SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

JAMIE MATTHEWS, CHAIR
SAM LICCARDO, VICE CHAIR
PIERLUIGI OLIVERIO, MEMBER
DAVID SYKES, MEMBER
MARJORIE MATTHEWS, MEMBER
PAT KOLSTAD, MEMBER
JOSE ESTEVES, MEMBER
STEVEN LEONARDIS, MEMBER
JOHN GATTO, MEMBER

AGENDA/TPAC

4:30 p.m. **March 12, 2015** **Room 1734**

1. ROLL CALL

2. APPROVAL OF MINUTES

A. February 12, 2015

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTOR'S REPORT (verbal)

A. Directors Verbal Report

- Monthly Progress Report

5. AGREEMENTS/ACTION ITEMS

A. Resolution of the San José City Council declaring and finding that public interest and necessity demand the immediate procurement and award of engineering and construction contracts to perform emergency replacement of Pond A18's northern gate structure located at the San José/Santa Clara Regional Wastewater Facility without competitive bidding

Staff Recommendation: Place the following items on the agenda for the March 3, 2015 City Council Meeting:

1. Accept the staff report detailing the current status of the San José/Santa Clara Regional Wastewater Facility's Pond A18's northern gate structure, the likelihood for failure, the consequences of failure, and the plan for immediate action to remove and replace the structure.

2. Adopt a resolution by four-fifths of the City Council as required by California Public Contract Code 22050:

    a. Declaring and finding that, based on substantial evidence, public interest and necessity demand the immediate procurement and award of engineering and construction contracts to perform emergency

replacement of the San José/Santa Clara Regional Wastewater Facility's Pond A18's northern gate structure without competitive bidding and that the emergency replacement will not permit a delay resulting from a competitive solicitation for bids, and that the action is necessary to respond to the emergency;

b. Delegating authority to the Directors of Environmental Services and Public Works to negotiate and award the engineering and construction contracts necessary to replace the northern gate structure in order to protect Pond A18 and levees in an amount not to exceed $1 million.

The proposed Resolution was heard and approved by Council on March 3, 2015.

B. San José – Santa Clara Regional Wastewater Facility Staffing Status Report

Staff Recommendation: Accept this status report on the staffing situation at the San José-Santa Clara Regional Wastewater Facility

The proposed Status Report is scheduled for Council consideration on March 24, 2015.

C. Continuation Amendments to Master Agreements for Consultant Services with CH2M Hill and GHD for Engineering Services for the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

Staff Recommendations:

1. Approve the Third Amendment to the Master Agreement with CH2M HILL, for engineering services for the San José-Santa Clara Regional Wastewater Facility, extending the term from June 30, 2015 to December 31, 2017, at no additional cost to the City.

2. Approve the Second Amendment to the Master Agreement with GHD, for engineering services for the San José-Santa Clara Regional Wastewater Facility, extending the term from June 30, 2015 to December 31, 2016, at no additional cost to the City.

The proposed Amendments are scheduled for Council consideration on March 17, 2015.

D. Project Delivery and Procurement Strategy for the San José-Santa Clara Regional Wastewater Facility

Staff Recommendation:

1. Accept this staff report on the proposed project delivery and procurement strategy for the San José-Santa Clara Regional Wastewater Facility's Capital

Improvement Program and refer to the full Council for approval.

2. Recommend that Council adopt a resolution that approves the use of low bid design-build and progressive design-build as potential delivery methods for projects in the San José-Santa Clara Regional Wastewater Facility's Capital Improvement Program and that delegates authority to the Directors of Environmental Services and Public Works, or their designees, to make a determination on the appropriate delivery method for each project.

The proposed Project Delivery and Procurement Strategy is scheduled for Council consideration on March 24, 2015.

E. San José-Santa Clara Regional Wastewater Facility Ten-Year Funding Strategy

Staff Recommendation: Accept the staff report on the San José-Santa Clara Regional Wastewater Facility Ten-Year Funding Strategy

The proposed Strategy is scheduled for Council consideration on March 24, 2015.

6. OTHER BUSINESS/CORRESPONDENCE

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Sanitary Sewer Flow Study Update

Staff Recommendation:

1. Accept the updated staff report regarding the attached Sanitary Sewer Flow; and
2. Approve the proposed changes and policy recommendations for future updates to the revenue program for the San José – Santa Clara Regional Wastewater Facility.

The proposed Update was heard and approved by Council on March 3, 2015.

B. First Amendment to the Consultant Agreement with Brown and Caldwell for Engineering services for the digester and thickener Facilities Upgrade Project

Staff Recommendation:

a. Approve the First Amendment to the Consultant Agreement with Brown and Caldwell for engineering services for the Digester and Thickener Facilities Upgrade project at the San José – Santa Clara Regional Wastewater Facility, modifying the scope of services and increasing the amount of compensation by $1,999,884, for a total agreement amount not

to exceed $14, 017,410; and extending the term of agreement from December 31, 2019 to June 30, 2020.

b. Adopt the following 2014-2015 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 in the amount of $955,000;
   (2) Decrease the Digested Sludge Dewatering in the amount of $545,000; and
   (3) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department in the amount of $1,500,000.

The proposed Amendment was heard and approved by Council on February 24, 2015.

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 and of services between $100,000 and $270,000.

9. MISCELLANEOUS

A. The next TPAC meeting is April 9, 2015, at 4:30 p.m. City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

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

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please contact Adriana Márquez (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 JOSE/SANTA CLARA
TREATMENT PLANT ADVISORY COMMITTEE
City Hall, City Manager's Office, 17th Floor, Room 1734
Thursday, February 12, 2014 at 4:30 p.m.

1. ROLL CALL

Minutes of the Treatment Plant Advisory Committee convened this date at 4:30 p.m. Roll call was taken, with the following members in attendance:

Committee members: Committee Members: Sam Liccardo, Pierluigi Oliverio, Margie Matthews, Jose Esteves, Angela Chen (alternate), Jerry Marsalli (alternate), Pat Kolstad, David Sykes, Steven Leonardis

Absent: Committee Members: John Gatto, Jamie Matthews

2. APPROVAL OF MINUTES

A. February 12, 2015
Item 2.A was approved.
Ayes – 9 (Liccardo, Oliverio, Matthews, Esteves, Chen, Marsalli, Kolstad, Sykes, Leonardis)
Nays – 0

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTORS REPORT

A. Directors Verbal Report:
- Monthly Progress Report

5. AGREEMENTS/ACTION ITEMS

A. Sanitary Sewer Flow Study Update

Staff Recommendation:
1. Accept the updated staff report regarding the attached Sanitary Sewer Flow; and
2. Approve the proposed changes and policy recommendations for future updates to the revenue program for the San José – Santa Clara Regional Wastewater Facility.

The proposed Update is scheduled for Council consideration on March 3, 2015.

Motion by Committee Member Oliverio, second by Committee Member Kolstad to approve item 5.A.

Ayes – 9 (Liccardo, Oliverio, Matthews, Esteves, Chen, Marsalli, Kolstad, Sykes, Leonardis)
Nays – 0

Martha O'Connell spoke against this item
David Wall spoke against this item

(Committee Member Sam Liccardo suggested meeting venue be changed to the Wing Rooms)

B. First Amendment to the Consultant Agreement with Brown and Caldwell for Engineering services for the digester and thickener Facilities Upgrade Project

Staff Recommendation:

a. Approve the First Amendment to the Consultant Agreement with Brown and Caldwell for engineering services for the Digester and Thickener Facilities Upgrade project at the San José – Santa Clara Regional Wastewater Facility, modifying the scope of services and increasing the amount of compensation by $1,999,884, for a total agreement amount not to exceed $14, 017,410; and extending the term of agreement from December 31, 2019 to June 30, 2020.

b. Adopt the following 2014-2015 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 in the amount of $955,000;
   (2) Decrease the Digested Sludge Dewatering in the amount of $545,000; and
   (3) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department in the amount of $1,500,000.

The proposed Amendment is scheduled for Council consideration on February 24, 2015.

Motion by Committee Member Oliverio, second by Committee Member Kolstad to approve item 5.A.

Ayes – 9 (Liccardo, Oliverio, Matthews, Esteves, Chen, Marsalli, Kolstad, Sykes, Leonardis)
Nays – 0

David Wall spoke on this item

6. OTHER BUSINESS/CORRESPONDENCE

A. Election of the Chair

Nominations:

1. Committee Member Jamie Matthews (nominated by Committee Member Leonardis)

Ayes–5 Nays-4
(Esteves, Leonardis, Chen, Kolstad, Marsalli)

2. Committee Member Sam Liccardo (nominated by Committee Member Sykes)

Ayes–4 Nays-5
(M. Matthews, Oliverio, Sykes, Liccardo)

Committee Member Jamie Matthews will serve as Chair of the Committee until the next election to be held in August 2015.

Vice Chair Nominations:

1. Committee Member Sam Liccardo (nominated by Committee Member Oliverio)

Ayes-9 Nays-0
(Esteves, Leonardis, Chen, Kolstad, Marsalli, M. Matthews, Oliverio, Sykes, Liccardo)

Committee Member Sam Liccardo will serve as Vice Chair of the Committee until the next election to be held in August 2015.

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Memorandum of Understanding between the City of San José and McCarthy to Amend CC&Rs for the McCarthy Property Adjacent to the San José – Santa Clara Regional Wastewater Facility

Staff Recommendation: Approval of a Memorandum of Understanding between the City of San Jose and Joseph A. McCarthy and Muriel M. Harris as successor Trustees of the RLM Trust and MGM Trust ("McCarthys") to negotiate an amendment to two Declaration of Covenants, Conditions, Restrictions & Agreements ("CC&Rs") by and among McCarthys, City of San Jose, and Browning-Ferris Industries of California, Inc. and International Disposal Corp. of California, Inc., dated April 17, 1998 and recorded on April 28, 1998 and July 28, 2000, respectively,

to provide McCarthys a process for early termination of the CC&Rs following completion of specific conditions.

The proposed Memorandum of Understanding to Amend the CC&Rs was heard by Council on December 16, 2014 and the following was adopted:

1. **Execute a Memorandum of Understanding between the City of San José and McCarthy Ranch Limited Partnership, successor in interest to Joseph A. McCarthy and Muriel M. Harris as successor Trustees of the RLM Trust and MGM Trust ("McCarthy's), to negotiate an amendment to two Declaration of Covenants, Conditions & Restrictions Agreements ("CC&Rs") by an among McCarthys, City of San José, and Browning-Ferris Industries of California, Inc. and International Disposal Corp. of California, Inc., dated April 17, 1998 and recorded on April 28, 1998 and July 28, 2000, respectively, to provide McCarthys a process for early termination of the CC&Rs following completion of specific conditions; and**

2. **Modify the Memorandum of Understanding to specify that the payment from McCarthys to the City for release of the CC&R be based on the fair market value of the property originally purchased by the City from McCarthys or $6,500,000, whichever is higher, and to include in proposed odor implementation plan that the odor fenceline be established at the Regional Wastewater Facility property line; and**

3. **Negotiate and Execute amendment(s) to the CC&Rs with the consent of all parties and their successors or assigns to the CC&Rs to establish a process for early termination contingent on the conditions set forth in the Memorandum of Understanding, as modified.**

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

David Wall spoke against this item

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 and of services between $100,000 and $270,000.

Item 8.A was approved to note and file.

9. MISCELLANEOUS

A. The next TPAC meeting is March 12, 2015, at 4:30 p.m. City Hall, Room 1734.

10. PUBLIC COMMENT

David Wall spoke about various items.

11. ADJOURNMENT

A. The Treatment Plant Advisory Committee adjourned at 5:23 p.m.

Minutes approved by the Treatment Plant Advisory Committee on March 12, 2015

Kerrie Romanow
Director of Environmental Services, Secretary to TPAC

San José-Santa Clara Regional Wastewater Facility

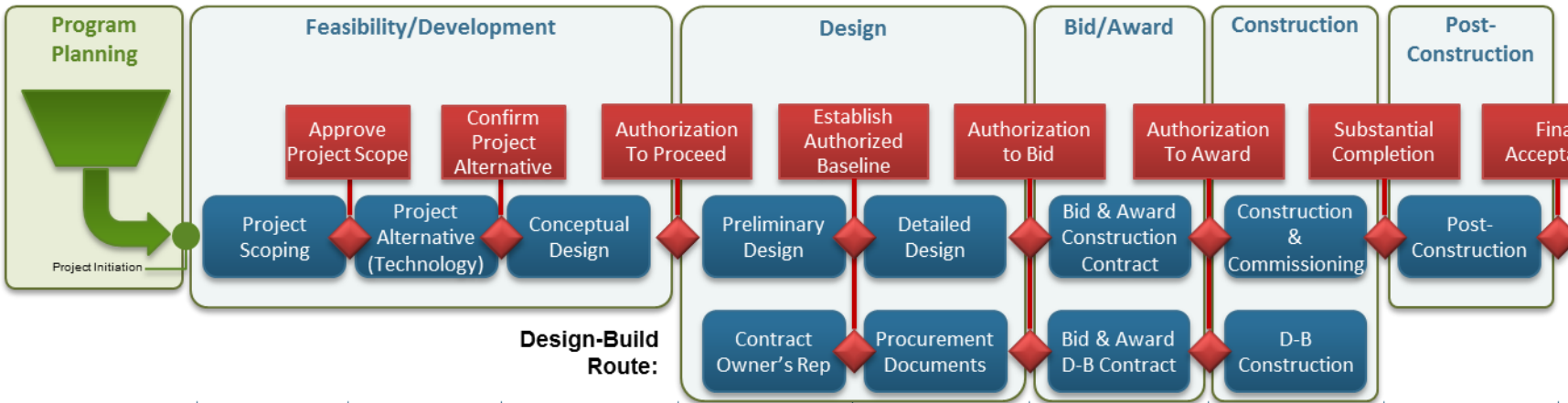
Capital Improvement Program
Monthly Status Report for January 2015

March 5, 2015

This report provides a summary of the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (Wastewater Facility or RWF) for the period of January 2015.

Report Contents

Project Delivery Model



Active Projects

Design-Bid-Build

Feasibility/Development			Design		Bid/Award	Construction	Post-Construction
Adv. Facility Control and Meter Repl. Construction-Enabling Improvements Outfall Bridge and Levee Improvements	Facility Wide Water Systems ***Filter Rehabilitation*** Headworks Critical Improvements Headworks Improvement New Headworks Nitrification Clarifiers Rehab.	Plant Instrument Air System Upgrade	Fiber Optic Connection to RWF Digester & Thickener Facilities Upgrade	***Iron Salt Feed Station***		A5-A6 Nitrif. Mag. Meter & Valve Repl. BNR2 Clarifiers Guardrail Repl. DCS Upgrade/Repl. Digester Gas Storage Repl. Filtration Bldg.B2 & B3 Pipe & Valve Repl. Fire Main Repl. – Ph. III Handrail Repl. – Phase V Training Trailer Repl.	DCS Fiber Optics Exp. RWF Street Treatment – Phase III

Design-Build

Digested Sludge Dewatering					Cogeneration Facility	Digester Gas Compressor Upgrade Emergency Diesel Generators	

Key

Stage Gates

Stages

Note: Projects shown in bold and italics have moved phase in the reporting period

Program Summary

January 2015

In the month of January, the program team made significant progress. We continued to advance studies and projects through stage gates of the Project Delivery Model (PDM) process (see Program Highlight below, and figure, inside of front cover). In particular, the Filter Rehabilitation project advanced through the "Approve Project Scope" stage gate and the Iron Salt Feed Station project passed the "Establish Authorized Baseline" stage gate to begin detailed design. We continued work on estimating staffing needs for FY 15-16, building on the City's estimated staffing levels and analyzing program consultant staffing needs.

We used our recently-finalized Project Delivery Method memo to develop recommendations on a delivery method (design-bid-build vs. design-build) for three projects: Headworks, Filter Rehabilitation, and Facility-wide Water Systems Improvements. Final approval to use design build as a delivery method is contingent on Council approval of an overall project delivery and procurement strategy in March. We continued to develop our approach for program funding, including the use of short-term debt and the Clean Water State Revolving Fund (SRF). Staff has started the SRF application process for the Digester and Thickener Facilities Upgrade. On January 23rd, staff completed a draft Proposed FY 15-16 Capital Budget and FY 16-20 CIP.

Our environmental team continued to prepare for increased levels of construction, including coordination of our mitigation monitoring and reporting program (MMRP), a requirement of the Plant Master Plan Environmental Impact Report. Staff continued to respond to questions from potential proposers regarding the Request for Qualifications to prequalify design-builders for the Cogeneration Facility.

We began a round of reviews of the Facility Operations Plan (FOP) by holding a workshop with RWF O&M staff. The FOP outlines how unit processes are operated within the RWF during normal and peak flow and loading conditions. It also contains a one year look-ahead, identifying how construction of capital and maintenance projects may impact operations.

We finalized our interim guidance on Facility automation and communicated that to all staff. This interim guidance will help align existing projects with the direction being developed in the ongoing Automation Master Plan.

In January, the Technical Advisory Committee (TAC), Treatment Plant Advisory Committee (TPAC), and Transportation & Environment (T&E) Committee did not meet. On January 30th, program staff hosted a visit by staff from the City of San Diego. The City of San Diego is implementing a program management approach to its upcoming wastewater improvement program, and wanted to hear about the City of San José's experiences in implementing the program.

Look Ahead

In February, we will continue to move forward on numerous efforts related to design consultant procurement, including the Headworks Improvements and New Headworks projects. The Cogeneration Facility team will begin reviewing SOQ's to pre-qualify design-builders. Stage gate meetings will be held for the Biosolids Transition Strategy and Plant Instrument Air System Upgrade project. An amendment to the design consultant agreement for the Digester and Thickener Facilities Upgrade will go to TPAC and Council for consideration.

In early February, staff will present the Proposed FY 15-16 Capital Budget and FY 16-20 CIP to the Budget Office and provide an update on the 10-year funding strategy to T&E. Staff from the program and Finance will work with the tributary agencies on financing needs, which will help the program develop a funding plan.

Our resourcing work will continue, with a shift to analyzing overall staffing needs across the CIP, including engineering, O&M, and environmental staff. In addition, staff will continue working on several recruitment efforts.

Our biosolids team will continue work on a revised Biosolids Transition Strategy, based on the input received from TPAC and City Council in December.

Program Highlight – Project Delivery Model

The Project Delivery Model (PDM) is one of the most important tools implemented on the program. On a program with numerous projects, it is critical that an overarching project delivery model is established to provide a clear and consistent means of moving through the different phases of a project from beginning to end.

The PDM consists of the following components:

- **Life Cycle**: a series of discrete phases and stages laid out in chronological order. Each stage is further broken-down into individual activities which define inputs, outputs, process, roles, and associated standard operating procedures and templates.
- **Governance Framework**: approval gates between stages which confirm that the project is in alignment with program mission, vision and goals.
- **Value Management**: points along the life cycle which focus on ensuring the project scope and solution provide the maximum 'value' for the project and overall CIP.
- **Program Planning:** this represents the initial program planning and project initiation processes.

All projects are required to follow the PDM, resulting in a consistency of delivery driven by the requirement to follow defined processes and use standard procedures and templates.

The PDM is most effectively communicated to staff through a graphic (Figure 1) which combines all of the elements outlined above. The PDM graphic is a 'living' document on the CIP Portal. Clicking on the different colored blocks shown in Figure 1 brings up additional information and reference documents.

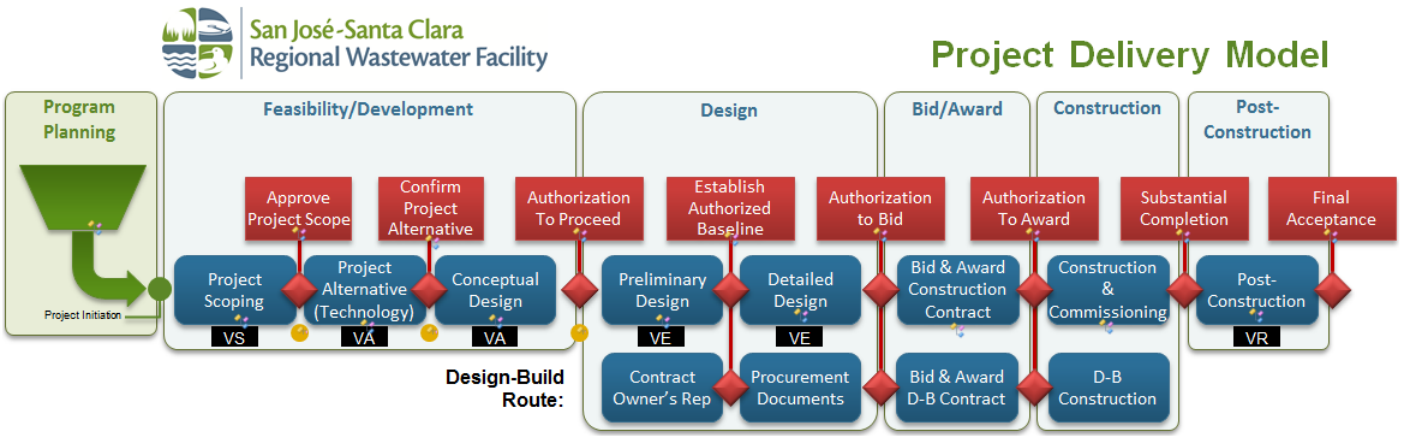


Figure 1—Project Delivery Model

Program Performance Summary

Seven KPIs have been established to measure the overall success of the CIP. Each KPI represents a metric which will be monitored on a regular frequency. Through the life of the CIP, KPIs will be selected and measured which best reflect the current maturity of the program. The target for the seventh KPI "Staffing Level" KPI will be established as part of the analysis of future staffing needs.

Program Key Performance Indicators – Fiscal Year 2014-2015

KPI Description	Target	Actual	Status	Trend	Measurement
Schedule	85%	100% (2/2)[1]			Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. ***Target: 85% of projects delivered within 2 months of approved baseline schedule or better.***
Budget	90%	50% (1/2)			Percentage of CIP projects that are completed within the approved baseline budget. ***Target: 90% of projects delivered are within 101% of the baseline budget.***
Expenditure[2/3]	≥$95.8M	$93.9M			Total CIP actual + forecast committed cost for the fiscal year compared to CIP fiscal year budget. ***Target: Forecast committed cost meets or exceeds 60% of budget for Fiscal Year 14/15 (60% of $159.6M= $95.8M)***
Procurement	100%	100% (7/7)			Number of actual + forecast consultant and contractor procurements compared to planned for the fiscal year. ***Target: Forecast /actual procurements for fiscal year meet or exceed planned.***
Safety	0	0			Number of OSHA reportable incidents associated with CIP construction for the fiscal year. ***Target: zero incidents.***
Environment/Permits	0	0			Number of permit violations caused by CIP construction for the fiscal year. ***Target: zero violations.***
Staffing Level[4]	TBD	TBD	TBD	TBD	Percentage of authorized staffing level ***Target: to be determined***

KEY:

Cost:	 Meets or exceeds KPI target	 Does not meet KPI target

Notes

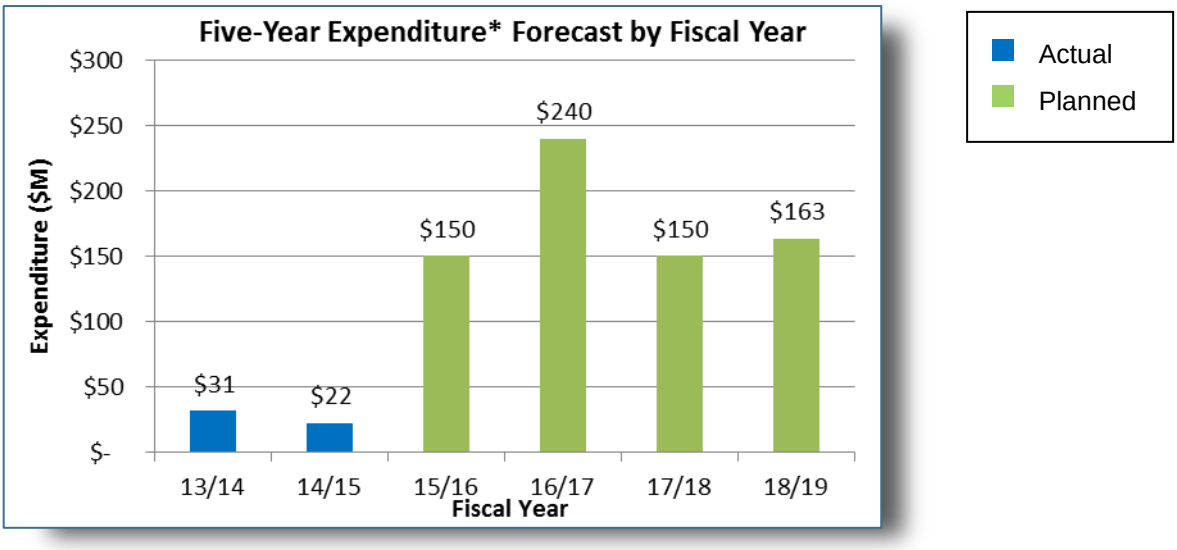
1. For the Budget KPI, the number of completed projects increased from one to two. This count includes 115KV Circuit Breaker Replacement, which was accepted on October 23, 2014.
2. FY14-15 budget excludes reserves, ending fund balance, South Bay Water Recycling, Public Art and Urgent and Unscheduled Rehabilitation items
3. The Expenditure KPI Target Forecast percentage has been adjusted to reflect the decision to report against the total program budget including contingency (previously the total budget did not include contingency allowance).
4. Staffing level KPI measured quarterly; all other KPIs measured monthly.

