SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

CHUCK REED, CHAIR
JOSE ESTEVES, MEMBER
PAT KOLSTAD, MEMBER
JAMIE MATTHEWS, MEMBER
MADISON NGUYEN, MEMBER
CHUCK PAGE, MEMBER
JOHN GATTO, MEMBER
JENNIFER MAGUIRE, MEMBER
KANSEN CHU, MEMBER

AGENDA/TPAC
SPECIAL MEETING

4:30 p.m. **April 17, 2014** **Room 1734**

1. **ROLL CALL**

2. **APPROVAL OF MINUTES**

   A. March 13, 2014

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

4. **DIRECTOR'S REPORT** (verbal)

   A. Directors Verbal Report
   - Monthly CIP Progress Report

5. **AGREEMENTS/ACTION ITEMS**

   A. Report on Bids and Award of Contract for 7157 – Digester Gas Storage Replacement Project

   Staff Recommendation: Report on bids and award of a construction contract for 7157 – Digester Gas Storage Replacement Project to the lowest responsive bidder, Anderson Pacific Engineering Construction Inc., for the base bid and Add Alternate No. 1 in the amount of $1,825,100, and approval of a ten percent contingency in the amount of $182,510.

   The Report on Bids and Award of Contract for 7157 – Digester Gas Storage Replacement Project is scheduled for Council consideration on April 15, 2014.

   This item will be deferred to April 22 due to the later TPAC meeting date

   B. Report on Bids and Award of Contract for 6998 – Fire Main Replacement – Phase III Project

   Staff Recommendation:

(a) Report on bids and award of construction contract for 6998 – Fire Main Replacement – Phase III Project to the lowest responsive bidder, Stoloski & Gonzalez, Inc., for the base bid in the amount of $1,572,870, and approval of a 10 percent contingency in the amount of $157,290.

(b) Adopt the following 2013-2014 Appropriation Ordinance Amendments in the San Jose-Santa Clara Treatment Plant Capital Fund:
   (1) Decrease the Plant Infrastructure Improvements appropriation to the Environmental Services Department in the amount of $400,000; and
   (2) Increase the Treatment Plant Fire Main Replacement appropriation to the Environmental Services Department in the amount of $400,000.

The Report on Bids and Award of Contract for 6998 – Fire Main Replacement – Phase III Project is scheduled for Council consideration on April 15, 2014.

This item will be deferred to April 22 due to the later TPAC meeting date

C. Report on Bids and Award of Contract for the 7407 - BNR-2 Clarifiers Guardrail Replacement

Staff Recommendation:

1. Award of a construction contract for the 7407 - BNR-2 Clarifiers Guardrail Replacement to the lowest responsive bidder, Tucker Construction, Inc., in the amount of $320,792.50.
2. Approve a contingency in the amount of $32,100.

The Report on Bids and award of Contract for the 7407 – BNR-2 Clarifiers Guardrail Replacement is scheduled for Council consideration on April 15, 2014

This item will be deferred to April 22 due to the later TPAC meeting date

D. Wholesale Recycled Water Rates for FY 2014-15

Staff Recommendation: Adopt a resolution to adjust the rate discount for wholesale recycled water through the South Bay Water Recycling Program at $215 for Industrial/Agricultural category users effective July 1, 2014, superseding Resolution No. 75430

The Wholesale Recycled Water Rates for FY 2014-15 is scheduled for Council consideration on April 22, 2014.

E. San Jose-Santa Clara Regional Wastewater Facility Capital Improvement Program Semiannual Status Report, July – December 2013

Staff Recommendation:

1. Accept the Semiannual Status Report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period of July through December 2013; and
2. Cross-reference this item to the April 29, 2014 Council meeting for acceptance.

The San Jose-Santa Clara Regional Wastewater Facility Capital Improvement Program Semiannual Status Report, July – December 2013 is scheduled for Council consideration on April 29, 2014.

6. OTHER BUSINESS/CORRESPONDENCE

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Gasification Demonstration Agreement with Zero Waste Energy

1. Negotiate and execute a right of entry agreement with JUM Global, LLC and Zero Waste Energy, LLC to construct and operate a small scale demonstration unit that will test gasification of local biosolids and wood waste from the residential yard trimmings collection program at the San José-Santa Clara Regional Wastewater Facility for a term beginning April 1, 2014, through June 30, 2015, at a cost not to exceed $1,586,688.67.

