	Off-Highway Tractors	1000	12856.21	22.50	0.09	2.23	0.00	0.06	0.00	0.09	80.44	1000.00
2016	SF	Construction and Mining	Off-Highway Tractors	9999	105458.66	39.76	1.16	6.22	0.03	0.16	0.05	0.29	373.48	1726.25
2016	SF	Construction and Mining	Off-Highway Trucks	50	67060.57	0.62	1.09	0.14	0.11	0.01	0.26	0.03	15227.10	29.14
2016	SF	Construction and Mining	Off-Highway Trucks	120	82232.83	1.69	1.34	0.39	0.11	0.03	0.13	0.04	6834.35	87.06
2016	SF	Construction and Mining	Off-Highway Trucks	175	1589487.34	3.12	22.30	0.62	1.24	0.03	1.88	0.05	71743.23	158.89
2016	SF	Construction and Mining	Off-Highway Trucks	250	3260492.67	4.13	47.61	0.86	2.05	0.04	3.63	0.07	111049.79	211.02
2016	SF	Construction and Mining	Off-Highway Trucks	500	13855860.30	7.40	167.24	1.27	6.31	0.05	12.00	0.09	263519.86	372.42
2016	SF	Construction and Mining	Off-Highway Trucks	750	4949153.59	13.00	68.71	2.56	2.76	0.10	5.11	0.19	53597.53	655.92
2016	SF	Construction and Mining	Off-Highway Trucks	1000	3436246.21	17.69	62.34	4.56	1.81	0.13	3.35	0.25	27348.30	897.23
2016	SF	Construction and Mining	Off-Highway Trucks	9999	4937542.06	34.99	82.87	8.34	2.55	0.26	4.99	0.50	19866.65	1764.19
2016	SF	Construction and Mining	Other Construction Equipment	50	379152.73	0.91	5.59	0.19	0.50	0.02	1.08	0.04	58416.00	38.01
2016	SF	Construction and Mining	Other Construction Equipment	120	1186639.63	1.75	22.58	0.47	1.77	0.04	2.08	0.04	95583.55	81.56
2016	SF	Construction and Mining	Other Construction Equipment	175	646241.98	3.26	11.34	0.81	0.60	0.04	0.84	0.06	27918.89	152.49
2016	SF	Construction and Mining	Other Construction Equipment	250	829205.58	4.69	13.06	1.05	0.48	0.04	0.78	0.06	24898.43	216.90
2016	SF	Construction and Mining	Other Construction Equipment	500	2823396.82	7.71	34.50	1.34	1.27	0.05	2.14	0.08	51625.51	356.86
2016	SF	Construction and Mining	Other Construction Equipment	750	1103628.49	12.86	12.39	2.05	0.40	0.07	0.68	0.11	12087.32	597.67
2016	SF	Construction and Mining	Other Construction Equipment	1000	128651.43	17.79	1.64	3.23	0.04	0.08	0.07	0.13	1018.45	830.15
2016	SF	Construction and Mining	Other Construction Equipment	9999	80118.28	23.64	1.23	5.15	0.03	0.14	0.06	0.25	477.22	1126.67
2016	SF	Construction and Mining	Pavers	50	46445.67	0.93	0.70	0.20	0.07	0.02	0.19	0.05	7063.06	38.63
2016	SF	Construction and Mining	Pavers	120	449457.39	1.70	7.98	0.43	0.62	0.03	0.73	0.04	37219.55	79.58
2016	SF	Construction and Mining	Pavers	175	610524.20	3.40	8.93	0.71	0.44	0.04	0.66	0.05	25305.03	158.13
2016	SF	Construction and Mining	Pavers	250	412062.21	4.59	4.96	0.79	0.13	0.02	0.22	0.03	12629.11	213.21
2016	SF	Construction and Mining	Pavers	500	155278.07	6.95	1.36	0.86	0.05	0.03	0.07	0.04	3143.54	327.38
2016	SF	Construction and Mining	Pavers	750	17954.55	16.10	0.13	1.69	0.01	0.07	0.01	0.10	157.03	750.00
2016	SF	Construction and Mining	Paving Equipment	50	57740.59	0.70	0.78	0.14	0.06	0.01	0.13	0.02	11548.83	34.82
2016	SF	Construction and Mining	Paving Equipment	120	262622.01	1.63	4.51	0.40	0.34	0.03	0.40	0.04	22665.95	88.60
2016	SF	Construction and Mining	Paving Equipment	175	247387.61	2.72	3.22	0.50	0.16	0.02	0.23	0.04	12824.78	148.41
2016	SF	Construction and Mining	Paving Equipment	250	129660.74	3.96	1.72	0.75	0.06	0.02	0.10	0.04	4612.82	215.67
2016	SF	Construction and Mining	Paving Equipment	500	182883.36	6.17	2.41	1.16	0.09	0.04	0.14	0.07	4170.05	338.76
2016	SF	Construction and Mining	Paving Equipment	750	86740.88	11.11	1.01	1.85	0.02	0.04	0.05	0.09	1099.75	605.00
2016	SF	Construction and Mining	Paving Equipment	1000	16962.20	15.47	0.24	3.05	0.01	0.08	0.01	0.12	154.39	842.00
2016	SF	Construction and Mining	Rollers	50	953026.62	0.77	13.45	0.15	1.18	0.01	2.67	0.03	174095.30	35.68
2016	SF	Construction and Mining	Rollers	120	1489074.39	1.69	25.86	0.42	1.90	0.03	2.31	0.04	123994.39	86.86
2016	SF	Construction and Mining	Rollers	175	1539071.44	2.79	19.60	0.50	0.91	0.02	1.29	0.03	77775.53	143.78
2016	SF	Construction and Mining	Rollers	250	243185.75	4.15	3.20	0.78	0.11	0.03	0.19	0.04	8256.49	213.25
2016	SF	Construction and Mining	Rollers	500	153680.31	6.59	2.03	1.23	0.08	0.05	0.13	0.08	3285.60	334.88
2016	SF	Construction and Mining	Rollers	750	7480.08	10.11	0.02	0.30	0.00	0.00	0.00	0.02	104.21	520.50
2016	SF	Construction and Mining	Rough Terrain Forklifts	50	48525.02	1.09	0.67	0.21	0.05	0.02	0.13	0.04	6249.51	47.28
2016	SF	Construction and Mining	Rough Terrain Forklifts	120	3906951.91	2.00	44.98	0.33	2.50	0.02	2.92	0.02	274415.65	96.33
2016	SF	Construction and Mining	Rough Terrain Forklifts	175	717952.25	2.69	6.93	0.37	0.27	0.01	0.37	0.02	37592.57	129.59
2016	SF	Construction and Mining	Rough Terrain Forklifts	250	59012.22	4.33	0.44	0.46	0.01	0.01	0.02	0.02	1917.36	208.31
2016	SF	Construction and Mining	Rough Terrain Forklifts	500	25019.81	7.69	0.27	1.17	0.01	0.03	0.01	0.05	458.04	373.89
2016	SF	Construction and Mining	Rough Terrain Forklifts	750	3915.39	12.98	0.02	0.73	0.00	0.01	0.00	0.04	42.46	625.00
2016	SF	Construction and Mining	Rubber Tired Dozers	50	41774.25	0.93	0.77	0.24	0.10	0.03	0.28	0.09	6320.89	41.59
2016	SF	Construction and Mining	Rubber Tired Dozers	120	200450.10	1.69	5.56	0.67	0.50	0.06	0.59	0.07	16703.17	81.59
2016	SF	Construction and Mining	Rubber Tired Dozers	175	166979.21	3.07	4.93	1.29	0.28	0.07	0.40	0.10	7664.87	149.68
2016	SF	Construction and Mining	Rubber Tired Dozers	250	174202.45	4.34	4.16	1.47	0.21	0.07	0.32	0.11	5654.40	210.98
2016	SF	Construction and Mining	Rubber Tired Dozers	500	1992097.47	7.33	45.49	2.38	2.12	0.11	3.36	0.18	38242.57	354.05
2016	SF	Construction and Mining	Rubber Tired Dozers	750	234573.96	11.96	5.04	3.65	0.18	0.13	0.30	0.22	2762.14	584.10
2016	SF	Construction and Mining	Rubber Tired Loaders	50	132267.69	0.87	2.17	0.20	0.24	0.02	0.61	0.06	21519.93	41.70
2016	SF	Construction and Mining	Rubber Tired Loaders	120	3220337.56	1.59	64.51	0.45	5.54	0.04	6.50	0.05	285223.55	86.15
2016	SF	Construction and Mining	Rubber Tired Loaders	175	7646398.67	2.80	131.76	0.69	7.35	0.04	10.75	0.06	384691.49	150.00
2016	SF	Construction and Mining	Rubber Tired Loaders	250	10537590.89	3.83	162.70	0.84	5.55	0.03	10.34	0.05	387332.32	205.91
2016	SF	Construction and Mining	Rubber Tired Loaders	500	13703265.52	5.91	192.63	1.18	7.24	0.04	13.46	0.08	326507.66	319.69
2016	SF	Construction and Mining	Rubber Tired Loaders	750	2436828.54	10.91	31.42	2.00	1.24	0.08	2.32	0.15	31446.89	600.48
2016	SF	Construction and Mining	Rubber Tired Loaders	1000	706993.13	15.60	14.32	4.49	0.42	0.13	0.75	0.23	6380.10	836.81
2016	SF	Construction and Mining	Rubber Tired Loaders	9999	281154.98	28.25	4.71	6.72	0.13	0.19	0.25	0.35	1401.42	1521.00
2016	SF	Construction and Mining	Scrapers	50	3032.67	1.00	0.06	0.26	0.01	0.04	0.02	0.10	428.14	36.14
2016	SF	Construction and Mining	Scrapers	120	138492.15	2.16	2.90	0.64	0.22	0.05	0.25	0.06	9043.92	84.33
2016	SF	Construction and Mining	Scrapers	175	1461366.08	4.20	31.95	1.30	1.72	0.07	2.46	0.10	48970.76	166.16
2016	SF	Construction and Mining	Scrapers	250	1678008.51	5.56	41.18	1.94	1.86	0.09	2.87	0.14	42456.39	224.97
2016	SF	Construction and Mining	Scrapers	500	14695130.09	9.51	254.02	2.34	10.24	0.09	16.49	0.15	217572.04	381.35
2016	SF	Construction and Mining	Scrapers	750	6729779.24	14.10	90.55	2.69	3.38	0.10	5.67	0.17	67219.63	564.95
2016	SF	Construction and Mining	Scrapers	1000	105270.80	23.68	4.23	13.53	0.20	0.63	0.31	0.98	625.91	950.00
2016	SF	Construction and Mining	Scrapers	9999	382634.99	48.99	8.39	15.25	0.32	0.58	0.50	0.90	1099.69	1923.31
2016	SF	Construction and Mining	Skid Steer Loaders	50	720307.43	0.92	8.27	0.15	0.47	0.01	0.96	0.02	109720.51	43.47
2016	SF	Construction and Mining	Skid Steer Loaders	120	3826785.47	1.34	40.61	0.20	2.27	0.01	2.59	0.01	401046.64	70.54
2016	SF	Construction and Mining	Skid Steer Loaders	175	25881.06	2.89	0.31	0.48	0.01	0.02	0.02	0.03	1260.44	152.93
2016	SF	Construction and Mining	Skid Steer Loaders	250	19892.34	3.76	0.21	0.57	0.01	0.02	0.01	0.03	745.19	200.53
2016	SF	Construction and Mining	Skid Steer Loaders	500	5462.04	5.13	0.02	0.31	0.00	0.01	0.00	0.02	149.91	276.67
2016	SF	Construction and Mining	Skid Steer Loaders	750	5761.73	10.09	0.04	1.04	0.00	0.04	0.00	0.05	80.38	530.00
2016	SF	Construction and Mining	Skid Steer Loaders	1000	9402.11	19.04	0.11	3.24	0.00	0.10	0.01	0.16	69.52	1000.00
2016	SF	Construction and Mining	Surfacing Equipment	50	6634.42	0.63	0.09	0.13	0.01	0.01	0.02	0.02	1490.63	35.67
2016	SF	Construction and Mining	Surfacing Equipment	120	52073.59	1.38	0.79	0.30	0.05	0.02	0.07	0.03	5318.01	88.68
2016	SF	Construction and Mining	Surfacing Equipment	175	26975.57	2.34	0.44	0.55	0.02	0.03	0.03	0.04	1619.85	150.98
2016	SF	Construction and Mining	Surfacing Equipment	250	57283.82	3.40	0.86	0.72	0.03	0.02	0.04	0.04	2374.67	216.06
2016	SF	Construction and Mining	Surfacing Equipment	500	180945.07	5.60	1.90	0.84	0.06	0.03	0.10	0.04	4545.95	362.36
2016	SF	Construction and Mining	Surfacing Equipment	750	168174.67	9.60	1.45	1.18	0.05	0.04	0.07	0.05	2467.03	615.08
2016	SF	Construction and Mining	Surfacing Equipment	1000	27339.26	12.73	0.47	3.12	0.01	0.08	0.02	0.14	302.33	814.29
2016	SF	Construction and Mining	Surfacing Equipment	9999	9582.14	17.50	0.11	2.92	0.00	0.07	0.00	0.11	77.11	1141.00
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	50	1427470.90	0.80	20.45	0.16	1.78	0.01	4.05	0.03	252025.13	38.31
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	120	22983111.48	1.59	351.38	0.35	27.05	0.03	30.38	0.03	2035270.14	82.65
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	175	3973568.59	2.72	52.63	0.51	2.67	0.03	3.87	0.04	205561.44	143.93
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	250	2304812.86	3.88	30.75	0.73	1.01	0.02	1.78	0.04	83741.17	204.22
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	500	3095640.70	6.09	35.27	0.98	1.22	0.03	2.18	0.06	71624.40	320.14
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	750	439260.49	10.83	5.36	1.88	0.19	0.07	0.33	0.12	5711.07	574.62
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	1000	74148.50	16.76	0.85	2.72	0.02	0.06	0.03	0.11	622.83	871.40
2016	SF	Construction and Mining	Tractors/Loaders/Backhoes	9999	1040221.31	38.25	15.94	8.32	0.48	0.25	0.81	0.42	3829.33	2005.62
2016	SF	Construction and Mining	Trenchers	50	505297.69	1.15	7.19	0.23	0.64	0.02	1.37	0.04	61599.21	39.78
2016	SF	Construction and Mining	Trenchers	120	365951.02	2.15	7.53	0.63	0.59	0.05	0.71	0.06	24004.80	82.06
2016	SF	Construction and Mining	Trenchers	175	74696.77	3.70	1.47	1.04	0.07	0.05	0.11	0.08	2839.82	143.87
2016	SF	Construction and Mining	Trenchers	250	146297.12	5.68	2.77	1.53	0.11	0.06	0.18	0.10	3624.79	218.42
2016	SF	Construction and Mining	Trenchers	500	246434.41	9.28	3.04	1.63	0.11	0.06	0.18	0.10	3740.09	358.52
2016	SF	Construction and Mining	Trenchers	750	111475.37	16.17	0.54	1.12	0.02	0.04	0.03	0.07	970.39	619.25
2016	SF	Construction and Mining	Trenchers	1000	6583.35	22.33	0.26	12.55	0.01	0.57	0.02	0.90	41.51	860.00
2016	SF	Construction and Mining	Sweepers/Scrubbers	50	439327.09	0.93	6.79	0.20	0.71	0.02	1.75	0.05	66347.15	35.59
2016	SF	Construction and Mining	Sweepers/Scrubbers	120	678994.58	1.83	13.11	0.50	1.16	0.04	1.31	0.05	52152.66	77.53
2016	SF	Construction and Mining	Sweepers/Scrubbers	175	169368.37	3.76	3.95	1.25	0.21	0.07	0.31	0.10	6337.50	159.47
2016	SF	Construction and Mining	Sweepers/Scrubbers	250	90266.51	4.79	1.85	1.39	0.07	0.06	0.12	0.09	2651.88	204.41
2016	SF	Construction and Mining	Sweepers/Scrubbers	500	25183.18	7.12	0.46	1.84	0.02	0.08	0.03	0.12	497.89	302.50
2016	SF	Construction and Mining	Sweepers/Scrubbers	1000	17649.04	19.96	0.22	3.49	0.01	0.09	0.01	0.13	124.47	848.00

APPENDIX B

Special-Status Species with Potential to Occur in the Project Region

TABLE-1
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Plants				
Astragalus tener var. *tener* Alkali milk-vetch	--/--/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area. Considered extirpated from Santa Clara County.	Alkali playas, on adobe clay in valley and foothill grassland, vernal pools on alkaline soils; below 60 meters above MSL. Blooms March - June	Low; may occur in the seasonal wetland located south of the Project area. Nearest extant occurrence is 4.5 miles north in Fremont. There is no suitable habitat within the Project area.
Atriplex depressa Brittlescale	--/--/1B.2	Western and eastern Central Valley and adjacent foothills on west side of Central Valley.	Alkaline clay soils in chenopod scrub, playas, valley and foothill grasslands, meadows and seeps and vernal pools on alkaline, clay soils; below 320 meters above MSL. Blooms April - October	Absent; there is no suitable habitat within the Project area.
Atriplex joaquiniana San Joaquin spearscale	--/--/1B.2	West edge of Central Valley from Glenn County to Tulare County. Also reported from Monterey and San Luis Obispo Counties.	Alkaline soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland; below 835 meters above MSL. Blooms April - September	Absent; there is no suitable habitat within the Project area.
Atriplex minuscula Lesser saltscale	--/--/1B.1	Sacramento and San Joaquin Valley, Butte County and from Merced County to Kern County. Also recorded from Don Edwards NWR in Alameda County.	Sandy alkaline soils in chenopod scrub, playas, valley and foothill grassland; 15-200 meters above MSL. Blooms May - October	Absent; there is no suitable habitat within the Project area.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	--/--/1B.1	East San Francisco Bay Area, Salinas Valley, Los Osos Valley.	Alkaline soils in annual grassland, on lower slopes, flats, and swales, sometimes on saline soils; below 230 meters above MSL. Blooms May - October	Low; the species is documented in alkali grassland west of the Project area. Suitable habitat for this species does occur in the Project area; however, reconnaissance surveys conducted adjacent to Project area for this species were negative.
Chorizanthe robusta var. *robusta* Robust spineflower	E/--/1B.1	Coastal central California, from San Mateo to Monterey County.	Coastal bluff scrub, coastal dunes openings in cismontane woodland, on sandy soil. Blooms April - September	Absent; there is no suitable habitat within the Project area.

TABLE-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Plants (cont.)				
Chloropyron maritimum ssp. *palustre* Point Reyes bird's-beak	--/--/1B.2	Coastal northern California, from Humboldt to Santa Clara County, though presumed extirpated from Santa Clara County.	Coastal salt marsh, tidal salt marsh; below 10 meters above MSL. Blooms June - October	Absent; there is no suitable habitat within the Project area.
Eryngium aristulatum var. *hooveri* Hoover's button-celery	--/--/1B.1	South San Francisco Bay area, South Coast Ranges in Alameda, San Benito, Santa Clara, and San Luis Obispo Counties, though presumed extirpated from Santa Clara County.	Vernal pools; 3-45 meters above MSL. Blooms June - August	Low; may occur in the seasonal wetlands within the Project area.
Lasthenia conjugens Contra Costa goldfields	E/--/1B.1	Scattered occurrences in Coast Range valleys and southwest edge of Sacramento Valley, Alameda, Contra Costa, Monterey, Marin, Napa, Solano and Sonoma Counties. Presumed extirpated in Mendocino, Santa Barbara and Santa Clara Counties.	Wet areas in cismontane woodland, valley and foothill grassland, vernal pools, alkaline playas or saline vernal pools and swales; seasonal wetlands below 470 meters above MSL. Blooms March - June	Low; there is no suitable habitat within the Project area.
Malacothamnus arcuatus arcuate bush-mallow	–/–/1B.2	Santa Clara, Santa Cruz, and San Mateo Counties.	Chaparral, between 15-355 meters above MSL. Blooms April - September	Absent; there is no suitable habitat within the Project area.
Navarretia prostrata Prostrate vernal pool navarretia	--/--/1B.1	Western San Joaquin Valley, interior South Coast Ranges, central South Coast, Peninsular Ranges: Alameda, Los Angeles, Merced, Monterey, Orange, Riverside, San Diego, and San Luis Obispo Counties.	Vernal pools and mesic areas in coastal scrub and alkali grasslands, seasonal wetlands in alkaline soils; between 15-700 meters above MSL. Blooms April - July	Low; may occur in the seasonal wetlands surrounding the Project area.
Suaeda californica California seablite	E/--/1B.1	Morro Bay, San Luis Obispo County, and San Francisco and Contra Costa Counties; historically found in the south San Francisco Bay.	Margins of tidal salt marsh; below 15 meters above MSL. Blooms June - October	Absent; there is no suitable habitat within the Project area.
Trifolium hydrophilum *(T. depauperatum* var. *hydrophilum)* Saline clover	--/--/1B.2	Sacramento Valley, central western California.	Salt marsh, mesic alkaline areas in Valley and foothill grasslands, vernal pools, marshes and swamps; below 300 meters above MSL. Blooms April - June	Low; may occur in the seasonal wetlands surrounding Project area. Nearest documented occurrence is in Alvisio, ~ 1-mile away.

TABLE-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Invertebrates				
Euphydryas editha bayensis Bay checkerspot butterfly	T/--	Disjunct occurrences in San Mateo and Santa Clara Counties.	Associated with specific host plants that typically grow on serpentine soils.	Absent; there is no suitable habitat for this species, as there are no serpentine soils in the Project area.
Lepidurus packardi Vernal pool tadpole shrimp	E/--	Shasta County south to Merced County.	Vernal pools and ephemeral stock ponds.	Absent; there is no suitable habitat in the Project area.
Amphibians				
Ambystoma californiense California tiger salamander	T/T	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Sonoma County south to Santa Barbara County.	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.	Low; suitable habitat occurs in the annual grassland within the Project area and suitable breeding habitat occurs in seasonal wetlands that inconsistently pond for a short period of time annually; however the nearest documented occurrence of this species is 4.5 miles away from the Project area near Albrae.
Rana draytonii California red-legged frog	T/SSC	Found along the coast and coastal mountain ranges of California from Mendocino County to San Diego County and in the Sierra Nevada from Butte County to Stanislaus County.	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods.	Absent; there is no suitable habitat in the Project area.
Reptiles				
Emys marmorata Western pond turtle	–/SSC	The western pond turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries.	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. Nests are typically constructed in upland habitat within 0.25 mile of aquatic habitat.	Absent; there is no suitable habitat in the Project area.
Mammals				
Reithrodontomys raviventris Salt marsh harvest mouse	E/E	The San Francisco Bay Estuary and Suisun Marsh.	Saline to brackish salt marsh habitat. Pickleweed is primary habitat.	Low; known to use the salt marsh and salt panne habitats within the greater SJSC WPCP grounds; however, there is no suitable habitat in the Project area.

TABLE-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Mammals (cont.)				
Sorex vagrans halicoetes Salt-marsh wandering shrew	-/SSC	Southern arm of the San Francisco Bay in San Mateo, Santa Clara, Alameda, and Contra Costa Counties.	Salt marshes from 6 to 9 feet above mean sea level (MSL).	Absent; there is no suitable habitat in the Project area.
Birds				
Agelaius tricolor Tricolored blackbird	--/SSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties.	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony.	Low (foraging only); may occur over the Project area on a transient basis. There is no suitable nesting habitat in the Project area.
Aquila chrysaetos Golden eagle	--/FP	Foothills and mountains throughout California. Uncommon non-breeding visitor to lowlands such as the Central Valley.	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	Low (foraging only); may occur over the Project area on a transient basis. There is no suitable nesting habitat in the Project area.
Ardea herodias Great blue heron (rookery)	--/--	Nests in suitable habitat throughout California except at higher elevations in Sierra Nevada and Cascade mountain ranges.	Widely distributed in freshwater and calm-water intertidal habitats.	Low (foraging only); may occur over the Project area on a transient basis. There is no known rookery in the Project area.
Athene cunicularia hypugaea Western burrowing owl	--/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast.	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows.	High (foraging and breeding); western burrowing owl is known to forage and breed in the non-native grassland south and west of the Project area. Burrowing owls were observed during the Project BUOW surveys in 2015 (ESA, 2015).
Charadrius alexandrines nivosus Western snowy plover	T/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County.	Coastal beaches above the normal high tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent.	Absent; there is no suitable habitat in the Project area.

TABLE-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Birds (cont.)				
Circus cyaneus Northern harrier	--/SSC	Occurs throughout lowland California. Has been recorded in fall at high elevations.	Grasslands, meadows, marshes, and seasonal and agricultural wetlands.	Low (foraging only); northern harrier is documented in the ruderal areas immediately south and west of the Project area and has the potential to forage in the Project area. Nest observed nearest Project area documented at mouth of Coyote Creek, over 5 miles north of Project area.
Elanus leucurus White-tailed kite	--/CFP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border.	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging.	Low (foraging and nesting); white-tailed kite may forage in open grasslands within and adjacent to the Project area. Suitable nesting habitat is present in the mature trees bordering roads of the Project area.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	--/SSC	Found only in the San Francisco Bay Area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties.	Freshwater marshes in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover.	Low; may occur over the Project on a transient basis. There is no suitable habitat in the Project area.
Laterallus jamaicensis coturniculus California black rail	--/T	Inhabits freshwater marshes, wet meadows & shallow margins of saltwater marshes bordering larger bays.	Require dense cover of upland vegetation for protection. Needs water depths of ~1 inch that do not fluctuate during the year & dense vegetation for nesting.	Absent; there is no suitable nesting habitat in the Project area.
Melospiza melodia pusillula Alameda song sparrow	--/SSC	Found only in marshes along the southern portion of the San Francisco Bay.	Brackish marshes associated with pickleweed; may nest in tall vegetation or among the pickleweed.	Low; there is no suitable habitat in the Project area.
Pelecanus occidentalis californicus California brown pelican	D/E	The Pacific coast from Canada through Mexico.	Coastal areas. Nests on islands.	Absent; may occur over the Project on a transient basis. There is no suitable habitat in the Project area.
Rallus longirostris obsoletus Ridgway's (=California clapper) rail	E/CFP	Found along the Pacific Coast in Monterey and San Luis Obispo Counties.	From tidal mudflats to tidal sloughs. Associated with abundance grow of pickleweed. Feeds on invertebrates from mud-bottom sloughs.	Absent; may occur over the Project on a transient basis. There is no suitable habitat in the Project area.

TABLE-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Birds (cont.)				
Sternula antillarum browni California least tern	E/E/CFP	Found along the Pacific Coast of California from San Francisco to Baja California.	Nest on open beaches kept free of vegetation by natural scouring from tidal action.	Absent; there is no suitable habitat in the Project area.

NOTES:

Potential Occurrence in the Project area:
High = Species is expected to occur and habitat meets species requirements.
Moderate = Habitat is only marginally suitable or is suitable but not within species geographic range.
Low = Habitat does not meet species requirements as currently understood in the scientific community.

California Rare Plant Rank (CRPR):
Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A = Plants presumed extirpated in California, but more common elsewhere.
Rank 2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 = Plants about which we need more information – a review list
Rank 4 = Plants of limited distribution – a watch list

An extension reflecting the level of threat to each species is appended to each rarity category as follows:
.1 – Seriously endangered in California.
.2 – Fairly endangered in California.
.3 – Not very endangered in California.

Status Codes:

Federal
E = listed as endangered under the ESA
T = listed as threatened under the ESA
– = no listing

State
E = listed as endangered under CESA
T = listed as threatened under CESA
SSC = California Department of Fish and Wildlife designated "species of special concern"
CFP = California Department of Fish and Wildlife designated "fully protected"
– = no listing

SOURCE: USFWS, 2015 and CDFW, 2015.

COUNCIL AGENDA: 5/24/16
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: **SEE BELOW**

DATE: May 12, 2016

Approved D-DSyL Date 5/12/16

SUBJECT: 7995 - MASTER CONSULTANT AGREEMENTS WITH BROWN AND CALDWELL, AECOM TECHNICAL SERVICES, INC., AND BLACK & VEATCH CORPORATION, FOR GENERAL ENGINEERING SERVICES FOR THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY CAPITAL IMPROVEMENT PROGRAM

RECOMMENDATION

Approve Master Consultant Agreements with Brown and Caldwell, AECOM Technical Services, Inc., and Black and Veatch Corporation to provide general engineering services at the San José-Santa Clara Regional Wastewater Facility from the date of execution to June 30, 2021 in a total amount not to exceed $5,000,000 each, subject to the appropriation of funds.

OUTCOME

Approval of these master agreements provides the City with the ability to obtain as-needed professional engineering services for small or urgent and unscheduled capital improvement projects at the San José-Santa Clara Regional Wastewater Facility[1] (RWF). Approval of these agreements will not result in any physical changes to the environment as Council will need to take additional actions before construction on any capital projects commences.

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

BACKGROUND

The Adopted 2016-2020 Capital Improvement Program (CIP) provides funding of approximately $700,000,000 for construction at the RWF. The CIP contains more than 20 major capital projects, for which the City will be entering into separate project-specific engineering consultant agreements. The main focus of the general engineering agreements will be to provide engineering support for small, urgent or unscheduled capital improvements not included in the major capital projects. Small capital projects at the facility are expected to range from $500,000 to $5,000,000 in construction costs. These agreements will also provide City staff with engineering support services to perform condition assessments, engineering studies, and other engineering activities not already programmed as part of the major capital projects in the CIP.

Due to the relatively small size of these projects and the potential urgency that can be associated with replacement of equipment or structures that experience sudden failure, staff needs the ability to obtain professional engineering services quickly. The process of acquiring consultant services through a Request for Qualifications (RFQ) for a specific project can take anywhere from six to nine months to advertise for services, evaluate multiple proposals, and award an agreement. With the variety of work and engineering disciplines needed, acquiring multiple master consultant agreements provides the City with access to as-needed qualified consultants, through authorized service orders, and greater flexibility to respond to unexpected and critical projects while continuing to deliver the major, long-term capital program.

ANALYSIS

On August 31, 2015, the City issued an RFQ seeking professional services for general engineering services for miscellaneous projects at the RWF. The City received Statements of Qualifications (SOQs) from ten firms by the September 25, 2015 submittal deadline.

A Technical Evaluation Panel, which consisted of representatives from the Environmental Services Department and Department of Public Works evaluated and ranked the SOQs in accordance with the procurement process set forth in the RFQ. Each panel member evaluated the SOQs using a consistent scoring matrix based on the firm's expertise, experience, approach, cost, Local and Small Business Enterprise status. Each firm received a total score comprised of their SOQ score, LBE/SBE status, and interview score (if applicable), as shown below:

Description	Weight
Responsiveness	Pass/Fail
Expertise	25
Experience	35
Approach	20
Cost Form	10
Local Business Enterprise	5
Small Business Enterprise	5
Interview	60
TOTAL	**160**

As a result of the evaluation of the SOQs, the top five proposing consultants were selected for oral interviews. The oral interviews were conducted on December 11, 2015 by the same evaluation panel that completed the initial score of the SOQs.

The final ranking and rounded scores for each firm were as follows:

Rank	Firm	Expertise	Experience	Approach	Cost	LBE	SBE	Interview	Total
1	Brown & Caldwell	23.5	31.7	15.7	7.7	5.0	0.0	52.5	**136.0**
2	AECOM	22.7	31.7	16.7	9.1	5.0	0.0	50.7	**135.8**
3	Black & Veatch	21.7	30.3	18.7	8.0	5.0	0.0	52.0	**135.7**
4	Kennedy / Jenks	22.8	30.3	19.0	7.8	5.0	0.0	49.0	**134.0**
5	Hazen & Sawyer	21.7	28.0	17.3	8.6	5.0	0.0	48.0	**128.6**

In accordance with City policy, ten percent of the total evaluation points were reserved for local and small business enterprise status. All five firms qualified for the Local Business Enterprise (LBE), and none of the firms qualified for the Small Business Enterprise (SBE) status.