Program Cost Performance

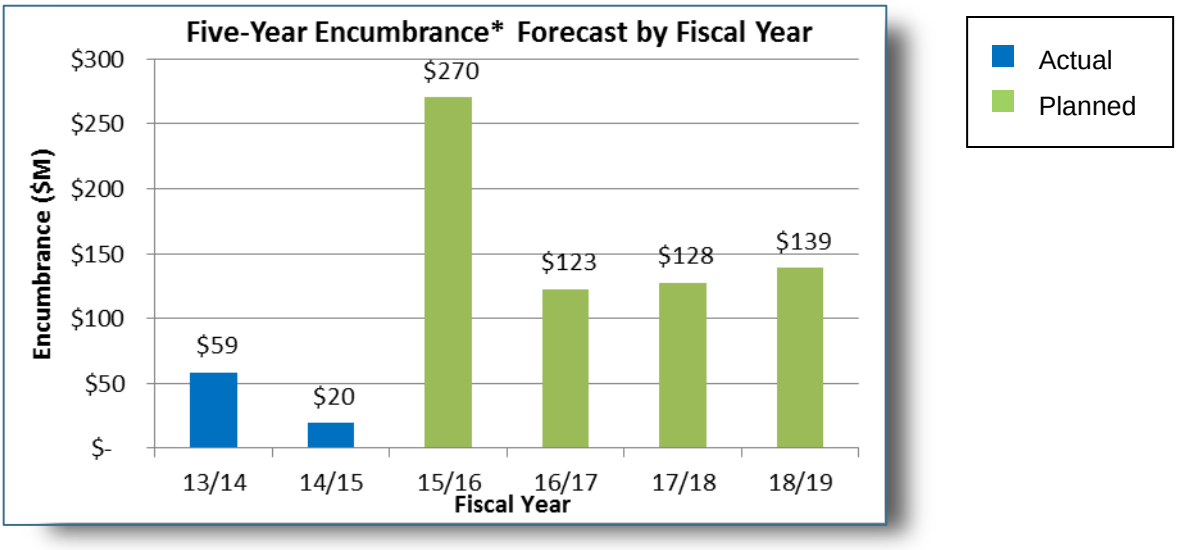
This section provides a summary of CIP cost performance for all construction projects and non-construction activities for FY14-15 and the Five-Year CIP.

Adopted 2015-2019 CIP Expenditure and Encumbrances

To accommodate the proposed increase in expenditures and encumbrances over the next five years, the City is developing a long-term financial strategy to fund the needed, major capital improvements while minimizing the impact to ratepayers.



*Expenditure defined as: Actual cost expended associated with services and construction of physical asset which may include encumbered amounts from previous years



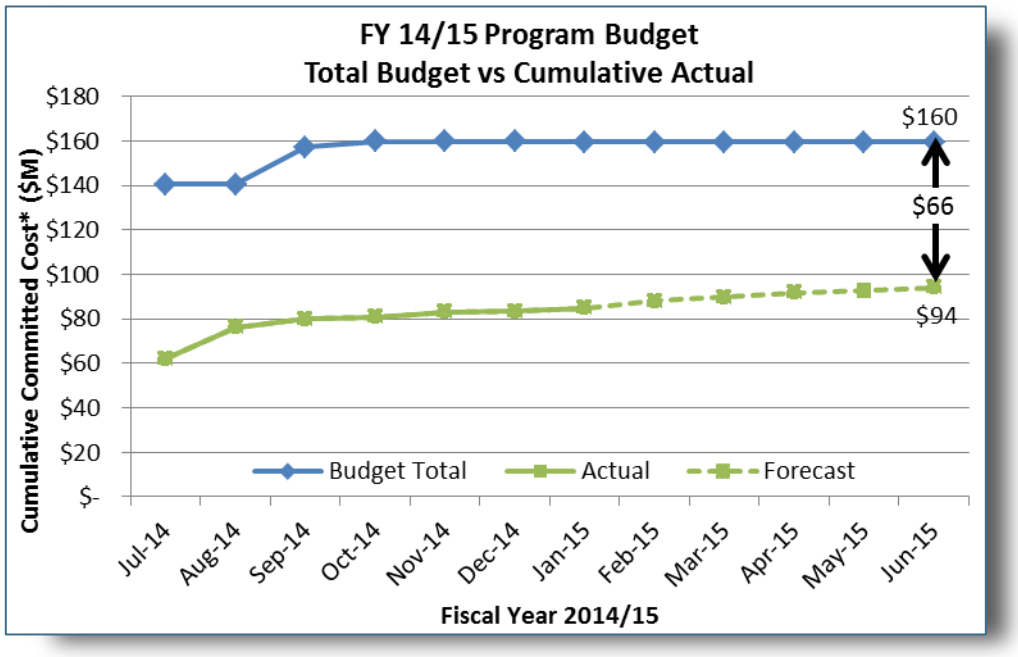
*Encumbrance defined as: Financial commitments, such as purchase orders or contracts, which are chargeable to an appropriation and for which a portion of the appropriation is reserved

Fiscal Year 2014-2015 Program Budget Performance

The fiscal year program budget is $160 million. The budget amount of $160 million represents the 2014-2015 budget of $107 million plus carryover of $53 million. The budget amount excludes reserves, ending fund balance, South Bay Water Recycling, Public Art and Urgent and Unscheduled Rehabilitation items. The budget now includes contingency allowance, which had been excluded from the amount shown in the August report.

The projected year-end variance of approximately $66 million is primarily due to the following reasons:

- Award of the Cogeneration Facility design-build contract and technical support services agreement are now expected in FY15-16 ($24 million).
- Award of construction contracts for the Iron Salt Feed Station, Plant Instrument Air System Upgrade, and Switchgear S40/G3 Relay Upgrade projects are anticipated in FY15-16 ($18 million).
- Award of a design contract for critical rehabilitation work in the Headworks Improvements is expected in FY15-16 ($4 million).
- Award of a design contract for the Advanced Facility Control and Meter Replacement project has been removed from the forecast while the project team reevaluates the scope to determine the best way to implement the project ($2 million).
- Lowered forecasts for consultant services for the Emergency Diesel Generators, Fiber Optic Connection to RWF, and Plant Instrument Air System Upgrade projects ($2 million).
- Lower than expected expenditures and encumbrances in Equipment Replacement ($1 million).



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

Project Performance

There are currently 12 active projects in the construction or post-construction phase with a further 13 projects in feasibility/development, design or bid and award phases (see PDM graphic at the front of this report). 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 Project Management System (CPMS). These projects have green/red icons included in the table below to indicate whether they 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]
Distributed Control System (DCS) Fiber Optics Network Expansion	Post-Construction	May 2014	●	●
RWF Street Rehabilitation - Phase III	Post-Construction	Nov 2014	●	●
A5-A6 Nitrification Mag. Meter & Valve Replacement	Construction	Mar 2015	●	◆
Filtration Building B2 & B3 Pipe & Valve Replacement	Construction	Mar 2015	●	●
BNR-2 Clarifier Guardrail Replacement	Construction	May 2015	●	●
Fire Main Replacement - Phase III	Construction	Apr 2015	●	●
Handrail Replacement - Phase V	Construction	Aug 2015	●	◆
Training Trailer Replacement	Construction	Jun 2015	●	●
Digester Gas Storage Replacement	Construction	Jun 2015	●	●
DCS Upgrade/Replacement	Construction	Jun 2016	●	●
Digester Gas Compressor Upgrade	Construction	Jul 2016	●	●
Emergency Diesel Generators	Construction	Aug 2016	●	●

KEY:

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

Notes

1. Beneficial Use is defined as when the work is sufficiently complete, in accordance with the contract documents, so that the City can occupy or use the work. 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 10.

Project Performance – Pre-Baselined Projects

Project Name	Phase	Estimated Beneficial Use Date[1]
Cogeneration Facility	Procurement	Sep 2018
Iron Salt Feed Station	Design	Apr 2017
Digester & Thickener Facilities Upgrade	Design	Sep 2018
Construction-Enabling Improvements	Feasibility/Development	Aug 2016
Headworks Critical Improvements	Feasibility/Development	Feb 2017
Plant Instrument Air System Upgrade	Feasibility/Development	Feb 2017
Adv. Facility Control & Meter Repl. Ph. 2	Feasibility/Development	Jun 2019
Digested Sludge Dewatering Facility	Feasibility/Development	Jun 2020
Headworks Improvements	Feasibility/Development	Jun 2020
Outfall Bridge and Levee Improvements	Feasibility/Development	Jul 2020
Facility-wide Water Systems Improvements	Feasibility/Development	Jul 2021
Nitrification Clarifiers Rehabilitation	Feasibility/Development	Feb 2022
New Headworks	Feasibility/Development	Mar 2022

Notes

1. Beneficial Use is defined as when the work is sufficiently complete, in accordance with the contract documents, so that the City can occupy or use the work. Beneficial use dates are being reviewed as part of project schedule reviews.

Significant Accomplishments

Digester and Thickener Facilities Upgrade

The 30% design review comments and recommendations on the draft Preliminary Design Report for the digesters and dissolved air flotation tanks (DAFT) have been submitted to the design consultant, Brown and Caldwell. Additional workshops were conducted in January to further define supporting facilities (e.g. biogas piping, screening facility layout, and waste gas burner upgrades).

Biosolids Transition Strategy

The City accepted the final Biosolids Transition Strategy report submitted by Brown and Caldwell. Staff will be returning to Council with odor and cost information for the biosolids transition in spring 2015.

Filter Rehabilitation

The project passed the Approve Project Scope stage gate on January 22, 2015. A Project Delivery Alternatives Workshop was held on January 27, 2015 to review delivery options.

Headworks Projects

A Project Delivery Alternatives Workshop was held on January 28, 2015 to review delivery options. The draft Request for Qualifications (RFQ) is currently being prepared.

Iron Salt Feed Station

The project passed the Establish Authorized Baseline stage gate on January 22, 2015. The design consultant, CH2MHill, has submitted the 60% design submittal including drawings, specifications, cost estimate, and final geotechnical report. These design documents are under review.

Digester Gas Compressor Upgrade

Construction on the new gas compressor building continues. The base foundation was completed in January, 2015.

Cogeneration Facility

Statements of Qualifications from prospective design-build entities are being prepared and are due on February 3. Development of the Request for Proposal (RFP) is being finalized and is planned to be issued in late March.

Facility-wide Water Systems

The project scope has been finalized and the RFQ is being developed to bring a consultant firm onboard to further develop this project. The RFQ is expected to be released in late February.

Traffic Circulation and Impacts Study

The service order has been finalized and issued to the consultant, David J Powers and Associates.

Explanation of Project Performance Issues

A5-A6 Nitrification Mag. Meter & Valve Replacement

In September 2014, during startup, the project discovered that the actuators that had been specified and installed were incompatible with the available power supply. Engineering staff determined it would be more costly to modify the system than to order and install compatible actuators. In addition, O&M staff requested that the actuators match those used in the other clarifiers. The contractor has submitted a proposal for the requested equipment. Beneficial use is expected by the end of March 2015.

Handrail Replacement - Phase V

For safety reasons, the contractor has only been replacing handrails on empty aeration basins. November through April is designated as the rainy season during which O&M staff need to have aeration basins available in the event of heavy rains. As a result, the contractor has suspended work until the end of April 2015. Work is expected to resume when the remaining basins become available. Beneficial Use is expected by late May 2015.

Project Profile

Outfall Bridge and Levee Improvements

This project has three components; (1) rehabilitation/replacement of the footbridge above the outfall weir, (2) rehabilitation/replacement of the Pond A-18 water control gate structures (north and south structures) and (3) refurbishment/replacement of an electrical transformer located adjacent to the outfall weir.

A condition assessment evaluation was performed by a consulting engineering firm in early November 2014 for the outfall bridge and Pond A-18 water control gates structures. After receiving the draft report completed in late December 2014, staff is reviewing the condition of the northern gate structure to determine if the current project schedule for replacement needs to be accelerated.

Outfall Bridge

The existing outfall bridge extends approximately 65 feet across the Artesian Slough over the outfall weir and is comprised of timber elements. This facility supports the monitoring equipment needed to collect data to demonstrate compliance with the Wastewater Facility's NPDES permit. Operators use the bridge to collect water samples two to three times daily. The bridge was last rehabilitated in 2000 and the project will consider replacing the bridge with a new structure or address replacement of a significant number of the timber components and supports experiencing degradation.

Gate Structures

Pond A-18 is a former salt production pond purchased by the City in 2004. The western levee of the pond contains two large water control gate structures, one at the northern area near Coyote Slough and the other in the southern area near the outfall weir. The gate structures permit bay water to flow in and out of the pond via tidal action allowing mixing in the pond and preventing stagnation. Each structure has two 48 inch diameter pipes that extend approximately 50 feet through the levee with combination flap/slide gate valves connected at the ends. The structures also include timber headwalls and wingwalls which create a wider levee section above the buried pipes and allow operations staff to manually operate the gate valves on both ends of the pipe to manage water levels in the pond. Both the northern and southern structures include a trash rack on the Artesian Slough to minimize debris impact to the gate valve operations.

The gate structures were constructed in 2004. Age, exposure to the elements and tidal action has led to many timber components experiencing fatigue or failure. In addition, tidal action and turbulence associated with water discharges has resulted in erosion and scour damage. Erosion along the adjacent levee slopes, scour beneath the structure and sinkholes within the levee are all evident at the two gate structure locations. The north gate structure experiences more saltwater influence than the south gate structure due to closer proximity to the bay. As a result the structure has experienced more deterioration. This structure is currently being evaluated to determine if it is necessary to expedite its repair/replacement which would separate this component from the project.

Electrical Transformer

An existing electrical transformer (4160v to 480v) is located adjacent to the sulfur dioxide building near the outfall weir and supports all electrical equipment within the outfall channel and at the weir. The transformer is in need of refurbishment and may be relocated as it currently sits at the edge of a levee which has eroded since its original installation.