2. Execute an amendment to the Grant Agreement between the City and the California Energy Commission to change the technology provider from Harvest Power, Inc. to JUM Global, LLC and Zero Waste Energy, LLC.

3. Adopt the following 2013-2014 Appropriation Ordinance Amendments in the Integrated Waste Management Fund:
   a) Decrease the Operations & Maintenance Reserve appropriation in the amount of $1,600,000;
   b) Increase the appropriation to the Environmental Services Department: California Energy Commission Grant: Biomass to Energy Technology Project, in the amount of $1,600,000.

The Gasification Demonstration Agreement with Zero Waste Energy was approved by Council on March 18, 2014.

B. Master Agreements for Environmental Consulting Services

1. Cornerstone Earth Group from the date of execution through December 31, 2016 in an amount not to exceed $350,000;

2. URS Corporation from the date of execution through December 31, 2016 in an amount not to exceed $350,000;

3. Haley & Aldrich from the date of execution through December 31, 2016 in an amount not to exceed $250,000; and

4. Environmental Resource Management, Inc. from the date of execution through December 31, 2016 in an amount not to exceed $250,000.

The Master Agreements for Environmental Consulting Services was approved by Council on March 18, 2014.

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 Special TPAC Study Session on proposed budgets and the ten-year funding strategy will be held on April 17, 2014, from 3:30 p.m. to 5:00 p.m. City Hall, Room 1734

B. The next TPAC meeting is May 15, 2014, at 4:30 p.m. City Hall, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

NOTE: If you have any changes or questions, please contact Jennifer Hade, Environmental Services, (408) 975-2515.

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please contact Jennifer Hade at (408) 975-2515 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.

2A

MINUTES OF THE
SAN JOSE/SANTA CLARA
TREATMENT PLANT ADVISORY COMMITTEE

City Hall, City Manager's Office, 17th Floor, Room 1734
Thursday, March 13, 2014 at 4:30 p.m.

1. ROLL CALL

Minutes of the Treatment Plant Advisory Committee convened this date at 4:38 p.m. Roll call was then taken, with the following members in attendance:

Committee members: Committee Chair Chuck Reed, Kansen Chu, Jose Esteves, John Gatto, Nanci Klein, Patricia Mahan, Jamie Matthews, Madison Nguyen, Chuck Page

Absent: Committee member Pat Kolstad and Jennifer Maguire

DRAFT

2. APPROVAL OF MINUTES

A. February 13, 2014
Item 2.A was approved.

3. UNFINISHED BUSINESS/REQUEST FOR DEFERRALS

4. DIRECTORS REPORT

A. Directors Verbal Report:

Kerrie Romanow, Director, Environmental Services stated staff had provided preliminary proposed budget information to all agencies and reviewed, discussed and answered questions at the Technical Advisory Committee (TAC) on Monday, March 10, 2014. Staff also sent an Information Memorandum, dated March 11, 2014, to TPAC which provided information on past and future budget and funding discussions with TAC and TPAC. Kerrie Romanow highlighted information from the memo, related to prior feedback received from the agencies:

1. An interest in pursuing external financing to the maximum extent possible to mitigate impact on rate payers
2. Developing a long term funding strategy that includes a predictable base level of cash funded capital investments and allows time for agencies to catch up on revenue collection
3. Identify and incorporate operations and maintenance costs with large capital projects and forecast other similar trends
4. Review methodology for allocating capital cost to agencies and evaluating potential for any future changes

Additionally, staff would like to schedule a second TPAC study session for April 17, from 2:30 pm to 4:00 pm, to discuss this topic in more detail before the May 15

TPAC meeting. Staff will be seeking the Committee's recommendation on the proposed budget at the May 15 meeting.

The Biosolids study session is confirmed for April 10, 2014 and will be held in the Wing Committee Rooms from 2:30 pm to 4:30 pm. The regularly scheduled TPAC meeting will begin at 4:30 pm as usual but will also be held in the Wing Committee rooms on that day. The study session will be televised.