Staff recommends awarding a master consultant agreement, in an amount not to exceed $5,000,000, to each of the top three ranked firms. The overall scores of the top three ranked firms were within one point of each other, indicating that they are very comparable and represent some of the best consultants in the wastewater engineering industry.

Professional services to be provided under these master agreements may include, but are not limited to: preliminary engineering analysis, studies and field investigations, condition assessments of existing infrastructure and equipment, planning and detailed design of wastewater-related projects, engineering support during bidding, engineering services during construction, start-up and commissioning services, peer review consultation, engineering studies, and other miscellaneous engineering services.

Assignment of service orders will be made on a rotational basis for the three master agreements, with the first service order to be issued to the top ranked firm. In each instance, staff will negotiate the scope of work, deliverables, schedule, and cost with the selected firm. In the event negotiations are unsuccessful, staff may negotiate with the next highest ranked firm to perform the work. Once selected for a project, the firm will move to the bottom of the rotation. However, the City may elect to issue a service order for urgent work or other special circumstances (e.g., certain expertise, familiarity of previous project, staff availability, etc.) to the firm more qualified for the specific work. Having multiple firms available will enable staff to issue a service order to the firm most able to complement staff expertise in a specific technical discipline, ensuring the most cost effective and efficient use of staff and consultant resources.

The consultants will be compensated based on actual hourly wages (i.e., their direct labor cost) times a multiplier, which is 3.23 for Brown and Caldwell, 2.74 for AECOM, and 3.12 for Black and Veatch. The multiplier will not change during the term of the master agreement. The multiplier is based on an independent auditor's financial report, and in addition to the firms' direct labor cost, the respective multipliers cover all of the firms' overhead (e.g., fringe benefits, payroll taxes, group insurance, building/rental expenses, etc.), associated project cost (e.g., computer equipment, network and telecommunications expenses, routine printing and copying, etc.), and profit limited to 10 percent under the master agreement. The master agreements also allow the firms to receive compensation for pre-approved subconsultants and contract personnel, as well as certain reimbursable expenses.

Master consultant agreements have been successfully used by various capital programs in the City, including at the RWF. The 2016-2020 CIP includes approximately $21 million in funding for preliminary engineering, equipment replacement, and urgent & unscheduled rehabilitation projects that may arise either due to sudden equipment failures or other urgent needs. For example, in late 2012, the gas holder at the RWF experienced a sudden failure which required it to be taken out of service. Because the RWF had access to on-call engineering master services agreements, staff was able to bring a consultant on board to prepare construction documents to replace this critical component of the gas handling system. Funding for the general engineering agreements will come from Council-approved project appropriations.

EVALUATION AND FOLLOW UP

No additional follow up action with the Council is expected at this time. All service orders issued under these agreements greater than $100,000 will be reported to Treatment Plant Advisory Committee (TPAC) on the monthly summary of procurement and contract activity. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee and the City Council on a semiannual basis. Monthly progress reports of the RWF Capital Improvement Program (CIP) will also be submitted to TPAC and posted on the City's website.

POLICY ALTERNATIVES

Alternative 1: Direct City staff to provide the required services with in-house resources.
Pros: Increased work options for City staff and increased staff capacity for future projects.
Cons: Lack of existing capacity and technical expertise may result in significant delays and increased project costs.
Reason for not recommending: The lack of experienced staff resources in the varied engineering disciplines required would increase project delivery risks.

Alternative 2: Direct City staff to issue the RFQ for individual projects.
Pros: Issuing RFQ's for individual projects could result in more competition and more proposals received, which will provide the City with a selective advantage.

Cons: Issuing RFQ's for individual small projects will result in delayed timelines on project implementation as the process for each contract award could take six to nine months. This will result in significant contract process burden on engineering staff and translate into substantive additional staffing costs.
Reason for not recommending: With a significantly expanded CIP for the RWF, individual RFQs are not an efficient means for delivering small projects. With existing staff resources, this would divert staff away from design development and implementation to contract processing.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the May 24, 2016 City Council Agenda. This item is scheduled to be heard at the May 19, 2016 TPAC meeting.

COORDINATION

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

FISCAL/POLICY ALIGNMENT

This project is consistent with the 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 vital core services.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: $ 15,000,000

Brown and Caldwell	$ 5,000,000
AECOM Technical Services, Inc.	$ 5,000,000
Black & Veatch Corporation	$ 5,000,000
TOTAL	$15,000,000

2. COST ELEMENTS OF MASTER AGREEMENT: The consultant's services are reimbursed on actual hourly wages times a multiplier, which is based on an independent auditor's financial report and will not change during the term of the master agreement. The firms are also compensated for pre-approved subconsultants and contract personnel, as well as certain reimbursable expenses.

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

4. FISCAL IMPACT: This Project is funded through the San Jose-Santa Clara Treatment Plant Capital Fund and will have no impact on the San Jose-Santa Clara Treatment Plant Operating Fund (Fund 513) or the General Fund.

BUDGET REFERENCE

Services performed by the Consultants under this agreement will be authorized by service orders. An appropriation is not required for execution of these master consultant agreements, but is required for each service order authorized under these agreements. There is sufficient funding in the 2015-2016 Adopted Capital Budget across the various projects and appropriations to provide for any service orders that would be issued this fiscal year. 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

Not a Project, File No. PP10-066(d), Consultant Services to determine the feasibility of a project with no commitment to future actions.

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

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

COUNCIL AGENDA: 05/24/16
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Berry Ng
Jennifer A. Maguire

SUBJECT: SEE BELOW

DATE: May 11, 2016

Approved D. DSyL Date 5/12/16

SUBJECT: REPORT ON BIDS AND AWARD OF CONSTRUCTION CONTRACT FOR 7382 – DIGESTER AND THICKENER FACILITIES UPGRADE PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Adopt a Resolution

(1) Approving the Digester and Thickener Facilities Upgrade Project Initial Study/Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program (File No. PP15-055).

(2) Reporting on bids and award of construction contract for the 7382- Digester and Thickener Facilities Upgrade project to the low bidder, Walsh Construction Company II, LLC, to include the base bid less Revocable Item No. 5, in the amount of $107,925,000, and approve a 12.5 percent construction contingency in the amount of $13,490,625.

(3) Authorizing the Director of Public Works to execute one or more change orders in excess of $100,000 for the duration of the Digester and Thickener Facilities Upgrade project, not to exceed the total contingency amount approved for the project.

(b) Adopt the following 2015-2016 Appropriation Ordinance Amendments in the San José-Santa Clara Treatment Plant Capital Fund:

(1) Decrease the Energy Generation Improvements appropriation to the Environmental Services Department by $6,000,000;
(2) Decrease the SBWR System Reliability and Infrastructure Replacement appropriation to the Environmental Services Department by $4,692,000;
(3) Decrease the Tunnel Rehabilitation appropriation to the Environmental Services Department by $600,000;
(4) Decrease the Ending Fund Balance – Unrestricted appropriation by $17,253,000; and

(5) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department by $28,545,000.

OUTCOME

Award of this construction contract will allow for the construction of the Digester and Thickener Facilities Upgrade project (Project), improving reliability at the San José-Santa Clara Regional Wastewater Facility[1] (RWF). Approval of a 12.5 percent contingency will provide funding for any unanticipated work necessary for the proper completion of the Project. Adoption of a resolution approving the Initial Study/Mitigated Negative Declaration and implementing the Mitigation Monitoring and Reporting Program for the Project will ensure all environmental mitigation and monitoring measures will be carried out. Adoption of a resolution authorizing the Director of Public Works to execute change orders up to the contingency amount will allow for timely implementation of any changes required in the project for completion as scheduled in fall 2019.

EXECUTIVE SUMMARY

The RWF biosolids process facilities include 16 anaerobic digesters, 16 Dissolved Air Flotation Thickener (DAFT) units, and an extensive biogas collection system routed through an underground tunnel system. These facilities are aged with units ranging between 30 and 60 years of continuous operation, some of which have been taken out of service and the remaining of which are in need of rehabilitation in order to maintain reliable biosolids processing capacity. Due to the physical configuration and ventilation conditions at the tunnels, they are considered as hazardous areas under the National Fire Protection Associations (NFPA) standard for Fire Protection in Wastewater Treatment and Collection Facilities (NFPA 820). As such, the location of the gas piping and other flammables in the tunnels presents certain safety concerns. The existing digester gas manifold also has leaky joints, is undersized for predicted gas production, and has no redundancy for operational flexibility or maintenance activities.

Key construction elements included with this construction contract include rehabilitation of four digesters (digesters 5 to 8) to operate as a Temperature-Phased Anaerobic Digestion (TPAD), six DAFT units (units 1 to 6) to operate as co-thickening units, a new primary sludge screening facility, two new electrical buildings and associated electrical equipment, an external elevated gas piping system and gas flare system, and miscellaneous civil works.

Due to the cost and complexity of this Project, potential bidders were required to be pre-qualified before being invited to submit bids on the Project. Nine highly qualified general contractors were selected to bid on the Project. A total of five bids were subsequently received; all bids were higher than the Engineer's Estimate of $85,000,000. The low bid, submitted by Walsh

[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.*

Construction Company II, LLC of Concord, CA, in the amount of $109,925,000 is 29 percent higher than the Engineer's Estimate. The other four bids range from 37 percent to 53 percent above the Engineer's Estimate.

A combination of the high volume of construction work being performed in the Bay Area, the resulting shortage of skilled labor, and some higher material costs are the primary reasons for the higher bid. Considering these factors, staff considers the bid reasonable for the work involved.

Staff recommends award of a construction contract to the low bidder, Walsh Construction Company II, LLC, in the amount of $107,925,000 (which represents the low bid less revocable item 5, which is estimated at $2,000,000); approval of a 12.5 percent construction contingency in the amount of $13,490,625; and adoption of a resolution authorizing the Director of Public Works to execute one or more change orders in excess of $100,000 for the duration of the Project, not to exceed the total contingency amount approved for the Project. Staff also recommends a number of budget appropriation actions to enable award of the construction contract and San José's portion of the construction contingency.

BACKGROUND

Description of Existing Digestion System

The anaerobic digestion process is a critical element of the RWF's biosolids processing and functions to stabilize biosolids and generate biogas to help meet the RWF's energy needs. Key components of the digestion process include the anaerobic digesters, digester gas system (e.g. gas storage, piping, piping appurtenances, waste gas flares), and dissolved air flotation thickeners (DAFT).

The RWF has 16 anaerobic digesters of varying sizes and design that were built in six stages between 1954 and 1983. Each digester is 100 to 110 feet in diameter and varies in height from 32 to 40 feet tall. The digesters have been in continuous operations for more than 30 to 60 years and are in need of significant rehabilitation. Rehabilitation of the digesters and associated gas systems was previously identified as a high priority project in the 2007 Infrastructure Condition Assessment Report completed by CH2M Hill. Currently, six digesters (Digesters 2, 4, and 5 to 8) are permanently out of service due to structural damage and mechanical failures. The remaining 10 digesters are operational, with a minimum of eight units required for daily operations and two units as back-up to allow yearly scheduled cleaning and maintenance. Digesters 1 to 4, which are the oldest digesters at the RWF, cannot be rehabilitated to meet current seismic code and will be permanently disconnected once this Project is completed. (See Attachment A for project location map).

The digester gas system collects biogas produced from the anaerobic digestion process and transports, stores, and manages the gas for utilization. The majority of the piping associated with the digester gas system is located in underground tunnels. Due to the physical configuration and ventilation conditions at the tunnels, they are considered as hazardous areas under the National

Fire Protection Associations (NFPA) standard for Fire Protection in Wastewater Treatment and Collection Facilities (NFPA 820). As such, the location of the gas piping in the tunnels presents certain safety concerns. The existing digester gas manifold also has leaky joints, is undersized for predicted gas production, and has no redundancy for operational flexibility or maintenance activities.

Biogas, produced as part of the anaerobic digestion process, is compressed and blended with natural gas purchased from PG&E and used as fuel for the RWF's cogeneration engines and engine-driven blowers. Any excess biogas is burned by the waste gas flares. The RWF has two flares: a smaller ground flare and a high-capacity open flare. The existing flare is over 30 years old; a condition assessment performed in 2015 revealed signs of corrosion and deterioration.

The RWF also has 16 DAFT units that work to thicken waste-activated sludge from the secondary treatment process. The DAFT units are in poor condition and in need of rehabilitation.

Project Description

This Project is the first phase of a comprehensive upgrade to the biosolids processing facilities at the RWF. The scope of work includes rehabilitation of four digesters (digesters 5 to 8), retrofit of six DAFT units (units 1 to 6) including odor control, a new primary sludge screening facility, two new electrical buildings and associated electrical equipment, a new elevated gas piping system and gas flare system, and miscellaneous civil works. It is anticipated that a total of nine digesters and eight DAFT units will ultimately be needed to serve future loads and allow for redundancy. The additional five digesters and two DAFT units to be rehabilitated will be completed as part of separate project in the future.

The digester rehabilitation work will include new covers and mixing systems; structural repairs and seismic retrofits; heating system and gas collection conveyance system upgrades; and electrical, instrumentation, and control systems upgrades. The four rehabilitated digesters will operate at a higher temperature (thermophilic) as the first phase of the TPAD process, improving biogas production and pathogen destruction. Digesters 9 to 16 will operate as the second phase at a lower temperature (mesophilic), which is the current mode of operation of the system.

The retrofit of six DAFT units will allow for the co-thickening of primary and secondary sludge. This reconfiguration, along with the modernization of associated process equipment, will result in the reduction of the ultimate number of units required to be kept in operation. Modifications to the existing DAFT system include upgrades to existing piping, tanks, mechanical equipment and electrical and instrumentation components to allow for the new operation scheme. The upgraded units will be provided with covers and odor control system. A new primary sludge screening facility will be provided to remove debris prior to introducing sludge to the DAFT and digestion process, easing maintenance for equipment associated with these processes and cleaning of the structures.

An external, elevated pipe network will collect biogas from the entire digester campus, allowing the removal of biogas piping the tunnels as well as the relocation of flammable material piping from the tunnels. The completion of this Project will be the first step toward "declassifying" the tunnels and eliminating hazardous environment conditions. The elevated pipe will also connect to a new gas flare and to the rehabilitated existing flare.

Additional work will include site work and paving, construction of two electrical rooms, concrete flow distribution boxes, relocation of utilities and a sampling station, and provision of a new storage fuel tank.

This project is being delivered using a traditional design bid build delivery method. Several factors contributed to this decision. At the time of design initiation of this project in October 2013, State authority to use an alternate delivery method was only offered through a limited pilot program. Furthermore, this project includes many complex interfaces that need to be designed to a high level of detail. Given the extensive level of rehabilitation of existing infrastructure in a 24/7 facility there were also limited opportunities for design innovation and schedule acceleration, both of which are key benefits of design build. Taking these factors into consideration it was determined that the traditional design bid build delivery was more suitable for this project. However, given the magnitude and criticality of the project staff recognized the importance of having well qualified contractors through the low bid process and selected a pool of contractors through a robust pre-qualification process.

Pre-Qualification of Contractors

Council Resolution No. 71816, adopted on November 4, 2003, provides a policy for pre-qualifying contractors based on a project's complexity and construction value of more than $10,000,000. Due to the complexity and large construction value of the Project, a rigorous pre-qualification process was completed to develop a list of qualified bidders. The pre-qualification process considered factors such as experience, financial ability, safety history, etc.

A Request for Pre-Qualifications of Bidders was advertised on September 14, 2015. The City received pre-qualification packages from nine potential contractors on October 7, 2015. Staff evaluated the submissions and determined that all nine contractors met the pre-qualification requirements. Of the nine pre-qualified contractors who were invited to submit bids, five submitted bids.

ANALYSIS

Bids were opened on March 17, 2016 with the following results:

Contractor	Base Bid Amount	Variance Amount	Over/ (Under) Percent
Engineer's Estimate	**$85,000,000**		
Walsh Construction Company II, LLC	$109,925,000	$24,925,000	29%
Overaa & Co.	$116,427,000	$31,427,000	37%
Skanska USA Civil West California District, Inc.	$121,370,000	$36,370,000	43%
Keiwit Infrastructure	$122,118,000	$37,1183,000	44%
PCL Construction, Inc.	$129,971,463	$44,971,463	53%

Eight out of the nine prequalified bidders attended two non-mandatory pre-bid meetings and site walks for this Project on January 28, 2016 and February 25, 2016. A total of five bids were subsequently received; all bids were higher than the Engineer's Estimate. The low bid, submitted by Walsh Construction Company II, LLC of Concord, CA in the amount of $109,925,000 is 29 percent higher than the Engineer's Estimate. The other four bids range from 37 percent to 53 percent above the Engineer's Estimate.

The Engineer's Estimate prepared by the design consultant was based on construction costs experienced over the last several years for similar municipal wastewater projects as well as quotes obtained from equipment and material vendors. However, the San Francisco Bay Area is currently experiencing a high volume of construction, with billions of dollars of construction projects underway in the San José/Santa Clara vicinity, including a number of large commercial projects (e.g., new campuses and upgrades for companies such as Google, Apple, and projects at Stanford University, among others). Typically, commercial projects do not impact the municipal wastewater market, since the pool of general contractors is different for the two sectors. However, specialty subcontractors that work in both markets, such as electrical, instrumentation and control, heating, ventilation, and air conditioning (HVAC), etc., are in high demand, resulting in an increase of the pricing for this type of work.

The design consultant and staff have confirmed with contractors that the cost estimate for equipment and concrete work was in the range of their pricing and that the major differences could be primarily attributed to the increase in pricing from multiple subcontractors as well as the volatile conditions in the local labor market. Due to the high volume of work in the area, there appears to be a shortage of local craft laborers working and reportedly empty union halls, forcing the general contractors to add a premium over and above the latest prevailing wage rates to account for importing non-local craft laborers and potential slower productivity due to an unknown labor force.

A combination of the high volume of work in the area, the shortage of skilled laborers, demand for specialty subcontractors, and some higher material costs are believed to have contributed to

the higher bid. Despite the significantly high bids staff is recommending proceeding with the Project at this time. Rehabilitation of the digesters and gas handling systems has been identified as a high priority capital improvement project due to the condition of the infrastructure as well as safety concerns. Delaying the Project will increase the risk of digester and gas piping failures, with higher operations and maintenance costs and possibly safety and permit violations. It is also uncertain if future construction prices will be lower, since construction activity in San José and the surrounding area has not shown imminent signs of slowing down and the criticality of this Project does not allow for a long delay in re-bidding the Project.

The base bid amount includes work related to five bid revocable items, identified in the bid form as item (3), the cost for providing all system integration and programming ($800,000); item (5), the allowance for relocation of utilities ($2,000,000); item (6), the cost of new diesel storage tank ($184,000); item (7), the cost of a new heat loop steam converter and condensate return system ($512,000); and item (8), the cost of new digester gas flares ($1,060,000).
Staff recommends award of contract to the low bidder for the base bid less revocable item (5), in accordance to Special Provisions 3-1.01D, for a total of $107,925,000. Staff believes that this item can be revoked without affecting the project and that relocation of unforeseen utilities can be covered, if necessary, by change orders using the project contingency.

Staff has also benchmarked the construction cost for the anaerobic digestion portion with 12 wastewater agencies that have completed similar projects in the last few years. Because the projects present variations in total digester capacity, overall scope, site conditions, construction completion date and geographical location, a direct comparison cannot be readily made. However, costs per unit of digester volume (gallons of capacity) can be used as a key indicator. The comparison completed by staff showed that other agencies had construction costs in the range of $3 to $13 dollars per gallon of treatment provided. The associated cost per gallon of treatment, based on the recommended bid, is equivalent to $4.50 per gallon, therefore in the lower end of the spectrum of cost for comparable agencies.

Project delivery cost for the project is equivalent to 24.50 percent of the construction cost and includes professional consultant services, and City staff cost for project management and construction management. This is in line with costs experienced by other similar wastewater programs.

In addition of the base bid scope of work, there was one Add Alternate bid item to demolish existing piping in some areas of the tunnels and some yard piping ($420,000). Due to the high bid result, staff is not recommending award of the Add Alternate. Demolishing of piping in tunnels and yard piping is not critical to the Project and can be addressed as part of future capital projects.

Council Policy provides for a standard contingency of ten percent on public projects involving utilities and building projects. However, on this project a contingency of a 12.5 percent is being requested to account for the challenge of maintaining continuous operations at the RWF during construction, in addition to complex project interfaces with existing electrical and process

control facilities, potential utility conflicts, and other concurrent capital improvement projects underway.

Staff also recommends delegating authority to the Director of Public Works to execute one or more change orders in excess of $100,000 for the duration of the Project. This is not to exceed the total contingency amount approved for the Project, and is subject to other applicable limitations on the authority of the Director in the San José Municipal Code. Approval of these recommendations will provide staff with the flexibility to efficiently and effectively respond to and provide the funding for any unanticipated work necessary for the proper completion of the Project.

Funding Strategy

Funding for the Project appropriation in 2015-2016 is insufficient for this award. Budget actions are recommended to increase the total appropriation budget by $28,545,000 to award the construction contract and the City's portion of the construction contingency.

To offset this increase and minimize impacts to ratepayers and the tributary agencies, staff recommends decreasing existing project appropriations and the Unrestricted Ending Fund Balance for the San José- Santa Clara Treatment Plant Capital Fund, as outlined below.

- Energy Generation Improvements appropriation ($6,000,000): the equipment pre-purchase for the Cogeneration Facility project is now anticipated in 2016-2017. New funds have been programmed for these costs as part of the 2017-2021 Proposed Capital Improvement Program (CIP).
- South Bay Water Recycling (SBWR) System Reliability and Infrastructure Replacement appropriation ($4,692,000): this was originally appropriated to pay for the cost to maintain and rehabilitate the SBWR program's existing facilities. After further evaluation, staff has determined that the maintenance and rehabilitation work can be deferred to a future year, and paid for from the sale of recycled water revenue through the San José-Santa Clara Treatment Plant Operating Fund.
- Tunnel Rehabilitation appropriation ($600,000): this project has not started due to a lack of staff resources and has been deferred; funds have been programmed for these costs in 2017-2018 as part of the 2017-2021 Proposed CIP.
- Unrestricted Ending Fund Balance ($17,253,000): the proposed action allocates $17.3 million of the $42.8 million Unrestricted Ending Fund Balance to cover a portion of the increased costs. It is anticipated that $7.7 million of this amount will be replenished in 2016-2017 from the liquidation of prior year carryover encumbrances in 2015-2016 that will be recognized as part of the 2015-2016 Annual Report process this fall. This amount contains contributions from the tributary agencies for prior year projects that will be trued up during the 2015-2016 CAFR reconciliation process prior to January 2017. The remaining $9.6 million being recommended for appropriation from this fund balance will cover the contingency costs for San José only; contingency costs for Santa Clara and the tributary agencies have been programmed in 2016-2017 as part of the 2017-2021 Proposed CIP. While this action would only cover 70.8 percent of the $13,490,625 recommended in this memorandum for project contingency and is not at the full, ideal

contingency level normally included with award of construction projects, the balance of the full contingency level is incorporated in the 2016-2017 Proposed Capital Budget, which is currently scheduled for adoption by the City Council on June 21, 2016.

Concurrently, staff is pursuing a Clean Water State Revolving Fund (SRF) loan to finance the Project through the State Water Resources Control Board (Board). The loan application was finalized in December 2015; both the technical and environmental packages for the Project have been approved and the financial security package is currently under review by the Board. Staff anticipates that the process will be completed by summer 2016 and that the Board, contingent on the availability of funds, will proceed to issue an initial agreement for up to approximately $119,000,000 that will be used to cover costs related to planning, design, administration, and construction of the Project. At this time, the Board has not expressed concerns regarding availability of funds for this Project; however, this may change in the future since several other large water and wastewater projects/programs in California are also underway and competing for the same low interest SRF loan program.

Since bids received for the project were higher than originally expected, the City will have the opportunity to amend the original application and submit a final budget approval package to receive a finalized agreement for a revised amount, contingent on the availability of funds. The final amount may also be adjusted to reflect participation from only the co-owners of the RWF (i.e., San Jose and Santa Clara), pending the outcome of ongoing discussions with the tributary agencies.

EVALUATION AND FOLLOW-UP

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.

If the SRF application is successful, staff anticipates returning to Council in August 2016 to seek approval to enter into a financing agreement for the Project.

The City Council is also currently scheduled on June 21, 2016 to adopt the 2016-2017 Proposed Capital Budget, which includes funding for several projects as referenced in this memorandum, including the remaining Project contingency from Santa Clara and the tributary agencies.

POLICY ALTERNATIVES

Alternative 1: **Direct City staff to reject all bids and re-bid the Project**
Pros: Re-bidding the Project may result in a more favorable bid result.
Cons: Re-bidding the Project will delay the construction schedule, increase project delivery costs, and may result in a higher bid.

Reason for not recommending: Re-bidding a project does not always result in lower bids. The five bids received showed good interest from the construction industry. All of the bids were fairly close, which indicates a competitive bidding climate. Rebidding the Project will require additional consultant and staff costs and delay the construction schedule for at least three to six months (or longer, if new pre-qualification of contractors is needed). In addition, the construction market in the San José area may tighten further, potentially increasing costs substantially. Some or all of the highly qualified bidders may decide not to pursue the Project.

Alternative 2: **Direct City staff to modify the scope and re-bid the Project**
Pros: Modifying the scope and re-bidding the Project may reduce cost in the short term.
Cons: This alternative will delay the construction schedule, increase the Project's delivery costs, and not fulfill the original Project needs.
Reason for not recommending: Modifying the scope to remove some construction elements would require rejecting all bids and incurring additional consultant and staff costs to redesign and rebid the Project, adding at least 12 to 14 months to the construction schedule. The removed items of work would be still need to be completed as part of the future phase of work at a potentially higher cost due to escalation and result in an incomplete Project. In addition, considering the tight labor market and abundance of construction work in the San José area, costs may increase substantially, reducing the potential savings to the City.

Alternative 3: **Direct City staff to postpone the Project and rebid under a more favorable construction bidding climate**
Pros: Postponing the Project and waiting to rebid under a more favorable construction bidding climate may result in a more favorable bid result.
Cons: The digesters and gas handling facilities are an essential part of the solids treatment process. The facilities are aged and have been in continuous operation for more than 30 to 60 years. Six out of 16 digesters are currently permanently out of service due to condition. The remaining ten digesters represent the minimum number of units required for day-to-day operations (eight units in service plus 2 redundant units). Based on age and condition, the risk and consequence of failure of the remaining units is high.
Reasons for not recommending: Rehabilitation of the digesters and gas handling systems has been identified as a high priority capital improvement project due condition as well as safety concerns associated with the gas piping in the tunnels. Delaying the project will increase the risk of digester and gas piping failures, with higher operations and maintenance costs and possibly safety and permit violations. In addition, the Project's delivery costs would be significantly increased, due to additional staff and consultant efforts to re-design and re-bid the project in the future. It is also uncertain if future construction prices will be lower, since the market in the San José area may continue to be highly competitive and other municipal agencies in the vicinity will start implementing other scheduled water and wastewater projects, increasing demand substantially, and therefore construction costs.

PUBLIC OUTREACH

This Project was advertised on BidSync on January 13, 2016. This memorandum will be posted on the City's Council Agenda website for the May 24, 2016 City Council meeting.

COORDINATION

This Project and memorandum have been coordinated with the Departments of Planning, Building and Code Enforcement, Fire, and Finance, and the City Attorney's Office. This memorandum is scheduled to be heard at the May 19, 2016 TPAC meeting.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the Council-approved focus on improving wastewater treatment efficiency, protecting vital core services, and meeting air permit discharge requirements.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $107,925,000

Project Delivery	$26,474,054*
Construction	$107,925,000
Contingency (12.5%)	$13,490,625
Total Project Costs	**$147,889,679**
Prior Year Expenditures	$8,196,395
Remaining Project Costs	**$139,693,284**

** Project delivery includes $15,793,433 for professional consultant services (feasibility/development, design, and engineering services during construction), $133,586 for project management during feasibility and development, $879,114 for project management during design, $78,468 for bid and award, $9,066,631 for construction management (including special inspections), and $522,822 for project management during post construction and project closeout. The estimated project delivery cost is 24.5% 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. $107,925,000

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

4. OPERATING COSTS: The annual costs to operate and maintain the upgraded and new Project facilities are estimated to be approximately $6,760,000 for the initial operation year in 2019-2020. This is an increase of about $1,500,000 over the current annual operations and maintenance costs to run the existing digester and thickener facilities, and includes polymer, power, equipment repair/maintenance, digester cleaning, screenings hauling, and labor costs. A portion of this cost could be offset by the increase in biogas production.

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

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contract recommended as part of this memorandum and remaining project costs, including project delivery, construction, and contingency costs. Additional funding sources have been identified to cover the costs above the original budgeted estimate for this Project.

Fund #	Appn #	Appn Name	Current Total Appn	Rec. Budget Action	Amount for Contract	2015-2016 Adopted Capital Budget (Page)	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			**$139,693,284**				
512	4127	Digester and Thickener Facilities Upgrade	$90,258,000	$28,545,000	$107,925,000	V-180	10/20/2015 Ord. No. 29636
Total Current Funding Available			**90,258,000**				
New Funding to be Appropriated				**$28,545,000**			
TOTAL FUNDING				**$118,803,000***			
Source of New Funding							
512	8999	Unrestricted Ending Fund Balance	$42,826,803	($17,253,000)	N/A	V-170	03/22/2016 Ord. No. 29709
512	7454	Energy Generation Improvements	16,600,000	($6,000,000)	N/A	V-183	06/23/2015 Ord. No. 29589
512	7455	SBWR System Reliability and Infrastructure Replacement	$4,692,000	($4,692,000)	N/A	V-197	06/23/2015 Ord. No. 29589
512	7698	Tunnel Rehabilitation	$700,000	($600,000)	N/A	V-194	01/26/2016 Ord. No. 29680
		Total		**($28,545,000)**			

* The remaining project funding of $20.9 million is included in the Proposed 2017-2021 Capital Improvement Program.

CEQA

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

An Initial Study (IS) and Mitigated Negative Declaration (MND) were prepared by the Director of Planning, Building and Code Enforcement for the project. The documents were circulated for public review from August 28, 2015, to September 28, 2015. One comment letter was received from the State Water Resources Control Board on the IS/MND.