Project Budget: $9,828,000

Figure 2—Outfall Bridge and Levee Improvements Project Location Map

Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram

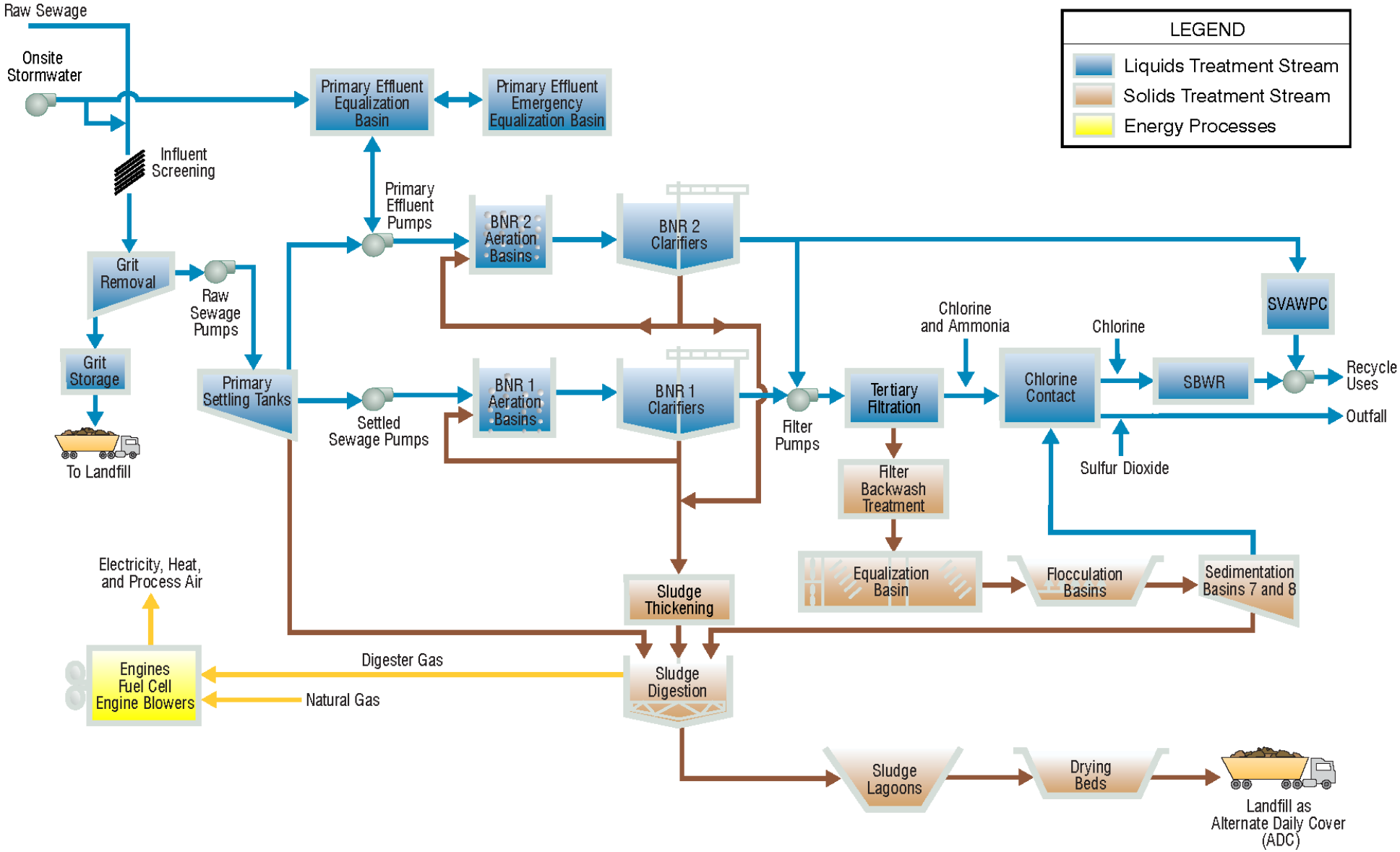


Figure 3—Current Treatment Process Flow Diagram

Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram

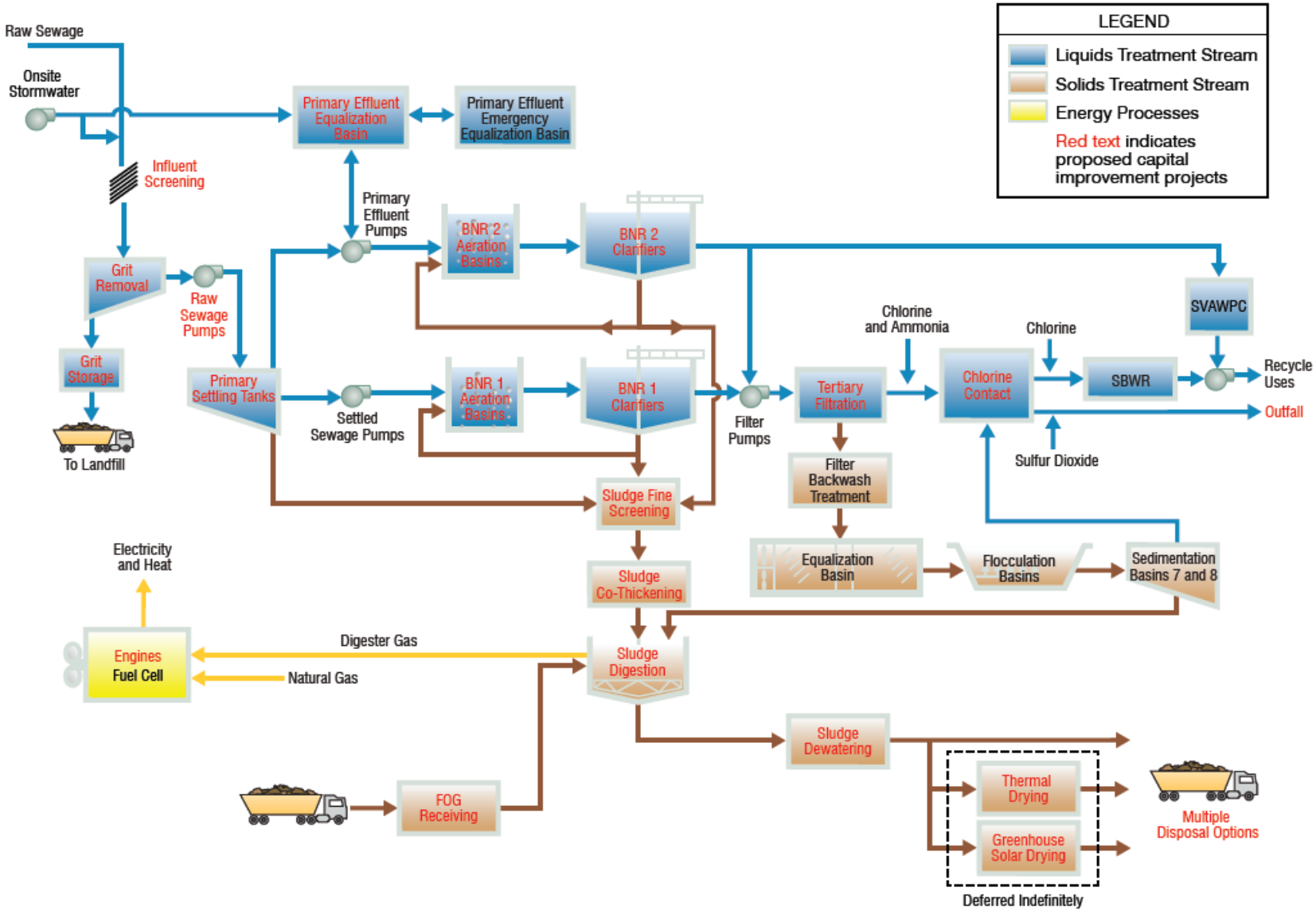


Figure 4—Proposed Treatment Process Flow Diagram

Active Construction Projects – Aerial Plan

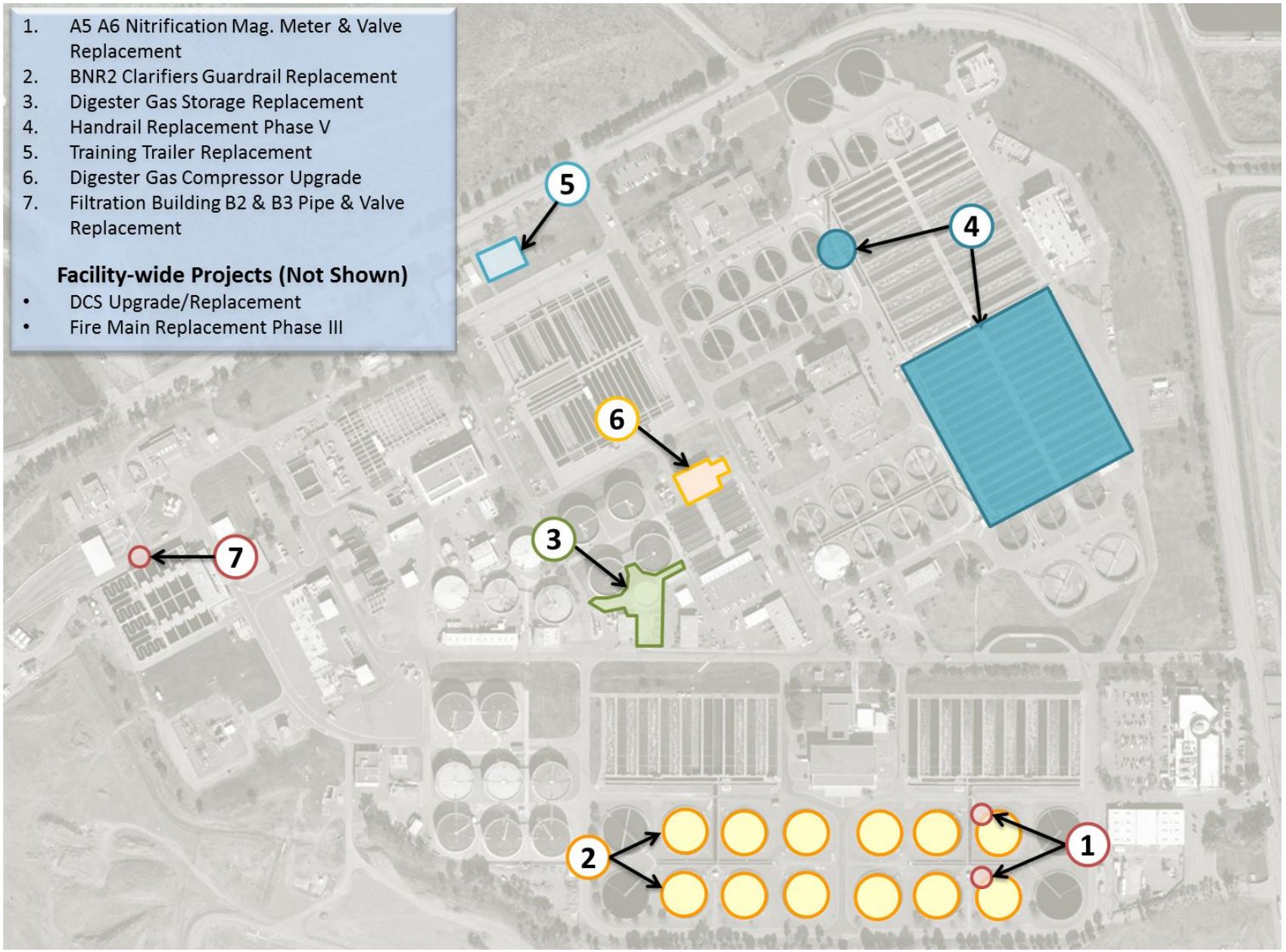


Figure 5—Active Construction Projects

COUNCIL AGENDA: 3/3/15
ITEM: 7.2

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Barry Ng

SUBJECT: **SEE BELOW**

DATE: February 25, 2015

Approved D-DSyL Date 2/26/15

SUBJECT: RESOLUTION OF THE SAN JOSE CITY COUNCIL DECLARING AND FINDING THAT PUBLIC INTEREST AND NECESSITY DEMAND THE IMMEDIATE PROCUREMENT AND AWARD OF ENGINEERING AND CONSTRUCTION CONTRACTS TO PERFORM EMERGENCY REPLACEMENT OF POND A18's NORTHERN GATE STRUCTURE LOCATED AT THE SAN JOSE/SANTA CLARA REGIONAL WASTEWATER FACILITY WITHOUT COMPETITIVE BIDDING

REASON FOR ADDENDUM

This item is being forwarded to City Council for consideration at its earliest opportunity due to the nature of this emergency. The analysis contained in this memorandum has been prepared based on the latest information available and is critical in informing the City Council as to the nature and severity of the emergency, and of the most expedient manner to remedy it. A delay in the approval and procurement period will limit the City's ability to address the situation and avoid potentially catastrophic consequences.

RECOMMENDATION

1. Accept the staff report detailing the current status of the San José/Santa Clara Regional Wastewater Facility's Pond A18's northern gate structure, the likelihood for failure, the consequences of failure, and the plan for immediate action to remove and replace the structure.
2. Adopt a resolution by four-fifths of the City Council as required by California Public Contract Code 22050:
   a. Declaring and finding that, based on substantial evidence, public interest and necessity demand the immediate procurement and award of engineering and construction contracts to perform emergency replacement of the San José/Santa Clara Regional Wastewater Facility's Pond A18's northern gate structure without competitive bidding and that the

emergency replacement will not permit a delay resulting from a competitive solicitation for bids, and that the action is necessary to respond to the emergency; and

b. Delegating authority to the Directors of Environmental Services and Public Works to negotiate and award the engineering and construction contracts necessary to replace the northern gate structure in order to protect Pond A18 and levees in an amount not to exceed $1,000,000.

OUTCOME

Approval of this recommendation by the City Council will enable staff to immediately take actions necessary to protect property and the environment by performing an immediate and complete replacement of the Pond A18 northern gate structure.

EXECUTIVE SUMMARY

Pond A18 is owned and managed by the San José/Santa Clara Regional Wastewater Facility. It is surrounded by levees and the flow of water is managed by two hydraulic gate structures. A recent condition assessment report has identified a number of critical issues at the northern gate structure that, if not addressed immediately, places the structure at risk of failure, leading to a breach of the levee. The most expedient way to replace this structure, and minimize the risk, is for City Council to make a finding that this constitutes an emergency situation such that the immediate procurement of engineering and contracting services are necessary to respond. This report is intended to provide the City Council with the information necessary to make that determination.

BACKGROUND

Pond A18 is a former salt pond that was purchased by the San José/Santa Clara Regional Wastewater Facility[1] (RWF) in 2003. Prior to being purchased, the pond was operated as a salt evaporation pond by Cargill, Inc. as part of their salt production process. Water was pumped into the pond through a siphon that ran under Artesian Slough and the western levee. High salinity water in A18 was then pumped out of the pond through a second siphon into other salt evaporation ponds to the north. This series of impoundments increased salinity at each step.

Pond A18 is located on the northwestern section of RWF lands and is approximately 856 acres in size. It is surrounded by levees, only a portion of which are "engineered". Approximately three-

[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.*

quarters of the levee system is dredged bay mud that has compacted on its own over time, is easily eroded, is not accessible to vehicles when moist or wet and requires ongoing maintenance in order to provide containment of the pond waters and flood protection for the RWF and land/property south of Pond A18.

The RWF operates Pond A18 under its own Waste Discharge Permit (#R2-2005-0003), which requires that the pond maintains adequate water levels to control odors, dissolved oxygen, and erosion of the interior (southern) levee. Exchange of water between Pond A18 and the San Francisco Bay is accomplished via two hydraulic control structures along the levee bounding the western edge of the pond that were installed as part of the purchase agreement with Cargill. These bay front structures are constructed of timber products and each structure has two 48-inch plastic pipes (for a total of four pipes) with 1-way slide/flap-gate valves on either end of the pipes, allowing staff operational flexibility to managing water and water quality within the pond. The hydraulic control structures are commonly referred to as "gate structures". Both the northern and southern hydraulic control structures are in excess of 11 years old and are nearing the end of their designed life.

ANALYSIS

City crews have been performing routine maintenance work since the gate structures were installed in 2004. Increased maintenance efforts began in 2011 to combat erosion damage, mechanical issues and structural damage which appeared to be accelerating due to the age of the timber members, and exposure to the natural elements. A capital improvement project has been initiated to replace both gate structures, along with the Artesian Slough outfall bridge, in three to four years, following an anticipated lengthy environmental permitting process. Funds have been appropriated in the current 5-year Capital Improvement Program, and work has begun to scope and schedule the project. As an initial step in developing the project, an engineering condition assessment was completed in January 2015, with underwater divers and structural engineers providing observations, measurements, and detailed analysis.

Existing Condition and Likelihood of Structural Failure

The results of the condition assessment study concluded that the northern gate structure (NGS) is in critical condition and at risk of failure due to substantial subsurface erosion and the deterioration of several timber piles. Much of this damage was not evident or visible until divers were able to physically observe the extent of the failure.

Two of the three timber piles (12 inches in diameter, approximately the size of wooden utility poles) that support the headwall located on the slough side have failed below the normal tidal water level due to excessive horizontal loading. Significant bending and cracking of the horizontal timber supports is visible above water, and is projected to worsen or fail completely as the horizontal loads increase due to consolidation and densification of backfill material. Several of the below water-level horizontal timber supports have failed and provide minimal structural

support. It is important to note that these failure modes are more closely linked to overstressing rather than deterioration.

Significant undermining and backfill material loss was observed underwater, which has resulted in levee settlement and material loss above the waterline. This migration and loss of levee backfill material worsens with each tide, and is exacerbated by turbulence and scour created when water flows into or out of the pond through the twin 48" pipes. Scour depressions were observed extending up to ten feet underneath the pipes contained in the levee, signifying significant material loss under the entire structure. Recent rain events have also softened the backfill material from above and helped facilitate further erosion and loss of material.

The slide/flap-gate valves on the pipes are no longer working properly and are impacting the controlled movement of water to and through the pond. Both slough-side gates will not close completely, allowing some tidal water to enter the pond during high tides, whether desirable or not. The shifting of the timber structure above the pipes has caused significant strain and torque on the slide/flap-gate valve mechanisms, making them difficult to operate. Maintenance crews have performed numerous repairs to relieve strain on the valve screws and to clean marine buildup on the slide/flap-gates and slide mechanisms. With reduced ability to control the movement of water between the slough and the pond, maintaining appropriate water quality in the pond to protect fish and wildlife is uncertain and may lead to poor water quality conditions, especially as average temperatures increase with the upcoming summer. The risk of violating permit conditions is heightened with the current limited operational flexibility.

The southern gate structure, while aging, is still operational, though not in good condition. Environmental conditions at the southern gate structure's location, while present, are not as severe as those surrounding the NGS. Minimal repairs can be performed by maintenance crews in order to maintain operations until the CIP project can perform a complete removal and replacement in 2018.

Recent storms and high tidal movement resulted in increased water movement between the slough and ponds, putting additional stress on the scoured and eroded gate structures. However, the condition assessment report has indicated that continued erosion and material migration could lead to a sudden loss of the NGS, especially during a seismic event. The condition assessment report, also confirmed by visual observations from City engineering staff, classified the NGS as critical. It is this potential for failure that causes the highest concern and the need for immediate action.

Consequence of Structural Failure

The most likely mode of failure for the NGS would be the sudden collapse of the slough-side headwall and wingwalls due to the horizontal stress, fatigued timber members and scour beneath the pipes. Loss of the headwall would tear the slide/flap-gate valves off of the ends of the 48-inch pipes, leading to a direct and unregulated movement of water, fish and wildlife through the open pipes. The turbulent action of sudden and uncontrolled flow through the open pipes would

quickly lead to total failure of the non-engineered levee section causing a breach of the western levee at this location. A breach in this area would likely widen to over a hundred feet wide in a few tide cycles, similar to what occurred when a salt pond to the north was intentionally breached as part of a Santa Clara Valley Water District mitigation project in 2006 (Pond A21).

Under a breach scenario, Pond A18 would be open to the Bay and tidal action and there would be no hydraulic control of pond discharges or pond water levels. This means that tidal flood protection is now shifted from the western and northern levees to the southern levee, which is not engineered, is in the poorest condition, and has the lowest top of levee elevation of all of the levees surrounding the pond. On February 19 and 20, 2015, staff observed that the water surface elevation inside the pond has risen to the highest level recommended in the A18 Operations Plan, yet remained approximately 2.5 feet below the high point of the tide on the slough side of the gate structure. Failure of the NGS would allow the pond water height to reach levels similar to those experienced in the slough side, which in turn would create critical risk to the southern levee.

To illustrate this critical risk, the recent high tides in South San Francisco Bay would result in water elevations reaching within inches of overtopping the southern levee, and with any wind generated wave action, overtopping would have occurred. If the southern levee experiences overtopping or failure (a new breach), tidal influence would spread to the south of Pond A18 and begin impacting the sludge lagoon slopes, the eastern levee of the RWF outfall channel, and come within 600 feet of Los Esteros Road, near the ZWED offices entrance. The threat to the RWF and adjacent land/property south of A18 would be severe and is difficult to estimate at this time.

Beyond the threat to the lands south of the pond, the Pond A18 facility itself is a valuable asset worth protecting. The 856-acre pond is a major asset and potential resource for negotiating flood protection improvements associated with the proposed U.S. Army Corps of Engineers Shoreline Levee Project, which will eventually follow the pond's southern levee. Should the NGS situation deteriorate further and a breach of Pond A18 occur, the City would be forced into immediate action to repair the breach and gain control of the property, or count the pond as a total loss and begin construction efforts to bolster the southern levee to prevent a second breach. In either case, the City will expend considerable resources and funds to protect critical infrastructure and assets.

Proposed Removal and Replacement

The general consensus among consultant structural engineers and City engineering staff is that there is no repair option that would extend the life of the NGS or reduce its potential for failure while the current CIP process moves forward. There are simply too many degraded and critical issues to fix them all. Installing new materials and attaching them to worn and decomposing materials would not provide meaningful or cost effective service life to the existing structure. It is likely that attempts at repair could actually trigger a loss of the structure. A complete removal

and replacement would offer the most effective means to prevent failure and provide significant service life.

The contemplated work involves installing two temporary sheet-pile dams on either side of the NGS (one in the slough and one in the pond). Installation of the temporary dams will immediately stop the ongoing erosion, and allow for a safe, drained area for the reconstruction activities to take place. Once the gate, structure, pipes, headwalls, wingwalls, trash racks and slope stabilization are complete, the temporary dams will be removed and the hydraulic control of the pond can be re-established.

State Public Contract Code Section 22050(a)(1), which the RWF is subject to, states:

> "In the case of an emergency, a public agency, pursuant to a four-fifths vote of its governing body, may repair or replace a public facility, take any directly related and immediate action required by that emergency, and procure the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let contracts."

Before the governing body takes any action pursuant to Section 22050(a)(1), it shall make a finding that, based on substantial evidence set forth in the minutes of the meeting that the emergency will not permit a delay resulting from a competitive solicitation for bids, and that the action is necessary to respond to the emergency. The recommended City Council action will allow staff to immediately procure engineers and contractors as appropriate to begin work without undergoing a sequential process of design consultant procurement followed by a contractor procurement. The sheet-pile dam installation is most critical at this point as it will provide immediate flood protection should the NGS fail. Staff recommends that this work begin immediately. The sheet-pile dam installation and structure design can occur simultaneously, along with material and equipment procurement. This expedited approach offers the most efficient, expedient and complete solution.

Regulatory Compliance and Permitting

The pond is currently operated in compliance with the Regional Water Quality Control Board permit. The Regional Board is aware of the pond's condition, and they are supportive of the City's proposed plans to repair and replace the NGS. The U.S. Fish and Wildlife Service is also aware of the situation, and has shared that they have experienced similar, rapid gate failure in the past on their ponds as well. City staff have coordinated with management staff from the Santa Clara Valley Water District and has received their full support as well. Staff has prepared an application for an emergency permit from the U.S. Army Corps of Engineers to conduct the immediate repair/replacement. Under an emergency permit, work may begin prior to permit approval in order to avoid or minimize damage to the environment. Staff will work with regulatory agencies to quickly issue the necessary permits while proceeding with work.

Based on the analysis above, staff has determined that an emergency exists and proposes that the recommended action be taken by the City Council in order to immediately begin the procurement

of the necessary engineering and construction expertise and skill to replace the NGS and protect the levees and Pond A-18.

EVALUATION AND FOLLOWUP

Staff will prepare an informational memo to the City Council every 14 days (in compliance with Public Contract Code Section 22050) providing a status of the actions taken and the progress of the emergency work until the work has been completed and the emergency action terminated.

POLICY ALTERNATIVES

Alternative #1: Do not find an emergency exists and proceed with regular design-bid-build procurement.
Pros: Familiar procurement process with competitive bidding. May be able to use existing consultant agreements to perform design work.
Cons: Does not permit immediate engineering and installation of the protective dam structures. Contractor procurement will take up to three months and regulatory permitting will likely take over 6 months to secure, possibly up to 24 months. Delays associated with permit acquisition would result in missing the upcoming construction season, when dry weather conditions will allow for construction equipment, vehicles and materials to gain safe access to this remote site.
Reason for not recommending: Delaying the installation of the dams will leave the NGS vulnerable to failure. Traditional procurement will lengthen the time that the pond gates are not operating as designed, possibly leading to stagnant water in the pond and creating odors.

PUBLIC OUTREACH

This memorandum will be posted on the City Council's Agenda for the March 3, 2015 Council Meeting. The status of the NGS has been shared with the Treatment Plant Advisory Committee on February 12, 2015.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the City Manager's Budget Office, Office of Emergency Services, Risk Management and Department of Planning, Building and Code Enforcement.

COST SUMMARY/IMPLICATIONS

The complete removal and replacement of the NGS is expected to cost less than $1,000,000. Funding is available for urgent and unscheduled needs as described below.

BUDGET REFERENCE

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

Fund #	Appn #	Appn. Name	Total Appn.	Amount for Contract	2014-2015 Adopted Budget (Page)	Last Budget Action (Date, Ord. No.)
512	7395	Urgent and Unscheduled Treatment Plan Rehabilitation	$2,809,000	$950,000	V-205	10/07/2014 Ord. No. 29496

CEQA

Exempt, File No. PP15-015, CEQA Guidelines Section 15302, Replacement or Reconstruction.

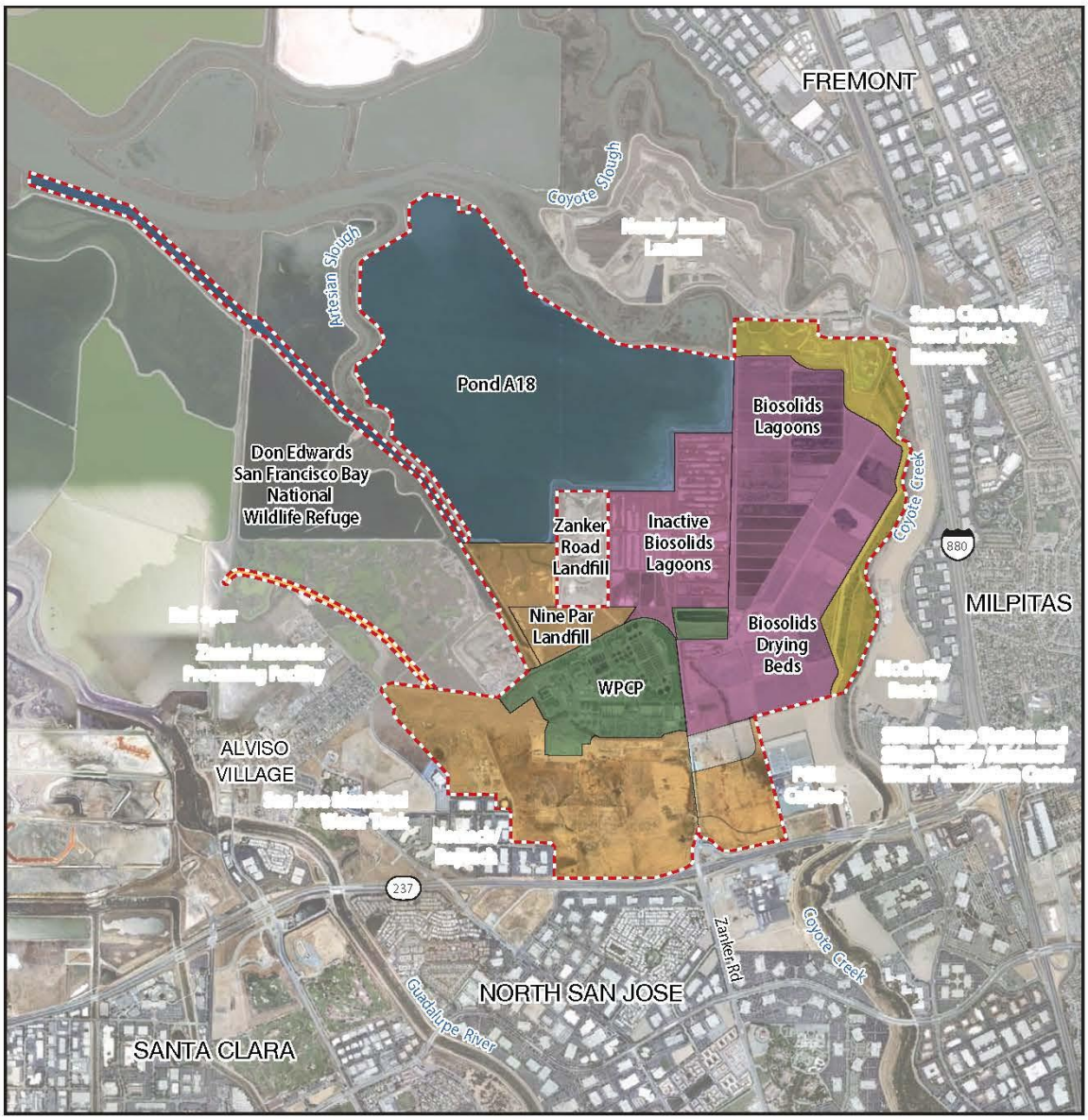
/s/
KERRIE ROMANOW
Director of Environmental Services

/s/
BARRY NG
Interim Director of Public Works

For questions, please contact John Cannon, Principal Engineer, Department of Public Works at (408) 535-8340.