The Silicon Valley Advanced Water Purification Facility has begun testing and staff is optimistic that the system will be fully operational by the end of the month.

5. AGREEMENTS/ACTION ITEMS

A. Gasification Demonstration Agreement with Zero Waste Energy

Staff Recommendation:

1. Negotiate and execute a right of entry agreement with JUM Global, LLC and Zero Waste Energy, LLC to construct and operate a small scale demonstration unit that will test gasification of local biosolids and wood waste from the residential yard trimmings collection program at the San José-Santa Clara Regional Wastewater Facility for a term beginning April 1, 2014, through June 30, 2015, at a cost not to exceed $1,586,688.67.

2. Execute an amendment to the Grant Agreement between the City and the California Energy Commission to change the technology provider from Harvest Power, Inc. to JUM Global, LLC and Zero Waste Energy, LLC.

3. Adopt the following 2013-2014 Appropriation Ordinance Amendments in the Integrated Waste Management Fund:
   a) Decrease the Operations & Maintenance Reserve appropriation in the amount of $1,600,000;
   b) Increase the appropriation to the Environmental Services Department: California Energy Commission Grant: Biomass to Energy Technology Project, in the amount of $1,600,000.

The Gasification Demonstration Agreement with Zero Waste Energy is scheduled for Council consideration on March 18, 2014.

Motion by Committee Member Matthews, second by Committee Member Mahan to approve item 5.A. Item 5.A. was approved unanimously.

B. Master Agreements for Environmental Consulting Services

Staff Recommendation:

1. Cornerstone Earth Group from the date of execution through December 31, 2016 in an amount not to exceed $350,000;

2. URS Corporation from the date of execution through December 31, 2016 in an amount not to exceed $350,000;

3. Haley & Aldrich from the date of execution through December 31, 2016 in an amount not to exceed $250,000; and

4. Environmental Resource Management, Inc. from the date of execution through December 31, 2016 in an amount not to exceed $250,000.

The Master Agreements for Environmental Consulting Services is scheduled for Council consideration on March 18, 2014.

Motion by Committee Member Mahan, second by Committee Member Matthews to approve item 5.B. Item 5.B. was approved unanimously.

6. OTHER BUSINESS/CORRESPONDENCE

A. Memo from Mayor Reed, Vice Mayor Nguyen, and Councilmembers Herrera and Chu
Subject: McCarthy Ranch Property Development Restrictions

B. Memo from Richard Doyle, City Attorney
Subject: McCarty Ranch Property Development Restrictions

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Master Agreement for O&M Engineering Service for Facility

1. Approval of consultant Master Service Agreement with HydroScience Engineers, Incorporated for engineering support and services for the San José/Santa Clara Regional Wastewater Facility for various Operation and Maintenance (O&M) projects requiring engineering support and services on as needed basis for a period of one year from the date of execution for an amount not to exceed $500,000, and up to three one-year options.

2. Adoption of a resolution authorizing the City Manager to exercise up to three one-year options to extend the term of the agreement for an amount not to exceed $500,000 for each option term, and a total amount not to exceed $2,000,000 for the initial term and all options, subject to the annual appropriation of funds.

The Master Agreement for O&M Engineering Service for Facility was approved by Council on February 25, 2014.

B. Regional Wastewater Facility Program Start Up and Validation Efforts

Accept this report on the progress of the Program Management start-up and validation efforts of the San José-Santa Clara Regional Wastewater Facility CIP Program.

The Regional Wastewater Facility Program Start Up and Validation Efforts was approved by Council on February 25, 2014.

Items 7 A and B were approved to note and file.