The Initial Study identified two potentially significant impacts to biological resources and cultural resources resulting from the project. The mitigation measures identified in the IS/MND would reduce these two project impacts to a less-than-significant level. The entire MND and IS are available for review online at: https://www.sanjoseca.gov/index.aspx?NID=4989

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

/s/
BARRY NG
Director of Public Works

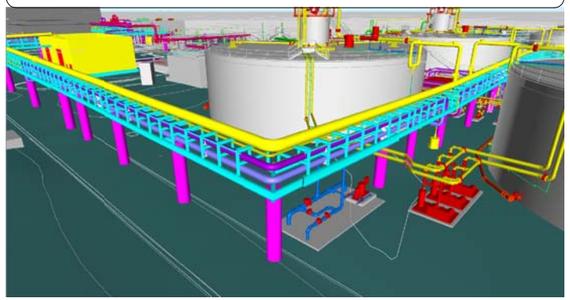
JENNIFER A. MAGUIRE
Senior Deputy City Manager/
Budget Director

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

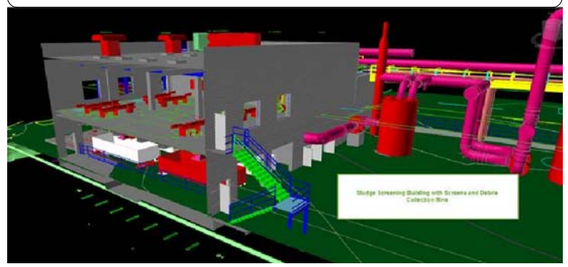
Attachment A – Digester and Thickener Facilities Upgrade Project Map

ATTACHMENT A - DIGESTER AND THICKENER FACILITIES UPGRADE PROJECT MAP

ELEVATED PIPE RACK

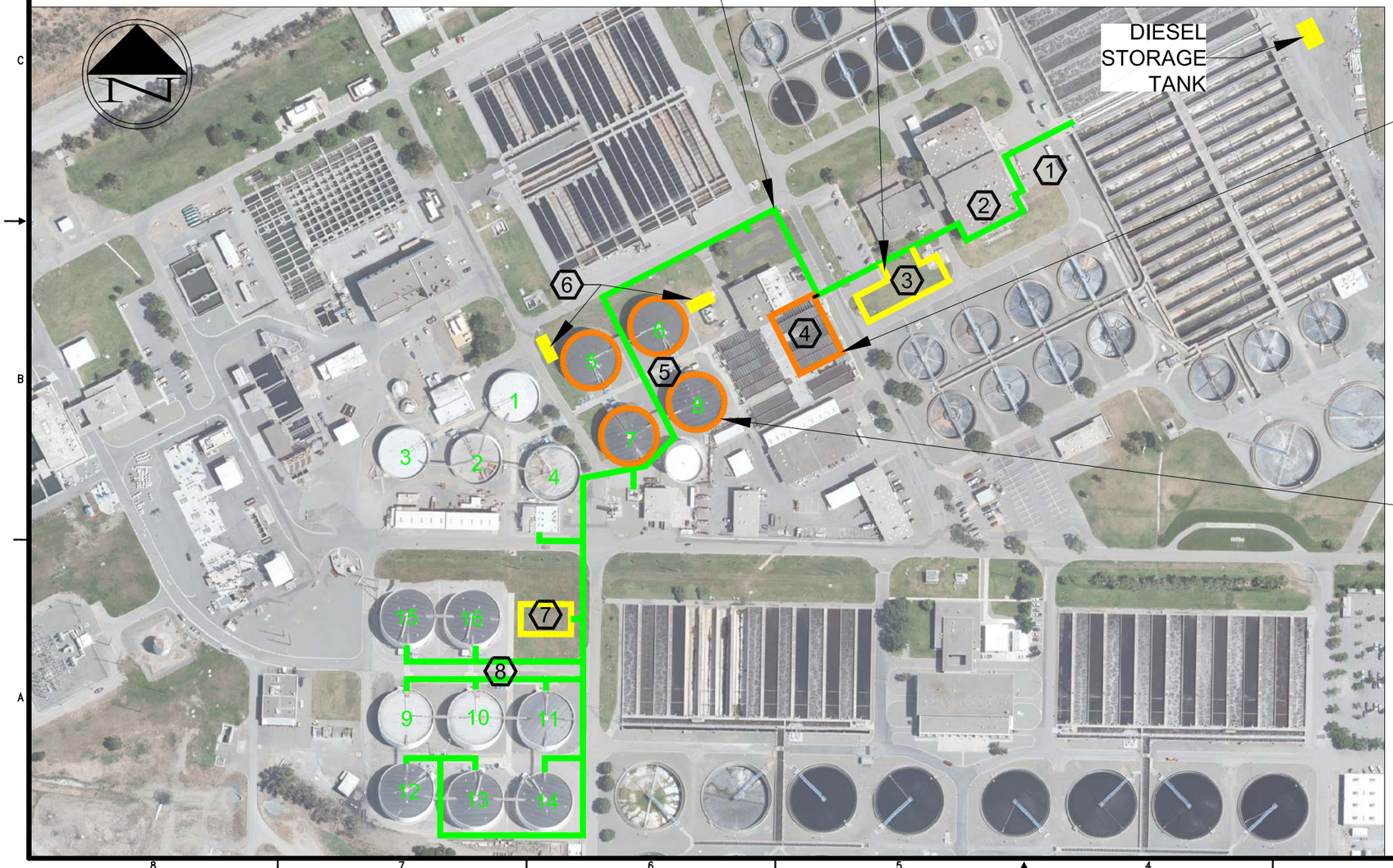


NEW SLUDGE SCREEN, ODOR CONTROL, STEAM CONVERTERS, AND POLYMER STORAGE/BLENDING FACILITIES

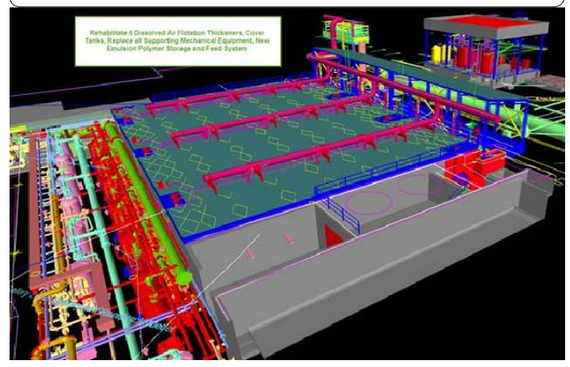


PROJECT SITE AREAS

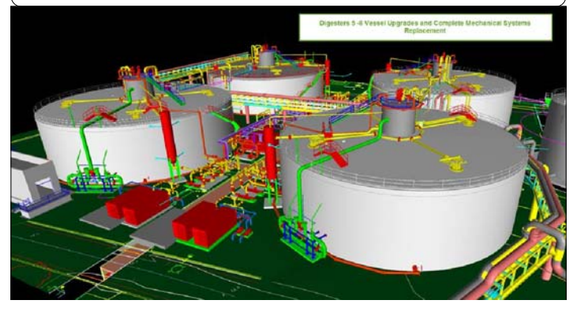
1. SECONDARY BLOWER BUILDING (TIE-IN TO EXISTING LINES)
2. SECONDARY BLOWER BUILDING
3. NEW AREA73
4. DAFT AND DAFT GALLERY
5. DIGESTER 5-8 AREA
6. MOTOR CONTROL CENTER
7. NEW GAS FLARE
8. REMOTE DIGESTER (9-16)



MODIFICATION OF DAFT 1-6



MODIFICATIONS OF DIGESTER 5-8



COUNCIL AGENDA: 5/24/16
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Barry Ng

SUBJECT: SEE BELOW

DATE: May 5, 2016

Approved D-DSyL Date 5/10/16

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR THE 6970 – FIBER OPTIC CONNECTION PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

Report on bids and award a construction contract for the 6970 – Fiber Optic Connection Project to the second low bidder, Aegis ITS, Inc., in the amount of $271,692 and approval of a 15 percent contingency in the amount of $40,754.

OUTCOME

Award of the construction contract to Aegis ITS, Inc. will allow for the construction and completion of the Fiber Optic Connection Project (Project) at the San José-Santa Clara Regional Wastewater Facility[1] (RWF), resulting in a faster and more reliable communications network. Approval of a 15 percent contingency will provide funding for any unanticipated work that is necessary for the proper completion of the Project.

BACKGROUND

The RWF uses a microwave dish as the primary access to the City network. The dish is capable of connection speeds up to one gigabit per second. The connection is subject to environmental interference, such as weather, resulting in frequent interruptions to network access. This Project will install approximately 3,500 linear feet of fiber optic cable in new and existing conduit, and termination work in pull boxes along the alignment and in the Transmission Pump Station building at the RWF. The Project will result in a faster, more reliable direct connection to the

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

City network and provide additional capacity for future needs. Please see the attached location map for the layout of the project.

Previously, on February 23, 2016, City Council awarded the construction contract for the Project[2] (Agenda Item 2.8) to the low bidder, All Phase Excavating and Construction, Inc. (All Phase), in the amount of $240,000. On March 3, 2016, the contract was delivered to All Phase for execution. However, the unsigned contract was returned to the City on March 8, 2016.

All Phase indicated that they were unable to obtain the required bonds to complete this Project due to a "misuse of company funds by a former payroll administrator", and therefore, could not execute the contract. All Phase's Contractor's State License Board contractor's license is currently inactive and they are unable to contract at this time.

ANALYSIS

On March 17, 2016, City staff contacted the second low bidder, Aegis ITS, Inc. (Aegis ITS). On March 31, 2016, Aegis ITS responded with a letter honoring their original bid of $271,692 to complete the Project. Section 3-1.01 of the City's Standard Specifications provides that the City may award the contract to the second lowest responsible bidder if the low bidder refuses or fails to execute the contract. Aegis ITS' bid was six percent below the Engineer's Estimate. The bid is considered acceptable for the work involved and staff recommends that the construction contract be awarded to Aegis ITS, Inc. Staff recommends a 15 percent contingency for this Project to cover unforeseen issues.

Awarding to the second lowest responsive bidder will result in a total hard cost of $312,446, which is $36,446 higher than the previous bid: $31,692 due to the difference in bid pricing and $4,754 due to a corresponding increase in the construction contingency. Staff will seek to recover a portion of the additional costs through enforcement of All Phases' bidder's bond in the amount of $24,000. Section 3-1.04 of the City's Standard Specifications and Section 20172 of the California Public Contract Code provides that a responsive and responsible bidder forfeits their proposal guaranty to the City if they fail to execute the contract.

Project delivery costs of $393,000 for this Project are significantly higher than the City and industry benchmarking standards. Given the relatively small construction cost, the permitting requirements and significant coordination required with internal departments and external agencies, and the process to re-award the contract, a higher delivery cost has been unavoidable. Staff will closely manage the Project delivery budget during construction.

The original Project schedule (and the bid documents) allowed for 150 working days, and included adequate time to work through the rainy season. Upon award of the contract to Aegis ITS, construction is scheduled to begin in June 2016 with substantial completion by winter 2016.

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[2] *Additional information including the previous award memo presented at the February 23, 2016 City Council meeting can be found on the City's website, http://sanjoseca.gov/index.aspx?NID=3549, under Agenda Item 2.8.*

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 will also be submitted to the Treatment Plant Advisory Committee (TPAC) and posted on the City's website.

PUBLIC OUTREACH

This Project was advertised on BidSync on July 8, 2015 and advertised in the *San José Post Record.* This memorandum will be posted on the City's Council Agenda website for the May 24, 2016 Council meeting.

COORDINATION

This Project and memorandum have been coordinated with the Departments of Finance and Planning, Building, and Code Enforcement, City Manager's Budget Office, and the City Attorney's Office. This memorandum is scheduled to be heard at the May 19, 2016 TPAC meeting.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $271,692

Project Delivery	$ 393,000*
Construction	$ 271,692
Contingency	$ 40,754
Total Project Costs	**$ 705,446**
Prior Year Expenditures	$175,825
Remaining Project Costs	**$529,621**

* Project delivery includes $77,000 for project management during feasibility and development, $72,000 for design consultant services, $52,000 for project management during design, $78,000 for bid and award, $57,000 for construction management, $40,000 for environmental consultant services during construction, $8,000 for permit fees, and $9,000 for post construction and project closeout (see "Analysis" section for an explanation on delivery costs).

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

This is a lump sum contract for $271,692.

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

4. OPERATING COSTS: No additional funding is necessary for the approval of the recommendation, which will have no significant adverse impact on the General Fund operating budget or the San José-Santa Clara Treatment Plant Operating Fund.

BUDGET REFERENCE

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

Fund #	Appn #	Appn. Name	Total Appn	Amt. for Contract	2015-2016 Adopted Capital Budget Page*	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			**$529,621**			
Remaining Funding Available						
512	5690	Plant Infrastructure Improvements	$1,000,000	$271,692	V-190	06/23/2015 Ord. No. 29589
Total Current Funding Available			**$1,000,000**	**$271,692**		

CEQA

Addendum to the San José/Santa Clara Water Pollution Control Plant Master Plan Final EIR, File No. PP15-040.

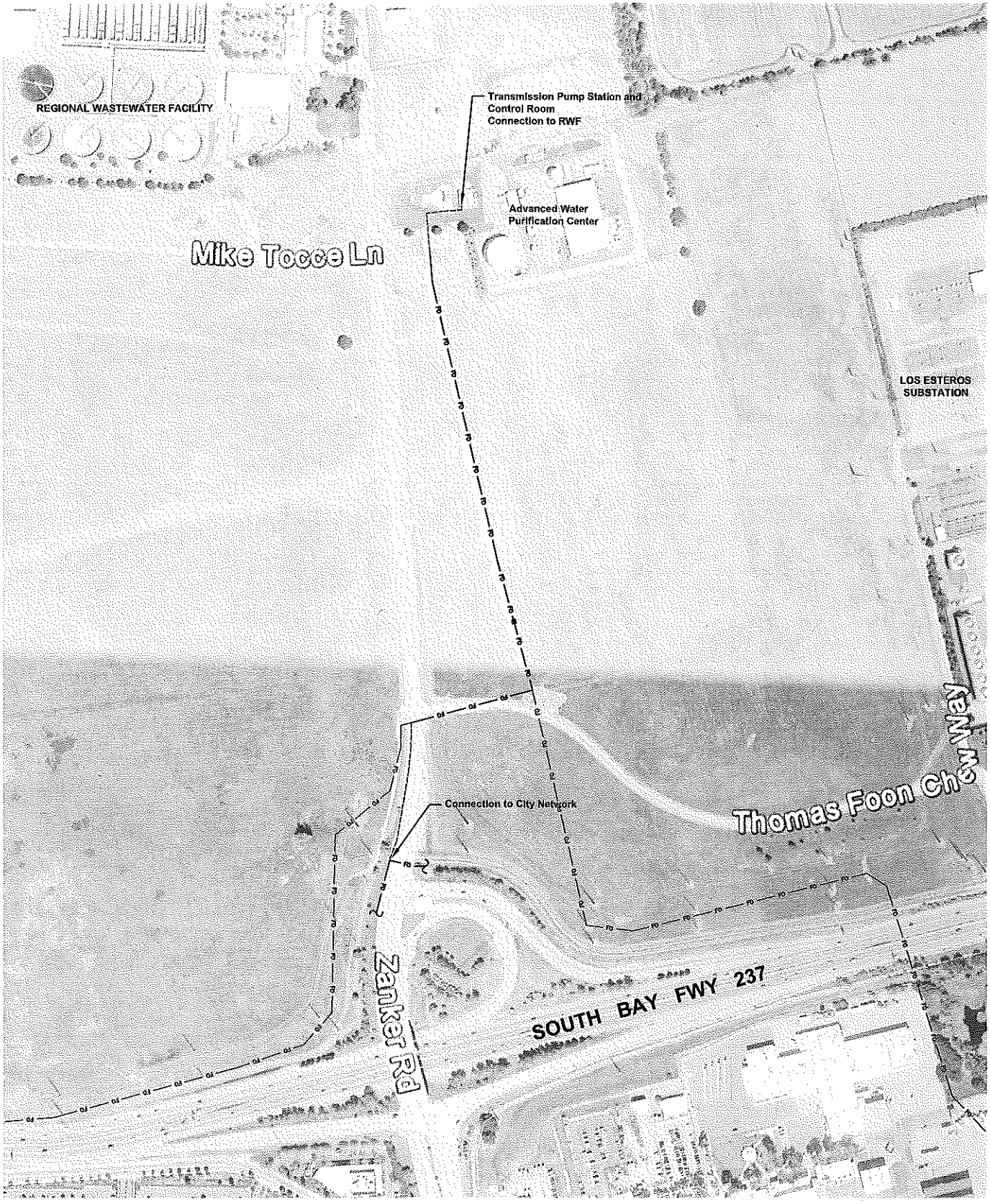
/s/ Ashwini Kantak for
KERRIE ROMANOW
Director, Environmental Services

/s/
BARRY NG
Director of Public Works

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

Attachment: Location Map

ATTACHMENT - LOCATION MAP



San José-Santa Clara Regional Wastewater Facility

6970 - FIBER OPTIC CONNECTION

LOCATION MAP

NEW CONDUIT

EXIST CONDUIT (USED FOR THIS PROJECT)

EXIST CONDUIT (NOT USED)

N

COUNCIL AGENDA: 5/24/16
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: May 11, 2016

Approved D-DSyC Date 5/11/16

COUNCIL DISTRICT: 4

SUBJECT: AGREEMENT WITH SANTA CLARA VALLEY HABITAT AGENCY TO MANAGE BURROWING OWL HABITAT

RECOMMENDATION

Adopt of resolution authorizing the City Manager to negotiate and execute an Agreement between the City of San José and the Santa Clara Valley Habitat Agency to manage the 201-acre burrowing owl habitat on the buffer lands of the San José-Santa Clara Regional Wastewater Facility for a term of five years.

OUTCOME

The agreement will ensure that the owl habitat will be managed to protect and grow the region's largest and most successful burrowing owl population. It will begin the process of transferring the cost of managing the burrowing owl habitat from the City of San José to the Santa Clara Valley Habitat Agency (SCVHA) in the near term.

BACKGROUND

The Western Burrowing Owl is listed as a Federal and State Species of Special Concern, with significant population decreases over the past several decades. The Western Burrowing Owl is a small owl, about nine inches tall, and is typically migratory throughout much of its range, although many birds reside year round in California. Western Burrowing Owls are both diurnal and nocturnal and are most active at dawn and dusk. They do not hoot as do most other owl species and are the only species of owl worldwide that live and nest underground. Western Burrowing Owls will use other "burrows" such as pipes, crevices in rocks, or burrows dug by other animals.

Western Burrowing Owls have been documented to nest at the San José-Santa Clara Regional Wastewater Facility[1] (RWF) bufferlands for the past decade; however numbers had declined until the City of San José (City) initiated habitat improvements in 2012. Staff implemented activities based on the City's Bufferlands Interim Burrowing Owl Management Plan (Interim Plan) as temporary measures until certification of the Plant Master Plan (PMP) Environmental Impact Report (EIR). City Council certified the PMP EIR on November 19, 2013. As part of the PMP's goal to improve habitat and minimize impacts to the local and global environment, it designated 180 acres as burrowing owl habitat. Improving the habitat quality at the bufferlands has increased the number of nesting owls and promoted reproductive success, two goals the City would like to achieve on the bufferlands.

In May 2014, Cisco Systems donated 21.4 acres of land to the City that is adjacent to the existing owl habitat. The addition of this land brought the total acreage of the owl habitat up to 201 acres. The exact shape of the habitat is currently being formally surveyed and recorded and will undergo minor adjustments from the shape included in the adopted PMP.

The City entered into a Grant Agreement with Santa Clara Valley Audubon Society (SCVAS) in March 2014 to provide services related to the upkeep, improvement, and promotion of the burrowing owl habitat. The Grant Agreement designates performance measures to be completed in support of the Western Burrowing Owl habitat. Currently, the Grant Agreement is under the second option to extend until June 30, 2016. Under the Grant Agreement, habitat improvement and maintenance activities consistent with the PMP and EIR are conducted following the guidelines set forth in the Interim Plan and Mitigation Monitoring and Reporting Plan from the PMP EIR.

The Interim Plan's recommendations were designed to improve both foraging and nesting habitat for the owls as well as for California ground squirrels, a species the owls depend upon for quality habitat.

The increase in the burrowing owl population observed over the past several years at the RWF is significantly higher than any other site in Santa Clara County according to the South Bay Burrowing Owl Survey Network. The burrowing owl population at this site is experiencing significant growth while all other County sites are declining. The overall trend for all sites in Santa Clara County shows a continued decline in species abundance which could lead to the owl becoming locally extinct. This habitat management project is proving that a coordinated effort and good science can reverse the trends when these habitat enhancement actions are applied.

To maintain and build upon this success story, all of the management practices identified in the Interim Plan must be continued. Up until now, the City has underwritten the effort by contracting with SCVAS and providing mowing and other maintenance tasks. Now that the SCVHA is up and running after 10 years of stakeholder and public outreach processes during the

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

Habitat Plan development, there is an opportunity to transfer the oversight and underwriting of these activities to them.

The SCVHA was formed in May 2013 and has a major role in implementing the Habitat Plan, which was developed by the Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, County of Santa Clara, and the Cities of Gilroy, Morgan Hill, and San José. The Habitat Plan covers about two-thirds of the area of Santa Clara County. It provides streamlined state and federal permitting for public and private projects, while offering a comprehensive and effective way to address impacts of those projects on endangered and threatened species and their habitats. The most significant role of the Habitat Agency is to acquire and manage a Reserve System that will serve as mitigation for project impacts and contribute to the recovery of the species covered by the Habitat Plan.

ANALYSIS

Protection and maintenance of the owl habitat is provided under the terms of required mitigation measures in the Mitigation Monitoring and Reporting Program (MMRP) from the PMP EIR. Council Policy 6-31 also supports the use of RWF bufferlands to provide direct benefit to habitat lands supporting United States Department of Fish and Wildlife and California Department of Fish and Wildlife Species of Special Concern. The proposed agreement would enable the City to continue protecting and maintaining the habitat through the SCVHA. The agreement would not result in the loss of any full time employee positions as program management is already handled by a third party, SCVAS, and mowing is and would continue to be handled by RWF Operations and Maintenance staff or existing mowing contractors.

The proposed five-year agreement would allow SCVHA to carry out the needed management activities and transfer the bulk of the cost to manage the habitat from the City to SCVHA. However, the RWF would maintain ownership of the majority of the land (the Cisco property is owned solely by the City of San José) and continue to provide mowing services. Other optional services such as soil transport, creation of prey refuge, etc., could also be completed by the City if deemed necessary. The mowing and other optional services would be funded from the balance of an endowment from the Cisco land transfer to fund habitat maintenance.

The management agreement is the first step in the City's anticipated participation in a future land-in-lieu of fees program that would allow the City to comply with the estimated $1,400,000 in SCVHA development fees for four upcoming RWF Capital Improvement Program projects by enrolling a portion of the habitat into the SCVHA's reserve system. The proposed enrollment will be brought back to the City Council for consideration at a future time.

EVALUATION AND FOLLOW-UP

The proposed management agreement calls for continued surveying of the habitat which will allow staff to use burrowing owl counts as the primary performance measure. Staff will have limited input on SCVHA's budget as long as they are in compliance with baseline management practices outlined in the agreement. Staff will continue to make annual presentations to the Transportation and Environment (T&E) Committee on how the SCVHA and the habitat itself is performing.

POLICY ALTERNATIVES

Alternative: Direct City staff to continue management of the owl habitat
Pros: The City would retain control of managing the owl habitat.
Cons: The City would continue to fund habitat management at a rate of approximately $70,000 per year.
Reason for not recommending: Having the SCVHA manage the habitat utilizes the agency as designed and is fiscally prudent since the costs associated with ongoing management responsibilities would transfer from the City to SCVHA.

PUBLIC OUTREACH

Three annual program reports regarding the burrowing owl habitat have been made to both the T&E Committee and Treatment Plant Advisory Committee (TPAC) dating back to 2013. The PMP adoption council memo, dated October 21, 2013, specifically discussed the option of transferring management of this habitat to the SCVHA.

This memorandum will be considered at the May 19, 2016 TPAC meeting and will be posted on the City's Internet website for the May 24, 2016 City Council agenda.

COORDINATION

This proposal and memorandum has been coordinated with the Department of Public Works, the City Manager's Budget Office, and the City Attorney's Office.

COST SUMMARY/IMPLICATIONS

The agreement with SCVHA will not result in any additional cost to the City. The agreement will be for the management of the 201-acre burrowing owl habitat at the RWF for a term of five years. At the end of the five-year agreement, the City can elect to enter a new short-term agreement with SCVHA for a term mutually agreed upon by both parties, or permanently enroll the land in the SCVHA's habitat conservation program.

CEQA

Not a Project, File No. PP10-066, Agreements and Contracts.

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

For questions, please contact René Eyerly, Sustainability and Compliance Manager, at (408) 975-2594.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 06/07/16
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): Finance	**CEQA:** Not a Project, File No. PP16-020, Agreements and Contracts	**Coordination:** Environmental Services Department, City Attorney's Office, City Manager's Budget Office	**Dept. Approval:** /s/ Julia H. Cooper
Council District(s): City-wide		On May 19, 2016, the Treatment Plant Advisory Committee is scheduled to consider this item.	**CMO Approval:** D-DSL

SUBJECT: EXECUTE A PURCHASE ORDER WITH PIPE AND PLANT SOLUTIONS, INC.

RECOMMENDATION:

Adopt a resolution authorizing the City Manager to:

1. Execute a Purchase Order with Pipe and Plant Solutions, Inc. (Berkeley, CA) to provide all labor and material to clean three anaerobic digesters at the Regional Wastewater Facility for the term June 7, 2016 through June 6, 2017, in an amount not to exceed $339,067;

2. Approve a contingency of $50,000 in the event that unanticipated issues are identified during the performance of the work; and

3. Exercise up to three additional one-year options to extend the term of the cleaning services for nine additional digesters that are scheduled for cleaning on a rotational basis through June 6, 2020, subject to the appropriation of funds.

BASIS FOR RECOMMENDATION:

The Regional Wastewater Facility (RWF) currently operates ten anaerobic digesters. The digesters process and convert the primary and waste activated sludge to generate digester gas, which is used as a fuel source for the onsite power generation equipment. Since eight to ten digesters must be in operation at any given time, they receive maintenance in phases and are cleaned on a rotation schedule. Timely cleaning of the anaerobic digesters is paramount in maintaining proper functionality for continuous efficient gas production. The scope of this project has been coordinated with various RWF projects and only includes the digesters that will not be rehabilitated until 2025.

A competitive Request for Bids was facilitated by the Finance Department to procure this service.

Recommendation Summary: Award to Pipe and Plant Solutions Inc. as the lowest responsive and responsible bidder pursuant to the formal bidding procedures of the San José Municipal Code, Section 4.12.310.B.

Office of Equality Assurance: Living Wage or Prevailing Wage, whichever is higher, is applicable to work under this purchase order.

This item is consistent with the City Council approved Environmental and Utility Services Mission: "Provide environmental leadership through policy development, program design, and reliable utility services".

COST AND FUNDING SOURCE:

Fund #	Appn #	Appn. Name	Total Appn.	Amt. for Recommendation	2015-2016 Adopted Operating Budget Page	Last Budget Action (Date, Ord. No)
513	0762	Non-Personal / Equipment	$32,422,570	$339,067	XI-79	10/20/2015, Ord. No. 29636

FOR QUESTIONS CONTACT: Mark Giovannetti, Purchasing Deputy Director at 408-535-7052

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 05-24-16
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): ESD	**CEQA:** Not a Project, File No. PP10-066(a), Agreements and Contracts	**Coordination:** City Attorney's Office, City Manager's Budget Office	**Dept. Approval:** /s/ Kerrie Romanow
Council District(s): City-wide			**CMO Approval:** D-DSL

SUBJECT: AMENDMENT TO MASTER SERVICE AGREEMENT WITH HYDROSCIENCE ENGINEERS, INC.

RECOMMENDATION:

Approve the First Amendment to the Master Agreement with HydroScience Engineers, Inc. for engineering services to allow for future adjustment to rates and charges, and to increase the rates for HydroScience Engineers, Inc. and subconsultants.

BASIS FOR RECOMMENDATION:

HydroScience Engineers, Inc. is currently performing engineering assessment and design services for the San José-Santa Clara Regional Wastewater Facility (RWF) under a Master Agreement (MA).

The cost of labor has increased since the rates were established in February 2014 when the original contract was signed and executed. The proposed new billing rates account for the increase in labor cost. The rate increases proposed are an average 13 percent compared to the existing rate schedule, which was established two years ago. Research conducted in February 2016 confirmed that the proposed new rates are comparable to similar professional services provided by other consultants under contract with the RWF Capital Improvement Program.

Tabulated below is a comparison of the current market rate compared to the proposed rates for the proposed amendment.

Position/Classification	Current Market Rate*	HydroScience Proposed Rate	Percentage Difference
Principal	$275	$225	18% Lower
Engineer IX	$240	$210	13% Lower
Engineer VIII	$220	$200	9% Lower
Engineer VII	$200	$185	8% Lower
Engineer VI	$180	$175	3% Lower

* The proposed rates were compared with CH2M Hill, CDM Smith, AECOM, and BKF Engineers.

COST AND FUNDING SOURCE:

Funding for service orders issued under the MA will be made available from the San José-Santa Clara Treatment Plant Operating Fund (Fund 513). The MA is for a four-year total not to exceed $2,000,000, and will be subject to the appropriation of funds with each agreement option. This First Amendment does not change the not-to-exceed amount.

QUESTIONS CONTACT: Amit Mutsuddy, Division Manager, (408) 635-2007

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: **TREATMENT PLANT ADVISORY COMMITTEE**

FROM: Kerrie Romanow

SUBJECT: **FIVE-YEAR 2017-2021 PROPOSED CAPITAL IMPROVEMENT PROGRAM**

DATE: May 12, 2016

Approved D. DSyL Date 5/12/16

This memorandum serves to transmit the San José/Santa Clara Regional Wastewater Facility Proposed Five-Year 2017-2021 Capital Improvement Program (CIP). The Proposed Five-Year CIP is provided to the Treatment Plant Advisory Committee's review and for a recommendation to the San José City Council for approval.

Included with this packet as Attachment A is a ten-year (2016-2017 through 2025-2026) forecast of CIP allocations based on the assumption that all agencies will fund their respective share of capital costs through cash contributions.

If you should have any questions, please contact Ashwini Kantak at 408-975-2553.