Attachment A – Location Maps

ATTACHMENT A-1
LOCATION MAP



Legend

- Project Boundary
- Residual Solids Management Area
- Water Pollution Control Plant Operational Area
- Bufferlands
- Salt Pond A18
- SBWR South Bay Water Recycling
- WPCP Water Pollution Control Plant

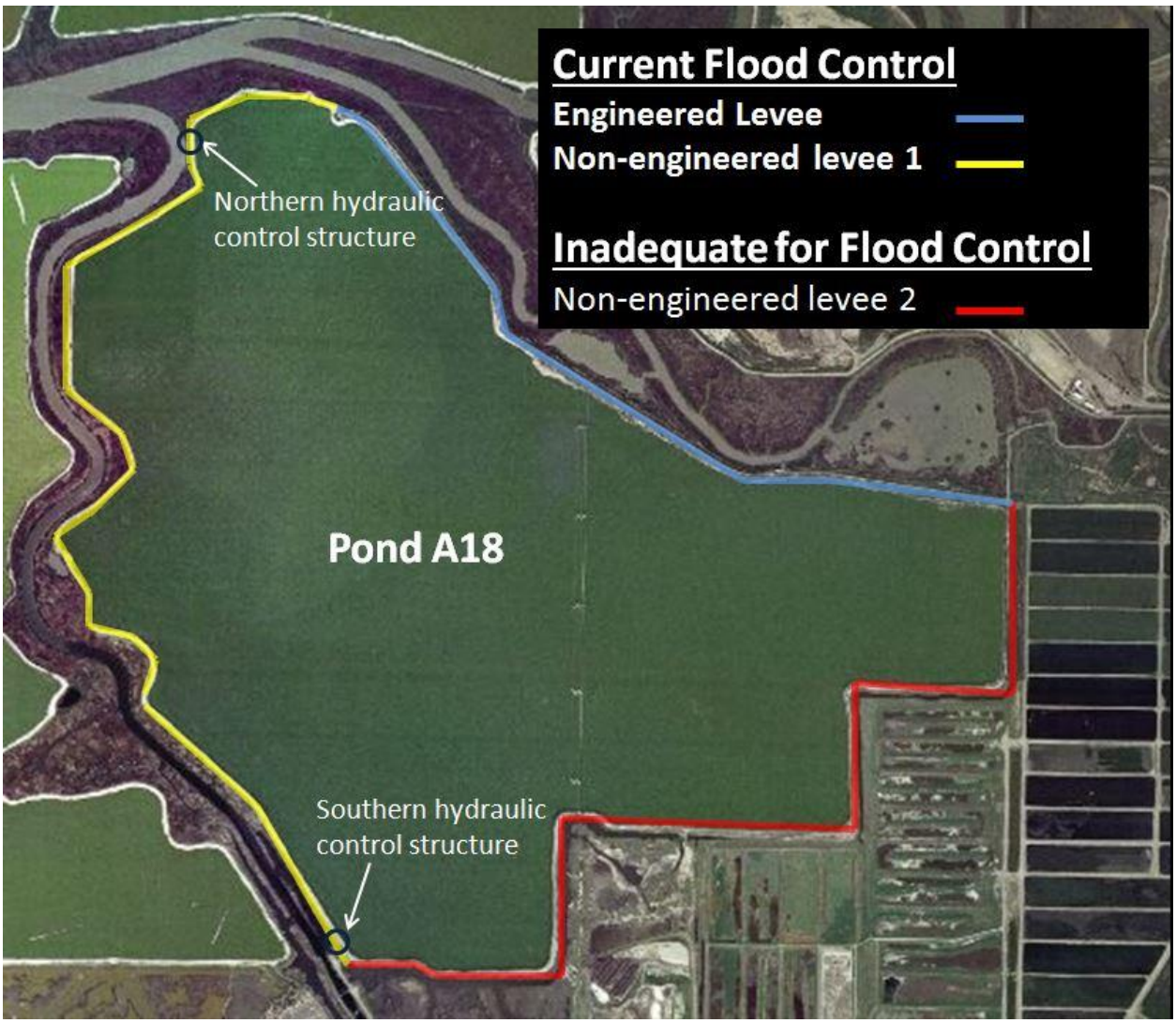
0 1 Mile

SOURCE: ESA | J&S

San Jose/Santa Clara WPCP Master Plan

Figure 2-2
Site and Vicinity

ATTACHMENT A-2
DETAILED MAP



RESOLUTION NO. _____

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN JOSE DECLARING AND FINDING THAT PUBLIC INTEREST AND NECESSITY DEMAND THE IMMEDIATE PROCUREMENT AND AWARD OF ENGINEERING AND CONSTRUCTION CONTRACTS TO PERFORM EMERGENCY REPLACEMENT OF THE POND A18 NORTHERN GATE STRUCTURE LOCATED AT THE SAN JOSE/SANTA CLARA REGIONAL WASTEWATER FACILITY WITHOUT COMPETITIVE BIDDING; AND DELEGATING AUTHORITY TO THE DIRECTORS OF ENVIRONMENTAL SERVICES AND PUBLIC WORKS TO NEGOTIATE AND AWARD SAID CONTRACTS

WHEREAS, Pond A18 is a salt water pond that is owned and managed by the San José/Santa Clara Regional Wastewater Facility ("RWF") and provides critical odor control and flood protection for the RWF; and

WHEREAS, the RWF operates Pond A18 under Waste Discharge Permit (#R2-2005-0003), which requires that the pond maintains adequate water levels to control odors, dissolved oxygen, and erosion of the southern levee; and

WHEREAS, the water level in Pond A18 is controlled by two gate structures which are in excess of 11 years old and are nearing the end of their designed life; and

WHEREAS, the northern gate structure is at risk of failure which, if not addressed immediately with a complete removal and replacement, may result in a breach and subsequent damage to property and the environment, as described in the memorandum to the City Council from Kerrie Romanow, Director of Environmental Services, and Barry Ng, Interim Director of Public Works, dated February 24, 2015; and

WHEREAS, a competitive procurement could take up to three months; and

WHEREAS, State Public Contract Code Section 22050(a)(1) authorizes public agencies to take emergency action to repair or replace a public facility without competitive bidding; and

WHEREAS, on February 19 and 20, 2015, City staff observed that the water surface elevation inside Pond A18 had risen to the highest level recommended in the A18 Operations Plan; and

WHEREAS, the City desires to immediately procure engineers and contractors to begin work;

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

1. The Council finds that, based on substantial evidence, the emergency will not permit a delay resulting from a competitive solicitation for bids, and that this action is necessary to respond to the emergency.

2. Based on substantial evidence as described in the memorandum to the City Council from Kerrie Romanow, Director of Environmental Services, and Barry Ng, Interim Director of Public Works, dated February 24, 2015, public interest and necessity demand the immediate procurement and award of engineering and construction contracts to perform emergency replacement of the San José/Santa Clara Regional Wastewater Facility's Pond A18's northern gate structure without competitive bidding.

2. The Directors of Environmental Services and Public Works are hereby authorized to negotiate and award the engineering and construction contracts necessary to

replace the northern gate structure in order to protect Pond A18 and levees in an amount not to exceed $1,000,000.

ADOPTED this _____ day of _____, 2015, by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

SAM LICCARDO
Mayor

ATTEST:

TONI J. TABER, CMC
City Clerk

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: **SEE BELOW**

DATE: February 18, 2015

Approved D-DSyL Date 2/20/15

SUBJECT: SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY STAFFING STATUS REPORT

RECOMMENDATION

Accept this status report on the staffing situation at the San José-Santa Clara Regional Wastewater Facility (Wastewater Facility).

OUTCOME

Acceptance of the report will update the Committee on the state of the Wastewater Facility staffing.

BACKGROUND

On August 28, 2012, the City Auditor issued an audit report entitled "Environmental Services: A Department at a Critical Juncture" and found that "the Plant has experienced significant workforce losses in operations and maintenance." Employee separations, including retirements and resignations, had resulted in falling experience levels and increased overtime hours. Twenty percent of critical operations and maintenance positions were vacant in June 2012. Since that time, periodic Wastewater Facility (legally and officially named the San José/Santa Clara Water Pollution Control Plant) staffing status reports have been provided to the Transportation and Environment Committee.

The last Wastewater Facility staffing report presented to the Transportation and Environment Committee on December 2, 2013, reported a 25 percent vacancy rate in the combined critical job classifications: Wastewater Operators, Wastewater Mechanics (consolidated Plant Mechanics and Heavy Diesel Operator/Mechanics), Industrial Electricians, and Instrument Control Technicians.

ANALYSIS

The Environmental Services Department (ESD), Human Resources (HR) and the Office of Employee Relations continue to collaborate on a comprehensive approach to the Wastewater Facility's staffing challenges, by working with a combination of strategies.

An update on the progress made for each of these strategies is provided below:

1. **Recruitment and Retention**
    a. **Recruitment Outreach**: On April 30, 2014, 100 students at a local trade school, Silicon Valley Career Technical Education, were presented with information about the career opportunities that exist at the Regional Wastewater Facility. On May 8, 60 of those students toured the Wastewater Facility, and spoke with staff about the jobs they perform.

    April 30 through May 1, 2014, ESD staffed a table at the California Water Environment Association conference, promoting positions that would support Wastewater Facility capital projects.

    On November 21, 2014, ESD staffed a table at a veterans' Job Hunters Bootcamp sponsored by Congresswoman Jackie Speier. Staff distributed Wastewater Facility brochures, CIP publications, and job interest cards to attendees.

    During the period, January through December 2014, ESD participated in 19 outreach activities that included tours, presentations, and job fairs.

    b. **Additional Recruitment Resources**:
    ESD employees trained in recruitment, as well as a Rehired Retiree (former City recruiter) continue to supplement the efforts of HR matrix recruiters to increase the number of recruitments. ESD-Employee Services/Workforce Planning staff either conduct recruitments with HR oversight, or assist HR and hiring managers in all stages of the recruitment process. This collaborative effort has resulted in filling vacant positions at the Wastewater Facility (as well as other sections within ESD) more quickly.

2. **Classification Work:** An update to the Process and Systems series is expected to be completed by March 2015. In 2015, ESD and HR will complete updates to the Instrumentation and Residual Solids Management classifications.

3. **Training Program:** In January 2014, work under a three-year agreement with Competency Training Systems International (CTS) began. CTS was to develop and implement a competency based training system through discrete training modules that would accelerate integration of new and temporary staff to ensure continued and smooth operation of the Wastewater Facility. This training program is currently being successfully implemented in the Operator classifications, with active involvement from RWF staff and Subject Matter

Experts. To date, three Operations modules have been developed and delivered, another module completed with staff training scheduled, and a fifth module is in development. Although this program is working well for the Operator classifications, it has presented some challenges for the Mechanic classifications. One of the key assumptions for this program was that a high level of staff involvement would not be needed; however due to the primarily non-routine nature of the Mechanics' work, much more staff involvement is required than previously anticipated. To date, CTS, in collaboration with staff, has developed a knowledge transfer for routine activities such as preventative maintenance or the removal and replacement of smaller equipment. However, it has become apparent that substantial involvement by in-house staff with familiarity with the RWF is critical for developing comprehensive training material. Additionally, City staff must be involved to set up equipment for the practical trainings. Thus, staff is currently exploring options to develop an in-house training program. In light of the two different outcomes of the CTS training modules for two different trade groups, staff will be evaluating the best training approach for all of the other trade groups, with the end goal of providing appropriate site specific training in the most efficient and least resource intensive manner possible.

4. **West Valley College** was awarded a $6M Career Pathway Trust Grant to be used to help train K-12 and college students for careers in the water supply and wastewater management industries. ESD is collaborating with West Valley College to help current and future professionals build rewarding careers in San José's wastewater industry.

5. **Temporary Staffing Contracts**: A one year extension to the agreement with HKA Enterprises, Inc. to provide temporary staffing resources for Plant Mechanics and Plant Operators was approved by City Council in May 2014, and the City is exercising the second one-year option to this agreement effective March 1, 2015. If needed, the temporary Operators and Mechanics will help bridge the staffing gap in these classifications until permanent employees are hired. There is currently one temporary Heavy Duty Mechanics/Operator through the OE3 Union Hall assisting mechanics with power and air generation equipment maintenance until vacant positions can be filled.

   A second one-year option with Telstar, Inc. to provide temporary Instrumentation Technicians was renewed by Council in August 2014. There are currently three temporary Instrumentation Technicians employed in the Instrumentation section. During a 2014 recruitment, a former Telstar employee was selected to fill one permanent Wastewater Facility Instrument Control Technician position. The former Telstar employee had spent a year working at the Wastewater Facility as a contractor, therefore was able to serve on standby duty immediately.

6. **Staffing Model**: The 2014-15 Adopted Operating Budget action added 9.0 Wastewater Attendant positions to: 1) create additional points of entry into the trades job series; and 2) help obtain a qualified candidate pool for existing Wastewater Operator Trainee, Wastewater Mechanic, Industrial Painter, Instrument Control Technician, HVAC mechanics and Heavy Equipment Operator positions. Wastewater Attendants (formerly Plant Attendants) assist

journey level positions by performing the entry level tasks while learning various job functions as they rotate and cross-train through the Wastewater Facility work groups. This creates more opportunity to "grow our own" and develop staff to promote into the various journey level positions throughout the Wastewater Facility. As of December 2014, there are 18 Wastewater Attendant positions, of which 10 are filled and a new recruitment is in process to fill the remaining vacant positions. One Wastewater Operations Superintendent position was also added as a Subject Matter Expert and liaison between the Facility CIP and O&M groups.

Status Update on Vacancies

The RWF Operations and Maintenance (O&M) job classes that were addressed in the 2012 City Auditor's report are: Wastewater Operators, Wastewater Mechanics (includes former Heavy Diesel Equipment Operator/Mechanics), Industrial Electricians, and Instrument Control Technicians within the Facility's O&M division. The combined vacancy rate of the O&M work sections has been reduced from 25% in October 2013 to 18% as of January 5, 2015. Seven Operator positions are filled with Operators-in-Training (OIT). OITs require 12-18 months of experience and training prior to promoting to an Operator I at which time, they are able to work independently. With the reduced vacancy rate, comes new and newly promoted staff. Development of trades staff from entry level to fully qualified can take between two to four years.

In addition to the O&M critical classification, the Auditor's report also discussed staffing challenges in the RWF CIP Engineering Team. The following table shows the number of full time equivalent (FTE) positions authorized in each work section and the current number of vacancies in each group. For comparison to the last report (which used data as of 10/26/13), numbers from the previous report are show in parenthesis. (The engineer vacancy information was not included in the previous report, however, vacancy information as of the date of the last report are included below.)

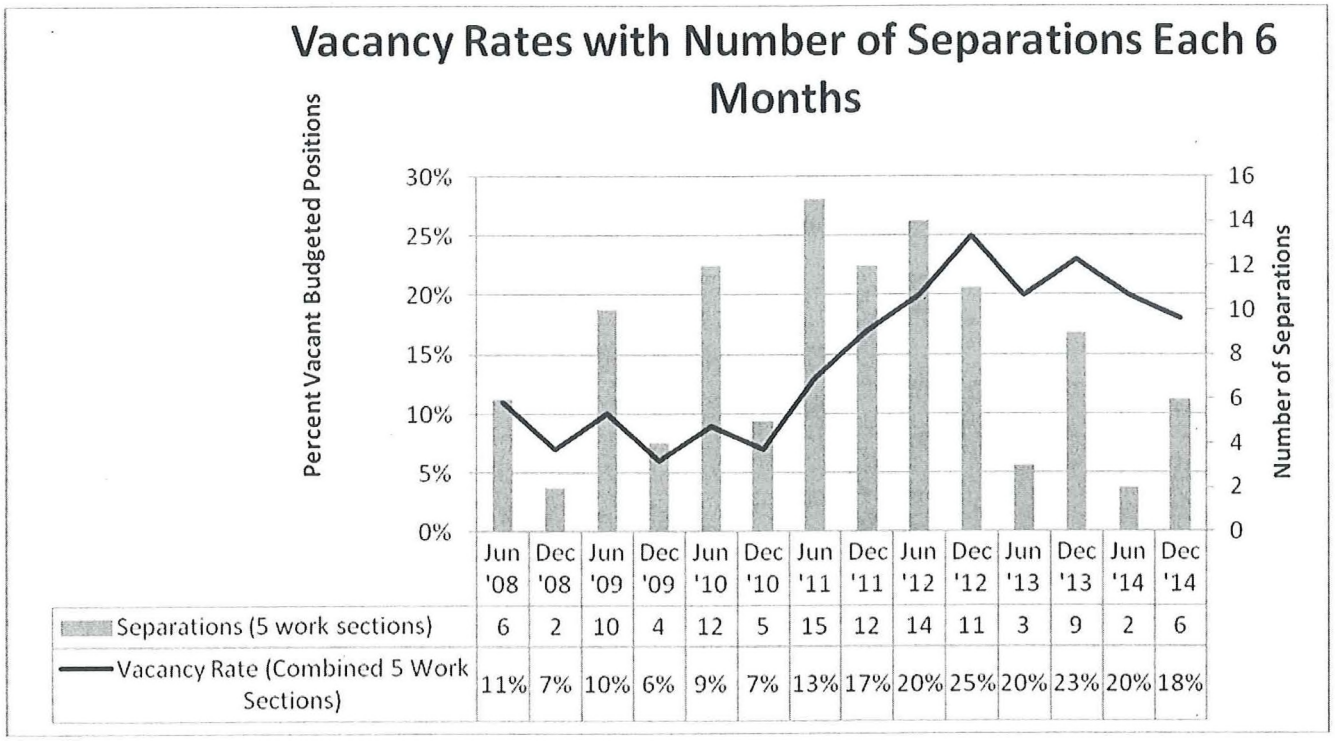
Work Section	Authorized FTEs (last report #)	Current Vacancies (last report)	Current Vacancy Rate 1/5/2015 (last report)
RWF O&M			
Wastewater Operators[1]	61 (60)	4 (13)	7 % (22%)
Wastewater Mechanics[2]	54 (56)	15 (15)	28 % (27%)
Instrumentation	11 (11)	3 (3)	27 % (27%)
Industrial Electricians	11 (11)	2 (4)	18 % (36%)
Combined O&M work sections	137 (138)	24 (35)	18 % (25%)
RWF O&M and CIP Engineers	21 (20)	6 (6)	29% (30%)

[1]A 2014-15 budget action added one Wastewater Operations Superintendent position.

[2] A 2014-15 budget action replaced two Assistant Heavy Diesel Equipment Operator/Mechanic positions with two Wastewater Attendant (WWA) positions. (WWA positions are not represented in this chart.)

Since the December 2013 report, 21 hires were made, offset by ten employee separations (retirements, resignations, and involuntary separations) in these work sections.

The following chart illustrates the vacancy rate at a point during each six month period, and the number of separations during the corresponding six months. Data shows a slight decline in the combined vacancy rate for the tracked job classifications, accompanied by a corresponding trend in the number of separations.



	Jun '08	Dec '08	Jun '09	Dec '09	Jun '10	Dec '10	Jun '11	Dec '11	Jun '12	Dec '12	Jun '13	Dec '13	Jun '14	Dec '14
Separations (5 work sections)	6	2	10	4	12	5	15	12	14	11	3	9	2	6
Vacancy Rate (Combined 5 Work Sections)	11%	7%	10%	6%	9%	7%	13%	17%	20%	25%	20%	23%	20%	18%

EVALUATION AND FOLLOW-UP

Staff will continue to work with the Department of Human Resources, Office of Employee Relations and the City Manager's Office to identify and pursue ways to retain and recruit critical Wastewater Facility staff.

PUBLIC OUTREACH

This item is scheduled to be heard at the March 2, 2015 TPAC meeting.

COORDINATION

This report has been coordinated with the Office of Employee Relations and the Department of Human Resources.

CEQA

Not a Project, File No. PP10-069 (a) Staff Reports.

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

For question please contact Kerrie Romanow, Director, Environmental Services Department, at (408) 535-8552.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 3/17/15
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): Environmental Services	**CEQA:** Not a Project, File No. PP10-066(d), Consultant Services	**Coordination:** Finance, City Manager's Budget Office, City Attorney's Office, the Treatment Plant Advisory Committee	**Dept. Approval:** /s/Ashwini Kantak for KERRIE ROMANOW
Council District(s): Citywide			**CMO Approval:** D-DSyL

SUBJECT: CONTINUATION AMENDMENTS TO MASTER AGREEMENTS FOR CONSULTANT SERVICES WITH CH2M HILL AND GHD FOR ENGINEERING SERVICES FOR THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY CAPITAL IMPROVEMENT PROGRAM

RECOMMENDATION:

(a) Approve the Third Amendment to the Master Agreement with CH2M HILL, for engineering services for the San José-Santa Clara Regional Wastewater Facility, extending the term from June 30, 2015 to December 31, 2017, at no additional cost to the City.

(b) Approve the Second Amendment to the Master Agreement with GHD, for engineering services for the San José-Santa Clara Regional Wastewater Facility, extending the term from June 30, 2015 to December 31, 2016, at no additional cost to the City.

BASIS FOR RECOMMENDATION:

On March 25, 2008, the City entered into a five-year master agreement with CH2M HILL for a total budgeted amount of $1,000,000. On July 21, 2010, the City amended the agreement to increase the total budgeted amount to $4,000,000. A second amendment was executed, on February 26, 2013, to extend the term of the agreement to June 30, 2015.

Under Service Order No. 13, CH2M HILL is designing the Iron Salt Feed Station project. Under Service Order No. 14, the consultant is providing conceptual design services for the Plant Instrument Air System Upgrade project. To maintain continuity and efficiency on both projects, staff recommends extending this agreement through December 31, 2017, to allow CH2M Hill to continue providing engineering services through project completion.

On June 17, 2008, the City entered into a five-year master agreement with GHD for a total budgeted amount of $1,500,000. On February 26, 2013, the City amended the agreement to extend the term to June 30, 2015.

Under Service Order No. 5, GHD is providing engineering services for the Emergency Diesel Generators project. Due to a longer than estimated bid period for design-builder prequalification, PG&E permitting process, and equipment lead time, the project completion date has been extended to fall 2016. This second amendment will allow GHD to continue providing engineering services through the extended project timeline.

COST AND FUNDING SOURCE:

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

FOR QUESTIONS CONTACT: Ashwini Kantak, ESD Assistant Director at (408) 975-2553

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
Barry Ng

SUBJECT: SEE BELOW

DATE: February 20, 2015

Approved D-D Sy

Date 2/23/15

SUBJECT: PROJECT DELIVERY AND PROCUREMENT STRATEGY FOR THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

1. Accept this staff report on the proposed project delivery and procurement strategy for the San José-Santa Clara Regional Wastewater Facility's Capital Improvement Program and refer to the full Council for approval.
2. Recommend that Council adopt a resolution that approves the use of low bid design-build and progressive design-build as potential delivery methods for projects in the San José-Santa Clara Regional Wastewater Facility's Capital Improvement Program and that delegates authority to the Directors of Environmental Services and Public Works, or their designees, to make a determination on the appropriate delivery method for each project.

OUTCOME

Acceptance of the recommendations will streamline the project delivery and procurement processes. The ability to use either design-bid-build or design-build will allow staff the flexibility to select the most effective delivery method for each project.

BACKGROUND

The Plant Master Plan adopted by Council in November 2013 recommended over 100 capital projects with an estimated total of $2.1 billion to rebuild and modernize the San José-Santa Clara Regional Wastewater Facility[1] (RWF) over the next 30 years. In early 2014, validation of these projects resulted in 33 project packages and eight programmatic studies planned for the next ten years. Twenty-one of the 33 project packages were planned for initiation in the first five years.

[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.*

The ten-year Capital Improvement Program (CIP) is estimated at about $1.5 billion.

Staff's strategy for delivering the CIP projects includes a combination of City staff, Program consultant management staff, and third-party design consultants and construction managers to ensure the needed resources and expertise are provided for each project. In order to deliver the projects initiated in this fiscal year (FY), staff plans to procure consultant services through eight separate Requests for Qualifications (RFQs) before the end of FY 2014-2015. The types of consultant services will include project-specific design and construction management services as well as program-level general engineering, peer review and value engineering, and auditing services. A list of the eight RFQs planned to be advertised before the end of this fiscal year is included as Attachment A.

Project Delivery Options

The wastewater industry employs various project delivery methods, including traditional low bid design-bid-build, low bid design-build and progressive design-build. The delivery method undertaken for a particular project is dependent upon a number of factors such as legality of the delivery method in the state or local jurisdiction, the project's goals, the project's schedule, cost and risk mitigation considerations. Over the years, delivery methods other than traditional low bid design-bid-build have become increasingly popular for a variety of reasons such as the preference of owners to select contractors based on qualifications, the desire to involve the contractor during the design phase of the project, and the desire to allocate risk to the contractor and reduce the potential for litigation. Alternate delivery methods can also provide opportunities to accelerate project schedules and to increase innovation and collaboration. For example, progressive design-build provides a project's owner the flexibility to define the project based on available funds, select a contractor based on qualifications and other factors rather than just the lowest bid, and negotiate a contract that is structured around the project's priorities.

As provided for in Section 1217 of the City's Charter and Chapter 14.07 of the San José Municipal Code, the City may award a design-build contract where the contract will cost more than $5,000,000 and Council makes findings that the design-build procurement process will save money or result in faster project completion. Under this authority, Council also approves the request for proposals, and the criteria and process by which the City shall select a design-build entity.

Since the RWF serves a number of jurisdictions, it is considered a regional facility and is subject to the State's public contracting and construction statutes, including those relating to design-build procurement and construction requirements. In regards to design-build, on January 1, 2015, Senate Bill 785 (Wolk) took effect and consolidated the various design-build authorities for special districts, local and state agencies, and authorized the use of design-build. The State now permits design-builders to be procured by agencies covered by SB 785, with approval from their governing bodies, using either a low bid or "best value" selection method, for projects over $1,000,000. Price, technical design and construction expertise, lifecycle costs over 15 years, labor force availability, and safety record must be considered when determining which design-builder will provide the best value.