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 Special TPAC Study Session on Biosolids will be held on April 10, 2014, from 2:30 p.m. to 4:30 p.m. City Hall, Wing Committee Rooms 118/119/120

B. The next TPAC meeting is April 10, 2014, at 4:30 p.m. City Hall, Wing Committee Rooms 118/119/120.

10. PUBLIC COMMENT

None

11. ADJOURNMENT

A. The Treatment Plant Advisory Committee adjourned at 4:50 p.m.

Chuck Reed, Chair
Treatment Plant Advisory Committee

5A

COUNCIL AGENDA: 4/15/14
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: March 14, 2014

Approved

Date 3/24/14

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR 7157 – DIGESTER GAS STORAGE REPLACEMENT PROJECT

RECOMMENDATION

Report on bids and award of a construction contract for 7157 – Digester Gas Storage Replacement Project to the lowest responsive bidder, Anderson Pacific Engineering Construction Inc., for the base bid and Add Alternate No. 1 in the amount of $1,825,100, and approval of a ten percent contingency in the amount of $182,510.

OUTCOME

Award of this construction contract will allow for the construction of the Digester Gas Storage Replacement Project at the San José-Santa Clara Regional Wastewater Facility[1] (Wastewater Facility). Approval of a ten percent contingency will provide funding for any unanticipated work that may be necessary for the completion of the project.

BACKGROUND

The Wastewater Facility has an existing wet-seal-type gas holder that was originally built in 1984. The existing gas holder has a volume of 86,000 cubic feet and is used as a gas control system (as opposed to a gas storage system). In 2002, the gas holder cover suffered a major failure and was subsequently repaired. A second major failure occurred in 2012. A detailed interior inspection determined that the cover was damaged beyond reasonable repair and could no longer be safely operated, resulting in the unit being taken permanently out of service. In the interim, an older and smaller backup gas holder unit has been put back into service until a new gas holder can be constructed. The backup unit, while operable, is poorly located and does not provide for reliable gas system control due to outdated components.

[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.

In March 2013, Brown & Caldwell was authorized under an existing master services agreement to prepare bid documents for the Digester Gas Storage Replacement Project. This project will demolish and replace the existing wet seal digester gas holder with a new dry seal digester gas holder. The new gas holder will have a total volume capacity of 50,000 cubic feet. The new design capacity was selected after an evaluation of a range of gas holder sizes, review of actual operating history, and discussions with operations staff. The project will also install a new foundation system, electrical conduits, utility piping, and concrete pavement around the gas holder.

ANALYSIS

Bids were opened on February 6, 2014, with the following results:

Contractor	Base Bid	Add Alternate	Total Bid	Variance Amount	Over/(Under) Percent
CB&I (Concord)	$3,963,841	$21,300	$3,985,141	$1,987,497	99
Pacific Tank & Const. (San Juan Capistrano)	2,330,950	38,150	2,369,100	371,456	19
GSE Construction (Livermore)	2,279,000	48,900	2,327,900	330,256	17
Aztec Consultants (San Ramon)	2,055,000	53,000	2,108,000	110,356	6
Engineer's Estimate	**1,989,644**	**8,000**	**1,997,644**	--	--
JMB Construction (So. San Francisco)	1,831,700	40,956	1,872,656	(124,988)	(6)
Anderson Pacific (Santa Clara)	1,815,100	10,000	1,825,100	(172,544)	(9)

Eight prospective bidders attended the mandatory pre-bid site walk-through for this project and a total of six bids were subsequently received. Four bids were higher than the Engineer's Estimate and the remaining two were under the Engineer's Estimate. The lowest responsive bid, submitted by Anderson Pacific of Santa Clara, CA, is nine percent under the Engineer's Estimate. Staff considers this reasonable for the work involved. Add Alternate No. 1, which will remove, dispose, and backfill the existing foundation below grade, is recommended for award because the project budget is sufficient to accommodate this addition.

Council Policy provides for a standard contingency of ten percent on public works projects of this nature to cover for unforeseen conditions that may be encountered during construction. Staff considers the standard contingency appropriate for this project.

EVALUATION AND FOLLOW-UP

The project is currently within budget, with a projected construction completion date of March 2015. No additional follow up actions with Council are expected at this time. A progress report on this and other Wastewater Facility capital projects will be made to the Transportation and Environment Committee and the Council on a semiannual basis.

PUBLIC OUTREACH/INTEREST

✓ **Criterion 1**: Requires Council action on the use of public funds equal to $1,000,000 or greater. **(Required: Website Posting)**

☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

A "Notice to Contractors" inviting qualified contractors to submit bids was posted on BidSync and *San José Post Record.* This memo will be posted on the City's website for the April 15, 2014 Council agenda.