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

PROPOSED

SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

Five-Year 2017-2021

Capital Improvement Program

Submitted by
Kerrie Romanow, Director
Environmental Services Department
City of San José

TO: Treatment Plant Advisory Committee

Sam Liccardo	(Chair) Mayor, City of San José
Pat Kolstad	(Vice-Chair) Council Member, City of Santa Clara
Jose Esteves	Mayor, City of Milpitas
Steven Leonardis	Board Member, West Valley Sanitation District
John M. Gatto	Board Member, Cupertino Sanitary District
David Sykes	Assistant City Manager, City of San José
Pierluigi Oliverio	Council Member, City of San José
Manh Nguyen	Council Member, City of San José
Jerry Marsalli	Council Member, City of Santa Clara

SAN JOSE / SANTA CLARA

WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

2017-2021

PROPOSED

Capital Improvement Program

Environmental Services Department
City of San José

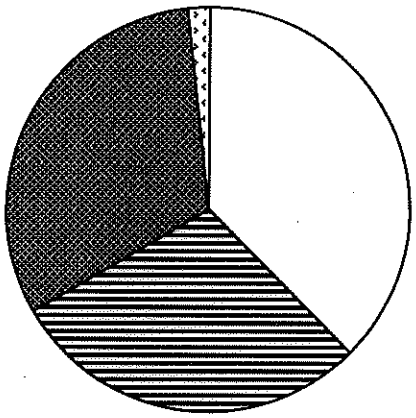
2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

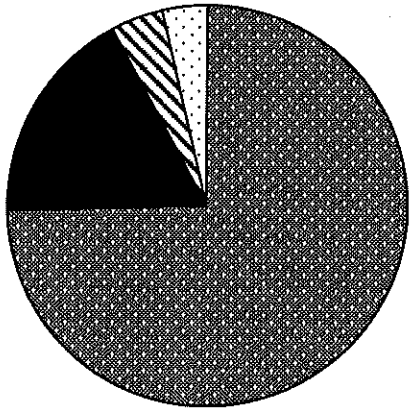
WATER POLLUTION CONTROL
2017-2021 Capital Improvement Program

2016-2017 Proposed Source of Funds



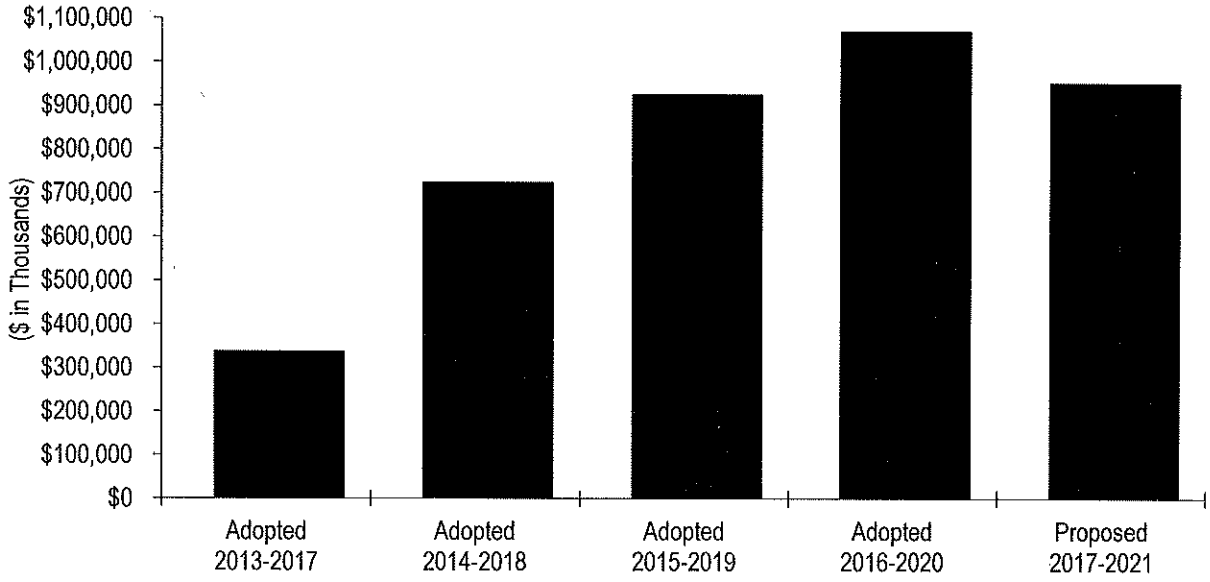
- Beginning Fund Balance
- Other Government Agencies
- Transfers
- Interest and Miscellaneous

2016-2017 Proposed Use of Funds



- Construction
- Non-Construction
- Reserves and Transfers
- Ending Fund Balance

CIP History



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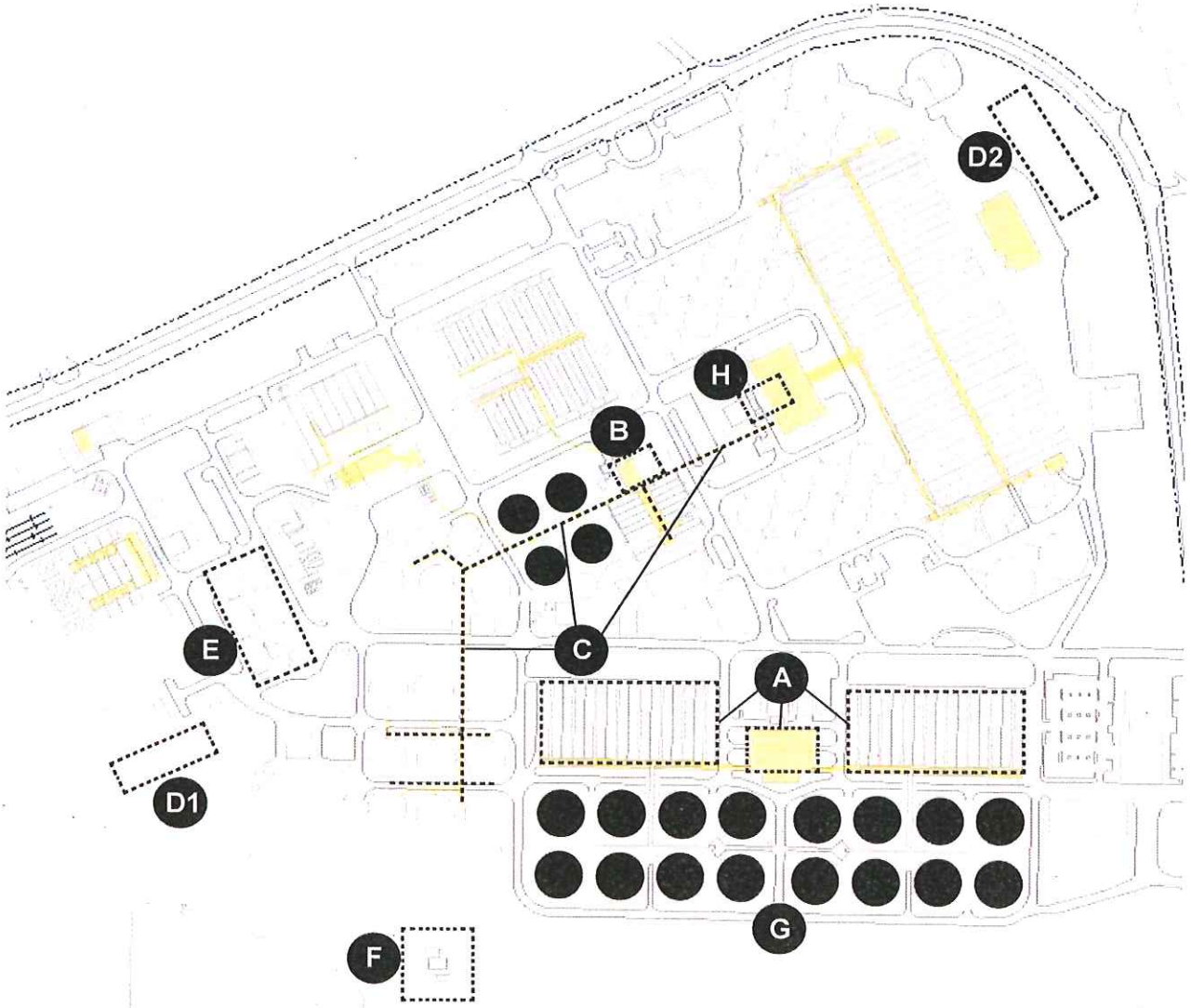
Water Pollution Control

2017-2021 Proposed Capital Improvement Program*

Major Projects

A) Aeration Tanks and Blower Rehabilitation
B) Combined Heat and Power Equipment Repair and Rehabilitation (Digester Gas Compressor Upgrades)
C) Digester and Thickener Facilities Upgrade
D) Energy Generation Improvements
1. Emergency Diesel Generators
2. Cogeneration Facility

E) Headworks Improvements and New Headworks
F) Iron Salt Feed Station
G) Nitrification Clarifier Rehabilitation
H) Plant Instrument Air System Upgrade



* Includes only the first set of projects to be in construction at the Plant. Please see the Source & Use for a full listing.

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INTRODUCTION

PLANT INFRASTRUCTURE	
ACRES OF LAND	2,684
AVERAGE DRY WEATHER INFLUENT CAPACITY (MILLIONS OF GALLONS PER DAY)	167
AVERAGE DRY WEATHER INFLUENT FLOW (MILLIONS OF GALLONS PER DAY)	96
DRY METRIC TONS OF BIOSOLIDS HAULED EACH YEAR	50,000
AVERAGE MEGAWATTS PRODUCED	9.8

The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight South Bay cities and four special districts including: San José, Santa Clara, Milpitas, Cupertino Sanitary District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno, and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated). The Plant is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José's Environmental Services Department (ESD). ESD is also responsible for planning, designing, and constructing capital improvements at the Plant, including water reuse facilities. On March 26, 2013, the City Council approved to change the name of the Plant to the San José-Santa Clara Regional Wastewater Facility (RWF) for use in public communications and outreach.

The 2017-2021 Proposed Capital Improvement Program (CIP) provides funding of $953.3 million, of which $122.6 million is allocated in 2016-2017. The five-year CIP is developed by City staff, reviewed by the Treatment Plant Advisory Committee (TPAC), and approved by the San José City Council. The budgeted costs are allocated to each agency based on its contracted-for capacity in the Plant. Each agency is responsible for its allocated share of Plant costs, as well as the operation, maintenance, and capital costs of its own sewage collection system; debt service on bonds issued by the agency for sewer purposes; and any other sewer service related costs. Each agency is also responsible for establishing and collecting its respective sewer service and use charges, connection fees, or other charges for sewer service.

This program is part of the Environmental and Utility Services City Service Area (CSA) and supports the following outcomes: *Reliable Utility Infrastructure* and *Healthy Streams, Rivers, Marsh, and Bay.*

PROGRAM PRIORITIES AND OBJECTIVES

The 2017-2021 Proposed CIP is consistent with the goals and policies outlined in the City's Envision San José 2040 General Plan. These include maintaining adequate operational capacity for wastewater treatment to accommodate the City's economic and population growth; adopting and implementing new technologies for wastewater to achieve greater safety, energy efficiency, and environmental benefit; and maintaining and operating the Plant in compliance with all applicable local, state, and federal regulatory requirements.

PROGRAM PRIORITIES AND OBJECTIVES

The development of this Proposed CIP is guided by the Plant Master Plan (PMP), a 30-year planning-level document focused on long-term rehabilitation and modernization of the Plant. On April 19, 2011, the City Council approved a preferred alternative for the Draft PMP and directed staff to proceed with a program-level environmental review of the preferred alternative. In November 2013, the City Council approved the PMP and certified the final Environmental Impact Report. In December 2013, Santa Clara's City Council took similar actions.

San José-Santa Clara Regional Wastewater Facility

The PMP recommends more than 114 capital improvement projects to be implemented over a 30-year planning period at an estimated investment level of approximately $2 billion. The PMP assumed an implementation schedule of 2010 through 2040.

On September 24, 2013, the City Council approved a multi-year master services agreement with MWH Americas, Inc. for program management consultant services to assist with managing and implementing the RWF CIP. Over a four month period, from late October 2013 through February 2014, the MWH team, along with City staff, completed a project validation process that consisted of a detailed review of the PMP goals and objectives; developed criteria and associated weighting factors for purposes of evaluating and prioritizing the PMP projects; reviewed and prioritized the PMP projects along with gap projects identified through discussions with Operations and Maintenance staff; bundled related projects into 33 project packages to promote design and construction procurement efficiency as well as to keep the number of contractors working onsite at a manageable level; evaluated potential project delivery methods and identified a default method of delivery for each project package; and developed updated cost estimates and cost-loaded schedules for each project package taking into account predecessor projects and dependencies, construction sequencing, and escalation. The projects included with this Proposed CIP are based on the outcome of the project validation process.

Program priorities for the near term include: continuing to pursue low-cost Clean Water State Revolving Funds (SRF) for all eligible projects and building reserves in anticipation of issuing long-term revenue bonds (San José only); prioritizing and programming projects based on criticality and available project delivery staff resources; and actively managing project risks and variables to inform timing and amount of major encumbrances. In addition, as several large projects are set to move from the design phase into construction, a key priority will be to obtain brokerage services and establish an Owner Controlled Insurance Program (OCIP) for the RWF projects, as well as obtaining third-party construction management and specialty inspection services to supplement City staff.

PROGRAM PRIORITIES AND OBJECTIVES

Program Funding Strategy: Since early 2014, staff has been working with representatives from the City of Santa Clara and the tributary agencies to develop a ten-year funding strategy for the CIP. On May 14, 2015, TPAC recommended approval of, and on June 2, 2015, the City Council approved the Ten-Year Funding Strategy. An update on the Ten-Year Funding Strategy was recommended for approval by TPAC on December 10, 2015 and approved by City Council on January 12, 2016. The staff reports are available online.[1]

The prior CIP assumed that all agencies would participate in short-term financing (i.e. commercial paper program) and SRF loans. Although the tributary agencies expressed initial interest in short-term financing and the SRF, to date, they have not provided the interim commitments required through execution of the Amended and Restated Master Agreement by February 1, 2016. As a result, San José and Santa Clara are continuing the SRF loan application process for the Digester and Thickener Facilities Upgrade Project (loan application approval is expected in spring 2016) and will adjust the loan amount based on the number of agencies that commit to repayment of the loan at the time of the final loan approval. Staff will continue to pursue SRF loans for all eligible projects, either for the co-owners or for all agencies, based on future commitments from the tributary agencies. However, it should be noted that state-wide interest and competition for these low-cost loans have increased significantly and funding for all projects is not guaranteed; therefore, staff is developing a plan to obtain long-term bond financing for San José. The City plans to gradually build required operating reserves in anticipation of securing long-term bonds independently. The 2017-2021 Proposed CIP assumes the need to issue bonds in 2017-2018. The timing and amount of the issuance will depend upon the approval and availability of SRF funding. The City will also continue to evaluate a short-term financing program, such as a commercial paper program, to provide supplemental financing flexibility.

Program/Project Delivery Variables: Building on the program start-up activities, which concluded in June 2014, the program team will continue to develop and refine project schedules and budgets and implement regular reporting and centralized document management systems for consistent and efficient program and project delivery. The program team continues to work on developing standardized project delivery tools, design standards and specifications, control system and integration strategies, startup, commissioning, and training.

On the project delivery front, it is important to recognize that many projects in the Proposed CIP are in the early feasibility/development phase and thus do not yet have detailed scope, budget, or schedule information. Those elements will continue to be refined as the projects progress through scoping, preliminary engineering, detailed design, and bid award. To the extent possible, staff will continue to monitor and implement mitigation measures to counteract factors that can impact project delivery schedule and cost (e.g., changes in project delivery staffing resources, long lead time items for major

[1] June 2, 2015 Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516433
January 12, 2016 Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=2118&meta_id=550326

PROGRAM PRIORITIES AND OBJECTIVES

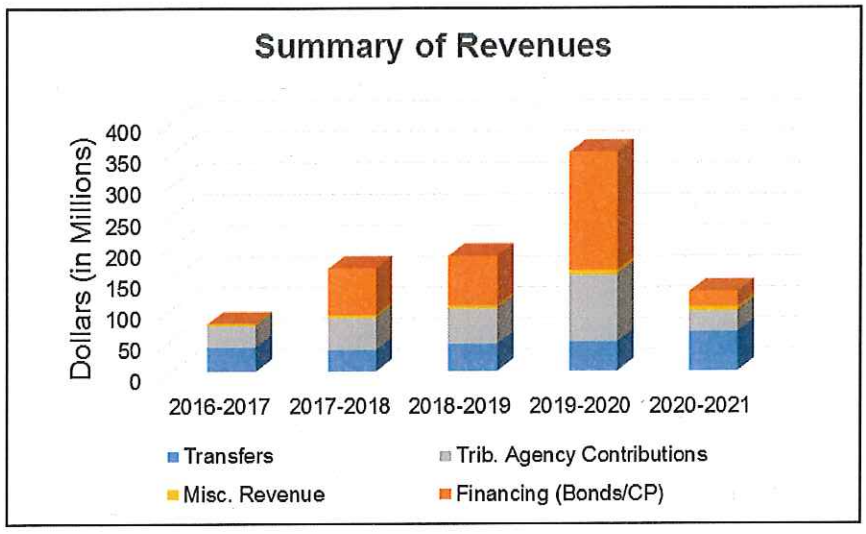
equipment, project delivery approach, construction phasing approach, external permit reviews and approvals, and construction bidding climate).

Construction Program Planning: Successful delivery of this large, multi-disciplinary CIP requires an integrated team of City staff, outside consultants, and contractors. Over the past few fiscal years, the program team has worked on identifying resource needs and securing a combination of City staff and consultants to deliver the program. The program team is currently supported by City staff from Environmental Services, Public Works, Planning, Finance, and the City Attorney's Office, as well as staff from MWH Americas, Inc.

As several large projects will be entering into the construction phase with this CIP, emphasis will be placed on putting a robust construction management plan in place, including obtaining brokerage services and establishing an Owner Controlled Insurance Program (OCIP), implementing a construction document management system, and obtaining third-party construction management and additional specialty inspection services to supplement City staff. The program will also continue to draw from the professional consultant and contractor community for subject-matter technical expertise, engineering design, and construction management services.

SOURCES OF FUNDING

Revenues for the 2017-2021 Proposed CIP are derived from several sources: transfers from the City of San José Sewer Service and Use Charge (SSUC) Fund and Sewage Treatment Plant Connection Fee Fund; contributions from the City of Santa Clara and other tributary agencies; interest earnings; Calpine Metcalf Energy Center Facilities repayments; a federal grant from the U.S. Bureau of Reclamation; and bond proceeds.



SOURCES OF FUNDING

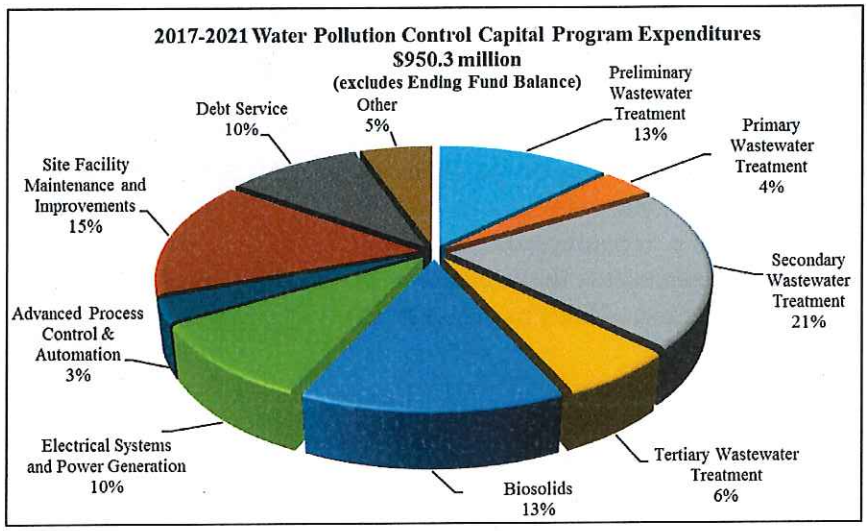
The SSUC Fund derives its revenues from fees imposed on San José users of the residential, commercial, and industrial sanitary sewer system. Transfers from this fund to the Plant CIP over the five years total $220.0 million, which reflects a $26.6 million (13.8%) increase compared to the 2016-2020 Adopted CIP, due to the increase in the fifth year contribution and the new debt repayment.

Contributions from the City of Santa Clara and other agencies are determined according to agreements with the participating agencies, based on financing plans, anticipated Plant expenditures, and the amount and characteristics of flows from each agency's connections to the Plant. These contributions reimburse the City for actual project expenditures. In this Proposed CIP, contributions from the City of Santa Clara and other agencies total $288.4 million, which represents an $85.1 million (41.8%) increase compared to the 2016-2020 Adopted CIP, due primarily to the assumption included in this CIP that all tributary agencies will not participate in short- or long-term financing (though agencies may independently secure short- or long-term financing).

To accommodate project costs for San José, a bond issuance totaling $370.0 million is programmed in this CIP. Debt service on the bonds is estimated to be approximately $4.3 million in 2017-2018, rising to approximately $11.2 million in 2018-2019, $15.7 million in 2019-2020, and $22.0 million in 2020-2021, reflecting the amortization of the interest and principal loan amount. The estimated size of the issuance and the related debt service are scheduled to cover project costs programmed in the 2017-2021 Proposed CIP while avoiding large rate increases that would be required to fund the PMP in a "pay-as-you-go" scenario. Additional bond issuances may be needed to fund project costs beyond the Proposed CIP. Staff is currently pursuing SRF funding for some projects; however, due to uncertainty of the availability of this funding; it has not been factored into the CIP as a source of funding. If the City is successful in obtaining SRF funding, the debt service in 2017-2018 could be eliminated.

PROGRAM HIGHLIGHTS

The Water Pollution Control Capital Program's expenditures are organized to show the use of funds in several categories. The following highlights the major projects in the program. For further information on the program's individual projects, please refer to the Detail Pages.



Digester and Thickener Facilities Upgrade

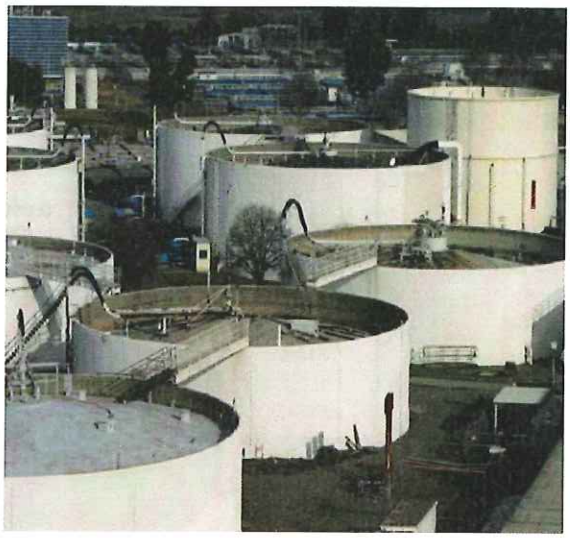
The Plant currently processes biosolids material through a combination of anaerobic digestion, lagoon storage, and air drying. The Plant has 16 anaerobic digesters of varying ages constructed between 1956 and 1983. Of the 16 digesters installed, six are currently out of service due to structural damage or other mechanical failures. The remaining ten digesters are operational but are near the end of their useful life. The digesters receive primary sludge (i.e. solids) from the primary clarifiers and thickened waste activated sludge from the Dissolved Air Flotation Tanks (DAFTs). Sludge is retained in the digester tanks for up to 30 days to allow the digestion process to reduce volatile solids and destroy pathogens.

The digested sludge is then pumped and stored in open air storage lagoons (a three-year process) and drying beds (a six-month process) for further stabilization and conversion to high-quality Class A biosolids. The dried biosolids are eventually trucked to the nearby Newby Island landfill for use as alternate daily cover.

The original anaerobic digestion process was designed to operate under mesophilic conditions to produce Class B biosolids in accordance with U.S. Environmental Protection Agency (USEPA) Title 40 Part 503. During a Biosolids Study Session, held in April 2014, TPAC requested that staff explore the possibility of producing Class A biosolids instead of Class B biosolids, including impacts on operation and maintenance costs. The study was completed and determined that Class A biosolids

PROGRAM HIGHLIGHTS

Digester and Thickener Facilities Upgrade (Cont'd.)



Existing digesters

could be achieved through modification of the current mesophilic digestion process to a two-stage thermophilic phased anaerobic digestion (TPAD) process. In comparing the various alternatives, it was determined that TPAD was a cost-effective way to provide a superior overall sludge digestion process as well as position the Plant to economically produce Class A biosolids at a future date. In November 2014, TPAC accepted staff's recommendation to proceed with TPAD configuration. In December 2014, Council approved and directed staff to proceed with the TPAD configuration.

At an estimated total cost of $147.9 million, the Digester and Thickener Facilities Upgrade project will completely rehabilitate four digesters. This project includes: new covers and mixing systems; modifications to operate as a two-phase TPAD system; structural repairs and seismic retrofits; heating system, gas collection conveyance system, and tunnel system upgrades; electrical, instrumentation, and control systems upgrades; and the retrofit of six DAFT units to allow for the co-thickening of primary and secondary sludge, including new odor control treatment. The project will also construct a new primary sludge screening facility, heat exchangers, waste biogas flare, and polymer dosing facility.

3-D rendering of rehabilitated digesters

This project is the first phase of digesters to be rehabilitated. Construction award is expected in spring 2016 as part of the 2015-2016 budget and the project is anticipated to be completed in 2019-2020. A second phase will rehabilitate an additional four to six digesters and is expected to begin in 2019-2020.

The 2017-2021 Proposed CIP allocates $13.8 million for construction management, construction contingency, and post-construction costs for the first phase of digester rehabilitation and $9.2 million for the next phase of the project.

PROGRAM HIGHLIGHTS

Cogeneration Facility

The day-to-day operation of the Plant depends heavily on having reliable energy sources and reliable, operable systems with built-in redundancy. Power generation facilities at the Plant range from 20 to over 60 years of age and are becoming increasingly unreliable. In 2012, the City completed a comprehensive study of the Plant's power generation equipment and concluded that the existing cogeneration equipment needs to be replaced in order to provide reliable and efficient on-site power and heat while reducing air emissions.

Internal combustion engines similar to the ones planned for the Cogeneration Facility

At an estimated total cost of $106.8 million, the new Cogeneration Facility will consist of new advanced generation internal combustion engines, electrical switchgear, heat recovery systems, and control and monitoring systems with connectivity to the Plant's Distributed Control System. These facilities will be housed in a new building. The new engines will replace all existing Plant cogeneration equipment, with the exception of the recently installed fuel cell. Power output from the new cogeneration engines and the existing fuel cell is expected to meet projected Plant power and heat demands through 2036.

In addition, the project scope includes a new digester gas treatment system, various appurtenances to support the engines and building, digester gas pipeline and natural gas pipeline, and civil work including parking areas and utilities (water, stormwater, and sanitary sewer lines).

This project will be funded in phases and the 2017-2021 Proposed CIP allocates $88.9 million for design, construction, contingency, project management, and transition service costs. Award of the design-build contract is expected in spring 2016, though costs for contract actions are anticipated across multiple fiscal years, and construction completion is anticipated in 2018-2019.

3-D rendering of an architectural alternative for the Cogeneration Facility

MAJOR CHANGES FROM THE 2016-2020 ADOPTED CIP

The overall size of the Water Pollution Control CIP has decreased by $117.5 million from $1.07 billion in the 2016-2020 Adopted CIP to $953.3 million in the 2017-2021 Proposed CIP. The following table outlines the most significant changes to project budgets, including new/augmented allocations and reduced/eliminated allocations.

Project Name	Incr/(Decr)
Digester and Thickener Facilities Upgrade	$41.0 million
Digested Sludge Dewatering Facility	$28.1 million
Energy Generation Improvements	$4.9 million
Filter Rehabilitation	$2.5 million
Plant Instrument Air System Upgrade	($4.2 million)
Advanced Facility Control and Meter Replacement	($5.2 million)

OPERATING BUDGET IMPACT

Several projects in this Proposed CIP are expected to introduce new operating costs to the Operating Budget. These include: Construction-Enabling Improvements, Digester and Thickener Facilities Upgrade, Energy Generation Improvements, and Iron Salt Feed Station. The operation and maintenance impacts are due to chemical costs, labor, and maintenance consumables (e.g. parts, oil).

A new Cogeneration Facility (part of the Energy Generation Improvements project) is expected to come online in spring 2019 that will introduce a new generator building, new engine generators, gas treatment system, boilers, chillers, and other ancillary equipment. In addition, a new chilled water system pump station and carbon dioxide stripper unit may be incorporated as part of the project. A more detailed analysis of current and future operating and maintenance costs will be available in fall 2016 after completion of preliminary design services (i.e. basis of design, equipment selection, and operating modes), subject to the successful award of the project design-build contract. Additionally, depending on the timing of when new facilities come online and existing facilities are decommissioned, there may be a temporary increase in operating costs due to the dual operations.

The estimated net operating impact of the Digester and Thickener Facilities Project may be adjusted in the future after additional analysis is performed to determine required staffing levels to operate and maintain the facilities. The estimate also assumes that all power and heating needs will be provided by the Cogeneration Facility.

OPERATING BUDGET IMPACT

The table below and Attachment A summarize the operating and maintenance impact to the Sewer Service and Use Charge Fund for several projects.

Net Operating Budget Impact Summary

	2017-2018	2018-2019	2019-2020	2020-2021
Construction-Enabling Improvements	$154,000	$160,000	$166,000	$173,000
Digester and Thickener Facilities Upgrade			$1,500,000	$1,560,000
Energy Generation Improvements	$79,000	$82,000	$84,000	$87,000
Iron Salt Feed Station	$755,000	$767,000	$779,000	$791,000
	$988,000	$1,009,000	$2,529,000	$2,611,000

Note: The estimated operating costs have been provided by the Environmental Services Department and have not yet been fully analyzed by the City Manager's Budget Office. That analysis may result in different costs when the actual budget for the year in question is developed.

Attachment A - Operating Budget Impact

	2017-2018	2018-2019	2019-2020	2020-2021
Water Pollution Control				
Construction-Enabling Improvements	$154,000	$160,000	$166,000	$173,000
Digester and Thickener Facilities Upgrade			$1,500,000	$1,560,000
Energy Generation Improvements	$79,000	$82,000	$84,000	$87,000
Iron Salt Feed Station	$755,000	$767,000	$779,000	$791,000
Total Water Pollution Control	**$988,000**	**$1,009,000**	**$2,529,000**	**$2,611,000**

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2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

Source of Funds

Use of Funds

The Source of Funds displays the capital revenues by funding source for each year of the Five-Year Capital Improvement Program. The Use of Funds displays the capital expenditures by line-item for each year of the five-year period.