To date, the majority of projects at the RWF have been delivered using the low bid design-bid-build method. A few projects, such as the Digester Gas Compressor Upgrade and the Emergency Diesel Generators, have utilized the low bid design-build method. No projects have yet been implemented at the RWF using the progressive design-build method. The Cogeneration Facility project currently underway is the first project to use progressive design-build at the RWF. Council approved the use of design-build for the Cogeneration Facility on October 7, 2014.

ANALYSIS

Staff is considering using the design-build method to deliver projects with a high degree of risk due to unknown conditions and/or interdependencies. Since each process area is connected to many other process areas, the interfaces among the various projects are particularly complex. Furthermore, since the RWF needs to operate 24 hours a day, seven days a week, much of the infrastructure cannot be easily shut down for detailed condition assessments in advance of the projects. The traditional low bid design-bid-build method does not lend itself well to projects with many unknowns as well as complex interfaces with other infrastructure. For example, under design-bid-build, a project's owner would be liable to the contractor for extra costs should there be unforeseen conditions causing the drawings in the contractor's documents to be different than the field conditions. If the same project were delivered using a design-build method, the contractor could provide their input during the project's design thereby encouraging innovative solutions and improving constructability. Design-bid-build also places the City in the position of bearing the risk of determining accountability should issues arise during construction or there be operational challenges after. Under design-bid-build, a contractor is responsible for building a project in accordance with drawings in its contract documents which may contain design deficiencies; however, under design-build, the design-builder is responsible for providing a functioning system that meets minimum performance specifications.

The decision about which project delivery method to use will be based on several factors including project size, project complexity, performance risk, level of control desired, and project schedule. Attachment B includes a template memo which staff will use as a general guideline to evaluate the appropriate delivery method for every project. During the project scoping phase and prior to issuing a Request for Qualifications (RFQ), project managers will meet with the project team to evaluate the aforementioned criteria to make a delivery method recommendation to Program leadership. If design-build is recommended as the delivery method for a project, approval will be required by the Directors of Environmental Services and Public Works or their designees. For example, projects posing significant operational risks because they have several interfaces with other projects, and have high costs ($10 million or more), may be better suited for a design-build delivery method. Some of the near-term CIP projects that may be well suited for the design-build delivery method include the Headworks Improvements, New Headworks, and Digested Sludge Dewatering Facility projects. These are in addition to the Cogeneration Facility project, which is already proceeding with a design-build delivery approach. Council and the Treatment Plant Advisory Committee (TPAC) will be kept apprised about the decision-making process through informational memos for all projects proceeding with a design-build delivery method.

Project Specific Consultant Agreements

As stated earlier, several projects will require procurement of consultant services. Of the eight consultant procurements anticipated to be advertised this fiscal year, five will use project-specific agreements. Most project-specific agreements will be structured as master consultant agreements (MCAs) requiring subsequent service orders (SOs) to be issued further specifying the tasks and authorizing the consultant to proceed with work. The project-specific MCAs will include tasks requiring the consultant to follow the CIP's Project Delivery Model by providing services during the project alternatives and conceptual design stages. Additionally, project-specific MCAs will require either final design and engineering services during construction (if design-bid-build) or owner's agent and construction management services (if design-build). It is important to note that the design consultant will not, on any project, be allowed to partially design a project and to then propose to be part of the same project's design-build team.

MCAs will be approved with a maximum compensation amount; however, actual funds will not be encumbered until SOs with detailed scope are executed. For design-build, some of the design costs will shift from the MCA to the design-build contract, thus reducing the overall fees for the consultant. In this case, the consultant will complete up to 30 percent design documents and the remaining design will be completed by the design-build contractor.

A standard consultant agreement (SCA) will only be used in cases where a project has been substantively scoped and a delivery method (design-bid-build or design-build) has been determined prior to the procurement. Given the size and scope of most projects, the terms for both MCAs and SCAs will likely exceed five years as the intent is to maintain continuity of consultant services for the entire duration of a project, irrespective of the delivery method (design-bid-build or design-build).

Program-Level Consultant Agreements

The eight RFQs anticipated to be advertised this fiscal year include three for program-wide MCAs. Staff anticipates awarding MCAs for general engineering services, peer review and value engineering services, and audit services. The scope of the general engineering services MCAs includes engineering studies and engineering services for small, urgent or unscheduled projects. Peer review and value engineering services MCAs will allow the Program to conduct independent reviews of the large design projects. The audit services MCA will include services to provide ongoing construction audit and other audit services, including audits of consultant and contractor progress payments.

Streamlining the Procurement Process

In order to efficiently procure multiple consultant services in a short time span, staff is developing document standards and processes that will streamline the overall procurement process. This includes establishing selection criteria for RFQs as well as using a consistent approach for forming the technical evaluation and interview panels. Furthermore, staff is developing templates for project managers to use when drafting scopes of services for RFQs, MCAs, SCAs and SOs. These templates are based on City-approved formats.

To further expedite the procurement process, staff intends to shorten the time spent negotiating

fees with consultants by requiring that they submit a cost form along with their Statement of Qualifications. The cost form will include information on the consulting firm's labor and overhead costs, and their profit margin. This information will be scored and be the basis of the negotiated fees. This approach also allows the City to better understand the consultant's profit margins and negotiate a rate multiplier that is fair to both entities.

EVALUATION AND FOLLOW-UP

No specific follow-up action is anticipated on the procurement strategy. Staff will bring forward individual consultant agreement and construction contract awards to TPAC and Council for approval. Staff will also submit an information memo to TPAC and Council each time a decision to deliver a project using the low bid or progressive design-build method is made describing the basis for such decision.

POLICY ALTERNATIVES

Alternative 1: Use design-bid-build as the default project delivery method and bring forward specific projects contemplated for design-build delivery for approval on a case-by-case basis
Pros: Most prior projects at the RWF have been completed using traditional low bid design-bid-build; thus, staff is familiar with the documents and process for this type of delivery method.
Cons: The proposed projects are significantly more complex and of a higher dollar value than almost all the RWF projects completed in the last two decades. Since all areas of the RWF are undergoing major rehabilitation, the operational risk associated with these projects as well as their interdependency with each other is much higher. This does not lend itself well to the traditional low bid design-bid-build delivery method as the contractor is not involved during the design process to help determine optimal solutions for complex matters. Bringing forward each project to Council for consideration of its delivery method will create inefficiencies when staff is looking to maximize opportunities to streamline the procurement and project delivery process.
Reason for not recommending: Use of traditional low bid design-bid-build may not be most appropriate delivery method for all RWF CIP projects. Requesting approval for every project contemplating to use the design-build delivery method adds time to each project schedule.

PUBLIC OUTREACH/INTEREST

This memo will be posted on the City's website for the March 2, 2015, Transportation and Environment Committee meeting.

Information about the proposed procurement strategy was shared during the Vendor Open House event held at the RWF on Thursday, September 25, 2014. More than 80 prospective consultants, contractors, and equipment suppliers attended the event. Information from the event has also been posted to BidSync and the CIP Document Library on the City's website.

Greater outreach will also be conducted for project-specific procurements if the City utilizes the

Clean Water State Revolving Fund Program to finance a particular project as the program requires recipients of the financing to seek the use of disadvantaged business enterprises (e.g., minority businesses, women business, small businesses) to satisfy their equipment, supplies, construction, and service procurement needs by completing certain good faith efforts.

COORDINATION

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

FISCAL/POLICY ALIGNMENT

The proposed project delivery and procurement strategy is consistent with the City's Charter and Municipal Code as well as State contracting regulations.

COST SUMMARY/IMPLICATIONS

The 2014-2015 Adopted CIP was developed with the assumption that all projects will be delivered using the design-bid-build method, with the exception of the Cogeneration Facility and Digested Sludge Dewatering Facility projects. Should a project change delivery methods, funds may need to be re-budgeted to future years to align with the encumbrance needs. Program funding needs may be affected if several projects change delivery methods.

CEQA

Not a Project, File No. PP10-069(a), City Organizational and Administrative Activities.

/s/Ashwini Kantak for
KERRIE ROMANOW
Director Environmental Services

/s/
BARRY NG
Interim Director of Public Works

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

Attachments:
Attachment A: Consultant Procurements Planned for FY 14-15
Attachment B: Project Delivery Recommendation Memo Template

Attachment A - Consultant Procurements Planned for Fiscal Year 2014-2015 for the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program

#	Name of Request for Qualifications	Estimated Construction Cost	Estimated Consultant Cost *	Anticipated Advertisement Period Start
1	Technical Support Services for the Cogeneration Facility Project	$69,130,000	$1,500,000	Mar-15
2	General Engineering Services	Not Applicable	$9,000,000	Mar-15
3	Engineering Services for the Headworks Projects	$88,450,000	$16,000,000	Mar-15
4	Engineering Services for the Facility-Wide Water Systems Improvements Project	$9,800,000	$2,000,000	Mar-15
5	Engineering Services for the Filter Rehabilitation Project	$20,690,000	$4,000,000	Apr-15
6	Engineering Services for the Nitrification Clarifiers Rehabilitation Project	$34,500,000	$7,000,000	Apr-15
7	Value Engineering and Peer Review Services	Not Applicable	$9,000,000	May-15
8	Audit Services	Not Applicable	$1,000,000	May-15

*Assumes the maximum compensation set for project-specific agreements will be approximately 18% of the project's estimated construction cost, regardless of the delivery method used. For projects delivered using the design-bid-build method, the consultant's services may entail providing design and engineering services during construction. For projects delivered using a design-build method, the consultant's services may entail acting as an owner's representative and providing construction management services including specialty inspections. The agreement for the Cogeneration Facility Project is an exception as the scope is limited to providing technical support.

CIP Program Memorandum

San José-Santa Clara Regional Wastewater Facility

To: Primary recipient(s)

CC: Other recipient(s)

Date: Distribution date

From: Author

Subject: Delivery Method Recommendation for PROJECT NAME

Introduction

This document provides a recommendation regarding the delivery method for the [INSERT PROJECT NAME]. The evaluation was conducted by [INSERT PROGRAM ROLE, i.e. City of San José's (City) Project Manager]. The evaluation relies heavily on the conclusions drawn in the "Project Delivery Selection Technical Memorandum" which documents the adopted position of the Capital Improvement Program (CIP) for the San José/Santa Clara Regional Wastewater Facility (RWF) on selecting the appropriate delivery method given project characteristics.

The purpose of this Memorandum is to document the project characteristics that provide the basis for the recommendation of [PROJECT DELIVERY METHOD – Design-Bid-Build; Progressive Design-Build; Low-Bid Design-Build] for [INSERT PROJECT NAME]. The Memorandum will be presented at the "Approve Scope" Stage Gate Review Meeting [OR "Project Alternatives" Stage Gate Review Meeting], where the delivery method recommendation will be confirmed.

Project Background

[Provide a 1-paragraph description of project including scope, schedule, and any key concerns and considerations.]

Findings and Discussion

The RWF established seven criteria for evaluating projects for preferred delivery method in the "Project Delivery Selection Technical Memorandum". Each criterion was applied to the [INSERT PROJECT NAME] and is discussed below. The delivery methods considered were Design-Bid-Build (DBB), Progressive Design-Build (P/DB), and Low-Bid Design-Build (LB/DB).

1. Size

Key questions:

- Is the project design and construction cost less than $10 million?

[State project size. Size is a threshold for considering design-build. State available delivery method(s) based on size.]

2. Environmental Review & Permitting

Key questions:

- Is the project CEQA/NEPA exempt?
- If not, have the CEQA/NEPA processes been completed?
- What are the anticipated permits required for the project?

[Describe current environmental review and permitting situation for project. The project manager should conduct an analysis to ascertain how the project's required environmental review and permit processes will affect the schedule under each applicable project delivery model. An anticipated exemption does not count for having CEQA/NEPA complete. If yes, project can consider low-bid design-build. State the available delivery method(s) based on environmental.]

3. Complexity

Key questions:

- Does the project affect sensitive process areas, other systems or other RWF construction?
- Are there unique or complex construction or condition assessment requirements?
- Are there significant operational impacts, coordination, or workarounds required during construction?
- Is the design and construction stand-alone?
- Is the design standard and/or repeatable?
- Is the scope easy to define and understand prior to 30% design completion?
- Can a condition assessment be performed without the contractor?

[Answer relevant questions for this project. Provide project details to justify. State whether complexity is "high" or "low". State preferred delivery method(s) based on complexity.]

4. Design Performance Risk:

Key questions:

- Is there a moderate to high probability of process or equipment failures within the design scope?
- Are new technologies being considered?
- Are there specific operational performance parameters that must be met?
- Is the technology proven and familiar at RWF?
- Is there high confidence in existing conditions that impact design?
- Does the project or design have no potential to impact RWF treatment processes or operations?

[Answer relevant questions for this project. Provide project details to justify. State whether design performance risk is "high" or "low". State preferred delivery method(s) based on design performance risk.]

5. Design Control:

Key questions:

- Does the owner want design control through 100% design?
- Can the owner's control end at 10%-30% or 70-90%?

[Explain why owner does or does not need control through 100% design. 10%-30% design control corresponds to LB/DB, 70-90% design control corresponds to some P/DB projects, and 100% design control is possible with P/DB or DBB. For a schedule critical project, design/construction may be accelerated by less owner design control. State preferred delivery method(s) based on design control.]

6. Optimizing Quality/Scope and Cost:

Key questions:

- Does the project have unique quality concerns that will not be adequately covered by the City's standard and project specifications?
- Does the owner want the ability to develop scope based on a set budget?

[Answer questions and provide relevant project details to justify. State preferred delivery method(s) based ability to optimize quality and cost.]

7. Schedule:

Key questions:

- Is the project schedule driven?
- Are there long-lead equipment items?

[Explain schedule considerations on project, including drivers and impacts of project schedule. Perform detailed schedule analysis to determine possible time savings from LB/DB or P/DB versus DBB. Provide project details to justify. State the outcome of detailed schedule evaluation and preferred delivery method(s) based on schedule. Address current program maturity with design-build delivery and whether the learning curve is expected to delay the project procurement.]

Summary of Decision Criteria

Criteria Key Questions	Response:	DBB	P/DB	LB/DB
1. Size < $10M Yes = DBB No = DBB; P/DB; LB/DB	**[Yes or No]**			
2. CEQA complete or N/A? Yes = DBB; P/DB; LB/DB No = DBB; P/DB	**[Yes or No]**			
3. Complexity High = P/DB Low = DBB; P/DB	**[High or Low]**			
4. Design Performance Risk High = P/DB Low = DBB; P/DB; LB/DB	**[High or Low]**			
5. Design Control 10%-30% = LB/DB 70-90% = P/DB 100% = P/DB or DBB	**[10% - 30%, 70-90%, 100%]**			
6. Optimize Quality/Scope & Cost? Yes = P/DB No = P/DB; DBB; LB/DB	**[Yes or No]**			
7. Schedule-driven? Yes = P/DB; LB/DB No = DBB; P/DB; LB/DB	**[Yes or No]**			

Note: "X" denotes the available or preferred delivery method(s) for the specified criterion.

Recommendation

[State the preferred delivery method and the degree to which it is preferred (i.e. most criteria point to this method, or criteria are divided with one method slightly preferred, etc).

Provide a 1-paragraph summary of which criteria were most influential in determining the delivery method for this project.

Discuss any potential benefits of using progressive design-build, and whether these benefits outweigh the additional resources and effort required to use progressive design-build.]

COUNCIL AGENDA: 3/24/15
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Julia H. Cooper

SUBJECT: SEE BELOW

DATE: March 2, 2015

Approved D. DSyL Date 3/3/15

SUBJECT: SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY TEN-YEAR FUNDING STRATEGY

RECOMMENDATION

Accept the staff report on the San José-Santa Clara Regional Wastewater Facility Ten-Year Funding Strategy.

OUTCOME

Input on the recommended fiscal practices outlined in the Ten-Year Funding Strategy will assist staff as it prepares the 2016-2020 Capital Improvement Program and fiscal year 2015-2016 Operating Budget for the San José-Santa Clara Regional Wastewater Facility.

EXECUTIVE SUMMARY

This staff report on the San José-Santa Clara Regional Wastewater Facility Ten-Year Funding Strategy includes a ten year forecast of the capital and operating needs and outlines guiding principles and recommended fiscal practices for developing a plan to meet those funding needs. The staff report includes preliminary allocations for each agency but does not include a specific financing plan, which is currently being developed and may be incorporated in the Proposed 2016-2020 Capital Improvement Plan and 2015-2016 Operating Budget if finalized by the release date of those documents.

BACKGROUND

The San José-Santa Clara Regional Wastewater Facility[1] (RWF) is a regional advanced wastewater treatment plant that serves eight South Bay cities and four special districts through the following agencies:

- City of San José
- City of Santa Clara
- City of Milpitas
- Cupertino Sanitary District
- County Sanitation District 2-3
- Burbank Sanitary District
- West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno, and Saratoga)

Jointly owned by the cities of San José and Santa Clara, the RWF is managed and operated by the City of San José. Constructed in 1956, as a primary treatment plant for agricultural wastewater and a growing population, the RWF subsequently expanded in response to continued population and economic growth and to meet state and federal regulations. Most of the RWF's infrastructure is now more than 50 years old and has exceeded its useful life, with repairs needed to every process area.

With the adoption of the RWF 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 RWF over the next 30 years, with more than $1 billion occurring in the first 10 years. While the PMP set the direction for future capital projects that will upgrade and rebuild the RWF, it is a high level planning document and does not provide sufficient detail for project implementation. In February 2014, the City of San José completed a project validation process, a systematic approach to project identification, prioritization, and sequencing that utilized combined knowledge from City of San José staff, consultant engineers and executive leadership. The validation process resulted in 33 project packages which are to be initiated in the next ten years, totaling about $1.4 billion in capital projects. Further refinement of project schedules and costs was completed in October 2014.

A capital improvement program of this size requires significant financial resources in order to ensure successful and timely project delivery. Over the past year, San José staff has been working with program management and financial consultants to develop a long-term funding strategy to provide sustained funding for the implementation of projects identified in the Master Plan and project validation process, while minimizing potential impacts on rate payers and ensuring intergenerational equity. As part of this effort, staff engaged representatives from Santa Clara and the Tributary Agencies to provide regular progress updates and request feedback. In addition, status updates were provided to the Transportation and Environment Committee in February 2014 and 2015, and a Special Session of the Treatment Plant Advisory Committee was held on April 17, 2014.

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[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.*

ANALYSIS

In February 2014, a team comprised of San José staff and program management consultant representatives of Carollo Engineers (Carollo) began working on a Preliminary Ten-Year Funding Strategy (Preliminary Funding Strategy) to support implementation of the projects identified in the PMP. The Preliminary Funding Strategy is comprised of a ten year funding forecast, guiding principles and fiscal best practices, and preliminary funding scenarios. These preliminary funding scenarios guided discussions with Santa Clara and the Tributary Agencies and formed the foundation of a potential ten year funding/financing plan which is being developed by City staff and the City's financial advisor, Public Resources Advisory Group (PRAG).

During the initial development phase of the Preliminary Funding Strategy, Carollo developed a financial model to capture the ten year funding requirements, as well as analyze anticipated revenue and expenditure streams through fiscal year 2024-25. To develop the overall financial forecast, the financial model integrated capital funding requirements, projected operating costs, existing and projected debt issuances, reserve funding requirements, as well as the RWF revenue streams, including agency contributions in support of the RWF capital and operating costs. This model was used to develop preliminary funding scenarios and may be used in the future to model other scenarios as needed. Although Carollo initially developed several preliminary funding scenarios, their report (Attachment A) is primarily focused on the ten year forecast as well as foundational work to guide City staff along with PRAG in the development of a proposed funding/financing plan.

Guiding Principles

Based on several discussions with the Technical Advisory Committee (TAC), which includes staff representing all of the member agencies, it was determined that the primary objective of any funding strategy was to provide all agencies with predictability and stability, to the maximum extent possible, with respect to annual cash contributions in support of the RWF Capital Improvement Program (CIP). The Preliminary Funding Strategy outlined several guiding principles to support this primary objective. These guiding principles, as outlined below, were developed in collaboration with the City of Santa Clara and Tributary Agencies and received support from TPAC in April 2014.

- Develop a long-term funding strategy that includes a base level of cash-funded capital investments and allows agencies to plan for future revenue needs;
- Identify and incorporate Operations and Maintenance (O&M) costs associated with large capital projects;
- Pursue external financing to the maximum extent practical in order to mitigate impact on rate payers and achieve intergenerational equity; and
- Minimize borrowing costs to the maximum extent practical and maintain high bond ratings to minimize long-term financial costs.

Expenditure Forecasting

The first step in the development of the Preliminary Funding Strategy involved the forecasting of the RWF expenditures. This analysis incorporated all anticipated funding requirements, including capital costs, operating costs, existing debt service, and reserve requirements. Carollo developed a financial model to capture these funding requirements through fiscal year 2024-25. To develop the overall financial forecast, the financial model integrated such things as capital funding requirements, projected operating costs, existing debt service costs, and existing reserve funding requirements.

The estimated forecast indicates annual expenditures ranging from $150,000,000 to $320,000,000 during the ten year period. Capital costs over the ten year period are estimated at $1.4 billion. Capital costs are comprised of construction and non-construction costs. Construction costs are direct project costs and are estimated at approximately $1.3 billion through FY 2024-25. Non-construction costs are comprised of indirect capital costs including program management and preliminary engineering services. Non-construction expenditures are expected to total approximately $54,000,000 through FY 2024-25, including $23,000,000 in program management costs.

Attachment A provides further detail on the ten year funding forecast. Attachment B provides forecast information by agency. The forecasted numbers do not currently include any assumptions about financing and purely provide information on agency allocations. It is important to note that the forecasted numbers are based on the best information available at this time and may change due to a variety of factors such as changes to the schedules and budgets of the capital improvement projects and variances from current assumptions for operations and maintenance costs. The forecasted numbers will be updated on an annual basis, through the budget process.

Funding/Financing Plan Approach

Funding future capital improvements at the RWF will require a combination of cash and debt financing, with the RWF and its member agencies taking on a substantial amount of debt in future years. As such, it is important that steps be taken to minimize the cost of borrowing to the maximum extent possible. As part of the financing process, the City will explore the use of a commercial paper program, variable rate debt, and California Clean Water State Revolving Fund (SRF) loans in addition to traditional long-term fixed rate debt in order to minimize the overall cost of borrowing for capital improvements. The SRF program offers attractive borrowing rates but would impose specific project requirements that need to be taken into account in analyzing the borrowing costs of the SRF loans. Staff is moving forward with exploring the feasibility of securing SRF loans. Consistent with the guiding principles noted earlier, San José staff, working with PRAG, is developing a plan that is intended to balance the need to pursue external financing (as opposed to pay-as-you-go funding) to mitigate near-term impacts on rate payers and achieve intergenerational equity with the goal of minimizing long-term financial costs.

Financial Metrics

As stated in Carollo's report (Attachment A), two key financial metrics can impact bond ratings and, thus, borrowing costs: debt coverage ratio and cash-on-hand liquidity.

Debt Coverage Ratio:
A minimum level of annual rate revenues is required in order to satisfy legal and/or policy-driven debt coverage obligations. Debt coverage refers to the collection of revenues to meet all operating expenses and debt service obligations plus an additional multiple of that debt service. The debt coverage ratio is used as a means of assessing an agency's ability to make debt service payments and its capacity to issue additional debt.

Cash-on-Hand Liquidity:
Credit rating agencies also use an agency's amount of cash-on-hand as a metric to determine the agency's ability to weather declines in revenue or unexpected costs. The cash-on-hand, or liquidity measurement, is typically expressed in days of operating expenses.

Multiple reserves can make up the needed liquidity metric such as operating reserves, equipment reserves, and rate stabilization reserves. These reserves are described briefly below with further detail available in Carollo's report (Attachment A).

Operating Reserve:
An operating reserve provides a minimum unrestricted operating fund balance to address fluctuations in expenditures. Generally, wastewater utilities target operating reserves that range from 60 to 180 days of operating expenditures. Currently the RWF has an operating reserve of at least 60 days of net operating and maintenance expenses; however, San José is the sole contributor towards this reserve. As reflected in Carollo's report, a minimum reserve of 60 days is recommended, with all agencies contributing proportionally to this reserve. The level of operating reserve can serve dual purposes, to match industry best practices for ensuring operational stability, and to demonstrate financial security for the purposes of minimizing borrowing costs.