COORDINATION

This project and memorandum have been coordinated with the Finance Department, the Public Works Department, the Planning, Building and Code Enforcement Department, the City Manager's Budget Office, and the City Attorney's Office. This item is scheduled to be heard at the April 10, 2014 Treatment Plant Advisory Committee meeting.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $1,825,100

Project Delivery	$1,160,000*
Construction	1,825,100
Contingency	182,510
Total Project Cost	3,167,610
Expenditures to Date:	585,600
REMAINING PROJECT COST:	$2,582,010

**Project delivery includes $574,000 for design services, $521,000 for construction management services, and $65,000 for project award and close-out.*

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

Gas storage tank	$1,080,000
Demolition, civil, electrical, mechanical work	725,000
Shoring and bracing	100
Soil disposal- top 14 inches within existing foundation	10,000
TOTAL BASE BID	$1,815,100
Add Alt No. 1: Removal, disposal, & backfill of the existing foundation below grade	10,000
TOTAL CONSTRUCTION CONTRACT AMOUNT	$1,825,100

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

4. OPERATING COSTS: The new gas digester gas holder will have will have no significant impact on the Plant Operating Budget.

BUDGET REFERENCE

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

Fund #	Appn #	Appn. Name	RC #	Total Appn	Amt. for Contract	2013-2014 Adopted Budget (Page)	Last Budget Action (Date, Ord. No.)
Remaining Project Costs				**$2,582,010**			
Remaining Funding Available							
512	7453	Combined Heat & Power Equip. R&R	171675	$10,434,000	$1,825,100	V-196	10/08/13 Ord. No. 29320
Total Current Funding Available				$10,434,000	$1,825,100		

The Proposed 2015-2019 CIP will include $420,000, subject to Council approval, for completion of this project.