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Source of Funds (Combined)

SOURCE OF FUNDS	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund (512)							
Beginning Fund Balance	154,817,803	45,916,493	4,517,493	3,202,493	4,337,493	3,646,493	45,916,493 *
Sale of Bonds			75,000,000	80,000,000	190,000,000	25,000,000	370,000,000
Revenue from Other Agencies:							
Federal Government							
- U.S. Bureau of Reclamation Grant	5,000,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Water Pollution Control Plant User Agencies							
- 2005 Bond Debt Repayment	1,221,000	1,070,000	165,000	155,000	155,000	155,000	1,700,000
- Equipment Replacement			580,000	580,000	580,000	580,000	2,320,000
- State Revolving Fund Loan Repayment	1,374,000	1,374,000	1,374,000	555,000			3,303,000
- WPCP Projects	25,380,000	33,022,000	50,890,000	56,282,000	107,726,000	33,191,000	281,111,000
Contributions, Loans and Transfers from:							
Special Funds							
- Transfer for 2005 Debt Service from the Sewer Service and Use Charge Fund (541)	5,722,000	5,717,000	5,716,000	5,369,000	5,372,000	5,371,000	27,545,000
- Transfer for 2017-2018 Debt Service from the Sewer Service and Use Charge Fund (541)			4,288,000	11,157,000	15,651,000	22,039,000	53,135,000
- Transfer for Capital Projects from the Sewer Service and Use Charge Fund (541)	25,000,000	30,000,000	20,000,000	25,000,000	25,000,000	35,000,000	135,000,000
- Transfer for Equipment Replacement from the Sewer Service and Use Charge Fund (541)			1,083,000	1,083,000	1,083,000	1,083,000	4,332,000

2017-2021 Proposed Capital Improvement Program

Source of Funds (Combined)

SOURCE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund (512)							
Contributions, Loans and Transfers from:							
Special Funds							
– Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,090,000	3,090,000	3,090,000	1,249,000			7,429,000
Interest Income	1,272,000	1,785,000	2,728,000	3,522,000	5,625,000	4,668,000	18,328,000
Miscellaneous Revenue							
– Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
Reserve for Encumbrances	51,139,690						
Total San José-Santa Clara Treatment Plant Capital Fund	**274,405,493**	**122,613,493**	**170,070,493**	**188,793,493**	**356,168,493**	**131,372,493**	**953,314,493** *
TOTAL SOURCE OF FUNDS	**274,405,493**	**122,613,493**	**170,070,493**	**188,793,493**	**356,168,493**	**131,372,493**	**953,314,493** *

* The 2017-2018 through 2020-2021 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
Public Art							
Public Art	886,000	360,000	726,000	27,000	1,634,000	73,000	2,820,000
Total Public Art	**886,000**	**360,000**	**726,000**	**27,000**	**1,634,000**	**73,000**	**2,820,000**
Preliminary Wastewater Treatment							
1. Headworks Improvements	1,663,000	3,085,000	1,404,000	23,333,000	404,000	301,000	28,527,000
2. New Headworks	1,978,000	2,725,000	7,595,000	773,000	81,200,000	317,000	92,610,000
Total Preliminary Wastewater Treatment	**3,641,000**	**5,810,000**	**8,999,000**	**24,106,000**	**81,604,000**	**618,000**	**121,137,000**
Primary Wastewater Treatment							
3. East Primary Rehabilitation, Seismic Retrofit, and Odor Control	136,000	195,000	2,296,000	10,546,000	22,176,000	686,000	35,899,000
4. Iron Salt Feed Station	7,182,000	434,000	26,000				460,000
Total Primary Wastewater Treatment	**7,318,000**	**629,000**	**2,322,000**	**10,546,000**	**22,176,000**	**686,000**	**36,359,000**
Secondary Wastewater Treatment							
Aeration Basin Future Modifications					846,000	4,274,000	5,120,000
5. Aeration Tanks and Blower Rehabilitation	1,815,000	15,717,000	19,398,000	1,718,000	78,397,000	645,000	115,875,000
6. Nitrification Clarifier Rehabilitation	1,305,000	3,773,000	583,000	44,027,000	173,000	178,000	48,734,000
7. Secondary Clarifier Rehabilitation		104,000	565,000	4,003,000	21,209,000	159,000	26,040,000
Total Secondary Wastewater Treatment	**3,120,000**	**19,594,000**	**20,546,000**	**49,748,000**	**100,625,000**	**5,256,000**	**195,769,000**

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
Tertiary Wastewater Treatment							
Final Effluent Pump Station & Stormwater Channel Improvements					902,000	5,999,000	6,901,000
New Disinfection Facilities				63,000	889,000	6,179,000	7,131,000
8. Filter Rehabilitation	1,382,000	1,395,000	5,947,000	26,464,000	806,000	139,000	34,751,000
9. Outfall Bridge and Levee Improvements	383,000	1,027,000	1,092,000	240,000	6,553,000	301,000	9,213,000
Total Tertiary Wastewater Treatment	**1,765,000**	**2,422,000**	**7,039,000**	**26,767,000**	**9,150,000**	**12,618,000**	**57,996,000**
Biosolids							
FOG Receiving					313,000	103,000	416,000
10. Digested Sludge Dewatering Facility	1,146,000	2,927,000	8,882,000	805,000	81,339,000	851,000	94,804,000
11. Digester and Thickener Facilities Upgrade	126,674,000	10,259,000	1,707,000	1,601,000	1,435,000	8,031,000	23,033,000
12. Lagoons and Drying Beds Retirement	243,000	1,358,000	112,000	2,022,000	659,000	6,645,000	10,796,000
Total Biosolids	**128,063,000**	**14,544,000**	**10,701,000**	**4,428,000**	**83,746,000**	**15,630,000**	**129,049,000**
Electrical Systems and Power Generation							
Combined Heat and Power Equipment Repair and Rehabilitation	10,719,000	120,000					120,000
Plant Electrical Reliability	2,000,000		4,426,000	188,000	282,000	30,000	4,926,000
13. Energy Generation Improvements	26,729,000	31,986,000	56,083,000	1,092,000			89,161,000
Total Electrical Systems and Power Generation	**39,448,000**	**32,106,000**	**60,509,000**	**1,280,000**	**282,000**	**30,000**	**94,207,000**

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
Advanced Process Control & Automation							
14. Advanced Facility Control and Meter Replacement	2,148,000	2,025,000	10,859,000	5,762,000	5,017,000	916,000	24,579,000
15. Treatment Plant Distributed Control System	1,130,000	670,000	1,025,000	1,025,000	575,000		3,295,000
Total Advanced Process Control & Automation	**3,278,000**	**2,695,000**	**11,884,000**	**6,787,000**	**5,592,000**	**916,000**	**27,874,000**
Site Facility Maintenance and Improvements							
Treatment Plant Engine Rebuild	20,000						
Treatment Plant Fire Main Replacement	61,000						
Tunnel Rehabilitation	100,000		1,024,000	2,421,000	396,000	5,262,000	9,103,000
16. Construction-Enabling Improvements	3,476,000	785,000					785,000
17. Equipment Replacement	1,683,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	8,315,000
18. Facility Wide Water Systems Improvements	1,192,000	1,528,000	381,000	10,841,000	542,000	555,000	13,847,000
19. Plant Infrastructure Improvements	1,508,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
20. Plant Instrument Air System Upgrade	1,208,000	3,400,000	99,000				3,499,000
21. Support Building Improvements	890,000	2,300,000	3,483,000	7,952,000	15,762,000	24,588,000	54,085,000
22. Urgent and Unscheduled Treatment Plant Rehabilitation	2,394,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
23. Yard Piping and Road Improvements	327,000	1,047,000	493,000	12,689,000	1,674,000	26,352,000	42,255,000
Total Site Facility Maintenance and Improvements	**12,859,000**	**13,223,000**	**9,643,000**	**38,066,000**	**22,537,000**	**60,920,000**	**144,389,000**

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
South Bay Water Recycling							
SBWR Extension	3,780,000						
SBWR Reservoir Facility	90,000						
SBWR System Reliability and Infrastructure Replacement	34,000						
Total South Bay Water Recycling	**3,904,000**						
Total Construction Projects	**204,282,000**	**91,383,000**	**132,369,000**	**161,755,000**	**327,346,000**	**96,747,000**	**809,600,000**
Non-Construction							
General Non-Construction							
Capital Program and Public Works Department Support Service Costs	789,000	856,000	899,000	851,000	868,000	885,000	4,359,000
Master Plan Updates			3,000,000				3,000,000
Plant Master Plan	2,000						
SBWR Master Plan	6,000						
SBWR Recycling Master Plan Reimbursement	20,000						
Transfer to Clean Water Financing Authority Debt Service 2017-2018			4,288,000	11,157,000	15,651,000	22,039,000	53,135,000
Transfer to the Clean Water Financing Authority Debt Service Payment Fund	6,943,000	6,788,000	5,881,000	5,524,000	5,527,000	5,526,000	29,246,000
24. Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
25. Preliminary Engineering	1,565,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
26. Program Management	10,247,000	8,175,000	1,945,000	2,005,000	1,770,000	1,835,000	15,730,000
27. Record Drawings		250,000	12,839,000	162,000	162,000	164,000	13,577,000

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Non-Construction							
General Non-Construction							
28. State Revolving Fund Loan Repayment	4,464,000	4,464,000	4,464,000	1,804,000			10,732,000
Total General Non-Construction	**24,041,000**	**21,538,000**	**34,321,000**	**22,508,000**	**24,983,000**	**31,454,000**	**134,804,000**
Contributions, Loans and Transfers to General Fund							
Transfer to the General Fund - Human Resources/Payroll/ Budget Systems Upgrade	21,000	3,000					3,000
Total Contributions, Loans and Transfers to General Fund	**21,000**	**3,000**					**3,000**
Contributions, Loans and Transfers to Special Funds							
Transfer to the City Hall Debt Service Fund	145,000	172,000	178,000	193,000	193,000	193,000	929,000
Total Contributions, Loans and Transfers to Special Funds	**145,000**	**172,000**	**178,000**	**193,000**	**193,000**	**193,000**	**929,000**
Reserves							
Equipment Replacement Reserve		5,000,000					5,000,000
Total Reserves		**5,000,000**					**5,000,000**
Total Non-Construction	**24,207,000**	**26,713,000**	**34,499,000**	**22,701,000**	**25,176,000**	**31,647,000**	**140,736,000**
Ending Fund Balance	45,916,493	4,517,493	3,202,493	4,337,493	3,646,493	2,978,493	2,978,493*
TOTAL USE OF FUNDS	**274,405,493**	**122,613,493**	**170,070,493**	**188,793,493**	**356,168,493**	**131,372,493**	**953,314,493***

* The 2016-2017 through 2019-2020 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

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2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

Detail of Construction Projects

Detail of Non-Construction Projects

The Detail of Construction Projects section provides information on the individual construction projects with funding in 2016-2017. The Detail of Non-Construction Projects section is abbreviated and provides information on the individual non-construction project, with funding in 2016-2017. On the Use of Funds statement, these projects are numbered.

1. Headworks Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2012
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2015
Revised Completion Date: 2nd Qtr. 2021

Description: This project will modify Headworks No. 2 (HW2) to accommodate all dry weather flow. Improvements include re-routing some inlet and recycle flow piping, new storm water pump stations, and other mechanical enhancements to improve reliability and operation performance. In addition, this project will complete a condition assessment of Headworks No. 1 (HW1) to identify equipment that may require rehabilitation. Improvements may include refurbishment of bar screens, grit classifiers, discharge valves, channel gate valves, and/or concrete.

Justification: HW1 was built in the mid-1950s and early 1960s and is the Plant's duty headworks. HW2 was built in 2008 and designed to operate in parallel with HW1 to handle peak hour wet weather flow. This project will improve the functional reliability of HW2 so HW1 can be taken out of service for repair, which will allow it to remain in operation until a new headworks is constructed to serve as the Plant's new duty headworks.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	257	1,724	862	705					705		1,824
Design	1	429	429	266	1,090	343			1,699		2,129
Bid & Award		239	239	22	250				272		511
Construction	1	1,883	133	2,092		22,880	404	226	25,602		25,736
Post Construction					64	110		75	249		249
TOTAL	**259**	**4,275**	**1,663**	**3,085**	**1,404**	**23,333**	**404**	**301**	**28,527**		**30,449**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	259	4,275	1,663	3,085	1,404	23,333	404	301	28,527		30,449
TOTAL	**259**	**4,275**	**1,663**	**3,085**	**1,404**	**23,333**	**404**	**301**	**28,527**		**30,449**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2015-2019 CIP - increase of $23.7 million due to incorporation of a portion of Headworks No. 2 Enhancement project.
2016-2020 CIP - increase of $863,000 due to revised cost estimate.

Notes:

This project corresponds to Plant Master Plan Project Nos. 1, 2, and 7 and Validation Project PLH-01. Prior to 2015-2019, this project was titled "Headworks No. 1 Repair and Rehabilitation". The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2012-2013
Initial Project Budget: $5,975,000
Appn. #: 7448
USGBC LEED: N/A

2. New Headworks

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2013
Council District:	4	**Revised Completion Date:**	3rd Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project will construct a new headworks to serve as the Plant's duty headworks. It also involves potentially increasing the equalization basin volume and installing lining and spraydown systems to facilitate cleaning. The project will also be tasked with odor control over select areas, such as junction boxes and grit collection. The new headworks system will consider coordination with the Headworks 2 hydraulics and simplification of the existing hydraulics and piping considering the eventual decommissioning of Headworks 1.

Justification: Headworks No. 1 was built in the mid-1950s and further expanded in the 1960s. Due to its age and condition, extensive structural rehabilitation and mechanical rehabilitation would be needed to operate it as the Plant's long-term duty headworks. Based on previous studies, building a new duty headworks facility would be more cost effective and provide greater operational reliability and enhanced treatment, potentially piping and hydraulic simplification, addressing some of the operational issues currently experienced at the Plant, such as the deposition of grit in downstream processes.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	813	3,221	1,168	2,464					2,464		4,445
Design		471	471	261	7,238	773	303		8,575		9,046
Bid & Award		339	339		357				357		696
Construction							80,676	317	80,993	318	81,311
Post Construction							221		221	79	300
TOTAL	**813**	**4,031**	**1,978**	**2,725**	**7,595**	**773**	**81,200**	**317**	**92,610**	**397**	**95,798**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	813	4,031	1,978	2,725	7,595	773	81,200	317	92,610	397	95,798
TOTAL	**813**	**4,031**	**1,978**	**2,725**	**7,595**	**773**	**81,200**	**317**	**92,610**	**397**	**95,798**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2015-2019 CIP - increase of $11.8 million due to incorporation of a portion of Headworks No. 2 Enhancement project.
2016-2020 CIP - increase of $4.8 million due to revised cost estimate.

Notes:

This project corresponds to Plant Master Plan Project Nos. 1, 3, 4, 5, and 8 and Validation Project PLH-02. Prior to 2015-2019, this project was titled "Headworks No. 2 Expansion". The schedule was revised during the 2015-2019 project validation process. This project will have close-out costs only in 2022-2023.

FY Initiated:	2012-2013	**Appn. #:**	7449
Initial Project Budget:	$79,400,000	**USGBC LEED:**	N/A

3. East Primary Rehabilitation, Seismic Retrofit, and Odor Control

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2009
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	3rd Qtr. 2010
Department:	Environmental Services	**Initial Completion Date:**	4th Qtr. 2012
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2026
Location:	Water Pollution Control Plant		

Description: This project rehabilitates the existing primary clarifiers, including the coating of concrete and replacement of clarifier mechanisms with corrosion resistant materials. It also includes structural retrofits to allow new covers to be installed over a portion or all of the primary treatment area to contain odors. A new odor extraction and treatment system will also be constructed.

Justification: This project restores the mechanical and structural integrity of the aging clarifiers and provides odor control measures.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	30	136	136	195	2,296	25			2,516		2,682
Design						9,386	1,211		10,597		10,597
Bid & Award						138	70		208		208
Construction						997	20,895	686	22,578	75,977	98,555
Post Construction										1,167	1,167
TOTAL	**30**	**136**	**136**	**195**	**2,296**	**10,546**	**22,176**	**686**	**35,899**	**77,144**	**113,209**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	30	136	136	195	2,296	10,546	22,176	686	35,899	77,144	113,209
TOTAL	**30**	**136**	**136**	**195**	**2,296**	**10,546**	**22,176**	**686**	**35,899**	**77,144**	**113,209**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2012-2016 CIP - increase of $80.1 million; $16.626 million due to increase of scope to incorporate master planning recommendations for seismic upgrades and odor control measures; $63.52 million reflects the addition of the Beyond 5-Year expense not previously programmed.
2013-2017 CIP - decrease of $1.7 million due to revised cost estimate.
2015-2019 CIP - increase of $27.5 million due to revised project validation cost estimate.
2016-2020 CIP - increase of $3.6 million due to escalation of construction costs.

Notes:

This project corresponds to Plant Master Plan Project Nos. 9, 10, and 11 and Validation Project PLP-02. The schedule was revised during the 2015-2019 project validation process.

FY Initiated:	2010-2011	**Appn. #:**	7226
Initial Project Budget:	$3,605,000	**USGBC LEED:**	N/A

4. Iron Salt Feed Station

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2010
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	1st Qtr. 2012
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2012
Council District:	4	**Revised Completion Date:**	3rd Qtr. 2017
Location:	Water Pollution Control Plant		

Description: This project constructs a permanent ferric chloride feed station and a polymer feed station, including chemical storage tanks, pumps, concrete containment structures, ancillary equipment, piping, electrical, instrumentation and control to deliver chemical solution to incoming wastewater.

Justification: The addition of ferric chloride and polymer to incoming wastewater will improve facility operation by reducing hydrogen sulfide levels in digester gas, enhancing the sludge settling in the primary clarifiers, minimizing corrosion, lowering odor levels, reducing energy usage in the secondary treatment system, and increasing feedstock to digesters, which will increase biogas production.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	100	15	15								115
Design	1,015	267	115								1,130
Bid & Award		38	38								38
Construction	47	7,014	7,014	394					394		7,455
Post Construction				40	26				66		66
TOTAL	**1,162**	**7,334**	**7,182**	**434**	**26**				**460**		**8,804**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,162	7,334	7,182	434	26				460		8,804
TOTAL	**1,162**	**7,334**	**7,182**	**434**	**26**				**460**		**8,804**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Cost Offset					(668)	(676)	(683)	(691)			
Maintenance					8	8	8	8			
Operating					1,415	1,435	1,454	1,474			
TOTAL					**755**	**767**	**779**	**791**			

Major Changes in Project Cost:

2014-2018 CIP - decrease of $347,000 due to scope revision.
2015-2019 CIP - increase of $3.3 million due to revised project validation cost estimate.
2016-2020 CIP - increase of $1.9 million due to revised scope and cost estimate.
2017-2021 CIP - increase of $1.6 million due to higher than projected construction costs.

Notes:

This project corresponds to Plant Master Plan Project No. 14 and Validation Project PLP-01.

FY Initiated:	2010-2011	**Appn. #:**	7230
Initial Project Budget:	$2,340,000	**USGBC LEED:**	N/A

5. Aeration Tanks and Blower Rehabilitation

CSA:	Environmental and Utility Services	**Initial Start Date:**	1st Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	3rd Qtr. 2025
Council District:	4	**Revised Completion Date:**	1st Qtr. 2024
Location:	Water Pollution Control Plant		

Description: This project rehabilitates the secondary and nitrification aeration tanks including structural, mechanical, electrical, and instrumentation upgrades. It also replaces the remaining existing coarse bubble diffusers with fine bubble diffusers; installs partition walls and reconfigures air piping to optimize process treatment capabilities; repairs concrete and applies coatings; installs variable frequency drives (VFDs), new motors, new motor control centers (MCC), and new controls to the electric driven blowers in Building 40 and Tertiary Blower Building; decommissions the engine driven blowers in the Secondary Blower Building; and replaces the S11 switchgear. A condition assessment study and process conversion analysis will be completed to inform the ultimate project scope.

Justification: The secondary and nitrification aeration tanks were constructed in phases between the 1960s and 1980s. Due to their age and the aggressive and corrosive environment they operate in, extensive rehabilitation is required. Conversion to fine bubble diffusers will increase the oxygen transfer efficiency and decrease energy requirements. Installing VFDs will minimize the impact of starting current on the blowers when the Plant is run on emergency power. Lastly, the S11 switchgear and MCCs are outdated and need to be upgraded to be compatible with the new VFDs.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	49	1,815	1,815	1,061	282				1,343		3,207
Design				2,611	7,624	791			11,026		11,026
Bid & Award				45	125	56			226		226
Construction				12,000	11,235	726	77,815	645	102,421	1,509	103,930
Post Construction					132	145	582		859	51	910
TOTAL	**49**	**1,815**	**1,815**	**15,717**	**19,398**	**1,718**	**78,397**	**645**	**115,875**	**1,560**	**119,299**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	49	1,815	1,815	15,717	19,398	1,718	78,397	645	115,875	1,560	119,299
TOTAL	**49**	**1,815**	**1,815**	**15,717**	**19,398**	**1,718**	**78,397**	**645**	**115,875**	**1,560**	**119,299**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - increase of $4.4 million due to escalation of construction costs.

Notes:

This project corresponds to Plant Master Plan Project Nos. 20, 24, and 85 and Validation Project PLS-01.

FY Initiated:	2014-2015	**Appn. #:**	7677
Initial Project Budget:	$114,880,000	**USGBC LEED:**	N/A

6. Nitrification Clarifier Rehabilitation

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2009
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2024
Council District:	4	**Revised Completion Date:**	4th Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project includes phased rehabilitation of the 16 nitrification clarifiers. Structural improvements may include concrete repairs and coating, new clarifier mechanisms and baffle installations, pipe support and meter vault replacements, and walkway improvements. Mechanical improvements may include piping, valve and actuator replacements, spray water system replacements, scum skimmer system upgrades, and return activated sludge piping lining. Electrical and instrumentation improvements may include motor control center replacements, new wiring, and other electrical equipment upgrades. Other incidental work may include grouting, painting, coating, and other surface treatments.

Justification: The Plant's 16 nitrification clarifiers have been in service for 30 to 40 years depending on the year of construction. A condition assessment study, completed in 2011, recommended phased rehabilitation of the nitrification clarifiers. The improvements are needed to address structural, mechanical, electrical, and instrumentation deficiencies and will extend the useful life of the clarifier assets for an additional 30 years.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	1,302	1,359	1,305	973					973		3,580
Design	18			2,750	529				3,279		3,297
Bid & Award				50	54	34			138		138
Construction						43,993	173	178	44,344	183	44,527
Post Construction										88	88
TOTAL	**1,320**	**1,359**	**1,305**	**3,773**	**583**	**44,027**	**173**	**178**	**48,734**	**271**	**51,630**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,320	1,359	1,305	3,773	583	44,027	173	178	48,734	271	51,630
TOTAL	**1,320**	**1,359**	**1,305**	**3,773**	**583**	**44,027**	**173**	**178**	**48,734**	**271**	**51,630**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of $13.0 million due to revised estimate. 2015-2019 CIP - increase of $22.0 million due to revised project validation cost estimate. 2016-2020 CIP - decrease of $8.5 million due to revised scope and cost estimate. 2017-2021 CIP - decrease of $1.6 million due to revised cost estimate.

Notes:

This project corresponds to Plant Master Plan Project Nos. 21 and Validation Project PLS-02. This project is planned to be completed in multiple phases. Prior to 2016-2020, this project was titled "Secondary and Nitrification Clarifier Rehabilitation".

FY Initiated:	2009-2010	**Appn. #:**	7074
Initial Project Budget:	$26,701,000	**USGBC LEED:**	N/A

7. Secondary Clarifier Rehabilitation

CSA:	Environmental and Utility Services	**Initial Start Date:**	1st Qtr. 2017
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2024
Council District:	4	**Revised Completion Date:**	
Location:	Water Pollution Control Plant		

Description: The Plant has 26 secondary clarifiers configured with peripheral mix liquor feed channel, and either central or peripheral launders. The first phase of this project rehabilitates one secondary (BNR1) clarifier and retrofits it to receive a new baffle configuration based on computational fluid dynamic (CFD) modeling results. The new configuration is expected to improve clarifier performance and efficiency. The subsequent phases of the project will rehabilitate and convert the remaining 25 clarifiers based on the results of the first phase. Rehabilitation will include structural, mechanical, electrical, and instrumentation improvements.

Justification: The Plant's 26 secondary clarifiers have been in service for 30 to 50 years depending on the year of construction. A condition assessment study, completed in 2012, recommended phased rehabilitation of the secondary clarifiers. The improvements are needed to address structural, mechanical, electrical, and instrumentation deficiencies and will extend the useful life of the clarifier assets for an additional 30 years. The study also recommended the replacement of central effluent launders with a new peripheral launders to improve clarifier performance and efficiency. The pilot is needed to confirm modeling results before converting the remaining 25 clarifiers to new peripheral launders.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development				104	565	19			688		688
Design						2,773			2,773		2,773
Bid & Award						41	14		55		55
Construction						1,017	21,195	159	22,371	404	22,775
Post Construction						153			153	115	268
TOTAL				**104**	**565**	**4,003**	**21,209**	**159**	**26,040**	**519**	**26,559**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund				104	565	4,003	21,209	159	26,040	519	26,559
TOTAL				**104**	**565**	**4,003**	**21,209**	**159**	**26,040**	**519**	**26,559**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

This project corresponds to Plant Master Plan Project No. 22 and 23 and Validation Project PLS-04. This project is planned to be completed in multiple phases.

FY Initiated:	2016-2017	**Appn. #:**	
Initial Project Budget:	$26,559,000	**USGBC LEED:**	N/A

8. Filter Rehabilitation

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2011
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	3rd Qtr. 2013
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2013
Council District:	4	**Revised Completion Date:**	4th Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project will replace filter media and potentially underdrain systems for all filters. It will also include valve replacements, electrical control replacements, air scouring equipment and piping additions, and concrete repairs. The extent of rehabilitation will depend on the results of a detailed condition assessment, which will determine whether to fully refurbish the filter facility or keep it operational until a new filter complex is built. If an evaluation of different filtration technologies from what the Plant currently uses is triggered, pilot testing and verification of an alternative filtration technology will be included in the project.

Justification: The existing filter complex was constructed in the 1970s and requires significant refurbishment. The filter media, consisting of anthracite and sand, needs to be replaced and some of the mechanical and electrical components need to be upgraded. These potentially interim improvements are needed to ensure continued regulatory compliance and operational reliability. In addition, pilot testing may be needed to determine the most suitable technology for the Plant's long-term tertiary treatment needs.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	117	1,381	1,366	1,395					1,395		2,878
Design	124	16	16		2,972	50			3,022		3,162
Bid & Award	2				75	59			134		136
Construction	226				2,900	26,305	806	139	30,150	86	30,462
Post Construction	1					50			50	9	60
TOTAL	**470**	**1,397**	**1,382**	**1,395**	**5,947**	**26,464**	**806**	**139**	**34,751**	**95**	**36,698**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	470	1,397	1,382	1,395	5,947	26,464	806	139	34,751	95	36,698
TOTAL	**470**	**1,397**	**1,382**	**1,395**	**5,947**	**26,464**	**806**	**139**	**34,751**	**95**	**36,698**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - decrease of $2.7 million due to the removal of scope that is dependent on the evaluation of the demonstration project. 2015-2019 CIP - increase of $26.9 million due to revised scope and project validation cost estimate. 2016-2020 CIP - increase of $6.5 million due to revised cost estimate and escalation of construction costs. 2017-2021 CIP - increase of $2.5 million due to increased project scope.

Notes:

This project corresponds to Plant Master Plan Project Nos. 31, 32, and 33 as well as Validation Project PLF-01 and PLF-02. Prior to 2015-2019, this project was titled "Filter Improvements". The schedule was revised during the 2015-2019 project validation process.

FY Initiated:	2010-2011	**Appn. #:**	7227
Initial Project Budget:	$3,506,000	**USGBC LEED:**	N/A

9. Outfall Bridge and Levee Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2014
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2019
Council District:	4	**Revised Completion Date:**	3rd Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project includes a condition assessment, bridge repairs or replacement, levee and levee gate repairs, and electrical transformer refurbishment.

Justification: The existing outfall bridge and instrumentation supports are in poor condition. In addition, the west-side levee of Pond A-18 is experiencing significant erosion. This project will improve the aging facilities to ensure reliability at the outfall compliance point.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	59	1,207	383	1,027					1,027		1,469
Design	2				882	240	108		1,230		1,232
Bid & Award					30		82		112		112
Construction					180		6,363	301	6,844	57	6,901
Post Construction										118	118
TOTAL	**61**	**1,207**	**383**	**1,027**	**1,092**	**240**	**6,553**	**301**	**9,213**	**175**	**9,832**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	61	1,207	383	1,027	1,092	240	6,553	301	9,213	175	9,832
TOTAL	**61**	**1,207**	**383**	**1,027**	**1,092**	**240**	**6,553**	**301**	**9,213**	**175**	**9,832**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - increase of $1.7 million due to escalation of construction costs.

Notes:

This project corresponds to Validation Project PLD-02.

FY Initiated:	2014-2015	**Appn. #:**	7678
Initial Project Budget:	$8,120,000	**USGBC LEED:**	N/A

10. Digested Sludge Dewatering Facility

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	2nd Qtr. 2014
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2013
Council District:	4	**Revised Completion Date:**	1st Qtr. 2023
Location:	Water Pollution Control Plant		

Description: This project will construct a new mechanical dewatering facility and support systems to replace the existing sludge storage lagoons and open air solar drying beds. All new mechanical dewatering units, feed tank, storage, conveyance, and chemical dosing facilities will be housed in an odor-controlled building.

Justification: This project responds to a recommendation in the adopted Plant Master Plan to consolidate the Plant's operational area by reducing the biosolids process footprint. It also provides greater flexibility in biosolids disposal options in anticipation of the potential Newby Island landfill closure in 2025, responds to stricter regulations for landfilling and alternative daily cover, and addresses odor, noise, and aesthetics concerns from the operations of the lagoons and sludge drying beds.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	1,662	2,027	1,146	2,570					2,570		5,378
Design	10				8,534	805	263		9,602		9,612
Bid & Award				357	348				705		705
Construction							81,076	851	81,927	502	82,429
Post Construction										898	898
TOTAL	**1,672**	**2,027**	**1,146**	**2,927**	**8,882**	**805**	**81,339**	**851**	**94,804**	**1,400**	**99,022**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,672	2,027	1,146	2,927	8,882	805	81,339	851	94,804	1,400	99,022
TOTAL	**1,672**	**2,027**	**1,146**	**2,927**	**8,882**	**805**	**81,339**	**851**	**94,804**	**1,400**	**99,022**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of $325.0 million due to accelerated project start and compressed implementation schedule.
2015-2019 CIP - decrease of $256.8 million due to creation of separate biosolids projects through project validation.
2016-2020 CIP - increase of $1.6 million due to escalation of construction costs.
2017-2021 CIP - increase of $28.1 milion due to increased scope and revised cost estimate.

Notes:

This project corresponds to Plant Master Plan Project Nos. 44, 54, 57-60, and 64 and Validation Project PS-03. Prior to 2015-2019, this project was titled "New Biosolids Facility". The schedule was revised during the 2015-2019 project validation process.

FY Initiated:	2012-2013	**Appn. #:**	7452
Initial Project Budget:	$1,000,000	**USGBC LEED:**	N/A

11. Digester and Thickener Facilities Upgrade

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2006
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2008
Council District:	4	**Revised Completion Date:**	4th Qtr. 2025
Location:	Water Pollution Control Plant		

Description: This project will rehabilitate up to ten anaerobic digesters through a phased approach. This first phase rehabilitates four digesters and modifies the system to operate as a two phase Temperature Phased Anaerobic Digestion (TPAD) system. The project also rehabilitates and modifies six dissolved air flotation units for co-thickening of primary and secondary sludge, pressure saturation tanks, pipes, pumps, and ancillary equipment. A new odor control system, primary sludge screening facility, heat exchangers, waste biogas flare, and polymer dosing facility will be constructed. The digester gas conveyance and tunnel systems will also be upgraded.

Justification: The Plant has 16 anaerobic digesters constructed between 1956 and 1983. This project will restore digester capacity and improve reliability and safety of the gas conveyance system to ensure reliable operation of the digestion process. The upgrade to TPAD will also provide flexibility to respond to any future changes in regulation that may require the facility to produce Class A biosolids.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	730	59	8				1,191	389	1,580		2,318
Design	7,466	8,750	8,662					4,816	4,816	1,570	22,514
Bid & Award	1	168	168					83	83	34	286
Construction	1	89,391	117,836	10,259	1,707	1,322		2,378	15,666	53,375	186,878
Post Construction						279	244	365	888	274	1,162
TOTAL	**8,198**	**98,368**	**126,674**	**10,259**	**1,707**	**1,601**	**1,435**	**8,031**	**23,033**	**55,253**	**213,158**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	8,198	98,368	126,674	10,259	1,707	1,601	1,435	8,031	23,033	55,253	213,158
TOTAL	**8,198**	**98,368**	**126,674**	**10,259**	**1,707**	**1,601**	**1,435**	**8,031**	**23,033**	**55,253**	**213,158**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Maintenance	300	312
Operating	1,200	1,248
TOTAL	**1,500**	**1,560**

Major Changes in Project Cost:

2008-2012 CIP through 2014-2018 CIP - increase of 121.5M due to increased scope and realignment of project. 2015-2019 CIP - increase of $18.3M due to revised project validation cost estimate. 2016-2020 CIP - increase of $31.4M due to conversion to thermophilic digestion and inclusion of scope from other projects. 2017-2021 CIP - increase of $41.0M: $19.0M due to revised cost estimates and $22.0M due to bids that came in higher than projected construction costs.

Notes:

This project corresponds to Plant Master Plan Project Nos. 45 -53 and Validation Project PS-01. This project is planned to be completed in two phases. Prior to 2015-2019, this project was titled "Digester Rehabilitation".

FY Initiated:	2006-2007	**Appn. #:**	4127
Initial Project Budget:	$1,000,000	**USGBC LEED:**	N/A

12. Lagoons and Drying Beds Retirement

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 1st Qtr. 2016
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2028
Revised Completion Date:

Description: This project will decommission the use of the existing sludge storage lagoons and open-air solar drying beds for post digestion processing through a phased approach. It involves successively turning over and emptying the existing lagoons of their biosolids contents in coordination with commissioning of the new biosolids dewatering facility. The project does not address follow up earthwork or rehabilitation needs to prepare the site for future development.

Justification: The adopted Plant Master Plan recommends consolidating the Plant's operational area including reducing the biosolids process footprint. This project responds to this recommendation. It also provides for more flexibility in biosolids disposal options in anticipation of the potential Newby Island landfill closure in 2025, responds to more stringent regulations for landfilling and alternative daily cover, and addresses odor, noise, and aesthetics concerns from the operations of the lagoons and sludge drying beds.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		443	243	1,358	112	111			1,581		1,824
Design						1,363	649	182	2,194		2,194
Bid & Award						42	10	12	64		64
Construction						298		6,451	6,749	23,187	29,936
Post Construction						208			208	156	364
TOTAL		**443**	**243**	**1,358**	**112**	**2,022**	**659**	**6,645**	**10,796**	**23,343**	**34,382**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		443	243	1,358	112	2,022	659	6,645	10,796	23,343	34,382
TOTAL		**443**	**243**	**1,358**	**112**	**2,022**	**659**	**6,645**	**10,796**	**23,343**	**34,382**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

Notes:
This project corresponds to Plant Master Plan Project No. 62 and Validation Project PS-07. Construction costs under this project have been divided into four phases to correspond with yearly retirement requirements.