Equipment Reserve:
An equipment reserve provides funding for emergency replacement of equipment. Currently, there is an equipment reserve (Treatment Plant Renewal and Replacement Fund) of $5,000,000 based on 0.5 percent of an approximately $1.0 billion value of assets. All agencies contribute to this reserve. As reflected in Carollo's report, it is recommended that the current contribution practice and reserve amount continue.

Rate Stabilization Reserve:
A rate stabilization reserve is an additional source of liquidity which would be funded and which could be used to meet unanticipated expenditures and/or allow for a smoother trajectory of rates.

City staff believe that reserve levels should be increased from today's low levels, even if they are not demanded by the external financial markets, and additionally believe that all participating agencies should contribute to the funding of prudent levels of reserves.

Clean Water Financing Authority

Carollo's report contemplates issuance of debt by the San José-Santa Clara Clean Water Financing Authority (CWFA), a joint powers authority formed by the cities of San José and Santa Clara. The CWFA was specifically established for the purpose of issuing debt for the improvement of the RWF pursuant to a joint exercise of powers agreement, as amended and restated in the Second Amended and Restated Joint Exercise of Powers Agreement, dated as of October 17, 1995.

Ten Year Funding/Financing Plan

Carollo, in collaboration with City staff and PRAG, developed preliminary funding scenarios based on the ten year funding forecast, guiding principles, and industry standard financial metrics. These preliminary scenarios did not include any assumptions of short term debt or comparatively lower interest SRF loans. Santa Clara and the Tributary Agencies sought clarification regarding the purpose and need for large cash contributions to establish the reserves.

Through several discussions with TAC it became clear that the CWFA's issuance of long term debt next fiscal year would be challenging. Furthermore, there are other factors to consider in issuing long term debt such as the amount of funding that could potentially be available through SRF loans as well as uncertainty about the timing and scope of large capital projects. In order to issue tax exempt bonds for a capital program, the IRS requires that the issuer must have a reasonable expectation that bond proceeds will be spent within three years. The RWF capital program is not sufficiently developed at this point such that we could have such a reasonable expectation. Many of the large capital projects in the program are currently in the early feasibility phase and, thus, do not have their scopes, budgets and schedules fully defined. For example, a project which is in the scoping phase may evaluate several discrete technology alternatives or project delivery methods, each of which could result in different project budgets and schedules.

Taking these factors into consideration, staff, is developing a proposed ten year funding/ financing plan. This funding/financing plan will include the CWFA's establishment of commercial paper program as a bridge financing tool. Commercial paper (CP) is a low-interest, short-term borrowing instrument that can be refinanced with long-term debt. The implementation of a CP program could provide several benefits including allowing the RWF to right-size long-term borrowing based on the availability of SRF loans and more refined project schedules and cost estimates. CP can also be used for stopgap financing until all agencies are able to build up the required reserves to achieve a liquidity target that supports the goal of minimizing borrowing costs for long term debt. The City has successfully used a CP program to manage the capital financing needs of the Airport's large capital program.

The cost of establishing and maintaining the CP program will be borne proportionally by all agencies that wish to have their share of the capital costs financed as opposed to paying with cash, while costs for CP that is actually "drawn" (used) will be borne by those agencies financing their share of the capital costs through the issuance of CP at any given point in time. For example, San José does not need to access CP in FY 2015-16 but anticipates accessing the program in FY 2016-17. Accordingly, San José will pay its proportional share towards program establishment and maintenance (e.g., costs of issuance and costs associated with the "undrawn" (unused) portion of the CP).

The funding strategies in the proposed ten year funding/financing plan will be used to develop the proposed operating and capital budgets and the allocations for each agency. It is important to note, however, that this funding/financing plan will continue to be refined based on actual overall funding needs, the cash flow required to construct projects, and market conditions at the various points of debt issuance.

Assumptions for the proposed ten year funding/financing plan are outlined below:

- Funding forecast is based on the February 2015 Carollo report, with adjustments made to reflect budget proposals for the FY 15-16 Proposed Operating and Capital Budgets (Attachment A).
- Participating agency needs to finance their respective contributions for capital costs are currently being developed and will be finalized in March 2015.
- CWFA will establish a Commercial Paper program with a $200,000,000 capacity in FY 2015-16. The cost to establish the program is assumed to be $300,000; interest rate is assumed to range from 1% to 3%; and bank credit facility support cost is assumed to be 0.70% of the program's capacity.
- First bond issuance to occur in FY 2017-18, with subsequent issuances structured to limit outstanding commercial paper to no more than $200,000,000.
- Future bond issuances include 30-year debt service structures, interest rates (range of 6.1% - 7.3%), a fully funded debt service reserve, and cost of issuance estimated to equal 1% of the amount issued.
- Overall operating reserve, including, but not limited to, equipment and rate stabilization reserve, is targeted to be implemented incrementally over a multi-year period with an initial goal of reaching 100% of cash equivalent to 365 days of O&M costs.

As each agency considers the requirements that implementation and financing of the CIP will have on its own situation, City staff and PRAG will work with those agencies to develop analytic tools which allow individual agencies to understand their options with respect to funding and financing of their proportionate share of the RWF's CIP and reserve obligations. Refer to Attachment B for further detailed breakdown of the costs allocated to each agency.

It is important to note that the funding/financing plan will provide a preliminary analysis and actual contributions over the next ten years will depend on many factors including, but not limited to, the following:

- Any changes in schedules and costs of capital improvement projects;
- Market conditions and interest rates at the time commercial paper notes are issued and at each bond issuance;
- Actual debt coverage ratio and liquidity levels;
- Potential use of financing vehicles other than traditional long-term fixed-rate debt (e.g., variable rate debt or SRF loans) for some or all of the capital costs; and
- Changes in assumptions about staffing, utility, and chemical costs, that may increase or decrease O&M costs.

EVALUATION AND FOLLOW-UP

As stated earlier, San José staff will continue discussions with Santa Clara staff regarding CWFA requirements and the upcoming financing programs. City staff will also continue working with PRAG to determine the optimal mix of cash, revenue bonds, and SRF financing to support RWF capital improvements. Concurrently, staff will continue to evaluate capital project implementation schedules and make adjustments as needed to ensure alignment with available resources as part of the upcoming budget development process. Adjustments to the financial forecast and project implementation schedules will be reflected in the 2016-2020 Capital Improvement Program that will be presented to the City Council in spring 2015.

In addition, once the final funding strategy has been developed, the agreements between the cities of San José/Santa Clara and Tributary Agencies, which govern the wastewater treatment services provided by the RWF, will need to be amended to incorporate the repayment obligations of each agency. San José staff will initiate discussions with representatives of each agency to prepare the amendment(s) of the agreements prior to issuing debt through the CWFA.

The table below details the upcoming key milestones in the development of a long-term funding strategy for the RWF.

January - March 2015	Financing team developing funding/financing plan to address funding of 10 year CIP consistent with guiding principles
March 2015	San José City Council approval of RWF Ten-Year Funding/Financing Strategy
Spring/Summer 2015	Begin discussions regarding commercial paper/financing process; update Agreements as necessary; commence development of commercial paper program

Fall 2015

1) Obtain approval of San José and Santa Clara City Councils and Clean Water Financing Authority Board for issuance of commercial paper
2) Issue commercial paper, and/or secure SRF loans (Timing will depend on specific funding need)

POLICY ALTERNATIVES

Alternative 1: *Do not develop a long-term funding strategy that considers potential use of external debt financing to support RWF capital improvement projects.*
Pros: The RWF and its participating agencies would not incur additional financing/borrowing costs.
Cons: Significant rate increases would need to be initiated by San José, Santa Clara and Tributary Agencies in order to provide the level of funding needed to implement the RWF capital improvements and would be implemented over a longer period of time, thereby delaying the implementation of necessary capital improvements. In addition, the capital improvements would be paid for by existing utility rate payers, thus creating potential concerns regarding the lack of intergenerational equity.
Reason for not recommending: This approach would delay the implementation of capital improvements and result in significant rate increases for utility ratepayers in San José, Santa Clara and Tributary Agencies in order to support implementation of capital improvements at the RWF. Existing utility rate payers would bear the financial burden of long-term capital improvements, thereby resulting in a lack of intergenerational equity.

Alternative 2: *Do not use a Commercial Paper Program and issue long term bonds as soon as possible.*
Pros: The RWF and its participating agencies could take advantage of the current interest rates and reduce the level of risk associated with future borrowing costs.
Cons: San José, Santa Clara and Tributary Agencies would need to make a high level of cash contributions in FY 15-16 to provide adequate funding for the desired liquidity metric. Uncertainty about SRF loans and capital project schedules would make it difficult to size the bond issuance appropriately as required by IRS for the issuance of tax exempt bonds.
Reason for not recommending: This approach would require several agencies to implement significant rate increases or utilize other financing tools to fulfill their cash obligations. The CWFA would not be able to right-size the bond issuance to factor in potential SRF loans or the elements of the capital program that have not yet been fully designed. Significant shifts in project schedules could impact our ability to spend the bond funds within 3 years, as we must reasonably expect at the time of long-term bond issuance per IRS requirements.

PUBLIC OUTREACH

This memorandum will be posted on the City's Internet website for the March 24, 2015 City Council agenda, and is scheduled to be heard at the March 12, 2015 Treatment Plant Advisory Committee meeting.

COORDINATION

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

FISCAL POLICY/ALIGNMENT

This recommendation is consistent with the following General Budget Principle: "We must focus on protecting our vital core city services for both the short and long-term."

CEQA

Not a Project, File PP10-069(a), City Organizational & Administrative Activities.

/s/
KERRIE ROMANOW
Director of Environmental Services

/s/
JULIA H. COOPER
Director of Finance

For questions, please contact Ashwini Kantak, Assistant Director, Environmental Services at (408) 975-2553 or Derek Hansel, Assistant Director, Finance at (408) 535-7041.

Attachments:

Attachment A - San José-Santa Clara Regional Wastewater Facility Ten-Year Funding Forecast
Attachment B – Forecasted Allocations by Agency

City of San José

SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY
TEN-YEAR FUNDING FORECAST
FINAL
February 2015

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City of San José

SAN JOSE – SANTA CLARA REGIONAL WASTEWATER FACILITY
TEN-YEAR FUNDING FORECAST

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1.0 EXECUTIVE SUMMARY

The San José-Santa Clara Regional Wastewater Facility (RWF) serves three South Bay cities--San José, Santa Clara, Milpitas, and four special districts including: Cupertino Sanitary District (City of Cupertino and portions of the cities of Saratoga, Sunnyvale, and Los Altos), West Valley Sanitation District (cities of Campbell, Los Gatos, Monte Sereno, and portions of Saratoga), County Sanitation District 2-3 (a county sanitation district within the metropolitan area of San José), and Burbank Sanitary District (an unincorporated area within San José). The RWF has recently commenced an extensive capital improvement program aimed at rehabilitating and replacing aging plant infrastructure, expanding treatment capacity, and improving processes to take advantage of new treatment technologies in anticipation of more stringent regulatory requirements. Over the next decade, the RWF anticipates investing approximately $1.4 billion in upgrading existing infrastructure and building new infrastructure. A preliminary Ten-Year Funding Strategy is being developed by the City and Public Resources Advisory Group (PRAG) to provide guidance to the cities of San José and Santa Clara and the Tributary Agencies as each agency performs their individual financial planning. The funding strategy will be preliminary in nature and will be refined over the next year based on funding and financing assumptions, legal considerations, bond market conditions, available debt instruments and strategies, and availability of State Revolving Fund loans. This report provides forecasted capital and operational expenditure needs over the next ten years and includes a discussion on guiding principles and financial metrics that may serve as a foundation for the preliminary Ten-Year Funding Strategy.

1.1 Background

The RWF is jointly owned by the cities of San José and Santa Clara and has been in operation since 1956 at its current location on 180 acres of a 2,600 acre site along the South Bay shoreline. As the administering agency, the City of San José is responsible for day-to-day operations at the RWF, as well as for planning, designing, and constructing capital improvements. Most of the infrastructure at the RWF is now more than 50 years old and has exceeded its useful like, with repairs needed to every process area. The key role of the RWF is protecting public and environmental health underscoring the critical need for infrastructure rehabilitation and replacement.

1.1.1 Capital Program

The RWF Plant Master Plan (PMP) provides both a roadmap to help determine the projects and funding needed to repair and replace the aging facilities and processes at the RWF. The PMP also presents a land-use plan that defines the future treatment needs along with

zoning designations and guidelines for the future development, restoration, and use of the four-and-a-half square mile RWF site.

The current RWF Capital Improvement Program (CIP) totals approximately $1.4 billion and includes specific projects to address aging infrastructure, expand plant capacity to serve regional population and economic growth, comply with more stringent regulations, and take advantage of improved treatment technologies. Development of the 2015-2025 CIP was guided by the RWF Plant Master Plan (PMP), a 30-year planning-level document focused on long-term rehabilitation and modernization of the RWF, which was approved in 2013 and identified over $2.1 billion in long-term capital improvement projects to rebuild and upgrade the RWF over the next 30 years.

1.1.2 Expenditure Forecast

The preliminary expenditure forecast is intended to provide an outlook of the total annual revenue requirements expected for the RWF through FY 2024-25. The analysis incorporates projected CIP expenditures (encumbrances), projected operating costs, and debt service on existing debt obligations. The preliminary expenditure forecast indicates average annual expenditures between $150 and $320 million. It is expected that the use of debt financing for capital projects will smooth the annual cash requirements of San Jose, Santa Clara, and the Tributary Agencies.

The primary driver of increases in annual RWF expenditures is the implementation of the RWF CIP and the associated project costs. Operating cost increases are also expected due to inflationary increases in operating costs as well as additional incremental operating costs associated with the implementation certain CIP projects.

1.1.3 Fiscal Policies and Guidelines

Funding of the CIP will require the issuance of a substantial amount of debt over the next ten years, above available cash funding. As such, San José, Santa Clara, and the Tributary Agencies evaluated a range of fiscal policies that would achieve long-range financial stability, could minimize the cost of borrowing to the maximum extent practical, and would achieve equity between the participating agencies. Key metrics that will be defined as part of the funding strategy recommended by PRAG include bond coverage and liquidity requirements.

2.0 BACKGROUND

2.1 Introduction

The RWF serves three South Bay cities--San José, Santa Clara, Milpitas, and four special districts including: Cupertino Sanitary District (City of Cupertino and portions of the cities of Saratoga, Sunnyvale, and Los Altos), West Valley Sanitation District (cities of Campbell, Los Gatos, Monte Sereno, and portions of Saratoga), County Sanitation District 2-3 (a county sanitation district within the metropolitan area of San José), and Burbank Sanitary District (an unincorporated area within San José). The RWF is jointly owned by the cities of San José and Santa Clara and has been in operation since 1956 at its current location on 180 acres of a 2,600 acre site along the South Bay shoreline. As the largest advanced wastewater treatment facility in the western United States, the RWF is critical to protecting public health, preventing pollution to San Francisco Bay ecosystems, and protecting the local economy. Operating on a 24-hour schedule, 365 days per year, the RWF treats an average of 110 million gallons per day of wastewater.

As the administering agency for the RWF, the City of San José is responsible for day-to-day operations at the RWF, as well as for planning, designing, and constructing capital improvements. Most of the infrastructure at the RWF is now more than 50 years old and has exceeded its useful like, with repairs needed to every process area. The key role of the RWF is protecting public and environmental health, which underscores the critical need for infrastructure rehabilitation and replacement. Over the next ten years, the RWF CIP is anticipated to be approximately $1.4 billion. The RWF ten-year CIP includes capital improvement projects that will upgrade existing infrastructure and build new infrastructure to support regional population and economic growth, address future anticipated regulatory changes, and take advantage of improved treatment technologies. Development of the 2015-2025 CIP was guided by the RWF Plant Master Plan, a 30-year planning-level document focused on long-term rehabilitation and modernization of the RWF, which was approved in 2013 and identified over $2.1 billion in long-term capital improvement projects to rebuild and upgrade the RWF over the next 30 years.

2.2 Organizational Structure

2.2.1 Ownership and Participation

The 1959 Sewage Treatment Plant Agreement (the 1959 Agreement) between the cities of San José and Santa Clara provides for San José and Santa Clara to own, operate, maintain, and use the RWF on a mutual basis and provide wastewater treatment services. Under the 1959 Agreement, San José serves as the administering agency for the RWF with authority and responsibility for operating the facility and determining annual operating costs. In the case of San José and Santa Clara, the allocation of operating and capital costs is based on annual assessed property valuations for San José and Santa Clara as set forth in the 1959 Agreement between these two cities as the owners of the RWF.

Pursuant to a 1983 Master Agreement for Wastewater Treatment Between City of San José, City of Santa Clara, and each of the Tributary Agencies (1983 Agreement), the allocation of the operating and capital costs among the Tributary Agencies is set forth with the term for wastewater treatment services through 2031. The Tributary Agencies include the City of Milpitas, Cupertino Sanitary District, County Sanitation District 2-3 (CSD 2-3), Burbank Sanitary District (Burbank), and West Valley Sanitation District (WVSD). As the administering agency for the RWF, San José establishes and collects the charges for usage of the RWF from the Tributary Agencies.

The San José-Santa Clara Clean Water Financing Authority (CWFA) is a joint powers authority formed by the cities of San José and Santa Clara. The CWFA was specifically established for the purpose of issuing debt for the improvement of the RWF pursuant to a joint exercise of powers agreement, as amended and restated in the Second Amended and Restated Joint Exercise of Powers Agreement, dated as of October 17, 1995.

2.3 CIP Development

2.3.1 The Plant Master Plan

The PMP, adopted in 2013, includes capital projects needed to address aging infrastructure, reduce odors, accommodate projected population growth in the RWF's service area, and comply with changing regulations. The PMP also provides a land use plan for the surrounding RWF lands for various environmental, social, and economic uses. The PMP was developed with extensive input from Santa Clara, the Tributary Agencies, technical experts, and the community at large.

2.3.2 Ten-Year Capital Improvement Program

The PMP sets the direction for future CIP projects that will upgrade and rebuild the RWF. However, as a high-level planning document, the PMP does not provide the detail required for project implementation. Following the adoption of the PMP, San José staff began a CIP Validation process using a systematic approach to identify, prioritize, and sequence projects utilizing combined knowledge from San José staff, consultant engineers, and executive leadership. The objective of the validation process was to decide which PMP projects to include in the five and ten-year Capital Improvement Programs (CIPs) for the RWF.

The validation process, completed in February 2014, focused on projects to be completed within the next ten fiscal years. Since that time, engineering staff has worked to further refine project costs and schedules. Based on the validation process and refinements, CIP expenditures at the RWF from FY 2014-15 through FY 2024-25 are expected to total approximately $1.4 billion, including the non-construction expenditures associated with CIP implementation. These proposed project costs are based on planning level 4 and 5 cost estimates (in accordance with American Association of Cost Estimators International

guidelines).[1] Planning level estimates and project schedules are developed based on best known information and incorporate necessary contingencies to account for unknowns, such as site conditions and material costs, that will be continually be refined until the final design and project bid process. In addition to the $1.3 billion for construction projections identified by the validation process, another $76 million has been identified for non-construction projects. Thus, total CIP investment for the next ten years is estimated at about $1.4 billion. Projected CIP encumbrances are included for reference in Appendix A.

3.0 EXPENDITURE FORECAST

3.1 Introduction

Given the substantial investment required in the RWF, it is important for San José, Santa Clara, and the Tributary Agencies to develop a long-term plan that could identify funding needs and evaluate funding options. This report outlines the ten-year capital and operating funding needs.

3.1.1 Financial Model

A financial model was developed to analyze the revenue and expenditure streams through FY 2024-25, and to explore various scenarios for the preliminary Ten-Year Funding Strategy. To develop the overall financial forecast, the model integrates capital funding requirements, projected operating costs, existing and projected debt issuances, outstanding loans, and reserve funding requirements, as well as various revenue streams including agency contributions for capital, operating, and debt service costs and other miscellaneous revenues. With the ten-year financial forecast in place, the financial model was used to estimate a contribution range from each agency based on the current accounting practice for allocating annual contributions related to capital, and operating costs. Although the actual funding strategy is being developed by the City and PRAG, this initial analysis helped all the agencies evaluate funding scenarios and provide guidance on the development of a ten year plan. The financial model incorporates assumptions pertaining to minimum target levels of RWF cash reserves and debt service coverage. As a ten year funding plan is developed, assumptions in the model can be easily updated to allow the comparison of various capital and operational scenarios. The model may also be used as a tool to assess the feasibility and impact of different financing scenarios.

3.2 Capital Funding

As discussed above, about $1.4 billion is projected to be invested in the RWF from FY 2014-15 through FY 2024-25. In 2014, guiding fiscal principles were developed and reviewed with the Technical Advisory Committee (TAC) and discussed with the Treatment Plant Advisory Committee (TPAC). These guiding principles serve as the foundation of this

[1] Planning level 5 cost estimates can range from 100% above to 50% below the final project cost. Planning level 4 cost estimates can range from 50% above and 30% below the final project cost.

analysis as well as the Ten-Year Funding Plan. These principles are intended to provide predictability and stability as well as minimize the near-term cost impacts to member agencies by having the cost of the capital improvement be paid over the life of the asset, and are outlined below:*1.Develop a long-term funding strategy that includes a base level of cash-funded capital investments and allows agencies to plan for future revenue needs*

2. Identify and incorporate Operations and Maintenance (O&M) costs associated with large capital projects;

3. Pursue external financing to the maximum extent practical in order to mitigate impact on rate payers and achieve intergenerational equity;

4. Minimize borrowing costs to the maximum extent practical and maintain high bond ratings to minimize long-term financial costs.

The ten year forecast accounts for the projected RWF CIP encumbrances, which are expected to total approximately $1.4 billion over the next decade. CIP expenditures are grouped into two major classifications - construction expenditures and non-construction expenditures. Construction expenditures include all project costs directly related to physical work performed to rehabilitate, replace, or expand any component of the RWF. Construction expenditures through FY 2024-25 will total approximately $1.3 billion. Non-construction expenditures are made up of indirect capital costs including program management and preliminary engineering services. Non-construction expenditures are expected to total approximately $76 million through FY 2024-25, including $23 million in program management costs.

3.3 Operating Costs

As part of the Ten-Year Funding Strategy, a preliminary long-range operating forecast has been developed. Operating expenditures are associated with day-to-day system operations – for example: employee salaries and benefits, system maintenance, fuel, and chemicals. The operating budget expenditures include costs related to administration, maintenance, operations, environmental engineering, planning and regulations, collection systems, wastewater labs, and other miscellaneous expenses. Figure 1 illustrates the projected O&M expenditures for FY 2015-16 by cost category.

The FY 2015-16 RWF operating budget serves as the basis for forecasting future Operations and Maintenance (O&M) expenditures. The budget was compared to the current internal financial forecast and discussed with San José staff to identify any anomalies or one-time expenditures not appropriate to include when projecting for future years. Staff also reviewed the budget to identify costs that might be adjusted due to future operational changes resulting from the implementation of the 2015-2025 CIP.

Unless adjusted based on specifically known future changes, costs incurred in future years were projected using a range of escalation factors. These escalation factors were

developed in collaboration with City staff for consistency with other City of San José funds and include factors for such things as personal services inflation and estimated cost increases for chemicals, power, and natural gas. The O&M expenditure projection incorporates projected annual changes to the existing O&M expenditures as well as incremental O&M costs associated with the implementation of the CIP. Currently RWF O&M expenditures total approximately $87 million annually. Inflationary and incremental increases are expected to drive annual O&M expenditures to nearly $127 million over the coming decade. This represents an increase of 39% through FY 2024-25, an average annual increase of 4.2%. Figure 2 shows the projected RWF O&M costs through FY 2024-25.