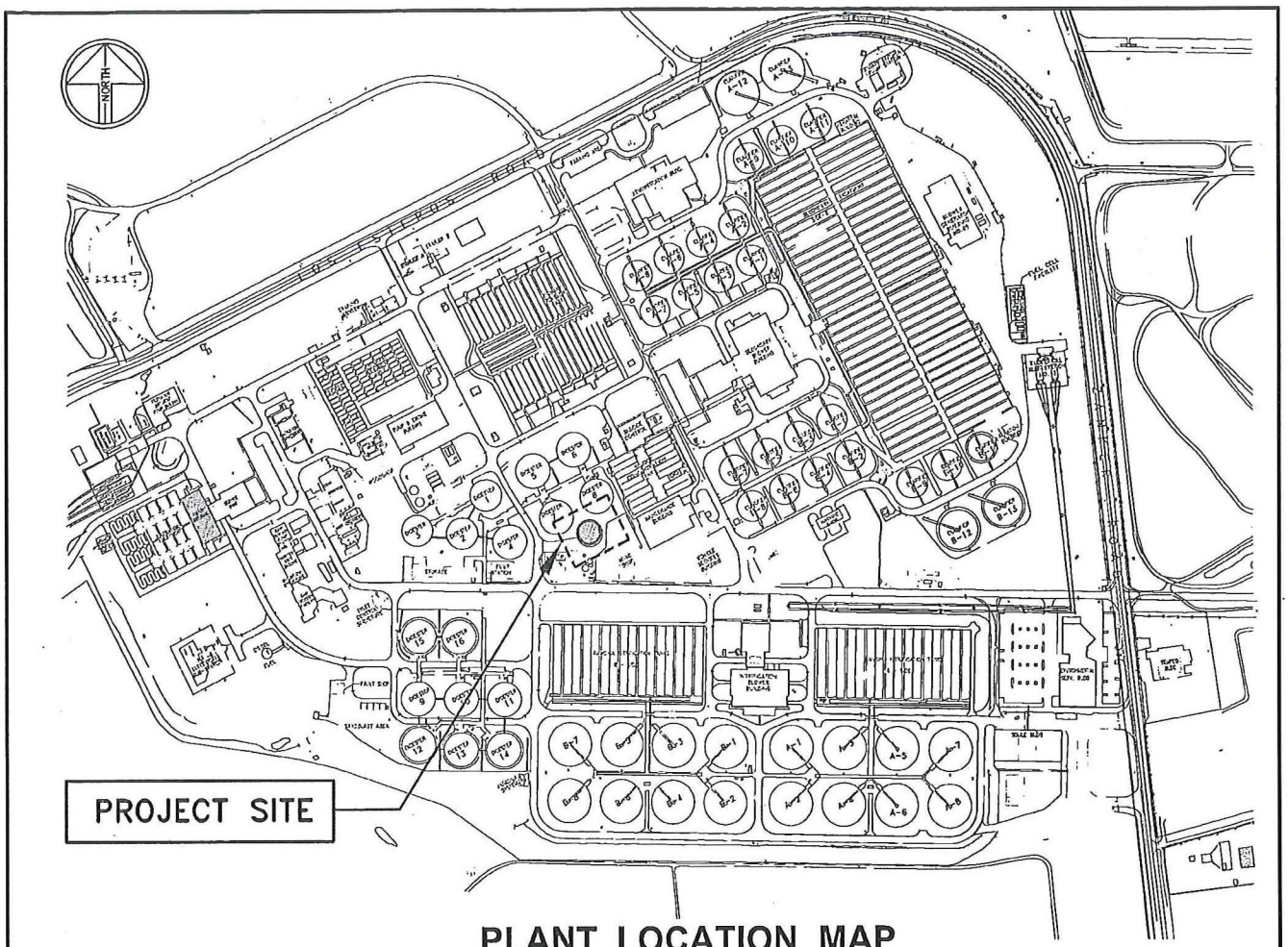
CEQA

Exempt, File No. PP13-086

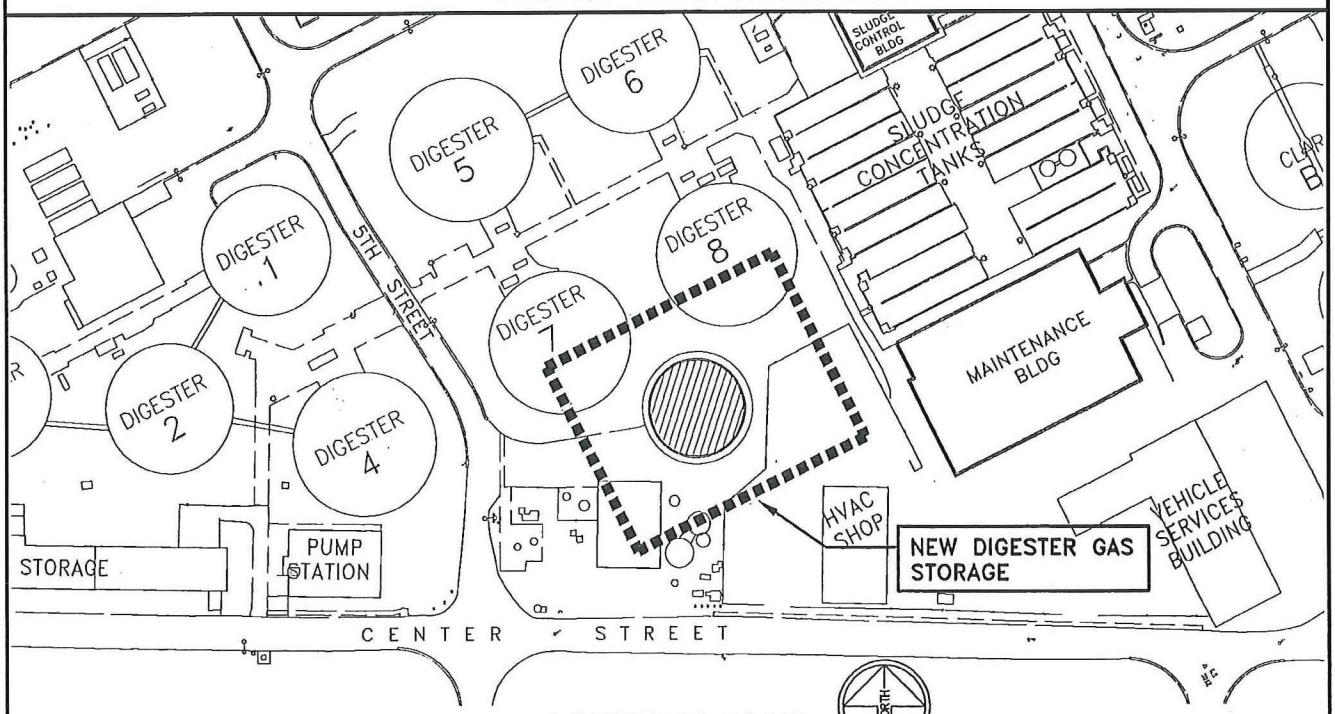
/s/
KERRIE ROMANOW
Director, Environmental Services Department