FY Initiated: 2015-2016
Initial Project Budget: $34,382,000
Appn. #: 6285
USGBC LEED: N/A

13. Energy Generation Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2013
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2019
Location:	Water Pollution Control Pant		

Description: This project will install new, lower-emission engine-generators to replace the aged existing engine-generators and allow the aged engine-driven blowers to be retired. It includes a new generator building, gas cleaning and blending systems, piping, control system, and motor control centers. This project will also install emergency diesel generators and storage tanks to provide backup power in the event of an extended PG&E power outage.

Justification: Energy generation capacity and operational reliability are significant issues at the Plant. The outdated engine-generators are increasingly difficult to maintain. Moreover, while the existing systems meet current air regulations, they will not meet the stricter regulations anticipated in the future. Replacing these facilities with new lower-emission engine-generators will reduce the risk of operational failure and permit violations while providing reliable energy generating facilities to power the Plant for decades.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	1,915	261	261								2,176
Design	707	9,443	9,443	3,310					3,310		13,460
Bid & Award	317										317
Construction	1,520	23,172	17,025	28,386	56,083	933			85,402		103,947
Post Construction				290		159			449		449
TOTAL	**4,459**	**32,876**	**26,729**	**31,986**	**56,083**	**1,092**			**89,161**		**120,349**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	4,459	32,876	26,729	31,986	56,083	1,092			89,161		120,349
TOTAL	**4,459**	**32,876**	**26,729**	**31,986**	**56,083**	**1,092**			**89,161**		**120,349**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Maintenance	38	40	41	42
Operating	41	42	43	45
TOTAL	**79**	**82**	**84**	**87**

Major Changes in Project Cost:

2014-2018 CIP - increase of $100.0M due to acceleration of the implementation schedule. 2015-2019 CIP - increase of $24.5M due to revised program validation cost estimate. 2016-2020 CIP - decrease of $10.4M due to reduction of project scope and revised cost estimate. 2017-2021 CIP - increase of $4.9M due to revised cost estimate.

Notes:

This project corresponds to Plant Master Plan Nos. 74, 75, and 76 and Validation Projects PE-01 and PE-02. Prior to 2014-2018, this project was titled "Combined Heat and Power Technology Evaluation".

FY Initiated:	2012-2013	**Appn. #:**	7454
Initial Project Budget:	$1,300,000	**USGBC LEED:**	N/A

14. Advanced Facility Control and Meter Replacement

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2010
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2014
Revised Completion Date: 2nd Qtr. 2022

Description: This project will develop a Plant-wide automation master plan, replace existing flow meters and actuators, and upgrade sensors, controls, and monitoring equipment throughout the Plant.

Justification: The Plant currently has hundreds of meters measuring liquid, sludge, and gas streams. Many existing sensors, actuators, and flow meters are inaccurate or unreliable. Due to their age, it is more cost effective to replace them with modern equipment to ensure performance reliability and assure that needed components are available for ongoing maintenance. This project will allow the Plant to move towards improved data capture, resulting in greater operational reliability and flexibility.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	668	2,226	1,971	501	352	245			1,098		3,737
Design	46	674	177	1,474	602	295			2,371		2,594
Bid & Award				50	137	75	76		338		338
Construction	36				9,691	5,147	4,941	892	20,671	227	20,934
Post Construction	147				77			24	101	58	306
TOTAL	**897**	**2,900**	**2,148**	**2,025**	**10,859**	**5,762**	**5,017**	**916**	**24,579**	**285**	**27,909**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	897	2,900	2,148	2,025	10,859	5,762	5,017	916	24,579	285	27,909
TOTAL	**897**	**2,900**	**2,148**	**2,025**	**10,859**	**5,762**	**5,017**	**916**	**24,579**	**285**	**27,909**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2012-2016 CIP - decrease of $5.9 million due to decreased scope.
2013-2017 CIP - decrease of $2.1 million due to the establishment of the Treatment Plant Distributed Control System project as part of the approval of the 2011-2012 Mid-Year Budget Review.
2014-2018 CIP - increase of $500,000 due to updated cost estimate.
2015-2019 CIP - increase of $30.4 million due to revised scope, addition of meter replacement scope, and project validation cost estimate.
2016-2020 CIP - decrease of $823,000 due to reduction of project scope.
2017-2021 CIP - decrease of $5.2 million due to decreased project scope.

Notes:

This project corresponds to Plant Master Plan No. 90 and Validation Project PA-01. Prior to the 2015-2019 CIP, this project was titled "Advanced Process Control and Automation". The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2010-2011
Initial Project Budget: $11,000,000
Appn. #: 7224
USGBC LEED: N/A

15. Treatment Plant Distributed Control System

CSA:	Environmental and Utility Services	**Initial Start Date:**	1st Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2016
Council District:	4	**Revised Completion Date:**	3rd Qtr. 2019
Location:	Water Pollution Control Plant		

Description: This project will upgrade and convert the existing Distributed Control System (DCS) at the Plant. The system is composed of a network of field controllers, workstations, and servers that control most aspects of Plant operations. This project consists of three phases. Phase I is completed and ensured that the system was upgraded and will be supported by the vendor. The wiring and replacement of field communication hardware will be done in Phase II, and a new controller and programming will be added in Phase III.

Justification: Upgrading this system is vital to maintaining efficient operations and improving monitoring capabilities.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Design	320	80	80								400
Construction	2,174	1,138	1,050	670	1,025	1,025	575		3,295		6,519
TOTAL	**2,494**	**1,218**	**1,130**	**670**	**1,025**	**1,025**	**575**		**3,295**		**6,919**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	2,494	1,218	1,130	670	1,025	1,025	575		3,295		6,919
TOTAL	**2,494**	**1,218**	**1,130**	**670**	**1,025**	**1,025**	**575**		**3,295**		**6,919**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of $499,000 due to higher than expected consultant costs.
2015-2019 CIP - decrease of $163,000 due to lower than expected construction costs.
2016-2020 CIP - increase of $894,000 due to inclusion of an additional project phase that will convert and configure the hardware for 18 distributed control unit controllers.
2017-2021 CIP - increase of $1.6 million due to revised cost estimate.

Notes:

FY Initiated:	2012-2013	**Appn. #:**	7394
Initial Project Budget:	$4,065,000	**USGBC LEED:**	N/A

16. Construction-Enabling Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	4th Qtr. 2016
Council District:	4	**Revised Completion Date:**	1st Qtr. 2017
Location:	Water Pollution Control Plant		

Description: This project provides funding for construction management trailers, utility connections, fencing, and security facilities. In addition, it includes road and parking improvements and access improvements from Zanker Road to the Plant.

Justification: This project provides the infrastructure necessary to support the increased construction activity anticipated at the Plant.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		8	8								8
Design		382	382								382
Bid & Award		20	20								20
Construction		3,066	3,066	770					770		3,836
Post Construction				15					15		15
TOTAL		**3,476**	**3,476**	**785**					**785**		**4,261**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		3,476	3,476	785					785		4,261
TOTAL		**3,476**	**3,476**	**785**					**785**		**4,261**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Operating					154	160	166	173			
TOTAL					**154**	**160**	**166**	**173**			

Major Changes in Project Cost:
2017-2021 CIP - increase of $709,000 due to revised cost estimate.

Notes:

FY Initiated:	2015-2016	**Appn. #:**	6313
Initial Project Budget:	$3,552,000	**USGBC LEED:**	N/A

17. Equipment Replacement

CSA:	Environmental and Utility Services	**Initial Start Date:**	Ongoing
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	Ongoing
Council District:	4	**Revised Completion Date:**	
Location:	Water Pollution Control Plant		

Description: This allocation provides for the ongoing replacement and rehabilitation of equipment at the Plant. Equipment anticipated to be replaced or rehabilitated includes air compressors, tanks, pumps, motors, control systems, valves, heat exchangers, engine auxiliaries, lab instruments, and other equipment as required.

Justification: The replacement and rehabilitation of Plant equipment are necessary as a result of wear, obsolescence, or new or updated regulatory requirements and will ensure continued efficient operation of the Plant facilities.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development											
Design		20	20	1,663	1,663	1,663	1,663	1,663	8,315		
Construction		1,663	1,663								
Equipment											
TOTAL		**1,683**	**1,683**	**1,663**	**1,663**	**1,663**	**1,663**	**1,663**	**8,315**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,683	1,683	1,663	1,663	1,663	1,663	1,663	8,315		
TOTAL		**1,683**	**1,683**	**1,663**	**1,663**	**1,663**	**1,663**	**1,663**	**8,315**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

Notes:
Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:	Ongoing	**Appn. #:**	4332
Initial Project Budget:		**USGBC LEED:**	N/A

18. Facility Wide Water Systems Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2014
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	1st Qtr. 2022
Council District:	4	**Revised Completion Date:**	3rd Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project rehabilitates, replaces, and/or extends the Plant's four water systems including piping, valves, pumps, controls, and other ancillary equipment. The scope of work will be based on hydraulic modeling and study of existing and future water demands at the Plant. The project may be constructed in phases based on the outcome of the study and priority of needs.

Justification: The Plant's four water systems include potable water, groundwater, process/fire protection water, and recycled water. These were constructed over time with various Plant expansions and are in need of rehabilitation and upgrade due to age, condition, worker safety, plant reliability, and code compliance requirements. In addition, changes to water uses and demands have not all been addressed over time. An updated hydraulic model and assessment of current and future water demands will allow for the proper sizing of these systems to improve current and future performance and reduce risk of damage to pumping equipment.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	173	1,323	1,192	351					351		1,716
Design				1,152	381	80			1,613		1,613
Bid & Award				25		102			127		127
Construction						10,644	542	555	11,741	362	12,103
Post Construction						15			15	51	66
TOTAL	**173**	**1,323**	**1,192**	**1,528**	**381**	**10,841**	**542**	**555**	**13,847**	**413**	**15,625**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	173	1,323	1,192	1,528	381	10,841	542	555	13,847	413	15,625
TOTAL	**173**	**1,323**	**1,192**	**1,528**	**381**	**10,841**	**542**	**555**	**13,847**	**413**	**15,625**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - increase of $1.6 million due to escalation of construction costs.

Notes:

This project corresponds to Plant Master Plan Project No. 105 and Validation Project PF-06. This project will have close-out costs only in 2022-2023.

FY Initiated:	2014-2015	**Appn. #:**	7679
Initial Project Budget:	$14,130,000	**USGBC LEED:**	N/A

19. Plant Infrastructure Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	Ongoing
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	Ongoing
Council District:	4	**Revised Completion Date:**	
Location:	Water Pollution Control Plant		

Description: This allocation provides for improvements, rehabilitation, or replacement of existing Plant infrastructure. Examples of the ongoing replacement and rehabilitation work include handrail replacement, concrete repairs, telecommunication systems upgrade, and Plant support system improvements.

Justification: Many mechanical, electrical, and structural assets at the Plant are in poor condition due to age and wear. Rehabilitation, improvements, and replacement of capital infrastructure are necessary to maintain process viability and to ensure regulatory compliance, structural integrity, reliability, functionality, and safety of Plant buildings and process facilities.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		72	72								
Design		71	71								
Bid & Award		8	8								
Construction		1,349	1,349	1,000	1,000	1,000	1,000	1,000	5,000		
Post Construction Program Management		139	8								
TOTAL		**1,639**	**1,508**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,639	1,508	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		**1,639**	**1,508**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:	Ongoing	**Appn. #:**	5690
Initial Project Budget:		**USGBC LEED:**	N/A

20. Plant Instrument Air System Upgrade

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2014
Revised Start Date:
Initial Completion Date: 1st Qtr. 2019
Revised Completion Date: 1st Qtr. 2018

Description: This project replaces the existing high-pressure Plant instrument air supply system with a new above-grade distributed system. This project also makes electrical upgrades to provide for power and redundancy improvements to the Plant air supply system.

Justification: The instrument air supply system plays a critical role by providing high pressure air for pneumatic operations and controls of valves and instruments located throughout the Plant process areas. The existing system is outdated and its location in the basement of the Secondary Blower Building makes it vulnerable to flooding. The existing system also lacks an independent power source and sufficient reservoirs for maintaining operations during an extended power failure. Replacement of the system will improve operational reliability and minimize interruptions to critical operations.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	51	238	73								124
Design	56	994	994								1,050
Bid & Award		22	22								22
Construction		3,519	119	3,400	66				3,466		3,585
Post Construction					33				33		33
TOTAL	**107**	**4,773**	**1,208**	**3,400**	**99**				**3,499**		**4,814**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	107	4,773	1,208	3,400	99				3,499		4,814
TOTAL	**107**	**4,773**	**1,208**	**3,400**	**99**				**3,499**		**4,814**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
2017-2021 CIP - decrease of $4.2 million due to a refined scope and revised cost estimate.

Notes:
This project corresponds to Validation Project PF-07.

FY Initiated: 2014-2015
Initial Project Budget: $9,100,000
Appn. #: 7680
USGBC LEED: N/A

21. Support Building Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	1st Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	3rd Qtr. 2015
Department:	Environmental Services	**Initial Completion Date:**	3rd Qtr. 2023
Council District:	4	**Revised Completion Date:**	1st Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project constructs various tenant improvements to the administration, operations, engineering, and other support buildings located throughout the Plant. It may include floor, ceiling, wall, partition, plumbing, heating, ventilation and air conditioning upgrades, fire protection, and security improvements, as well as ancillary landscaping improvements. It also constructs new warehousing facilities and an electronic warehouse management system which may include new computers, a central database, barcode scanners, mobile tablets, and other technology improvements. This project will be constructed in phases based on a detailed tenant improvement study, warehouse design study, and priority of needs.

Justification: Most of the buildings at the Plant are between 30 and 50 years old and are in need of refurbishment to improve worker health, safety, and environment. The tenant improvements are also needed to bring the buildings into compliance with current building and safety codes. The new warehousing facility and warehouse management system will improve operational efficiency through better control of the movement and storage of materials, including shipping, receiving, material stocking, use, and distribution.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		890	890	1,242					1,242		2,132
Design				1,058	1,856	1,850	611		5,375		5,375
Bid & Award					76	122	147		345		345
Construction					1,551	5,980	15,004	24,588	47,123		47,123
Post Construction										159	159
TOTAL		**890**	**890**	**2,300**	**3,483**	**7,952**	**15,762**	**24,588**	**54,085**	**159**	**55,134**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		890	890	2,300	3,483	7,952	15,762	24,588	54,085	159	55,134
TOTAL		**890**	**890**	**2,300**	**3,483**	**7,952**	**15,762**	**24,588**	**54,085**	**159**	**55,134**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - decrease of $856,000 due to revised cost estimate.

Notes:

This project corresponds to Plant Master Plan Project Nos. 94, 95, 96, 98, 106, and 107 and Validation Project PF-02.

FY Initiated:	2014-2015	**Appn. #:**	7681
Initial Project Budget:	$55,590,000	**USGBC LEED:**	N/A

22. Urgent and Unscheduled Treatment Plant Rehabilitation

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: Ongoing
Revised Start Date:
Initial Completion Date: Ongoing
Revised Completion Date:

Description: This ongoing allocation is used to investigate, prioritize, and rehabilitate structures and systems at the Water Pollution Control Plant. This funding will be used to respond to the Plant's urgent maintenance and rehabilitation needs that cannot be programmed during the annual CIP budget process.

Justification: This allocation is required due to the deterioration of structures and systems at the Plant.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		1,416	1,416								
Design		128	128								
Bid & Award											
Construction		850	850	1,500	1,500	1,500	1,500	1,500	7,500		
Post Construction											
TOTAL		**2,394**	**2,394**	**1,500**	**1,500**	**1,500**	**1,500**	**1,500**	**7,500**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		2,394	2,394	1,500	1,500	1,500	1,500	1,500	7,500		
TOTAL		**2,394**	**2,394**	**1,500**	**1,500**	**1,500**	**1,500**	**1,500**	**7,500**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

Notes:
Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated: Ongoing
Initial Project Budget:
Appn. #: 7395
USGBC LEED: N/A

23. Yard Piping and Road Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	Ongoing
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	Ongoing
Council District:	4	**Revised Completion Date:**	
Location:	Water Pollution Control Plant		

Description: This project will rehabilitate and/or replace process piping systems, valves, and related appurtenances throughout the Plant. The work will be completed in phases based on the outcome of a detailed condition assessment, physical testing, and prioritization of needs. This project will also make roadway and drainage-related improvements throughout the Plant's main operations and residual management areas.

Justification: The Plant has approximately 300,000 linear feet of piping along with associated valves and related appurtenances. The pipes range in diameter from 8 inches to 144 inches and carry gas, liquids, sludge, air, steam, and other process streams to and from the various treatment areas. The pipes vary in age, material, condition, reliability, and redundancy. Over 70 percent of the piping was installed more than 25 years ago and is in need of rehabilitation or replacement due to age, failure, and/or excessive maintenance. The Plant also has an extensive roadway network, nearly 40,000 linear feet of paved surfaces, that needs rehabilitation and/or replacement due to excessive wear, heavy vehicle traffic, and drainage issues.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		1,127	327	1,047	493	256			1,796		
Design						11,079	1,602	144	12,825		
Bid & Award						166	72	11	249		
Construction						1,188		26,197	27,385		
Post Construction											
TOTAL		**1,127**	**327**	**1,047**	**493**	**12,689**	**1,674**	**26,352**	**42,255**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,127	327	1,047	493	12,689	1,674	26,352	42,255		
TOTAL		**1,127**	**327**	**1,047**	**493**	**12,689**	**1,674**	**26,352**	**42,255**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project. This project corresponds to Plant Master Plan Project Nos. 98 and 100 and Validation Project PF-04. Prior to 2015-2019, this project was titled "Treatment Plant Street Rehabilitation".

FY Initiated:	Ongoing	**Appn. #:**	7396
Initial Project Budget:		**USGBC LEED:**	N/A

24. Payment for Clean Water Financing Authority Trustee

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation provides for administrative costs of the San José/Santa Clara Clean Water Financing Authority related to bond issuances.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Program Management		5	5	5	5	5	5	5	25		
TOTAL		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**25**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		5	5	5	5	5	5	5	25		
TOTAL		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**25**		

Notes:
Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 6584

25. Preliminary Engineering

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation provides funding to support preliminary engineering for Plant-related projects, including studies, pilots, and field verifications to evaluate impacts on operations.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		1,876	1,565	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		**1,876**	**1,565**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,876	1,565	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		**1,876**	**1,565**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

Notes:
Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 7456

26. Program Management

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation funds the administration and management of the Water Pollution Control CIP.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development Program Management		14,865	10,247	8,175	1,945	2,005	1,770	1,835	15,730		
TOTAL		**14,865**	**10,247**	**8,175**	**1,945**	**2,005**	**1,770**	**1,835**	**15,730**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		14,865	10,247	8,175	1,945	2,005	1,770	1,835	15,730		
TOTAL		**14,865**	**10,247**	**8,175**	**1,945**	**2,005**	**1,770**	**1,835**	**15,730**		

Notes:
Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 7481

27. Record Drawings

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This project develops a document management system and standards for electronically capturing, indexing, storing, retrieving, distributing, and versioning master drawings, specifications, and other final design documents. It also involves inventorying, developing, updating, and integrating existing records and field drawings.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		250		250	58				308		308
Design					12,781	162	162	164	13,269	625	13,894
Post Construction										62	62
TOTAL		**250**		**250**	**12,839**	**162**	**162**	**164**	**13,577**	**687**	**14,264**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		250		250	12,839	162	162	164	13,577	687	14,264
TOTAL		**250**		**250**	**12,839**	**162**	**162**	**164**	**13,577**	**687**	**14,264**

Notes:
This project corresponds to Plant Master Plan Project No. 114 and Validation Project PF-05. Funding in 2017-2018 is for consultant services and some staff costs; the remaining years fund staff costs necessary to complete the project.

Appn. #: 7683

28. State Revolving Fund Loan Repayment

CSA: Environmental and Utility Services

CSA Outcome: Healthy Streams, Rivers, Marsh and Bay

Department: Environmental Services

Description: This allocation provides for the repayment of low interest State loans awarded for South Bay Water Recycling projects.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Debt Service	72,076	4,464	4,464	4,464	4,464	1,804			10,732		87,272
TOTAL	**72,076**	**4,464**	**4,464**	**4,464**	**4,464**	**1,804**			**10,732**		**87,272**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	72,076	4,464	4,464	4,464	4,464	1,804			10,732		87,272
TOTAL	**72,076**	**4,464**	**4,464**	**4,464**	**4,464**	**1,804**			**10,732**		**87,272**

Appn. #: 6590

2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

Summary of Projects that Start after 2016-2017

Summary of Projects with Close-Out Costs Only in 2016-2017

Summary of Reserves

Explanation of Funds

Flow and Priority of Funds

The Summary of Projects that Start after 2016-2017 includes those projects that have funding budgeted starting after 2016-2017. The Summary of Projects with Close-Out Costs Only in 2016-2017 includes those projects that are near completion with only minimal costs (typically inspection services and program management) to finish the project budgeted in 2016-2017. The Summary of Reserves includes all reserves budgeted within the Five-Year Capital Improvement Program. On the Use of Funds statement, the projects in these summaries are not numbered.

Summary of Projects that Start after 2016-2017

Project Name:	**Aeration Basin Future Modifications**	**Initial Start Date:**	3rd Qtr. 2019
5-Year CIP Budget:	$5,120,000	**Revised Start Date:**	
Total Budget:	$50,277,000	**Initial End Date:**	4th Qtr. 2030
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project modifies the existing step-feed aeration basins to a Modified Ludzack-Ettinger (MLE) process, which would involve structural modifications to existing tanks and new mixers, pumps, fine bubble diffusers, and methanol feed systems.

Project Name:	**FOG Receiving**	**Initial Start Date:**	3rd Qtr. 2019
5-Year CIP Budget:	$416,000	**Revised Start Date:**	
Total Budget:	$12,850,000	**Initial End Date:**	2nd Qtr. 2026
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project constructs a new FOG (Fats, Oils, Grease) receiving station; including storage tanks, access control, feed piping from the receiving station to the first phase anaerobic digesters, odor control and a ½-mile of access road improvements.

Project Name:	**Final Effluent Pump Station & Stormwater Channel Improvements**	**Initial Start Date:**	3rd Qtr. 2019
		Revised Start Date:	
5-Year CIP Budget:	$6,901,000	**Initial End Date:**	3rd Qtr. 2025
Total Budget:	$47,358,000	**Revised End Date:**	
Council District:	4		
USGBC LEED:	N/A		

Description: This project constructs a new pump station to hydraulically push the Plant's final treated effluent to the Coyote Creek. Additionally, it will improve the existing stormwater channel by rehabilitating the flapper gates and embankments.

Project Name:	**Master Plan Updates**	**Initial Start Date:**	4th Qtr. 2017
5-Year CIP Budget:	$3,000,000	**Revised Start Date:**	
Total Budget:	$3,000,000	**Initial End Date:**	4th Qtr. 2019
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project will periodically review and update the Plant Master Plan to ensure program goals and objectives are being met and incorporate any major changes that may be triggered by operational, regulatory, technological, and economic conditions.

Summary of Projects that Start after 2016-2017

Project Name:	**New Disinfection Facilities**	**Initial Start Date:**	2nd Qtr. 2019
5-Year CIP Budget:	$7,131,000	**Revised Start Date:**	
Total Budget:	$56,977,000	**Initial End Date:**	4th Qtr. 2027
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project constructs a new disinfection facility (currently assumed to be based on ultraviolet (UV) technology) to replace the existing sodium hypochlorite disinfection facility. It may also expand the existing chlorine contact basins to accommodate future peak hour wet weather flows and construct a new on-site hypochlorite generation facility. This project would only be triggered if new regulations concerning emerging contaminants are issued by the Regional Water Board within the next two to three NPDES permit cycles, and additional studies confirm future flow projections.

Project Name:	**Plant Electrical Reliability**	**Initial Start Date:**	3rd Qtr. 2003
5-Year CIP Budget:	$4,926,000	**Revised Start Date:**	
Total Budget:	$29,193,000	**Initial End Date:**	2nd Qtr. 2014
Council District:	4	**Revised End Date:**	4th Qtr. 2020
USGBC LEED:	N/A		

Description: This project replaces substations and switches, modifies power distribution buses and cabling, and provides backup systems to enhance the overall safety and reliability of the Plant electrical systems. The project includes a multi-phase construction schedule based upon a study completed in 2004.

Project Name:	**Tunnel Rehabilitation**	**Initial Start Date:**	3rd Qtr. 2017
5-Year CIP Budget:	$9,103,000	**Revised Start Date:**	
Total Budget:	$27,702,000	**Initial End Date:**	3rd Qtr. 2027
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project will rehabilitate and make safety improvements to the tunnel system throughout the Plant. The work may include structural, mechanical, electrical, ventilation, fire safety, and coating improvements and will be completed in phases based on a detailed condition assessment, physical testing, and prioritization of needs.

Summary of Projects with Close-out Costs Only in 2016-2017

Project Name:	**Combined Heat and Power Equipment Repair and Rehabilitation**	**Initial Start Date:**	3rd Qtr. 2012
5-Year CIP Budget:	$120,000	**Revised Start Date:**	
Total Budget:	$17,520,000	**Initial End Date:**	2nd Qtr. 2013
Council District:	4	**Revised End Date:**	1st Qtr. 2017
USGBC LEED:	N/A		

Description: This project will install new digester gas compressors housed in a new building, along with new digester gas pre-coolers, cooling towers, gas piping, and associated utility tie-ins. In addition, this project will replace an existing digester gas holder. The funds remaining will complete a punch list of items for the project.

Summary of Reserves

Project Name:	**Equipment Replacement Reserve**	**Initial Start Date:**	N/A
5-Year CIP Budget:	$5,000,000	**Revised Start Date:**	
Total Budget:	$5,000,000	**Initial End Date:**	N/A
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This reserve provides for unforeseen replacement and rehabilitation of equipment that, due to age, wear, or obsolescence, must be replaced for the efficient operation of the Plant.

Explanation of Funds

Revenues and expenditures for the operation and maintenance of the San José-Santa Clara Water Pollution Control Plant (Plant) are accounted for by the City of San José, as the administering agency, through the San José-Santa Clara Treatment Plant Operating Fund (Operating Fund) and the San José-Santa Clara Treatment Plant Capital Fund (Capital Fund).

Revenues from tributary agencies of the San José-Santa Clara Water Pollution Control Plant are recorded directly into the Operating and Capital Funds. The tributary agencies include the City of Milpitas, City of Cupertino, Burbank Sanitary District, County Sanitation District No. 2-3, and West Valley Sanitation District.

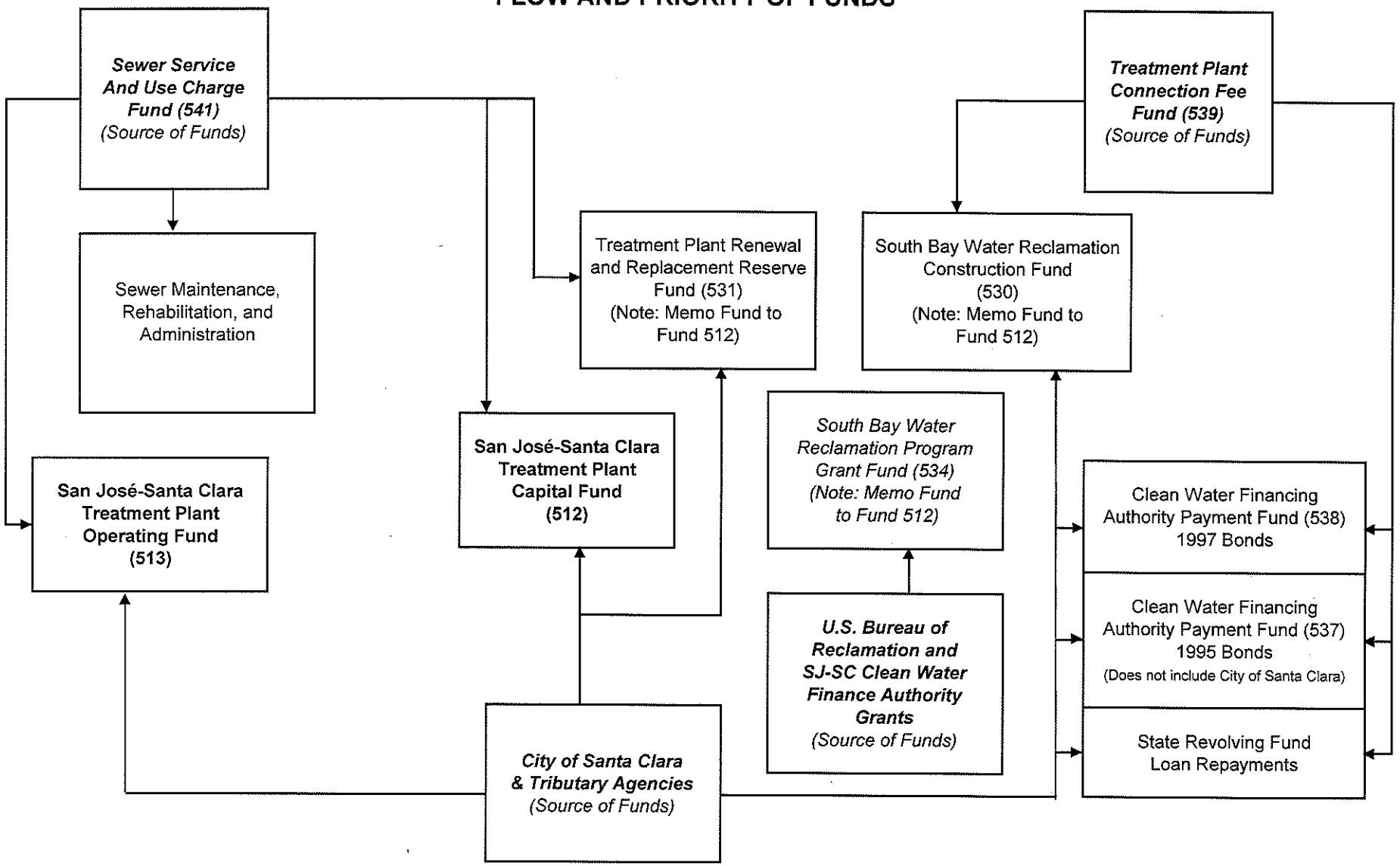
Tributary agencies are assessed for their share of annual operation, maintenance, equipment, and facilities replacement and capital costs, based on their respective flow and strength of sewage conveyed to the Plant.

The San José Sewer Service and Use Charge Fund was established in the San José Municipal Code Section 15.12.640 in August 1959. This fund is the depository of revenues from Sewer Service and Use Charges received from residential, commercial, and industrial users of the sanitary sewer system. A portion of these monies is transferred to the Operating and Capital Funds to pay for the City of San José's share of operating and capital costs of the Plant.

The Santa Clara Sewer Revenue Fund was established by Resolution Number 916 of the City Council of Santa Clara in October 1960. Like the City of San José, revenues from this fund are transferred directly to the Operating and Capital Funds.

The Capital Fund provides all monies used for capital projects. Included in this fund is the Treatment Plant Renewal and Replacement Fund. This fund was established to satisfy the Plant's federal and State grant agreements as well as to comply with bond covenants.

WATER POLLUTION CONTROL PLANT
FLOW AND PRIORITY OF FUNDS



The arrows indicate the flow of funds from each of the various sources to the fund in which the revenues are expended.