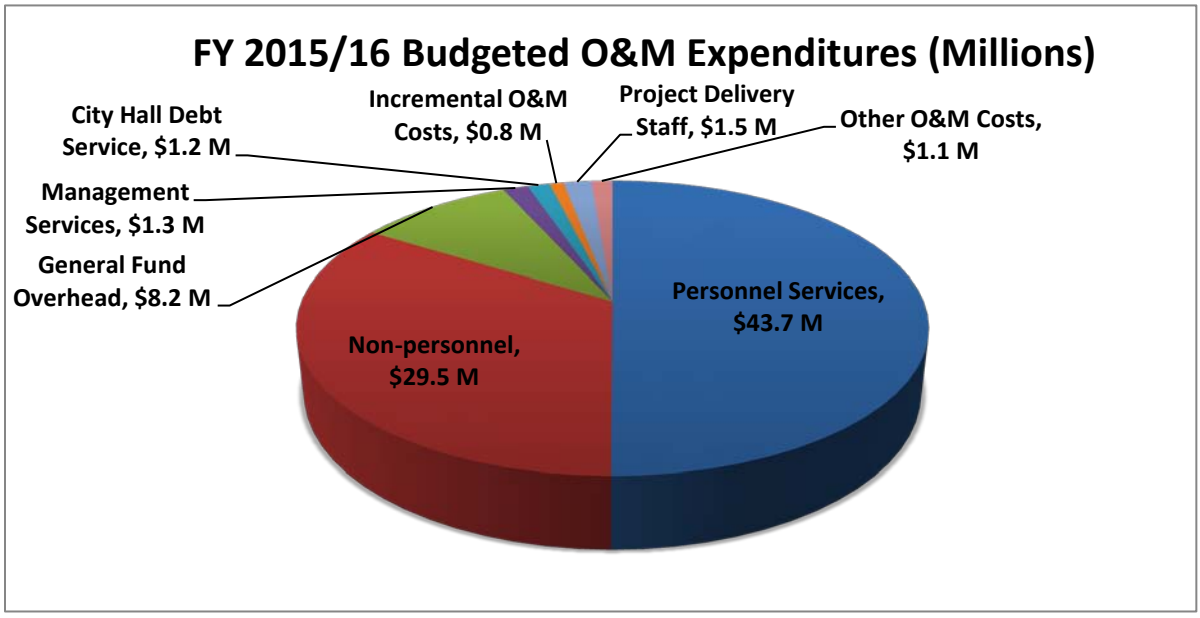

Figure 1: FY 2015-16 O&M Expenditures

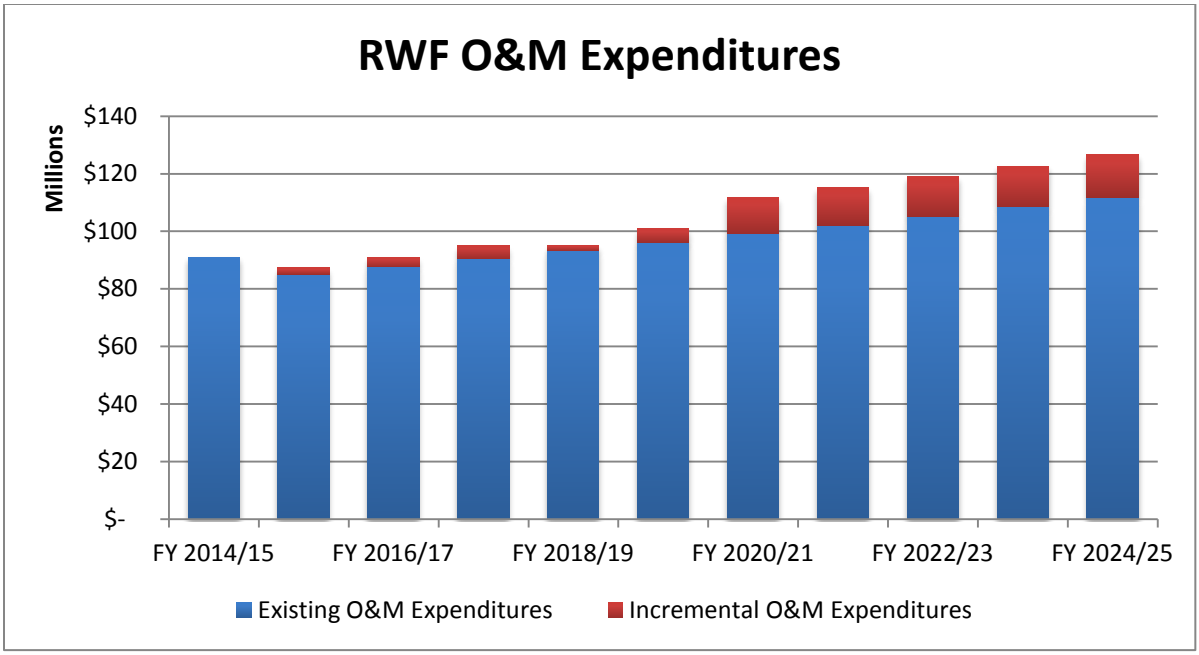

Figure 2: Projected RWF O&M Expenditures

3.3.1 Current Debt Service Obligations

The CWFA has approximately $32 million in principal and interest remaining on its outstanding bonds. In addition, the City has outstanding California Clean Water State Revolving Fund (SRF) loans of approximately $20 million for RWF projects that are to be repaid from RWF revenues. The current bonds and loans total approximately $56 million. Table 1 outlines the total outstanding debt obligations.

Table 1: Outstanding Debt (Millions)
RWF Ten-Year Funding Forecast

	Outstanding Principal	Interest	Total Remaining	Maturity
CWFA 2005A Sewer Revenue Bond	$10.9	$0.4	$11.3	FY2016-17
CWFA 2009A Revenue Bond	$21.4	$3.1	$24.5	FY2020-21
Existing SRF (many project-specific loans)	$13.5	$1.6	$15.2	FY2018-19
Total Remaining			**$51.0**	

Note: Amounts in the 'Total Remaining' column amount may not reflect the sum or other columns due to rounding.

Santa Clara and some of the Tributary Agencies did not participate in the financing through the previous bond issuances or the loans. Consequently, the annual debt service payments for these outstanding bonds and loans are funded only by those agencies that debt funded their share of costs, in proportion to their respective participation.

San José, Santa Clara, and the Tributary Agencies currently anticipate financing a majority of the capital improvements. This is the planned approach based on two primary reasons. Firstly, given the size of the capital program, the agencies do not have the available financial reserves that would otherwise be required to fund the capital improvement program, nor would it be reasonable to increase the wastewater rates and charges in order to cash fund these improvements. Secondly, spreading the debt service costs for long-lasting projects over the repayment period provides intergenerational equity by effectively spreading the financial burden between both existing and future users of the system. This approach allows the agencies to better match the cost of improvements with the customers benefitting from the improvements.

3.3.1.1 Potential SRF Loans

As part of the upcoming 2015 financing process, San José staff will explore the use of California Clean Water State Revolving Fund (SRF) loans in order to minimize the overall cost of borrowing for capital improvements. The SRF program is administered by the California State Water Resources Control Board (SWRCB) and provides low-interest funding for projects that improve water quality, renew wastewater infrastructure, and support local economies.

The SRF program offers attractive borrowing rates, but could impose additional project requirements, such as added environmental compliance verifications and a requirement to buy American steel and iron. The SRF program offers 30-year loans at half of the State of California borrowing rates, which was 1.5% as of the last SRF publication date in November 2014. The low interest rates offer an attractive financing option if funding is available. As of the writing of this report, City staff have engaged the SWRCB to discuss the availability of funding and the participation requirements.

3.3.1.2 Commercial Paper Program

Commercial paper (CP) is a low interest, short-term borrowing instrument that reaches maturity in no more than 270 days that can be refinanced with long-term debt. The implementation of a CP program could provide several benefits to the CWFA including:

- Provide low interest costs for short-term borrowing.
- Can be used for stopgap financing allowing the RWF to commence the capital program and take advantage of longer term financing options at a later date.

- Can allow the RWF to right-size long-term borrowing based on more refined project estimates or actual project costs.

3.4 Policy Considerations

3.4.1 Financing Best Practices

At this time it is anticipated that funding of the CIP will require the CWFA to issue a substantial amount of debt over the next ten years. As such, it is important that steps be taken to minimize the cost of borrowing to the maximum extent practical. Key financial metrics dictate the CWFA's credit rating and borrowing costs. Those metrics include the debt coverage factor and liquidity measured by the amount of cash on hand.

In addition to providing long-term cost savings through decreased borrowing costs, a solid debt coverage ratio and sound cash on hand/reserve practices will help the RWF maintain a strong financial and operational footing. City staff and PRAG will work towards targets for both metrics which are aligned with industry standards and similar to those followed by other wastewater agencies. The following sections provide more detail on debt coverage, liquidity, and reserve practices.

Debt Coverage: A minimum level of annual rate revenues is required in order to satisfy legal and/or policy driven debt coverage obligations. Debt coverage refers to the collection in revenues to meet all operating expenses and debt service obligations plus an additional multiple of that debt service. The debt coverage ratio is used as a means of assessing an agency's debt service performance or capacity. It is important to note that the debt service requirement is a revenue generation requirement, and not a reserve or expenditure requirement. Thus, revenues collected to meet the coverage requirement will still be available to the agency to fund other operating and capital expenditure needs.

The equation below shows the general calculation for debt coverage.

$$Debt\ Coverage\ Factor = \frac{Revenues - Ongoing\ Operating\ Expenditures}{Annual\ Debt\ Service}$$

The specific revenues and expenditures included in the calculation of legally required debt coverage are dictated by the governing documents for the issuance of bonds by an issuer.

Cash on Hand (Liquidity Measurement): Credit rating agencies often use an agency's amount of cash on hand as a metric to determine the agency's viability as a debt issuer, and therefore its credit rating. The cash on hand, or liquidity measurement, is typically expressed in days of operating expenses. The assumed minimum level of cash on hand will be evaluated by the City's financial advisors, based on market conditions at the time of issuance and rate affordability considerations.

In order to allow the RWF to meet cash on hand requirements, the RWF could establish reserves including an RWF Operating Reserve and an RWF Rate Stabilization Reserve, to

be funded by San José, Santa Clara, and the Tributary Agencies, along with continued funding of the existing Renewal and Replacement Fund. The sections below provide a description of industry typical practices as related to these types of reserves.

3.4.1.1 Operating Reserve

Operating reserves provide a minimum unrestricted operating fund balance needed to accommodate the short-term cycles of revenues and expenses. They provide a necessary "cushion" which can be used to cover cash balance fluctuations on a month-to-month basis. These reserves are intended to address both anticipated and unanticipated fluctuations in expenditures.

Typically, the operating reserve is not actually a reserved or restricted account balance. Instead, it functions as a minimum year-end unrestricted fund balance targeted for budgeting. The actual fund balance will vary both upward and downward from this target through the course of a fiscal year. If the actual ending balance is below or is projected to drop below the defined targeted level then rates should be increased in order to replenish the balance. Similarly, projected excesses can, with care, be used to fund a rate stabilization reserve (as discussed below).

Appropriate Reserve Levels: Generally, utilities should target a defined minimum operating reserve as a beginning cash balance to provide the liquidity needed to allow regular management of payables and payment cycles. Since expenses typically increase over time, the reserve target should also increase proportionally with increases in expenditures, meaning that rates would incorporate small annual increments of additions to the working capital reserve. When setting this reserve level, the utility should consider the guidelines of its other reserves. Depending on several factors (including bond requirements, a separate rate stabilization reserve, revenue collection variability, and fiscal prudence), the target level of a working capital reserve can range from as little as 60 to as much as 180 days of its annual operating expenses along with all or a portion of annual debt service.

Current Practice: The City of San José currently maintains an operating reserve of at least 2.0 times monthly net operating and maintenance expenses. The intended purpose of this reserve is to meet operating requirements and to offset unexpected fluctuations in expenditures. The City evaluates funds annually based on projected revenues and expenditures, and sets aside the required two-month minimum reserve within the RWF Operating Fund.

Recommended Practice: It is recommended that the City formalize the RWF operating reserve with a minimum target. Because the operating reserve would provide a benefit to San José, Santa Clara, and the Tributary Agencies, it is recommended that Santa Clara and the Tributary Agencies help fund the operating reserve based on their proportionate shares of O&M expenditures and debt service.

Funds held in the operating reserve required to cover debt service will become available at the time that the specific debt issuance that they are tied to reaches maturity. At that time, each agency will have the opportunity to decide how their share of the available the funds will be used. Possible uses of the funds include cash funding of capital, funding of additional reserves, or cash reimbursements from the RWF to the agencies.

3.4.1.2 Equipment Reserve [Treatment Plant Renewal and Replacement Fund]

An equipment replacement reserve known as the Treatment Plant Renewal and Replacement Fund was established for the ongoing maintenance of mechanical equipment, as well as serve as an emergency equipment reserve. It is prudent to maintain funds to meet unexpected emergency capital outlays. While it would be impractical to reserve against major system-wide failures such as those resulting from a catastrophic earthquake, it is reasonable and prudent to identify and quantify possible failures of individual system components.

Appropriate Reserve Levels: There are several ways to set an appropriate funding target, including the percentage of the utility booked fixed assets; the most costly system components; the reliance on other reserve resources; and the reliance on risk management provisions, such as insurance.

Current Practice: The Treatment Plant Renewal and Replacement Fund (Equipment Reserve) has been maintained at a minimum level of $5 million, based on 0.5 percent of the $1.0 billion RWF system value. San José, Santa Clara, and the Tributary Agencies have contributed to funding of this reserve.

Recommended Practice: It is recommended that the Treatment Plant Renewal and Replacement Fund continue to be funded at a minimum level required to pay for ongoing plant maintenance. It is further recommended that San José, Santa Clara, and the Tributary Agencies should continue to fund this reserve.

3.4.1.3 Rate Stabilization Reserve

The rate stabilization reserve is a restricted bond reserve. At the time of a bond issuance, money is set aside in a restricted fund and can later be used to meet the utility's annual debt service coverage obligation. In years that the utility cannot meet its coverage test, money may be withdrawn from this account and treated as revenue for the purpose of meeting this test. The reserve can be structured to allow the utility to repay money into the account in subsequent years.

Appropriate Reserve Levels: As noted, a rate stabilization reserve is established and funded to meet a specific risk, such as the revenue loss or unexpected operating expenditures, which will be accounted for in the annual bond coverage test. This reserve differs from the operating reserve, which is designed to provide a minimum unrestricted operating fund balance needed to accommodate both anticipated and unanticipated

fluctuations in expenditures. The rate stabilization reserve is commonly established with specific rules and restrictions regarding contributions, withdrawals, and replenishment – as set by the bond documents. Those rules are generally constructed to minimize or mitigate rate impacts. The sizing of the reserve is often related to the plan for replenishing spent reserves.

Current Practice: The City maintains a rate stabilization reserve per the provisions in the bond documents for the CWFA existing outstanding bonds. The maintenance of this reserve is discretionary under the terms of the existing CWFA bond documents. The maximum is set at $2 million and the City has maintained the full $2 million in the rate stabilization reserve since the issuance of CWFA's bonds in 1995, San José has been the sole contributor to the rate stabilization reserve although a number of the Tributary agencies have had their contributions to the capital projects funded through the issuance of the CWFA bonds.

Recommended Practice: It is appropriate that the bond rate stabilization reserves be governed by the bond indentures and are flexible to meet bond market conditions at the time of each issuance. This reserve is intended to assist in meeting bond coverage requirements, when needed, and can help to enhance the bond ratings by satisfying the rating agency defined liquid cash reserves. As the CWFA issues new debt, it could increase the rate stabilization reserve based on bond market conditions at that time and the cost benefit realized through lower interest rates as applicable. These increases to the reserve would reflect the coverage requirements of each new debt issuance. All agencies should contribute to the rate stabilization reserve based on their proportional share of debt service.

Funds held in the rate stabilization reserve will become available at the time that the specific debt issuance that they are tied to reaches maturity. At that time, each agency will have the opportunity to decide how their share of the available the funds will be used.

3.4.2 Projected Annual Cash Requirements

Total amount of cash needed in each year is equal to the sum of O&M costs, CIP encumbrances, equipment replacement, and existing debt service. Although the total annual funding requirement varies from approximately $150 million to $320 million, the use of debt to finance capital projects is expected to smooth annual cash needs. Figure 3 shows the approximate cash requirements for each year of the financial projection. These requirements might fluctuate based on timing of the CIP implementation and the funding strategy.

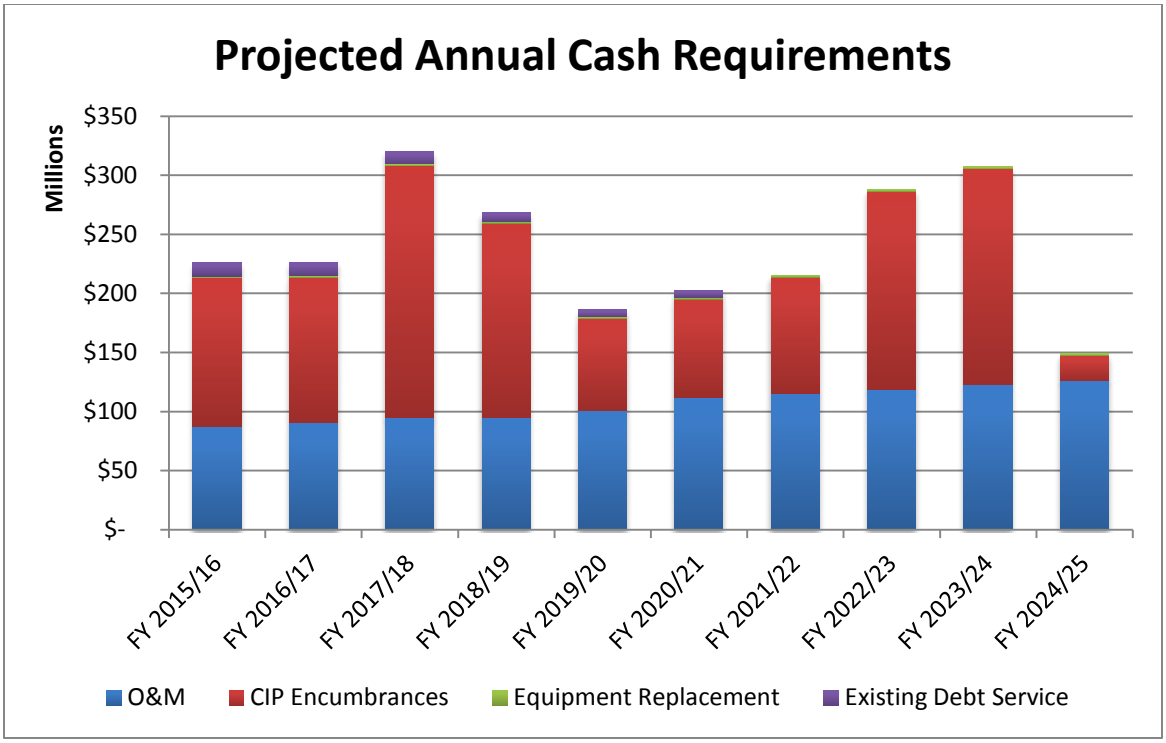

Figure 3: Projected Annual Cash Requirements

3.4.2.1 O&M Costs

Increases in contributions to cover operating costs are driven by inflationary increases in operating costs, and by the projected incremental operating costs associated with the CIP. For FY 2015/16 annual operating contributions are expected to total approximately $87 million. Total agency contributions for operating costs are expected to reach $127 million by FY 2024-25.

3.4.2.2 Debt Service

As implementation of the CIP continues, debt service will make up an increasing share of annual cash needs. In FY 2014-15 debt service accounted for less than 6 percent of cash requirements. Debt service contributions will increase steadily through FY 2024-25 to mitigate impacts on ratepayers and achieve intergenerational equity.

4.0 REGIONAL ALLOCATION

4.1.1 Overview of Allocation Process

On an annual basis, after the total CIP and O&M funding needs for the RWF are determined, costs are allocated to San José, Santa Clara, and each of the Tributary Agencies. In the case of San José and Santa Clara, the allocation of costs is based on annual assessed property valuations for San José and Santa Clara as set forth in the 1959 Agreement between these two cities as the owners of the RWF. Costs between the two

cities are currently allocated at roughly 82.5% to San José and 17.5% to Santa Clara based on the most current property valuations between both of the cities.

The 1983 Master Agreements with the Tributary Agencies proportionately allocate capital costs based on contractual capacity for each Tributary Agency and proportionally allocate operating costs based on annual wastewater flows and loadings for each Agency.

While this preliminary analysis aims to allocate capital and O&M costs to San José, Santa Clara, and the Tributary Agencies in a manner consistent with the 1959 Agreement and the 1983 Master Agreements, the projected allocations are intended to be illustrative only. The allocations have been included to provide a general outlook of the impacts to each agency based upon model assumptions and funding scenarios. It is assumed that San José will continue to use the current accounting practice in the allocation of costs to each agency.

The allocation for both capital and O&M costs are comprised of a three-step process as follows:

1. Allocation to Billable Constituents: Costs are allocated to flow, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Ammonia (NH_3) based on the proportionate share of annual operating expenditures or capital improvements.

2. Allocation to Agencies: After costs have been allocated to each of the four billable constituents, costs are then distributed to each agency based on their proportionate discharges and capacity ownership for O&M and capital costs, respectively.

3. Allocation Based on Assessed Valuation: After costs have been allocated to San José and Santa Clara, these costs are then redistributed to each owner based on the assessed valuation within each jurisdiction.

4.1.2 Flow and Loadings Assumptions and Growth

Wastewater flows and loadings dictate many collections system and RWF operational costs and capital expenditures. Therefore, they serve as the basis for allocating RWF costs to each of the member agencies. The analysis performed for this report assumes even growth throughout the region.

4.1.2.1 Flow and Loadings Across Agencies

As of FY 2013-14, the RWF processed over 39 billion gallons of wastewater annually at an average flow of 110 million gallons per day (MGD). Flows from San José and Santa Clara contribute roughly 80% to total wastewater, with Tributary Agencies contributing the remaining 20%.

4.1.2.2 Loadings Assumptions and Projected Loads

Wastewater strength characteristics (loadings) greatly affect RWF operations and costs, as well as capital improvements and rehabilitation projects. Therefore, it is important to account for system loadings in the development of user rates and fees. Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Ammonia (NH_3) are the measured wastewater parameters that are used to quantify wastewater strength.

4.1.2.3 Billable Constituents

Wastewater flow, BOD, TSS, and NH_3 serve as the billable constituents that are used to allocate operating and capital costs to each of the agencies. Billable constituents are parameters that can be measured or estimated both at the treatment facilities and for each Tributary Agency. For example, wastewater flows are monitored at the RWF and can be estimated for each Tributary Agency.

This analysis has been developed under the assumption that flow and loadings for the City of San José and all of the member agencies will remain flat at the FY 2014-15 level through the projection period. An intrinsic characteristic of this assumption is that each agency's percentage share of flow and loading remains constant through the projection period. As development and annexations take place throughout the projection period, San José will continue its practice of updating flow and loadings values form each agency and incorporating them into the revenue plan.

4.2 Operating Expenditure Allocation

The process of allocating operating expenditures to each agency consists of three main steps. First, offsetting revenues are subtracted from projected expenditures to determine how much revenue will need to be collected through O&M contributions. Next, the projected O&M revenue needs are allocated to the billable constituents of Flow, BOD, TSS, and NH_3. Lastly, those allocated costs are then applied to each agency based on each agency's share of annual flows and loads (billable constituents). Each of the three steps is detailed below.

4.2.1 O&M Revenue Needs

The primary source of revenue for the RWF is O&M contributions from San José, Santa Clara, and the Tributary Agencies. The RWF's O&M revenue need is the amount of revenue that must be collected through O&M contributions. O&M contributions are calculated each year, and are set to recover all of the RWF's O&M expenditures. Detailed discussion of O&M costs can be found in section 3.3.