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

Attachment: map



PLANT LOCATION MAP



VICINITY MAP

7157 - DIGESTER GAS STORAGE REPLACEMENT PROJECT

5B

COUNCIL AGENDA: 04/15/14
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
David Sykes
Jennifer Maguire

SUBJECT: SEE BELOW

DATE: March 24, 2014

Approved

Date 3/27/14

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR 6998 - FIRE MAIN REPLACEMENT - PHASE III PROJECT

RECOMMENDATION

(a) Report on bids and award of construction contract for 6998 – Fire Main Replacement – Phase III Project to the lowest responsive bidder, Stoloski & Gonzalez, Inc., for the base bid in the amount of $1,572,870, and approval of a 10 percent contingency in the amount of $157,290.

(b) Adopt the following 2013-2014 Appropriation Ordinance Amendments in the San Jose-Santa Clara Treatment Plant Capital Fund:
   (1) Decrease the Plant Infrastructure Improvements appropriation to the Environmental Services Department in the amount of $400,000; and
   (2) Increase the Treatment Plant Fire Main Replacement appropriation to the Environmental Services Department in the amount of $400,000.

OUTCOME

Award of this construction contract will allow for the construction of the Fire Main Replacement - Phase III Project at the San José-Santa Clara Regional Wastewater Facility (Wastewater Facility)[1]. Approval of a 10 percent contingency will provide funding for any unanticipated work that may be necessary for the completion of the project.

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

BACKGROUND

The Wastewater Facility's fire protection system consists of approximately 15,000 linear feet (LF) of ductile iron and cast iron pipes, two 100-HP electric pumps, 34 hydrants, and numerous valves and appurtenances. Most of this infrastructure is between 35 and 45 years old and is in a deteriorated condition due to age, ground settlement, and corrosion. In recent years, the number of pipe failures and leaks has increased significantly, requiring more staff time and resources to repair and maintain the system.

To ensure reliability of the fire protection system, the Wastewater Facility initiated a multi-phase fire main replacement project in 2007. The first phase replaced approximately 2,700 LF of existing 10-inch cast iron pipe with 12-inch polyvinyl chloride (PVC) C-900 piping. The second phase replaced an additional 5,600 LF of pipe ranging from 8-inch to 12-inch, along with associated valves, appurtenances, and fire hydrants.

This third and final phase will replace approximately 7,750 LF of the remaining cast iron and ductile iron sections with approximately 4,000 LF of 12-inch, 2,700 LF of 8-inch, 900 LF of 6-inch, and 150 LF of 4-inch PVC C-900 piping. In addition, the project will install 22 new fire hydrants (4 new and 18 replacement), along with gate valves, air relief valves, and associated appurtenances.

ANALYSIS

Bids were opened on February 13, 2014 with the following results:

Contractor	City	Bid Amount	Variance Over/(Under) Amount	Variance Over/(Under) Percent
Northern Underground	San Jose	$2,314,467	$897,667	63.40%
J & M Inc.	Livermore	$2,225,490	$808,690	57.10%
JMB Construction	South San Francisco	$1,815,850	$399,050	28.20%
Casey Construction	Emerald Hills	$1,815,200	$398,400	28.10%
Anderson Pacific	Santa Clara	$1,620,200	$203,400	14.40%
RGW Construction	Livermore	$1,587,100	$170,300	12.00%
Stoloski & Gonzalez	Half Moon Bay	$1,572,870	$156,070	11.00%
Engineer's Estimate		**$1,416,800**		
D & D Pipelines, Inc.	San Francisco	$1,387,200	($29,600)	(2.10%)

Nine prospective bidders attended the non-mandatory pre-bid site walk-through for this project and a total of eight bids were received. Seven bids were higher than the Engineer's Estimate and the remaining bid was under the Engineer's Estimate.