ATTACHMENT A
CIP AGENCY ALLOCATIONS - TEN YEAR FORECAST

		16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	5-Year Total	10-Year Total
Santa Clara													
WPCP Projects		14,571,517	22,354,564	24,225,015	49,821,880	14,778,648	8,162,578	22,283,920	21,422,492	7,621,143	2,139,308	125,751,626	187,381,067
Equipment Replacement		0	229,976	229,976	229,976	229,976	229,976	229,976	229,976	229,976	229,976	919,904	2,069,784
SRF Loan Annual Repayment		687,858	687,858	277,978	0	0	0	0	0	0	0	1,653,694	1,653,694
CWFA Debt Service Payment		0	0	0	0	0	0	0	0	0	0	0	0
	Total	15,259,375	23,272,398	24,732,969	50,051,856	15,008,624	8,392,554	22,513,896	21,652,468	7,851,119	2,369,284	128,325,224	191,104,545
West Valley													
WPCP Projects		6,330,931	9,753,051	10,900,518	20,303,051	6,346,149	3,505,120	9,569,012	9,199,104	3,272,621	918,647	53,633,700	80,098,204
Equipment Replacement		0	144,565	144,565	144,565	144,565	144,565	144,565	144,565	144,565	144,565	578,260	1,301,085
SRF Loan Annual Repayment		377,119	377,119	152,402	0	0	0	0	0	0	0	906,640	906,640
CWFA Debt Service Payment		553,662	0	0	0	0	0	0	0	0	0	553,662	553,662
	Total	7,261,713	10,274,735	11,197,485	20,447,616	6,490,714	3,649,685	9,713,577	9,343,669	3,417,186	1,063,212	55,672,262	82,859,591
Cupertino													
WPCP Projects		4,142,316	6,426,336	7,178,390	13,014,776	4,132,123	2,282,264	6,230,603	5,989,747	2,130,878	598,152	34,893,941	52,125,585
Equipment Replacement		0	85,262	85,262	85,262	85,262	85,262	85,262	85,262	85,262	85,262	341,048	767,358
SRF Loan Annual Repayment		226,816	226,816	91,661	0	0	0	0	0	0	0	545,293	545,293
CWFA Debt Service Payment		351,931	0	0	0	0	0	0	0	0	0	351,931	351,931
	Total	4,721,064	6,738,414	7,355,313	13,100,038	4,217,385	2,367,526	6,315,865	6,075,009	2,216,140	683,414	36,132,213	53,790,168
Milpitas													
WPCP Projects		7,236,329	11,195,329	12,704,142	22,250,325	7,195,337	3,974,146	10,849,457	10,430,051	3,710,535	1,041,573	60,581,462	90,587,224
Equipment Replacement		0	98,882	98,882	98,882	98,882	98,882	98,882	98,882	98,882	98,882	395,528	889,938
SRF Loan Annual Repayment		21,695	21,695	8,767	0	0	0	0	0	0	0	52,157	52,157
CWFA Debt Service Payment		45,753	45,751	42,974	43,001	42,994	0	0	0	0	0	220,473	220,473
	Total	7,303,777	11,361,657	12,854,765	22,392,207	7,337,213	4,073,028	10,948,339	10,528,933	3,809,417	1,140,455	61,249,620	91,749,791
CSD 2/3													
WPCP Projects		514,853	798,592	896,068	1,611,196	513,670	283,711	774,535	744,594	264,892	74,357	4,334,379	6,476,469
Equipment Replacement		0	15,965	15,965	15,965	15,965	15,965	15,965	15,965	15,965	15,965	63,860	143,685
SRF Loan Annual Repayment		48,747	48,747	19,700	0	0	0	0	0	0	0	117,194	117,194
CWFA Debt Service Payment		102,171	102,146	95,946	96,006	95,990	0	0	0	0	0	492,259	492,259
	Total	665,771	965,450	1,027,679	1,723,167	625,625	299,676	790,500	760,559	280,857	90,322	5,007,692	7,229,607
Burbank													
WPCP Projects		226,105	362,450	377,465	724,874	224,669	124,090	338,766	325,670	115,859	32,522	1,915,561	2,852,467
Equipment Replacement		0	4,623	4,623	4,623	4,623	4,623	4,623	4,623	4,623	4,623	18,492	41,607
SRF Loan Annual Repayment		11,562	11,562	4,672	0	0	0	0	0	0	0	27,796	27,796
CWFA Debt Service Payment		16,868	16,877	15,853	15,863	15,860	0	0	0	0	0	81,321	81,321
	Total	254,534	395,512	402,612	745,359	245,152	128,713	343,389	330,293	120,482	37,145	2,043,170	3,003,191
San Jose													
WPCP Projects		57,078,948	99,503,678	107,833,402	221,761,898	65,782,404	36,333,092	99,189,707	95,355,342	33,923,071	9,522,441	551,960,331	826,283,984
Equipment Replacement		0	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	1,083,727	4,334,908	9,753,543
SRF Loan Annual Repayment		3,090,204	3,090,204	1,248,819	0	0	0	0	0	0	0	7,429,227	7,429,227
HR/Payroll/Budget System Upgrade		3,000	0	0	0	0	0	0	0	0	0	3,000	3,000
City Hall Debt Service		172,000	178,000	193,000	193,000	193,000	193,000	193,000	193,000	193,000	193,000	929,000	1,894,000
New Debt Service 2017-18		0	4,288,000	11,157,000	15,651,000	22,039,000	23,755,000	26,195,000	31,613,000	39,316,000	39,316,000	53,135,000	213,330,000
CWFA Debt Service Payment		5,717,302	5,715,813	5,368,889	5,372,219	5,371,356	0	0	0	0	0	27,545,579	27,545,579
	Total	66,061,454	113,859,423	126,884,837	244,061,844	94,469,487	61,364,819	126,661,434	128,245,069	74,515,798	50,115,168	645,337,046	1,086,239,334

ATTACHMENT A
CIP AGENCY ALLOCATIONS - TEN YEAR FORECAST

	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	5-Year Total	10-Year Total
TOTAL												
WPCP Projects	90,101,000	150,394,000	164,115,000	329,488,000	98,973,000	54,665,000	149,236,000	143,467,000	51,039,000	14,327,000	833,071,000	1,245,805,000
Equipment Replacement	0	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	6,652,000	14,967,000
SRF Loan Annual Repmnt	4,464,000	4,464,000	1,804,000	0	0	0	0	0	0	0	10,732,000	10,732,000
HR/Payroll/Budget System Upgrade	3,000	0	0	0	0	0	0	0	0	0	3,000	3,000
City Hall Debt Service	172,000	178,000	193,000	193,000	193,000	193,000	193,000	193,000	193,000	193,000	929,000	1,894,000
New Debt Service 2017-18	0	4,288,000	11,157,000	15,651,000	22,039,000	23,755,000	26,195,000	31,613,000	39,316,000	39,316,000	53,135,000	213,330,000
CWFA Debt Service Repayment	6,787,688	5,880,588	5,523,663	5,527,088	5,526,200	0	0	0	0	0	29,245,225	29,245,225
	101,527,688	166,867,588	184,455,663	352,522,088	128,394,200	80,276,000	177,287,000	176,936,000	92,211,000	55,499,000	933,767,225	1,515,976,225

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE

FROM: Kerrie Romanow

SUBJECT: 2016-2017 PROPOSED OPERATING BUDGET

DATE: May 12, 2016

Approved D. DSyl

Date 5/12/16

This memorandum serves to transmit the San José/Santa Clara Regional Wastewater Facility Proposed 2016-2017 Operating and Maintenance Budget. The Proposed Operating and Maintenance Budget is provided to the Treatment Plant Advisory Committee's review and for a recommendation to the San José City Council for approval.

If you should have any questions, please contact Ashwini Kantak at 408-975-2553.

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

PROPOSED

SAN JOSE / SANTA CLARA
WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

2016-2017

Operating & Maintenance Budget

Submitted by
Kerrie Romanow, Director
Environmental Services Department
City of San José

TO: Treatment Plant Advisory Committee

Sam Liccardo	(Chair) Mayor, City of San José
Pat Kolstad	(Vice-Chair) Councilmember, City of Santa Clara
Jose Esteves	Mayor, City of Milpitas
Steven Leonardis	Board Member, West Valley Sanitation District
John M. Gatto	Board Member, Cupertino Sanitary District
David Sykes	Assistant City Manager, City of San José
Pierluigi Oliverio	Councilmember, City of San José
Manh Nguyen	Councilmember, City of San José
Jerry Marsalli	Councilmember, City of Santa Clara

SAN JOSE / SANTA CLARA

WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

2016-2017

PROPOSED

Operating & Maintenance Budget

Environmental Services Department
City of San José

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

Page No.

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

BUDGET SUMMARY

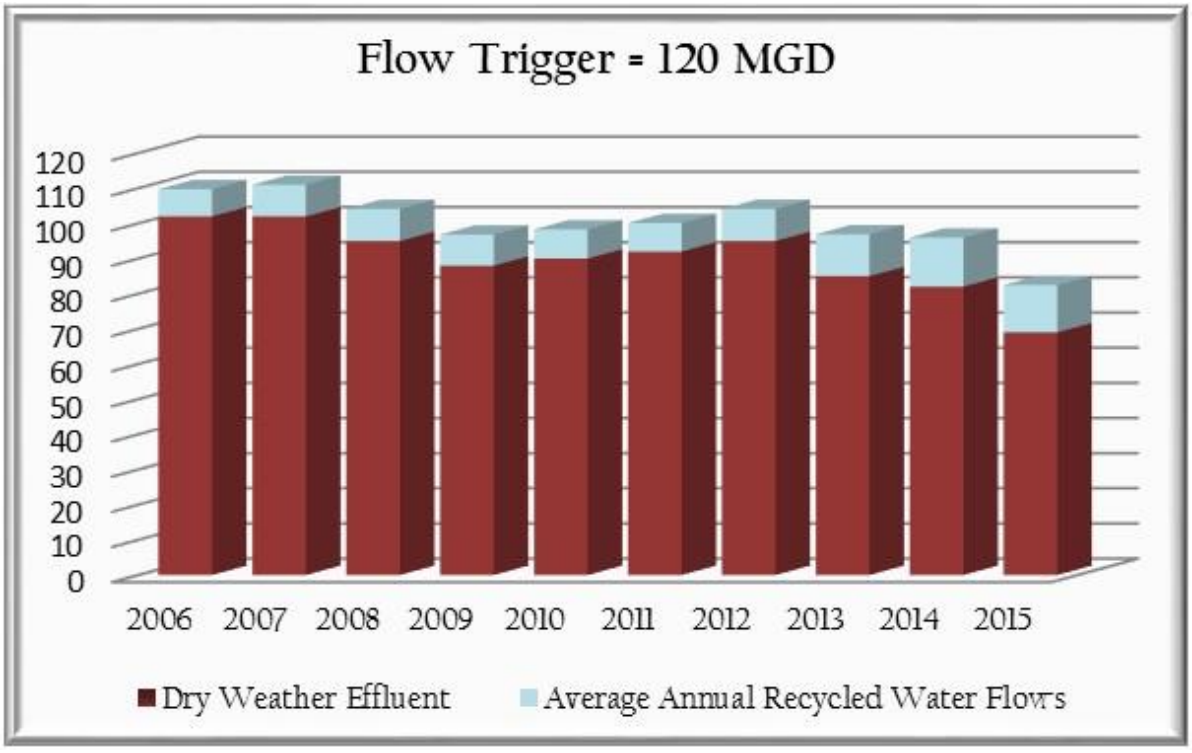
	Adopted 15-16	Proposed 16-17	% Change
Treatment Plant Operating Fund Budget	95,160,613	97,287,719	2.2%
ESD Authorized Positions	363.10	366.93	1.1%

BUDGET HIGHLIGHTS 2016-2017

- Additional staffing resources are recommended to provide adequate wastewater treatment operational coordination with Plant Capital Improvement Program project construction and commissioning activities.
- Additional funding is recommended to support a preventative maintenance project.
- Additional inspection and enforcement staffing is recommended to provide enhanced management oversight of compliance programs.
- Additional funding is recommended to support engineering and regulatory compliance operations related to South Bay Water Recycling.

Budget Byte

10 year History of Average Dry Weather Flow (in millions of gallons per day)



San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

TREATMENT PLANT OPERATING FUND
BUDGET SUMMARY

Budget Summary	2014-2015 Actual Expenses	2015-2016 Adopted Budget	2016-2017 Base Budget	2016-2017 Proposed Budget
Personal Services	46,334,186	52,228,998	54,264,657	54,770,465
Non-personal Expenses	25,345,811	29,912,570	28,933,519	29,379,019
Equipment	1,328,961	1,750,000	900,000	1,060,000
Inventory	351,792	400,000	400,000	400,000
Department Expenses	**73,360,749**	**84,291,568**	**84,498,176**	**85,609,484**
Overhead	8,000,022	7,478,317	8,903,376	8,903,376
City Hall Debt Service	1,092,295	1,121,240	1,118,437	1,118,437
Workers' Compensation	479,588	645,000	645,000	645,000
City Services	1,111,076	1,624,488	1,011,422	1,011,422
City Expenses	**10,682,981**	**10,869,045**	**11,678,235**	**11,678,235**
TOTAL EXPENSES	**$ 84,043,730**	**$ 95,160,613**	**$ 96,176,411**	**$ 97,287,719**

ESTIMATED COST DISTRIBUTION

2016-2017 Estimated Total Gallons Treated (MG)	(1) Percent of Total Sewage Treated	City / District	2016-2017 Proposed
25,219.388	64.161	City of San Jose	$62,420,774
4,991.335	14.415	City of Santa Clara	$14,024,025
30,210.723	78.576	Sub-Total	$76,444,799
3,552.188	9.271	West Valley Sanitation District	$9,019,543
1,928.236	5.179	Cupertino Sanitary District	$5,038,531
2,239.690	5.818	City of Milpitas	$5,660,199
347.435	0.927	Sanitation District # 2 - 3	$901,857
85.897	0.229	Burbank Sanitary District	$222,789
8,153.446	21.424	Sub-Total	$20,842,920
38,364.169	**100.0**	**TOTAL**	**$97,287,719**

(1) Composite of four parameters (flow, BOD, SS, ammonia). Source: 2016-2017 Revenue Program.

OVERVIEW

This year's Water Pollution Control Plant Operating Budget recommends a 1.6% increase over the 2015-2016 Adopted Budget. This increase is largely due to increased staffing in support of the capital improvement program and increases in salary and retirement (pension) costs.

With the adoption of the Plant Master Plan (PMP) in 2013 by the San José and Santa Clara City Councils, over $2.1 billion in long-term capital improvement projects were identified to upgrade and rebuild the San José/Santa Clara Water Pollution Control Plant (Plant) over the next 30 years. The PMP assumed an implementation schedule of 2010 through 2040. A validation process was completed in February 2014 to update and prioritize the recommended PMP projects into 33 construction packages to inform the five-year CIP and ten-year funding strategy. Based on the validation process, the ten-year CIP is estimated at approximately $1.4 billion. The projects included in the Proposed 2016-2017 Capital Budget and 2017-2021 CIP are based on the outcome of the project validation process.

A CIP of this size and complexity requires significant resources in order to ensure successful and timely project delivery. In September 2013, Council approved a program management services consultant contract with MWH Americas, Inc. to assist with the overall set-up and management of the CIP. In 2014-2015, the Plant added four full-time positions to support the implementation of capital improvement projects. In 2015-2016, the Plant added 23 full-time positions to support ramp up in capital implementation activities and prepare for the transition out of the program management contract in three to five years. An additional five full-time technical positions are recommended in 2016-2017 Proposed Operating Budget, released on May 2, 2016, to provide Operations and Maintenance (O&M) support for construction and commissioning activities for upcoming CIP projects.

Retirement (Pension) costs continue to rise on an annual basis, as detailed in the City's 2017-2021 Five-Year Economic Forecast and Revenue Projections. Retirement contributions for Tier 1 plan members reflect the full annual required contributions recommended by the Retirement Board's actuary. The increase of membership in the lower cost Tier 2 plans is expected to begin offsetting retirement costs over time. For 2016-2017, retirement costs in the Treatment Plant Operating Fund are anticipated to rise 5.9% over the 2015-2016 Adopted Budget.

The Plant and the Environmental Services Department continue to focus significant efforts on attracting qualified technical and engineering professionals to fill key O&M vacancies and to support the implementation of the CIP. The Plant has seen significant improvements in the vacancy rate for several key groups. For example, the vacancy rate for the approximately 215 positions in the Wastewater O&M group has improved from 27% in September 2013 to 15% as of April 2016.

Additional funding for Plant staffing and preventative maintenance are included in this proposed budget. The following sections provide the budget proposal descriptions and a breakdown by program of all associated expenditures and detail-specific budgets.

OVERVIEW CONTINUED

DEPARTMENT BUDGET SUMMARY

Budget Summary	2014-2015 Actual 1	2015-2016 Adopted 2	2016-2017 Base 3	2016-2017 Proposed 4	% Change (2 to 4)
Dollars by Program					
Treatment Plant O&M	50,930,567	55,883,312	55,875,241	56,769,523	1.6%
WatershedProtection	9,143,870	10,812,130	10,470,747	10,577,815	(2.2%)
South Bay Water Recycling	2,997,906	4,423,000	4,400,916	4,510,874	2.0%
CIP-Engineering Services	2,589,302	4,358,685	5,528,406	5,528,406	26.8%
Mgmt & Admin Svcs	4,463,505	4,822,371	4,271,079	4,271,079	(11.4%)
Envmtl Compliance & Safety	1,897,183	2,045,552	2,111,609	2,111,609	3.2%
Office of Sustainability	813,445	1,167,546	1,093,005	1,093,005	(6.4%)
Communications	544,772	778,972	747,173	747,173	(4.1%)
Total	**$ 73,380,549**	**$ 84,291,568**	**$ 84,498,176**	**$ 85,609,484**	**1.6%**
Dollars by Category					
Personal Services					
Salaries	25,569,325	29,970,992	31,229,670	31,523,032	5.2%
Pension	14,698,092	16,929,074	17,758,086	17,924,300	5.9%
Medical	4,011,411	4,677,266	4,625,235	4,671,467	(0.1%)
Overtime	2,055,359	651,666	651,666	651,666	0.0%
Subtotal	$ 46,334,186	$ 52,228,998	$ 54,264,657	$ 54,770,465	4.9%
Non-Personal/Equipment					
Energy	5,943,805	6,800,000	6,425,000	6,425,000	(5.5%)
Supplies & Materials	4,859,905	5,038,118	5,026,853	5,108,853	1.4%
Chemicals	1,799,179	2,155,000	1,836,000	1,836,000	(14.8%)
Contractual Services	9,327,591	11,977,229	11,568,318	11,918,318	(0.5%)
All Others	5,115,882	6,092,223	5,377,348	5,550,848	(8.9%)
Subtotal	$ 27,046,363	$ 32,062,570	$ 30,233,519	$ 30,839,019	-3.8%
Total	**$ 73,380,549**	**$ 84,291,568**	**$ 84,498,176**	**$ 85,609,484**	**1.6%**
Authorized Positions	354.15	363.1	360.43	366.93	1.05%

Budget Proposals

Proposed Program Changes	Positions	Treatment Plant Appropriations
1. Water Pollution Control Plant Staffing	**5.00**	**532,956**

This action adds 1.0 Industrial Electrician, 1.0 Senior Industrial Process Control Specialist I, 1.0 Wastewater Operator I, and 2.0 Instrument Control Technician I positions at the Water Pollution Control Plant (Plant) for various capital improvement projects. These positions are necessary to carry out projects included in the City Council-approved Plant Master Plan, which identified 114 major capital improvement projects to be implemented at the Plant over a 30-year planning period to address aging infrastructure, future regulatory requirements, and treatment process improvements. These positions are critical in ensuring adequate Operations and Maintenance support and coordination for CIP project construction and commissioning activities. (Ongoing costs: $614,905)

2. Digester Roof Painting		**350,000**

This action provides funding of $350,000 per year for five years to sandblast and repaint digester roof interiors at the Plant. It has been more than 10 years since the roofs have been inspected and painted, and external inspections have shown significant signs of corrosion. In order to ensure the reliability of the solids digestion process, which is critical to the wastewater treatment process and energy production for the Plant, this funding will allow for an interim strategy for dealing with the digesters that have been most impacted by corrosion until the future capital improvements to rehabilitate the digesters are implemented. This funding will allow for repainting of one digester roof per year until the future digester rehabilitation CIP project commences in 2019. (Ongoing costs: $350,000)

3. Inspection and Enforcement Staffing	**1.00**	**107,068**

This action adds 1.0 Senior Environmental Inspector position to provide additional management oversight for the expanded workload related to the Industrial User Identification and Inventory, Dental Amalgam Inspection, and Pretreatment Compliance and Revenue Sampling programs. In addition, the position will co-manage the Pretreatment Inspection and Enforcement programs; oversee the Surveillance Monitoring and Revenue Billing programs; and oversee compliance of the Pretreatment Program with the City's National Pollutant Discharge Elimination System wastewater permit. (Ongoing costs: $115,004)

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations
4. South Bay Water Recycling Regulatory Compliance Staffing	**0.50**	**69,284**

This action adds 0.50 Environmental Inspector II and provides funding of $20,000 for a vehicle, both of which would support a regulatory compliance program for South Bay Water Recycling (SBWR). This position will begin implementation of a program that will monitor sites using recycled water for compliance under the State's permit system. (Ongoing costs: $54,376)

5. South Bay Water Recycling Vehicle **40,000**

This action provides funding of $40,000 for a sport utility vehicle to support SBWR engineering and regulatory compliance operations. The vehicle will allow staff to complete site visits for contractors requesting permits for use of recycled water in the SBWR service area of San José, Santa Clara, and Milpitas; review sites installing or modifying recycled water systems; perform water shut-offs; provide operation and maintenance engineering support and water quality monitoring; and provide support to line breaks, illegal discharges, water quality monitoring, or other emergencies. (Ongoing costs: $4,000)

6. Enterprise Asset Management Team Support and Portable Generators Replacement **12,000**

This action increases ESD's non-personal/equipment funding for vehicle maintenance and operations related to the Enterprise Asset Management (EAM) Team Support and Portable Generators Replacement proposals, as described in the Public Works Department section of the City of San José 2016-2017 Proposed Operating Budget. The EAM Team Support proposal reallocates funding for 1.0 Network Engineer position and 2.0 Information Systems Analyst positions between the Vehicle Maintenance and Operations Fund and various capital funds and adds 1.0 Senior Systems Applications Programmer in the Vehicle Maintenance and Operations Fund to better align and augment the Department's Technology Services Section EAM Team. The added position will provide crucial support and ensure continuity of service from the EAM Team to the Fleet and Facilities Maintenance Divisions of the Public Works Department. In addition, one-time funding is included for the replacement of four portable generators that are non-compliant with emission standards and are more than 15 years old. This action reflects budget adjustments to various City funds for ongoing vehicle maintenance costs, including those vehicle costs funded by the Treatment Plant Operating Fund. (Ongoing savings: $4,000)

2016-2017 Total Department Proposals	**6.50**	**1,111,308**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: TREATMENT PLANT O&M
RESPONSIBLE MANAGER: JOANNA DE SA

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for the technologically advanced and cost-effective treatment of an average wastewater flow of over 100 million gallons per day. With a management focus on three primary areas: operations and maintenance; compliance with the Facility's three permits – National Pollution Discharge Elimination System (NPDES), and Air (Bay Area Air Quality Management); and equipment reliability, the Plant is able to produce an effluent that regularly meets or exceeds all NPDES permit conditions and represents the City's largest asset and critical public health service. The end results are a high quality effluent discharge to the Bay, and user rates that reflect a commitment to cost-efficient operations.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Air Conditioning Mech	3.00	3.00	3.00	3.00
Analyst II C	1.00	1.00	1.00	1.00
Assist Hvy Dsl Eq Op Mech	1.00	1.00	1.00	1.00
Assoc Engineer	1.00	1.00	1.00	1.00
Assoc Engineering Tech	2.90	2.90	3.00	3.00
Deputy Dir U	1.00	1.00	1.00	1.00
Division Manager	3.00	3.00	3.00	3.00
Engineerg Technician II	1.85	1.85	1.85	1.85
Geographic Systms Spec II	2.00	2.00	2.00	2.00
Groundsworker	0.95	0.95	0.95	0.95
Heavy Equip Oper	5.00	5.00	5.00	5.00
Industrial Electrician Supervisor	1.00	1.00	1.00	1.00
Industrial Process Cntrl Senr	2.00	2.00	2.00	3.00
Industrial Process Cntrl Spec	1.00	1.00	1.00	1.00
Industrial Electrician	7.20	7.20	7.60	8.60
Instrument Control Supvr	0.90	0.90	0.90	0.90
Instrument Control Technician	7.50	7.50	7.50	9.50
Maintenance Assistant	1.00	1.00		
Maintenance Worker I	1.00	1.00	1.00	1.00
Maintenance Superintend	0.95	0.95		
Maintenance Supervisor	1.00			
Network Engineer	1.00	1.00	1.00	1.00
Office Specialist II	2.00	2.00	2.00	2.00
Painter Supvr WPCP	1.00	1.00	1.00	1.00
Painter WPCP	6.00	6.00	6.00	6.00

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PERSONNEL SUMMARY (continued)				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Prin Office Specialist	1.00	1.00	1.00	1.00
Secretary	1.00	1.00		
Senr Air Cond Mechanic	1.00	1.00	1.00	1.00
Senr Analyst	2.00	1.00	1.00	1.00
Senr Engineer	2.00	2.00	2.00	2.00
Senr Engineering Tech	3.00	3.00	3.00	3.00
Senr Geographic Syst Spec	1.00	1.00	1.00	1.00
Senr Hvy Equipment Oper	2.00	2.00	2.00	2.00
Senior Industrial Electrician	1.80	1.80	1.90	1.90
Senr Maintenance Worker	0.95	0.95	0.95	0.95
Senr Office Specialist			1.00	1.00
Senr Painter	1.00	1.00	1.00	1.00
Senr Warehouse Worker		0.88	0.89	0.89
Supervg Applicat Analyst	1.00	1.00	1.00	1.00
Supply Clerk	1.00	1.00	1.00	1.00
Senr Instrument Control Tech	1.80	1.80	1.80	1.80
Warehouse Supervisor	0.88	0.88	0.89	0.89
Warehouse Worker I	1.76	0.88	0.89	0.89
Warehouse Worker II	1.76	1.76	1.78	1.78
Wastewater Attendant	18.00	18.00	19.00	19.00
Wastewater Maintenance Supt	1.90	1.90	2.85	2.85
Wastewater Mechanic I	6.85	4.85	5.85	5.85
Wastewater Mechanic II	23.90	25.90	24.90	24.90
Wastewater Mechanical Supvr I	1.00	1.00		
Wastewater Mechanical Supvr II	5.00	6.00	7.00	7.00
Wastewater Operations Supt I-II	7.00	7.00	7.00	7.00
Wastewater Operator I	4.00			1.00
Wastewater Operator II	12.00	11.00	10.00	10.00
Wastewater Operator III	16.00	21.00	22.00	22.00
Wastewater Ops Foreperson I-II	20.00	20.00	20.00	20.00
Wastewater Senior Mechanic I- II	11.00	11.00	11.00	11.00
Total Full-Time Positions	207.85	206.85	207.50	212.50

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2014-2015	2015-2016	2016-2017	2016-2017
Detail/Category	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	14,181,518	16,773,998	17,862,433	18,065,964
Salaries-Reg-Part Time	276,349			
Salaries - Overtime	1,984,468	599,573	599,573	599,573
Other Personnel		15,000		
Benefits: Retirement Contrib	8,390,685	9,520,548	10,201,916	10,317,332
Other Fringe Benefits	2,458,665	2,805,348	2,832,070	2,866,079
Sub Total	**$ 27,291,685**	**$ 29,714,467**	**$ 31,495,991**	**$ 31,848,948**
Utilities: Gas	2,154,929	2,300,000	2,200,000	2,200,000
Utilities: Electricity	3,117,138	3,800,000	3,500,000	3,500,000
Supplies and Materials	4,237,107	4,270,327	4,247,450	4,327,450
Stores Fund - Stores				
Comm Expnse: Telephne-Telegrph	81,149	43,805	43,805	43,805
Comm Expnse: Postage	2,586	6,000	6,000	6,000
Print/Adv-Outside Vendors	757	5,750	5,750	5,750
Duplicating-Stores Fund				
Utilities: Other	157,968	139,000	139,000	139,000
Chemicals	1,799,179	2,155,000	1,836,000	1,836,000
Rent: Equipment & Vehicles	391,093	337,424	341,395	341,395
Trans/Travel: In County	420	14,144	14,144	14,144
Trans/Travel: Out of County	370	28,395	28,395	28,395
Trans/Travel: Out of State	1,917	51,069	51,069	51,069
Training	182,804	137,382	135,460	135,460
Mileage Reimbursement	399	150	150	150
Vehicle Operating Costs	585,185	421,948	572,948	584,273
Dues & Subscriptions	1,137,907	1,124,973	1,124,973	1,124,973
Computer Data Processing	143,357	354,000	354,000	354,000
Prof & Consultant Svcs	7,876,324	8,814,886	8,464,119	8,814,119
Insurance	142,439	564,592	564,592	564,592
Taxes	334,832			
Judgement and Claims				
Capital Outlay				
Machnry/Equipmt: Machinery	1,291,020	1,600,000	750,000	850,000
Sub Total	**$ 23,638,883**	**$ 26,168,845**	**$ 24,379,250**	**$ 24,920,575**
Combined Totals	**$ 50,930,567**	**$ 55,883,312**	**$ 55,875,241**	**$ 56,769,523**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: WATERSHED PROTECTION
RESPONSIBLE MANAGER: NAPP FUKUDA

PROGRAM PURPOSE AND DESCRIPTION

Provides environmental enforcement and technical support functions to support Department programs, enforce Federal, State, and local regulations pertaining to industrial and commercial waste discharges to the sanitary system. The Source Control/Pretreatment Program provides engineering evaluation, permitting, inspection, and monitoring of industrial waste dischargers, maintains a source reduction program, and ensures that industrial discharges to the SJ/SC Water Pollution Control Plant are in compliance with all applicable industrial waste ordinances within San José and the tributary agencies. The Watershed Enforcement Program provides inspection and investigation of food service establishments to ensure proper management of fats, oils, and grease at the point of source to reduce discharges to the sanitary system. Lastly, the Laboratory Services Program provides analytical support to monitor wastewater treatment processes and NPDES compliance and support related special projects.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	0.75	0.75	0.75	0.75
Aquatic Toxicologist	1.00	1.00		
Assoc Engineer	1.00	1.00	1.00	1.00
Biologist	1.00	1.00	1.00	1.00
Chemist	8.00	9.00	9.00	9.00
Deputy Dir U	0.75	0.75	0.75	0.75
Environment Insp, Assistant	3.00	4.00	4.00	4.00
Environment Inspector II	19.00	20.00	20.00	20.00
Environment Inspector, Sr	2.00	2.00	2.00	3.00
Environment Serv Prog Mgr	1.50	1.50	1.50	1.50
Environment Serv Spec	2.00	2.00		
Environmental Laboratory Mgr	1.00	1.00	1.00	1.00
Environmental Laboratory Supvr	2.00	2.00	3.00	3.00
Laboratory Tech II	13.00	13.00	13.00	13.00
Microbiologist	2.00	1.00	1.00	1.00
Office Specialist II	2.28	2.28	2.28	2.28
Prin Office Specialist	0.85	0.85	0.85	0.85
Sanitary Engineer	3.00	3.00	3.00	3.00
Senr Office Specialist	1.52	1.52	1.52	1.52
Staff Specialist	0.76	0.76	0.76	0.76
Supervg Environ Serv Spec	1.00	1.00		
Total Full-Time Positions	67.41	69.41	66.41	67.41