4.2.2 Functional Allocation of RWF O&M Expenditures

Once the total revenue needs from O&M contributions have been determined, they are allocated to billable constituents. For the purposes of this analysis, O&M revenue needs

have been allocated to flow, BOD, TSS, and NH_3 based on the allocation percentages in the current revenue plan. All existing and incremental RWF O&M revenue needs are assigned to flow and strength parameters as follows:

- Flow: 34 percent
- BOD: 22 percent
- TSS: 22 percent
- NH_3: 22 percent

4.2.3 O&M Regional Allocation

O&M revenue needs are divided among the agencies based on estimated flow and loading for each agency. Revenue needs are assigned to each agency by multiplying the O&M revenue need for each constituent by each agency's percentage share of that constituent. This analysis assumes that the proportional share of costs between agencies is expected to remain constant, even as growth occurs throughout the region.

4.3 Capital Funding Allocation

4.3.1 Functional Allocation of RWF Capital Expenditures

The process of assigning capital costs to billable constituents is developed by first allocating the physical system to the billable constituents on a unit cost basis. For example, the Headworks project is primarily sized based on hydraulic capacity requirements. Consequently, the cost of operating and maintaining a Headworks is proportional to the amount of flow that passes through it and is allocated 100 percent to sewer flow. Using the allocation of the physical system, capital costs are allocated to billable constituents. Costs that cannot be assigned a specific allocation to functional components (un-assignable costs), because they serve a general benefit, are allocated based on the weighted average allocation of assignable costs.

Table 2 below indicates the weighted average allocation by wastewater flow and strength constituents for the RWF CIP in the coming decade.

Table 2: Overall CIP Functional Allocation (Millions)
RWF Ten-Year Funding Forecast

	Flow	BOD	TSS	NH3
Weighted Average	59.7%	19.5%	14.9%	5.9%
Allocation To Each Component	$821.8	$268.7	$204.7	$81.7
Total				**$1,377**

Note: Based on allocation of CIP encumbrances for FY 2014-15 through FY 2024-25.

It should be noted that capital costs will not be allocated to each of the agencies based on the allocations shown in Table 2. Rather, the functional allocation of capital costs will be adjusted each year using the existing allocation methodology, which takes new projects into account as they are undertaken, and provides adjustments for asset depreciation. Table 3 provides an illustrative example of the expected weighted average functional allocation of the CIP for each year of the projection based on the expected CIP project expenditures and timing as of February 2015.

Table 3: Overall CIP Functional Allocation (Millions)
RWF Ten-Year Funding Forecast

	Flow	BOD	TSS	NH3
FY 2014/15	73.2%	13.9%	8.4%	4.6%
FY 2015/16	73.1%	13.9%	8.4%	4.6%
FY 2016/17	73.1%	13.9%	8.4%	4.6%
FY 2017/18	69.3%	15.7%	10.6%	4.3%
FY 2018/19	69.8%	15.4%	10.4%	4.5%
FY 2019/20	67.1%	17.1%	11.8%	4.0%
FY 2020/21	67.9%	16.7%	10.7%	4.7%
FY 2021/22	67.7%	16.7%	10.8%	4.8%
FY 2022/23	67.4%	16.7%	10.9%	5.0%
FY 2023/24	67.4%	16.7%	10.9%	5.0%
FY 2024/25	67.2%	16.5%	11.3%	5.0%

Note: Values presented in each row may not add to 100 percent due to rounding.

4.3.2 Capital Allocation to Each Agency

Capital costs are divided amongst the agencies based on contractual capacity of flow, BOD, TSS, and NH_3 in the system. Once the capital costs have been allocated to billable constituents, each agency's share is calculated by multiplying the cost for each constituent by each agency's respective capacity share of that constituent. The cost associated with the constituents for the remaining capacity is shared between the City of San José and Santa Clara based on the San José and Santa Clara annual assessed property value percentages, which will vary each year. For 2013-14, the property value percentages were 82.5 percent for San José and 17.5 percent for Santa Clara.

Capacity ownership is updated as annexation and development occurs within each agency. The projected capital allocations in this model have been developed assuming that there will be no changes to the capacity ownership percentages through the projection period, thus each agency's proportional share of capital costs will not change. San José will continue to perform its internal allocation and accounting process, adjusting capacity share for each agency annually to reflect annexation and development.

5.0 FUTURE CONSIDERATIONS

5.1.1 Review of Key Assumptions

The analysis is based on a series of assumptions that were determined through discussions with San José staff, many of which directly influence the allocation of costs to each agency. The following key assumptions play a significant role in the determination of agency allocations.

Annual Flow and Loads – Annual flow and loads affect the allocation of operating costs to each agency. Large increases or decreases in flows and loads could also impact the cost of operating the RWF. The Ten-Year Funding Forecast has been developed assuming that flows and loads for each agency will remain flat at the FY 2013-14 estimated levels.

Contractual Capacity – Contractual capacity affects the allocation of capital costs (including debt service from future issuances) to each agency. The Ten-Year Funding Strategy has been developed based on the assumption that contractual capacity for each agency will remain constant at the FY 2013-14 estimated levels.

Agency Growth – Agency growth indirectly affects cost allocations by driving annual flow and loads and contractual capacity. The Ten-Year Funding Strategy has been developed assuming a zero percent growth factor for all agencies.

5.1.2 Implications of Flow and Loads Study

The RWF is in the process of completing a Flow and Loads Study concurrent to the development of the Ten-Year Funding Strategy. The Flow and Loads Study will provide a comprehensive review of the flow and loading assumptions used by the RWF to estimate annual flows and loads from San José, Santa Clara, and the Tributary Agencies. As the results of the study become available, they will be incorporated into the financial model to assess their impact on projected agency allocations.

The outcomes and recommendations of the Flow and Loads study have the potential to change the estimated annual flow and loads from each agency. If those changes result in shifts in the percentage share of flow and loads allocated to each agency, the portion of operating costs allocated to each agency will change. Any change to operating cost allocations will carry through to the required operating reserve contributions that cover the 60 days of O&M portion of the reserve.

The Flow and Loads Study would indicate each agency's usage of its capacity. The sale and purchase of capacity between agencies would impact each agency's allocated share of capital costs, which may include current and future debt service and reserves associated with the capacity.

5.1.3 Agency Growth

The assumption of zero percent growth for all agencies carries with it an intrinsic assumption that each agency's percentage share of flow and loading and of contractual capacity will remain constant. Using this assumption allows the analysis to assess the impacts of funding the RWF capital program as compared to the current status quo. In reality, each agency's unique build-out, development, and economic conditions will drive demand for wastewater service or capacity and will result in annual allocations that will vary from this preliminary analysis.

Staff will use the preliminary ten-year forecast and the financial model to guide the implementation of the CIP and the associated debt issuance processes. Each time new and pertinent information becomes available, it will be incorporated into the analysis to ensure that decisions are made based upon the best available information. San José will continue its internal accounting and allocation practices to ensure that all changes affecting the financial forecasts and annual allocations are reflected in the capital, operating, and reserve contributions required of each agency.

The costs and schedules for the CIP will continue to be further developed as projects go through detailed design. The updated CIP information will be used by the City's financial advisor to develop the detailed financing strategy and to plan the timing of the actual bond issuances or loans.

San Jose-Santa Clara RWF
Ten-Year Funding Forecast
Appendix A - Expenditure Forecast

TABLE I RWF Capital Expenditures - Escalated to Mid-point of Construction

RWF CIP Expenditures	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
RWF CIP Encumbrances											
Construction Expenditures	$ 80,750,000	$ 115,580,000	$ 98,470,000	$ 210,860,000	$ 162,480,000	$ 76,610,000	$ 83,930,000	$ 99,080,000	$ 167,830,000	$ 183,410,000	$ 21,520,000
Non-Construction Expenditures	22,820,000	11,840,000	25,750,000	3,800,000	3,570,000	2,850,000	1,180,000	1,180,000	1,180,000	1,180,000	1,040,000
Total RWF CIP Encumbrances	**$ 103,570,000**	**$ 127,420,000**	**$ 124,220,000**	**$ 214,660,000**	**$ 166,050,000**	**$ 79,460,000**	**$ 85,110,000**	**$ 100,260,000**	**$ 169,010,000**	**$ 184,590,000**	**$ 22,560,000**
Existing Debt											
2009 Revenue Bonds											
Principal	$ -	$ -	$ 725,000	$ 5,145,000	$ 4,965,000	$ 5,175,000	$ 5,410,000	$ -	$ -	$ -	$ -
Interest	847,375	847,375	836,500	735,588	236,210	352,087	116,200	-	-	-	-
Total 2009 Revenue Bonds	**$ 847,375**	**$ 847,375**	**$ 1,561,500**	**$ 5,880,588**	**$ 5,201,210**	**$ 5,527,087**	**$ 5,526,200**	**$ -**	**$ -**	**$ -**	**$ -**
2005 Revenue Bonds											
Principal	$ 5,520,000	$ 5,795,000	$ 5,130,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest	547,688	301,031	96,188	-	-	-	-	-	-	-	-
Total 2005 Revenue Bonds	**$ 6,067,688**	**$ 6,096,031**	**$ 5,226,188**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
SRF Loans											
Principal	$ 3,976,581	$ 3,976,581	$ 3,976,581	$ 3,976,581	$ 1,591,913	$ -	$ -	$ -	$ -	$ -	$ -
Interest	487,301	487,301	487,301	487,301	212,107	-	-	-	-	-	-
Total SRF Loans	**$ 4,463,882**	**$ 4,463,882**	**$ 4,463,882**	**$ 4,463,882**	**$ 1,804,020**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Total Debt											
Principal	$ 9,496,581	$ 9,771,581	$ 9,831,581	$ 9,121,581	$ 6,556,913	$ 5,175,000	$ 5,410,000	$ -	$ -	$ -	$ -
Interest	1,882,363	1,635,707	1,419,988	1,222,888	448,317	352,087	116,200	-	-	-	-
Total Debt	**$ 11,378,944**	**$ 11,407,288**	**$ 11,251,569**	**$ 10,344,469**	**$ 7,005,230**	**$ 5,527,087**	**$ 5,526,200**	**$ -**	**$ -**	**$ -**	**$ -**

TABLE II RWF O&M Expenditures

RWF O&M Expenditures	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Existing O&M	$ 90,990,000	$ 85,090,000	$ 87,740,000	$ 90,460,000	$ 93,330,000	$ 96,180,000	$ 99,120,000	$ 102,160,000	$ 105,290,000	$ 108,520,000	$ 111,860,000
CIP Incremental O&M	-	2,230,000	3,260,000	4,560,000	1,840,000	4,850,000	12,660,000	13,010,000	13,700,000	14,090,000	14,760,000
Total	**$ 90,990,000**	**$ 87,320,000**	**$ 91,000,000**	**$ 95,020,000**	**$ 95,170,000**	**$ 101,030,000**	**$ 111,780,000**	**$ 115,170,000**	**$ 118,990,000**	**$ 122,610,000**	**$ 126,620,000**

Attachment B - Forecasted Allocations by Agency
2016-20 O&M and CIP AGENCY ALLOCATIONS

	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	5-Year Total	10-Year Total
Santa Clara												
O&M Allocation	**$13,182,540**	**$12,679,990**	**$ 13,139,371**	**$ 13,623,147**	**$ 14,114,533**	**$ 15,853,417**	**$ 16,404,709**	**$ 16,975,792**	**$ 17,567,390**	**$ 18,180,252**	**$ 66,739,581**	**$ 151,721,141**
CIP allocation												
Construction	15,791,453	13,729,845	$ 29,347,780	$ 23,636,810	$ 10,490,310	$ 11,861,356	$ 13,691,663	$ 23,703,517	$ 25,919,733	$ 2,796,761	$ 92,996,198	$ 170,969,228
Non Construction	1,650,720	3,618,384	$ 522,412	$ 511,022	$ 497,787	$ 168,395	$ 164,162	$ 166,613	$ 166,431	$ 146,649	$ 6,800,324	$ 7,612,575
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	$ 687,858	$ 277,978	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,341,552	$ 2,341,552
CWFA Debt Service Payment	0	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total CIP Allocation	**18,130,031**	**18,266,063**	**$ 30,788,026**	**$ 24,655,786**	**$ 11,218,073**	**$ 12,259,727**	**$ 14,085,801**	**$ 24,100,106**	**$ 26,316,140**	**$ 3,173,387**	**$ 103,057,979**	**$ 182,993,139**
West Valley												
O&M Allocation	**$ 8,745,757**	**$ 8,412,348**	**$ 8,717,117**	**$ 9,038,071**	**$ 9,364,074**	**$ 10,517,710**	**$ 10,883,457**	**$ 11,262,333**	**$ 11,654,820**	**$ 12,061,414**	**$ 44,277,367**	**$ 100,657,101**
CIP allocation												
Construction	7,420,609	6,315,596	$ 13,782,755	$ 9,345,780	$ 4,974,645	$ 4,998,788	$ 6,449,368	$ 10,580,903	$ 11,490,152	$ 1,310,415	$ 41,839,386	$ 76,669,011
Non Construction	775,695	1,664,422	$ 245,343	$ 202,053	$ 236,057	$ 70,968	$ 77,328	$ 74,373	$ 73,778	$ 68,712	$ 3,123,570	$ 3,488,729
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	$ 377,119	$ 152,402	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,283,759	$ 1,283,759
CWFA Debt Service Payment	645,814	553,662	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,199,476	$ 1,199,476
Total CIP Allocation	**9,219,237**	**9,055,364**	**$ 14,549,782**	**$ 9,844,801**	**$ 5,355,267**	**$ 5,214,320**	**$ 6,671,260**	**$ 10,799,841**	**$ 11,708,495**	**$ 1,523,692**	**$ 48,024,451**	**$ 83,942,060**
Cupertino												
O&M Allocation	**$ 4,897,086**	**$ 4,710,397**	**$ 4,881,049**	**$ 5,060,764**	**$ 5,243,305**	**$ 5,889,270**	**$ 6,094,066**	**$ 6,306,214**	**$ 6,525,982**	**$ 6,753,650**	**$ 24,792,601**	**$ 56,361,783**
CIP allocation												
Construction	4,904,290	4,177,367	$ 9,107,756	$ 5,706,274	$ 3,309,190	$ 3,132,249	$ 4,341,604	$ 6,913,777	$ 7,691,422	$ 872,204	$ 27,204,876	$ 50,156,131
Non Construction	512,658	1,100,909	$ 162,125	$ 123,368	$ 157,028	$ 44,468	$ 52,056	$ 48,597	$ 49,387	$ 45,734	$ 2,056,088	$ 2,296,330
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	$ 226,816	$ 91,661	$ -	$ -	$ -	$ -	$ -	$ -	$ 772,109	$ 772,109
CWFA Debt Service Payment	410,507	351,931	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 762,438	$ 762,438
Total CIP Allocation	**6,054,270**	**5,942,285**	**$ 9,581,959**	**$ 6,006,565**	**$ 3,551,480**	**$ 3,261,980**	**$ 4,478,921**	**$ 7,047,636**	**$ 7,826,070**	**$ 1,003,200**	**$ 31,136,559**	**$ 54,754,366**
Milpitas												
O&M Allocation	**$ 5,582,255**	**$ 5,369,446**	**$ 5,563,975**	**$ 5,768,834**	**$ 5,976,915**	**$ 6,713,260**	**$ 6,946,709**	**$ 7,188,539**	**$ 7,439,056**	**$ 7,698,577**	**$ 28,261,425**	**$ 64,247,566**
CIP allocation												
Construction	8,625,290	7,235,327	$ 16,008,883	$ 9,582,498	$ 5,809,586	$ 5,400,118	$ 7,534,586	$ 11,929,007	$ 12,863,276	$ 1,524,164	$ 47,261,584	$ 86,512,735
Non Construction	901,623	1,906,809	$ 284,970	$ 207,171	$ 275,677	$ 76,665	$ 90,339	$ 83,849	$ 82,595	$ 79,920	$ 3,576,250	$ 3,989,619
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	$ 21,695	$ 8,767	$ -	$ -	$ -	$ -	$ -	$ -	$ 73,852	$ 73,852
CWFA Debt Service Payment	45,790	45,753	$ 45,751	$ 42,974	$ 43,001	$ 42,994	$ -	$ -	$ -	$ -	$ 223,269	$ 266,263
Total CIP Allocation	**9,594,398**	**9,308,465**	**$ 16,460,181**	**$ 9,940,292**	**$ 6,227,146**	**$ 5,618,659**	**$ 7,723,807**	**$ 12,111,738**	**$ 13,044,754**	**$ 1,702,966**	**$ 51,530,482**	**$ 91,732,407**
CSD 2/3												
O&M Allocation	**$ 885,050**	**$ 851,310**	**$ 882,152**	**$ 914,632**	**$ 947,622**	**$ 1,064,368**	**$ 1,101,380**	**$ 1,139,722**	**$ 1,179,441**	**$ 1,220,587**	**$ 4,480,766**	**$ 10,186,264**
CIP allocation												
Construction	609,096	542,685	$ 1,186,482	$ 738,592	$ 430,937	$ 407,079	$ 563,945	$ 897,805	$ 992,541	$ 113,482	$ 3,507,792	$ 6,482,643
Non Construction	63,670	143,020	$ 21,120	$ 15,968	$ 20,449	$ 5,779	$ 6,762	$ 6,311	$ 6,373	$ 5,950	$ 264,227	$ 295,403
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	$ 48,747	$ 19,700	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,941	$ 165,941
CWFA Debt Service Payment	102,258	102,171	$ 102,146	$ 95,946	$ 96,006	$ 95,990	$ -	$ -	$ -	$ -	$ 498,527	$ 594,517
Total CIP Allocation	**823,771**	**852,588**	**$ 1,374,460**	**$ 886,171**	**$ 563,356**	**$ 524,813**	**$ 586,671**	**$ 920,081**	**$ 1,014,879**	**$ 135,397**	**$ 4,500,347**	**$ 7,682,188**

Attachment B - Forecasted Allocations by Agency
2016-20 O&M and CIP AGENCY ALLOCATIONS

	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	5-Year Total	10-Year Total
Burbank												
O&M Allocation	$ 219,100	$ 210,748	$ 218,383	$ 226,423	$ 234,591	$ 263,492	$ 272,654	$ 282,146	$ 291,979	$ 302,165	$ 1,109,245	$ 2,521,681
CIP allocation												
Construction	269,083	240,334	$ 500,027	$ 294,311	$ 185,039	$ 160,138	$ 259,617	$ 390,767	$ 498,979	$ 49,535	$ 1,488,793	$ 2,847,829
Non Construction	28,128	63,338	$ 8,901	$ 6,363	$ 8,780	$ 2,273	$ 3,113	$ 2,747	$ 3,204	$ 2,597	$ 115,510	$ 129,444
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	$ 11,562	$ 4,672	$ -	$ -	$ -	$ -	$ -	$ -	$ 39,358	$ 39,358
CWFA Debt Service Payment	16,880	16,868	$ 16,877	$ 15,853	$ 15,863	$ 15,860	$ -	$ -	$ -	$ -	$ 82,340	$ 98,200
Total CIP Allocation	**325,652**	**336,725**	**$ 541,990**	**$ 325,821**	**$ 214,305**	**$ 182,895**	**$ 267,352**	**$ 398,136**	**$ 506,805**	**$ 56,756**	**$ 1,744,493**	**$ 3,156,438**
San Jose												
O&M Allocation	**$62,584,872**	**$60,198,986**	**$ 62,379,925**	**$ 64,676,680**	**$ 67,009,564**	**$ 75,265,015**	**$ 77,882,308**	**$ 80,593,558**	**$ 83,402,201**	**$ 86,311,802**	**$ 316,850,027**	**$ 720,304,911**
CIP allocation												
Construction	74,967,180	65,181,846	$ 139,327,316	$ 112,214,735	$ 49,802,294	$ 56,311,273	$ 64,574,218	$ 111,752,225	$ 122,290,898	$ 13,186,438	$ 441,493,371	$ 809,608,423
Non Construction	7,836,506	17,178,119	$ 2,480,129	$ 2,426,054	$ 2,363,222	$ 799,450	$ 774,241	$ 785,510	$ 785,232	$ 691,436	$ 32,284,031	$ 36,119,899
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	$ 3,090,204	$ 1,248,819	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,519,431	$ 10,519,431
CWFA Debt Service Payment	5,820,158	5,819,302	$ 5,821,813	$ 5,483,889	$ 5,487,219	$ 5,486,356	$ 115,000	$ 115,000	$ 115,000	$ 115,000	$ 28,432,382	$ 34,378,738
Total CIP Allocation	**91,714,049**	**92,353,199**	**$ 151,803,190**	**$ 122,457,225**	**$ 58,736,461**	**$ 63,680,806**	**$ 66,547,186**	**$ 113,736,462**	**$ 124,274,856**	**$ 15,076,601**	**$ 517,064,123**	**$ 900,380,034**
Total O&M Allocation	**$96,096,660**	**$92,433,225**	**$ 95,781,972**	**$ 99,308,551**	**$ 102,890,604**	**$ 115,566,532**	**$ 119,585,284**	**$ 123,748,304**	**$ 128,060,867**	**$ 132,528,447**	**$ 486,511,012**	**$ 1,106,000,447**
Total CIP Allocation												
Construction	112,587,000	97,423,000	$ 209,261,000	$ 161,519,000	$ 75,002,000	$ 82,271,000	$ 97,415,000	$ 166,168,000	$ 181,747,000	$ 19,853,000	$ 655,792,000	$ 1,203,246,000
Non Construction	11,769,000	25,675,000	$ 3,725,000	$ 3,492,000	$ 3,559,000	$ 1,168,000	$ 1,168,000	$ 1,168,000	$ 1,167,000	$ 1,041,000	$ 48,220,000	$ 53,932,000
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	$ 4,464,000	$ 1,804,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,196,000	$ 15,196,000
CWFA Debt Service Repayment	7,041,406	6,889,688	$ 5,986,588	$ 5,638,663	$ 5,642,088	$ 5,641,200	$ 115,000	$ 115,000	$ 115,000	$ 115,000	$ 31,198,431	$ 37,299,631
Total CIP Allocation	**135,861,406**	**136,114,688**	**$ 225,099,588**	**$ 174,116,663**	**$ 85,866,088**	**$ 90,743,200**	**$ 100,361,000**	**$ 169,114,000**	**$ 184,692,000**	**$ 22,672,000**	**$ 757,058,431**	**$ 1,324,640,631**

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

FEBRUARY 1, 2015 - FEBRUARY 28, 2015

Description of Contract Activity [1]	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original $ Amount	Start Date	End Date	Additional $ Amount	Total $ Amount	Comments
WATER TOXICITY TESTING	14-15	19092	50950	PACIFIC ECORISK LABORATORY	$200,000	3/1/2015	2/28/2016			
LEASE A USED 4-WIDE TRAILER FOR CIP	14-15	19725	50621	DESIGN SPACE MODULAR BUILDINGS	$165,682	9/23/2014	11/15/2016	$19,087	$184,769	FOR MODIFICATIONS AND TAXES NOT INCLUDED IN ORIGINAL QUOTE
2800KW AC GENERATOR REPAIR	14-15	20448	78253	KOFFLER ELECTRICAL INC	$130,000	2/26/2015	6/30/2015			
WELDING EQUIPMENT SERVICE & COMPRESSED GASES	14-15	20370	50918	AIRGAS USA, LLC	$100,000	3/17/2015	3/16/2016			$60K FOR MAINTENANCE DIVISION & $40K FOR LAB DIVISION
TRAFFIC CIRCULATION AND IMPACT STUDY	14-15		AC 25978	DAVID J POWERS & ASSOCIATES	$120,843	1/26/2015; NTP 2/2/15	8/7/2015; 130 BUSINESS DAYS FROM NTP			SERVICE ORDER #1 (TASK 1-6) MASTER AGREEMENT TERM: 5/21/14-6/30/19
IRON SALT (PLP-01) ENVIRONMENTAL COMPLIANCE SERVICES	14-15		AC 26027	ENVIRONMENTAL SCIENCE ASSOCIATES	$122,893	NTP 1/28/15	900 BUSINESS DAYS FROM NTP			SERVICE ORDER #8 (TASK 1-6) MASTER AGREEMENT TERM: 5/21/14-6/30/19

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