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2014-2015	2015-2016	2016-2017	2016-2017
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	4,691,814	5,399,489	5,327,912	5,390,598
Salaries-Reg-Part Time	57			
Salaries - Overtime	11,891	27,733	27,733	27,733
Other Personnel				
Benefits: Retirement Contrib	2,654,417	3,039,827	2,935,086	2,969,619
Other Fringe Benefits	671,202	769,424	709,604	717,953
Sub Total	**$ 8,029,381**	**$ 9,236,473**	**$ 9,000,335**	**$ 9,105,903**
Supplies and Materials	474,831	544,198	540,823	540,823
Comm Expnse: Telephne-Telegrph	20,957	34,550	34,550	34,550
Comm Expnse: Postage	1,249	11,500	11,500	11,500
Print/Adv-Outside Vendors	12,151	31,490	15,000	15,000
Rent: Land & Buildings		1,250	315	315
Rent: Equipment & Vehicles	18,088	35,000	35,000	35,000
Trans/Travel: In County		12,575	10,700	10,700
Trans/Travel: Out of County	2,563	29,234	26,234	26,234
Trans/Travel: Out of State	3,678	33,200	30,200	30,200
Training	10,655	43,680	41,430	41,430
Mileage Reimbursement	1,377	5,200	4,825	4,825
Vehicle Operating Costs	36,801	25,052	25,052	25,052
Dues & Subscriptions	14,372	23,297	21,227	21,227
Computer Data Processing	30,617	66,250	64,375	65,875
Prof & Consultant Svcs	460,566	529,181	459,181	459,181
Machnry/Equimt: Machinery	26,584	150,000	150,000	150,000
Sub Total	**$ 1,114,489**	**$ 1,575,657**	**$ 1,470,412**	**$ 1,471,912**
Combined Totals	**$ 9,143,870**	**$ 10,812,130**	**$ 10,470,747**	**$ 10,577,815**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: SOUTH BAY WATER RECYCLING
RESPONSIBLE MANAGER: JEFF PROVENZANO

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for coordinating the operations, maintenance and capital improvements of the water recycling system in the three cities it serves; providing customer support and Site Supervisor training; planning and implementing SBWR system improvements; facilitating compliance with local and State regulations; coordinating with regional agencies; and implementing practices to increase water reuse in order to achieve maximum revenue with existing infrastructure and continued wastewater diversion.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	0.30	0.30	0.30	0.30
Assoc Construction Insp	0.70	0.70	0.70	0.70
Assoc Engineer	2.15	2.15	3.15	3.15
Assoc Engineering Tech	1.10	1.10	1.00	1.00
Cross Connection Spec	0.30	0.30	0.30	0.30
Deputy Dir		0.20	0.35	0.35
Division Manager	0.20			
Engineer II	0.20	0.20	0.20	0.20
Engineerg Technician II	0.40	0.40	0.40	0.40
Environmental Inspector II				0.50
Environment Serv Prog Mgr	1.00	1.00	1.00	1.00
Environment Serv Spec	1.00	1.00	1.00	1.00
Groundsworker	0.05	0.05	0.05	0.05
Industrial Electrician	0.80	0.80	0.40	0.40
Instrument Control Supvr	0.10	0.10	0.10	0.10
Instrument Control Technician	0.50	0.50	0.70	0.70
Maintenance Superintend	0.15	0.15	0.10	0.10
Maintenance Supervisor	0.20	0.20	0.20	0.20
Prin Construction Inspect	0.30	0.30	0.30	0.30
Senior Industrial Electrician	0.20	0.20	0.10	0.10
Senr Construction Insp	0.30	0.30	0.30	0.30
Senr Engineer	0.40	0.40	0.40	0.40
Senr Engineering Tech	1.00	1.00	1.00	1.00
Senr Instrument Control Tech	0.20	0.20		
Senr Maintenance Worker	0.05	0.05	0.05	0.05
Senr Water Systems Tech	0.15	0.15	0.15	0.15
Supervg Environ Serv Spec	1.00	1.00		
Wastewater Maintenance Supt	0.10	0.10	0.15	0.15
Wastewater Mechanic I	0.15	0.15	0.15	0.15
Wastewater Mechanic II	0.10	0.10	0.10	0.10
Water Meter Reader	0.15	0.15	0.15	0.15
Water Systems Technician	0.50	0.50	0.50	0.50
Total Full-Time Positions	13.75	13.75	13.30	13.80

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2014-2015	2015-2016	2016-2017	2016-2017
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	868,981	1,218,371	1,237,776	1,264,920
Compensated Absence	6,812			
Salaries-Reg-Part Time	45,606			
Salaries - Overtime	20,082	12,217	12,217	12,217
Benefits: Retirement Contrib	566,784	787,693	741,693	757,958
Other Fringe Benefits	159,580	206,156	176,667	180,541
Sub Total	**$ 1,667,847**	**$ 2,224,437**	**$ 2,168,353**	**$ 2,215,636**
Utilities: Electricity	671,737	700,000	725,000	725,000
Supplies and Materials	53,511	80,575	80,575	82,575
Stores Fund - Stores				
Comm Expnse: Telephne-Telegrph	3,850	10,700	10,700	10,700
Comm Expnse: Postage	126	2,000	2,000	2,000
Print/Adv-Outside Vendors	101	11,720	11,720	11,720
Utilities: Other	5,245	500	500	500
Rent: Equipment & Vehicles		3,000	3,000	3,000
Trans/Travel: In County	34	3,500	3,500	3,500
Trans/Travel: Out of County	2,611	5,200	5,200	5,200
Trans/Travel: Out of State	754	7,000	7,000	7,000
Training	7,963	9,000	9,000	9,000
Mileage Reimbursement	1,879	2,400	2,400	2,400
Vehicle Operating Costs	15,171	27,000	36,000	36,675
Dues & Subscriptions	32,777	41,000	41,000	41,000
Computer Data Processing	3,765	16,200	16,200	16,200
Prof & Consultant Svcs	516,283	1,278,768	1,278,768	1,278,768
PW Capital Support Charge	2,895			
Capital Outlay				
Machnry/Equimt: Machinery	11,356			60,000
Sub Total	**$ 1,330,059**	**$ 2,198,563**	**$ 2,232,563**	**$ 2,295,238**
Combined Totals	**$ 2,997,906**	**$ 4,423,000**	**$ 4,400,916**	**$ 4,510,874**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: MGMT & ADMINISTRATIVE SERVICES
RESPONSIBLE MANAGER: LINDA CHARFAUROS

PROGRAM PURPOSE AND DESCRIPTION

Provides support services including: financial and accounting services, human resources, information technology services, contract administration, grant administration, capital improvements and operating budget management.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Account Clerk II	0.66	0.66	0.68	0.68
Accountant II	1.66	1.66	1.68	1.68
Accounting Tech	1.32	1.32	1.36	1.36
Administrative Assist C	0.66	0.66	0.68	0.68
Administrative Officer	0.66	0.66	0.68	0.68
Analyst II C	2.64	2.64	2.72	2.72
Assist DirU	0.66	0.66	0.68	0.68
Dept Information Tech Mgr			0.65	0.65
Dir Environmental Serv U	0.66	0.66	0.68	0.68
Division Manger	0.83	0.83	0.83	0.83
Information Sys Analyst	1.28	1.25	1.25	1.25
Network Engineer			0.68	0.68
Network Technician II-III	1.34	1.36	1.36	1.36
Office Specialist II	1.32	1.32	1.36	1.36
Prin Accountant	0.66	0.66	0.68	0.68
Prin Office Specialist	1.32	1.32	1.36	1.36
Program Manager I		0.66	0.68	0.68
Senr Account Clerk	2.64	2.64	2.72	2.72
Senr Accountant	2.64	2.64	2.72	2.72
Senr Analyst	1.98	2.64	2.72	2.72
Senior Process & Syst Specialist	0.67	0.68		
Staff Specialist	0.66	0.66	1.36	1.36
Staff Technician	1.32	1.32	0.68	0.68
Supervg Applicat Analyst	0.52	0.65		
Systems Apps Progmr II	1.40	1.25	1.25	1.25
Total Full-Time Positions	27.50	28.80	29.46	29.46

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2014-2015	2015-2016	2016-2017	2016-2017
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	2,408,511	2,483,914	2,144,664	2,144,664
Salaries-Reg-Part Time	28,633			
Salaries - Overtime	30,360	12,143	12,143	12,143
Other Personnel	14,934			
Benefits: Retirement Contrib	1,455,196	1,669,826	1,505,485	1,505,485
Other Fringe Benefits	309,582	335,736	254,785	254,785
Sub Total	**$ 4,247,217**	**$ 4,501,619**	**$ 3,917,077**	**$ 3,917,077**
Supplies and Materials	24,515	34,490	58,567	58,567
Comm Expnse: Telephne-Telegrph	32,691	30,722	30,722	30,722
Comm Expnse: Postage	6,793	15,180	15,640	15,640
Print/Adv-Outside Vendors	1,838	4,471	4,591	4,591
Rent: Equipment & Vehicles	4,465	20,548	23,189	23,189
Trans/Travel: In County	3,199	1,228	1,370	1,370
Trans/Travel: Out of County	3,947	2,640	2,720	2,720
Trans/Travel: Out of State	1,660	1,980	2,040	2,040
Training	14,131	28,421	30,915	30,915
Mileage Reimbursement	469	1,763	1,803	1,803
Vehicle Operating Costs	2,046			
Dues & Subscriptions	8,136	8,091	8,331	8,331
Computer Data Processing	39,819	80,980	81,140	81,140
Prof & Consultant Svcs	72,579	90,238	92,974	92,974
Sub Total	**$ 216,288**	**$ 320,752**	**$ 354,002**	**$ 354,002**
Combined Totals	**$ 4,463,505**	**$ 4,822,371**	**$ 4,271,079**	**$ 4,271,079**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: CIP-ENGINEERING SVCS
RESPONSIBLE MANAGER: JULIA NGUYEN

PROGRAM PURPOSE AND DESCRIPTION

This program provides services for both capital project planning, design and construction of major projects as well as process engineering services within the Water Pollution Control Plant. With the adoption of the Plant Master Plan in 2013, which identified over $2.1 billion in long-term capital projects over the next thirty years, the group's primary responsibility is to deliver the projects to address critical aging infrastructure, future regulatory requirements, and improved performance needs. Additional responsibilities include troubleshooting and improving the treatment process, primarily through research and development projects, to ensure efficient and cost effective operations of the Plant.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	1.00	1.30	1.30	1.30
Assoc Engineer	4.80	6.40	5.50	5.50
Assoc Engineering Tech	0.60	1.50	1.50	1.50
Deputy DirU	1.00	1.00	1.00	1.00
Division Manager	1.00	1.00	1.00	1.00
Engineer II		0.60	0.60	0.60
Office Specialist II	1.00	1.00	1.00	1.00
Principal Engineer	1.50	1.30	1.30	1.30
Sanitary Engineer	3.00	3.50	3.30	3.30
Senr Construction Insp	0.40			
Senr Engineer	2.00	4.50	4.50	4.50
Senr Engineering Tech	0.30	1.20	1.20	1.20
Staff Specialist	1.00	1.30	1.30	1.30
Supervg Environ Serv Spe		0.30	0.30	0.30
Total Full-Time Positions	17.60	24.90	23.80	23.80

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2014-2015	2015-2016	2016-2017	2016-2017
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	1,329,388	2,066,952	2,822,109	2,822,109
Compensated Absence	11,429			
Salaries-Reg-Part Time	1,525			
Salaries - Overtime	2,165			
Benefits: Retirement Contrib	710,609	905,605	1,297,354	1,297,354
Other Fringe Benefits	178,316	317,497	382,312	382,312
Sub Total	**$ 2,233,432**	**$ 3,290,054**	**$ 4,501,775**	**$ 4,501,775**
Supplies and Materials	56,944	53,881	41,881	41,881
Stores Fund - Stores				
Comm Expnse: Telephne	20,570	3,500	3,500	3,500
Comm Expnse: Postage		1,000	1,000	1,000
Print/Adv-Outside Vendors	1,027	5,000	5,000	5,000
Rent: Land & Buildings	104,007			
Rent: Equipment & Vehicles		29,000	29,000	29,000
Trans/Travel: In County	84	3,500	3,500	3,500
Trans/Travel: Out of County	1,014	5,000	5,000	5,000
Trans/Travel: Out of State	12,922	9,000	9,000	9,000
Training	3,080	36,750	24,750	24,750
Mileage Reimbursement	481	2,000	2,000	2,000
Vehicle Operating Costs	434	5,000	5,000	5,000
Dues & Subscriptions	2,776	5,000	5,000	5,000
Computer Data Processing	85,236	60,000	42,000	42,000
Prof & Consultant Svcs	62,437	850,000	850,000	850,000
PW CAP Support Charge	4,857			
Sub Total	**$ 355,870**	**$ 1,068,631**	**$ 1,026,631**	**$ 1,026,631**
Combined Totals	**$ 2,589,302**	**$ 4,358,685**	**$ 5,528,406**	**$ 5,528,406**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: ENVIRONMENTAL COMPLIANCE /SAFETY
RESPONSIBLE MANAGER: RENE EYERLY

PROGRAM PURPOSE AND DESCRIPTION

Provides general regulatory compliance (NPDES, Title V, OSHA, etc.) and environmental health and safety support (EH&S) to the Plant and the rest of the department, as needed, through a variety of programs as required by local, State, and Federal regulations. The desired outcome is to protect environmental and public health, create a safe working environment for employees, and maintain compliance with all local, State, and Federal regulations pertaining to environmental compliance and occupational safety.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Assoc Engineer	0.30	0.30	0.30	0.30
Assoc Environ Serv Spec	1.00	1.00	1.00	1.00
Biologist	2.73	1.82	1.82	1.82
Environment Compl Officer	0.63	0.63	0.63	0.63
Environment Serv Prog Mgr	0.91	0.91	0.91	0.91
Environment Serv Spec	3.26	4.26	4.12	4.12
Senr Analyst	1.00			
Senr Engineer	1.00	1.00	1.00	1.00
Supervg Environ Serv Spec	0.91	0.91	0.91	0.91
Total Full-Time Positions	11.74	10.83	10.69	10.69

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
	2014-2015	2015-2016	2016-2017	2016-2017
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	980,524	969,360	997,854	997,854
Salaries-Reg-Part Time	17,329			
Salaries - Overtime				
Benefits: Retirement Contrib	553,947	603,526	639,358	639,358
Other Fringe Benefits	163,939	161,729	163,460	163,460
Sub Total	**$ 1,715,738**	**$ 1,734,615**	**$ 1,800,672**	**$ 1,800,672**
Supplies and Materials	9,008	25,575	25,575	25,575
Stores Fund - Stores				
Comm Expnse: Telephne-Telegrph	6,408	231	231	231
Comm Expnse: Postage	241	268	268	268
Print/Adv-Outside Vendors		225	225	225
Duplicating-Stores Fund				
Rent: Land & Buildings		210	210	210
Rent: Equipment & Vehicles		65	65	65
Trans/Travel: In County	268	518	518	518
Trans/Travel: Out of County	1,426	1,765	1,765	1,765
Trans/Travel: Out of State		3,685	3,685	3,685
Training	1,498	4,664	4,664	4,664
Mileage Reimbursement	3,857	939	939	939
Vehicle Operating Costs	2,571			
Dues & Subscriptions	777	51,318	51,318	51,318
Computer Data Processing		1,638	1,638	1,638
Prof & Consultant Svcs	153,940	219,836	219,836	219,836
Taxes	1,451			
Sub Total	**$ 181,445**	**$ 310,937**	**$ 310,937**	**$ 310,937**
Combined Totals	**$ 1,897,183**	**$ 2,045,552**	**$ 2,111,609**	**$ 2,111,609**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: OFFICE OF SUSTAINABILITY
RESPONSIBLE MANAGER: RENE EYERLY

PROGRAM PURPOSE AND DESCRIPTION

Provides support and technical expertise to the Water Pollution Control Plant to advance efforts related to renewable energy, zero waste, and wastewater reuse. In addition, staff focuses on supporting programs related to energy and water efficiency at the Plant, renewable energy technologies, and greenhouse gas emissions.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Actual	**Adopted**	**Base**	**Proposed**
Environment Serv Prog Mgr	0.42	0.42	0.35	0.35
Environment Serv Spec	2.12	2.42	2.51	2.51
Environmntl Sustainability Mgr	0.42	0.42	0.39	0.39
Planner III			1.00	1.00
Supervg Environ Serv Spec	1.69	1.65	1.46	1.46
Total Full-Time Positions	4.65	4.91	5.71	5.71

DETAILED PROGRAM BUDGET				
	2014-2015	**2015-2016**	**2016-2017**	**2016-2017**
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	439,622	748,570	544,829	544,829
Salaries-Reg-Part Time	12,120			
Salaries - Overtime	5,280			
Benefits: Retirement Contrib	246,274	254,634	317,593	317,593
Other Fringe Benefits	37,942	40,916	66,354	66,354
Sub Total	**$ 741,238**	**$ 1,044,120**	**$ 928,776**	**$ 928,776**
Supplies and Materials	1,304	4,105	7,187	7,187
Stores Fund - Stores				
Comm Expnse: Telephne-Telegrph	370	323	300	300
Comm Expnse: Postage		350	325	325
Print/Adv-Outside Vendors	680	710	17,149	17,149
Rent: Land & Buildings			935	935
Rent: Equipment & Vehicles	482			
Trans/Travel: In County	325	672	2,499	2,499
Trans/Travel: Out of County	2,309	1,139	4,057	4,057
Trans/Travel: Out of State	342		3,000	3,000
Training	1,160	4,145	6,099	6,099
Mileage Reimbursement	1,604	742	1,064	1,064
Vehicle Operating Costs		2,000	2,000	2,000
Dues & Subscriptions	417	12,600	13,716	13,716
Computer Data Processing	539	24,320	24,458	24,458
Prof & Consultant Svcs	62,676	72,320	81,440	81,440
Sub Total	**$ 72,207**	**$ 123,426**	**$ 164,229**	**$ 164,229**
Combined Totals	**$ 813,445**	**$ 1,167,546**	**$ 1,093,005**	**$ 1,093,005**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: COMMUNICATIONS
RESPONSIBLE MANAGER: JENNIE LOFT

PROGRAM PURPOSE AND DESCRIPTION

This program manages the media relations and public outreach needs for the San Jose/Santa Clara Water Pollution Control Plant, the wastewater pre-treatment, pollution prevention, and recycled water programs. This includes responding to media inquiries and seeking media coverage; managing and conducting public tours; directing outreach to neighbors and representing the Department in community meetings; developing and maintaining best management practice materials including information to regulated businesses; publicizing and conducting community events to collect pharmaceuticals, mercury thermometers, and fats/oils/grease; supporting outreach efforts, and providing information to recycled water customers.

PERSONNEL SUMMARY				
Full Time Positions	**2014-2015**	**2015-2016**	**2016-2017**	**2016-2017**
	Adopted	**Adopted**	**Base**	**Proposed**
Analyst II C	0.35	0.35	0.34	0.34
Marketing/Public Outrch Mgr	0.35			
Marketing/Public Outrch Rep I				
Marketing/Public Outrch Rep II	2.25			
Program Manager II	0.35			
Public Information Rep II		1.90	1.86	1.86
Public Information Mgr		0.35	0.34	0.34
Senr Public Information Rep		0.70	0.68	0.68
Staff Specialist	0.35	0.35	0.34	0.34
Total Full-Time Positions	3.65	3.65	3.56	3.56

DETAILED PROGRAM BUDGET				
	2014-2015	**2015-2016**	**2016-2017**	**2016-2017**
Detail/Category	**Actual**	**Adopted**	**Base**	**Proposed**
Salaries-Reg-Full Time	245,133	295,338	292,094	292,094
Salaries-Reg-Part Time	9,038			
Salaries - Overtime	1,113			
Benefits: Retirement Contrib	120,179	147,415	119,601	119,601
Other Fringe Benefits	32,185	40,460	39,983	39,983
Sub Total	**$ 407,649**	**$ 483,213**	**$ 451,678**	**$ 451,678**
Supplies and Materials	2,686	24,967	24,795	24,795
Comm Expnse: Telephne-Telegrph	521	229	222	222
Comm Expnse: Postage	475	14,000	14,000	14,000
Print/Adv-Outside Vendors	1,486	129,700	129,700	129,700
Rent: Land & Buildings				
Trans/Travel: In County	9	477	463	463
Trans/Travel: Out of County	318	108	105	105
Trans/Travel: Out of State	5,662			
Training	626	2,418	2,349	2,349
Mileage Reibursement	96			
Dues & Subscriptions	634	425	467	467
Computer Data Processing	1,825	1,435	1,394	1,394
Prof & Consultant Svcs	122,786	122,000	122,000	122,000
Sub Total	**$ 137,123**	**$ 295,759**	**$ 295,495**	**$ 295,495**
Combined Totals	**$ 544,772**	**$ 778,972**	**$ 747,173**	**$ 747,173**

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

Performance Measures-Treatment Plant

Performance Measures

	2014-2015 Actual	2015-2016 Target	2015-2016 Estimated	2016-2017 Target
Millions of gallons per day discharged to the Bay during average dry weather season State order: 120 mgd or less*	69 mgd	<120 mgd	70 mgd	<120 mgd
% of time pollutant discharge requirements are met or surpassed	100%	100%	100%	100%
# of requirement violations				
-Pollutant discharge	0	0	0	0
-Air emissions	1	0	0	0
% of significant industrial facilities in consistent compliance with federal pretreatment requirements	94.38%	90.00%	91.10%	90.00%
Cost per million gallons treated	$1,460	$1,371	$1,547	$1,580

* Average dry weather season is defined as the lowest three-month continuous average between May and October, which during the fiscal year reporting period is July-September.

Activity and Workload Highlights

	2014-2015 Actual	2015-2016 Forecast	2015-2016 Estimated	2016-2017 Forecast
Average millions of gallons per day treated	99.7	102.3	92.0	93.0
Total population in service area*	1,421,248	1,444,238	1,446,567	1,461,033

* The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight South Bay cities and four sanitation districts including: San José, Santa Clara, Milpitas, Cupertino Sanitation District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated).

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

Performance Measures-Recycled Water

Performance Measures

	2014-2015 Actual	2015-2016 Target	2015-2016 Estimated	2016-2017 Target
Millions of gallons of recycled water delivered annually	4,922	5,000	4,451	4,509
% of time recycled water quality standards are met or surpassed	100%	100%	100%	100%
% of wastewater influent recycled for beneficial purposes during the dry weather period*	19.65%	15.00%	15.00%	19.00%
Cost per million gallons of recycled water Delivered**	TBD**	$1,768	$1,650	$1,873
% of recycled water customers rating service as good or excellent based on reliability, water quality, and responsiveness***	N/A***	85%	77%	N/A***

* Dry weather period is defined as the lowest continuous three-month average rainfall between May and October, which during the fiscal year reporting period is July-September.

** The official figure is pending an independent third-party financial audit, which is anticipated to be completed by June 30, 2016.

*** Data for this measure is collected on a biennial basis via survey. The next surveys are scheduled for 2015-2016 and 2017-2018. No survey was conducted in 2014-2015.

Activity and Workload Highlights

	2014-2015 Actual	2015-2016 Forecast	2015-2016 Estimated	2016-2017 Forecast
Total number of South Bay Water Recycling customers	801	800	818	840

Performance Measures-Conservation

Performance Measures

	2014-2015 Actual	2015-2016 Target	2015-2016 Estimated	2016-2017 Target
(Energy) % of energy used at the Water Pollution Control Plant that is renewable	37%	39%	38%	38%

Activity and Workload Highlights

	2014-2015 Actual	2015-2016 Forecast	2015-2016 Estimated	2016-2017 Forecast
City-Wide Renewable Energy Generation	29%	24%	31%	33%

May 5, 2016

Mayor Sam Liccardo
City of San Jose
200 East Santa Clara Street, 10th Floor Tower
San Jose, CA 95113
mayoremail@sanjoseca.gov

Re: Cost and Award of Digester and Thickener Facilities Upgrade Project and Effect on Fourth Quarter Fiscal Year 2015-2016 bills.

Dear Mayor Liccardo,

On April 11, 2016, the Technical Advisory Committee ("TAC") for the San Jose-Santa Clara Regional Wastewater Facility ("RWF") convened its monthly meeting. At this meeting, City of San Jose ("City") staff informed the TAC that the estimated cost of the Digester and Thickener Facilities Upgrade project ("Digester") exceeds the previously budgeted amount of $92.6 million[1] by $30 million, for a new estimated amount of $122.6 million.

Because of the $30 million difference between this new estimate and the original budgeted amount, City staff stated that the City is unable to fully fund the project in the current fiscal year. City staff further explained that it was reviewing existing funding to determine if sufficient funds could be liquidated and re-appropriated to allow for the awarding of the contract. But because there are insufficient funds in the current fiscal year's budget, and the remaining funds are not allocated until next fiscal year, the Tributary Agencies do not believe that the City will award the contract this fiscal year.

The Master Agreements provide that the date of financial obligation of the Tributary Agencies is the date of the awarding of contract. Specifically, the Master Agreements state:

> Method of Payment. Capital and Land Acquisition. All payments for capital and land acquisition shall be on a quarterly basis, the first quarter beginning July 1st. *These invoices shall be presented at the beginning of the quarter in which the obligation is anticipated to occur.* The date of financial obligations for capital expenses and land acquisitions *shall be the date of award of contract.* These payments shall be based upon the budget for capital costs for the Plant as recommended by TPAC and approved by the Administering Agency.[2] (emphasis added).

[1] Amount derived from the 2016-2020 Capital Improvement Program for Water Pollution Control.

[2] Part V(E)(1), emphasis added.

As you know, the City recently issued the Fourth Quarter FY 2015-2016 bill for the RWF to the Tributary Agencies, requiring them to pay, among other costs, their proportional shares of the Digester project costs. The payments are due on or about May 23, 2016. The Tributary Agencies are prepared to pay their Fourth Quarter invoices. However, given the new information that the awarding of contract will be delayed until FY 2016-2017, the Tributary Agencies' Fourth Quarter invoices should be adjusted or revised to exclude the cost of the Digester.

Based on the language in the Master Agreements, the Tributary Agencies should not be charged for the capital costs associated with the Digester until the quarter in which the Digester contract is awarded.

In an email dated April 13, 2016 from Britt Strottman, the Tributary Agencies separately requested an extension to pay their Fourth Quarter invoices until July 1, 2016, to allow the parties to resolve additional issues related to their invoices through the mediation process. In a response dated April 14, 2016, Rosa Tsongtaatarii stated that the City is not in a position to agree to an extension at this time, "given there are certain capital project activities that are on schedule to be awarded before the end of the fiscal year." At that time Ms. Tsongtaatarii may have believed that the Digester project contract was on schedule to be awarded this fiscal year, but it appears that that is no longer the case.

Ultimately, it is unfair and unreasonable to ask the Tributary Agencies to pay millions of dollars for a capital project well in advance of the awarding of the contract. For reasons explained in numerous other meetings and correspondence with the City, the Tributary Agencies are obligated to cash fund the Digester, which places enormous financial pressures on the Tributary Agencies' budgets. In addition, our ratepayers are not obligated to fund the City's cash reserves and are entitled to the time value of their money. Postponing payment of the Digester until FY 2016-2017 will provide the Tributary Agencies with the additional time necessary to obtain financing and alleviate the depletion of the Tributary Agencies' cash reserves, a result which stands to benefit all parties involved.

Thank you for considering the Tributary Agencies' position. Please respond at your earliest convenience. We look forward to hearing from you.

Sincerely,

[signatures on following page]

City of Milpitas

_____
Nina Hawk, Public Works Director

West Valley Sanitation District

_____
Jon Newby, District Manager and Engineer

Burbank Sanitary District

_____
Richard Tanaka, District Manager

Cupertino Sanitary District

_____
Richard Tanaka, District Manager

County Sanitation District No. 2-3

_____
Richard Tanaka, District Manager

cc:
Board of Directors, West Valley Sanitation District
Board of Directors, Burbank Sanitary District
Board of Directors, Cupertino Sanitary District
Board of Directors, Santa Clara County Sanitation District No. 2-3
City Council, City of Milpitas

March 30, 2016

Mayor Sam Liccardo, Vice Chair
Treatment Plant Advisory Committee
200 East Santa Clara Street, 10th Floor Tower
San Jose, CA 95113
mayoremail@sanjoseca.gov

Members of the Treatment Plant Advisory Committee:
Pierlugi Oliverio, City of San Jose
Manh Nguyen, City of San Jose
David Sykes, City of San Jose
Pat Kolstad, City of Santa Clara
Jerry Marsalli, City of Santa Clara
John Gatto, Cupertino Sanitary District
Jose Esteves, City of Milpitas
Steven Leonardis, West Valley Sanitation District

Re: TPAC Denial of Claim and Next Steps

Dear Vice Chair Liccardo and Members of the Treatment Plant Advisory Committee:

On March 24, 2016, the Treatment Plant Advisory Committee ("TPAC") conducted a hearing on the Claims for Breach of Agreement and Inequities ("Claim") filed by West Valley Sanitation District, Burbank Sanitary District, Cupertino Sanitary District, Santa Clara County Sanitation District No. 2-3, and the City of Milpitas ("Tributary Agencies"). At the close of the hearing, TPAC voted 6 to 3 in favor of denying the Claim. The Tributary Agencies disagree with TPAC's denial of the Claim and maintain that numerous inequities raised in our Claim remain unresolved. We were also very disappointed that the motion denying the Claim did not include any recommendation to engage in mediation or further negotiation among the parties involved.

Although TPAC's decision is already known, the Tributary Agencies and our legislative bodies still look forward to reviewing TPAC's report of its findings and recommendations ("Report"), which is required pursuant to Part VII, Section G of the Master Agreements for Wastewater Treatment between each of the Tributary Agencies and the Cities of San Jose and Santa Clara ("First Parties").[1] Because we expect the Report to reflect TPAC's vote, we will disagree with the same, and therefore we intend to invoke the next stage of the dispute resolution process in Part VII, Section G, which requires a joint meeting of the legislative bodies of all involved parties within two (2) months after the Report is received, for the purpose of resolving

[1] The applicable provision in the Master Agreement for Santa Clara County Sanitation District No. 2-3 is found in Part V, Section G.

differences. The Tributary Agencies also look forward to this joint meeting to hopefully resolve the remaining issues.

Parallel to and in conjunction with this joint meeting, the Tributary Agencies continue to be interested in commencing mediation with the First Parties to resolve the remaining issues raised in our Claim, inclusive of amendments that all parties seek to the Master Agreements. Even though TPAC did not vote to engage in mediation, we are hopeful that the First Parties are amenable to mediation before a mutually agreeable neutral mediator. At the next TPAC meeting, we recommend that a proposal to mediate be agendized. We are separately informed, based upon communications from the City of San Jose's Office of the City Attorney, that the City of San Jose may be interested in mediation.

To summarize, TPAC's denial of our Claim does not resolve our concerns. We look forward to receiving TPAC's Report and the scheduling of the joint meeting, as well as the possibility of mediation.

Sincerely,

City of Milpitas

Nina Hawk, Public Works Director

West Valley Sanitation District

Jon Newby, District Manager and Engineer

Burbank Sanitary District

Richard Tanaka, District Manager

Cupertino Sanitary District

Richard Tanaka, District Manager

County Sanitation District No. 2-3

Richard Tanaka, District Manager

cc:
Board of Directors, West Valley Sanitation District
Board of Directors, Burbank Sanitary District
Board of Directors, Cupertino Sanitary District
Board of Directors, Santa Clara County Sanitation District No. 2-3
City Council, City of Milpitas

City Manager's Contract Approval Summary

For Procurement and Contract Activity between $100,000 and $1.08 Million for Goods and $100,000 and $270,000 for Services

APRIL 1, 2016 - APRIL 30, 2016

Description of Contract Activity [1]	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original $ Amount	Start Date	End Date	Additional $ Amount	Total $ Amount	Comments
KURZ FLOW METERS	15-16	22114	79158	CLIPPER CONTROLS INC	$109,583	4/8/2016	6/30/2016			
PROJECT ALTERNATIVES FOR HEADWORKS IMPROVEMENTS AND NEW HEADWORKS	15-16		AC27269	CDM SMITH INC	$1,421,449	4/14/2016	11/22/2016			SERVICE ORDER #2 (MASTER AGREEMENT TERM 12/21/15-12/31/22)

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