The lowest bid, submitted by D & D Pipelines, Inc. of San Francisco, is 2.1 percent under the Engineer's Estimate. However, D & D submitted a letter to the City on February 19, 2014 requesting relief from its bid, stating that a clerical mistake was made by not transferring equipment costs of $237,500 in preparation of its bid. D&D subsequently provided staff with additional written materials to demonstrate that D&D's mistake was in filling out the bid and not due to an error in judgment or carelessness, in inspecting the site of the work, or in reading the plans and specifications. Staff carefully reviewed D&D's materials and agreed that D&D may be relieved of its bid in accordance with City of San José Standard Specifications Section 2-1.095. As a result, the lowest responsive bid is the bid submitted by Stoloski & Gonzalez, Inc., which is 11% higher than the Engineer's Estimate. Stoloski & Gonzalez, Inc. is an experienced pipeline contractor and has successfully completed several water and sewer pipeline projects for the City in the past five years.

City Council Policy provides for a standard contingency of 10 percent on public works projects of this nature to pay for unanticipated conditions that may be encountered during construction. Staff considers the standard contingency appropriate for this project.

EVALUATION AND FOLLOW-UP

No additional follow up action with the City Council is expected at this time. A progress report on this and other Wastewater Facility capital projects will be made to the Transportation and Environment Committee and the Council on a semiannual basis. Monthly progress reports will also be submitted to the Treatment Plant Advisory Committee and posted on the City's website.

PUBLIC OUTREACH/INTEREST

✓ **Criterion 1**: Requires Council action on the use of public funds equal to $1,000,000 or greater. **(Required: Website Posting)**

☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

A "Notice to Contractors" inviting qualified contractors to submit bids was posted on BidSync and *San José Post Record*. This memo will be posted on the City's website for the April 15, 2014 Council agenda.

COORDINATION

This project and memorandum have been coordinated with the City Attorney's Office and the Departments of Finance and Planning, Building, and Code Enforcement. This item is scheduled to be heard at the April 10, 2014 Treatment Plant Advisory Committee meeting.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $1,572,870

Project Delivery	$471,400*
Construction	1,572,870
Contingency	157,290
Total Project Costs	2,201,560
Prior Fiscal Year Expenses:	$62,000
REMAINING PROJECT COSTS:	$2,139,560

Project delivery includes $171,700 for design services, $255,800 for construction management services, and $43,900 for project award and close-out.

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

This is a unit rate contract. $1,572,870

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

4. OPERATING COSTS: None

In 2013-2014, the funding of $1.6 million for the Treatment Plant Fire Main Replacement project is insufficient to award this contract based on the actual bids. A budget action is recommended to increase the project budget by $400,000. To offset this increase, a decrease to the Plant Infrastructure Improvements project is also recommended based on the projected expenditures this year. The 2015-2019 Proposed Capital Improvement Program (CIP) will recommend additional funds of $177,000 for project delivery costs next fiscal year.

BUDGET REFERENCE

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

Fund #	Appn # / RC#	Appn. Name	Current Appn.	Recom'd Budget Action	Total	2013-14 Adopted Capital Budget	Last Budget Action (Date, Ord. #)
Remaining Project Costs					$2,139,560		
512	7397 / 170545	Treatment Plant Fire Main Replacement	$1,563,000	$400,000	$1,963,000	V-205	10/8/13 Ord. #29320
512	5690	Plant Infrastructure Improvements	$3,210,000	-$400,000	$2,810,000	V-203	10/8/13 Ord. #29320

*The Proposed 2015-2019 CIP will include additional funding of $177,000, subject to Council approval, for completion of this project. The total funding for the Treatment Plant Fire Main Replacement Project will be $2,202,000.

CEQA

Exempt, File No. PP13-098.

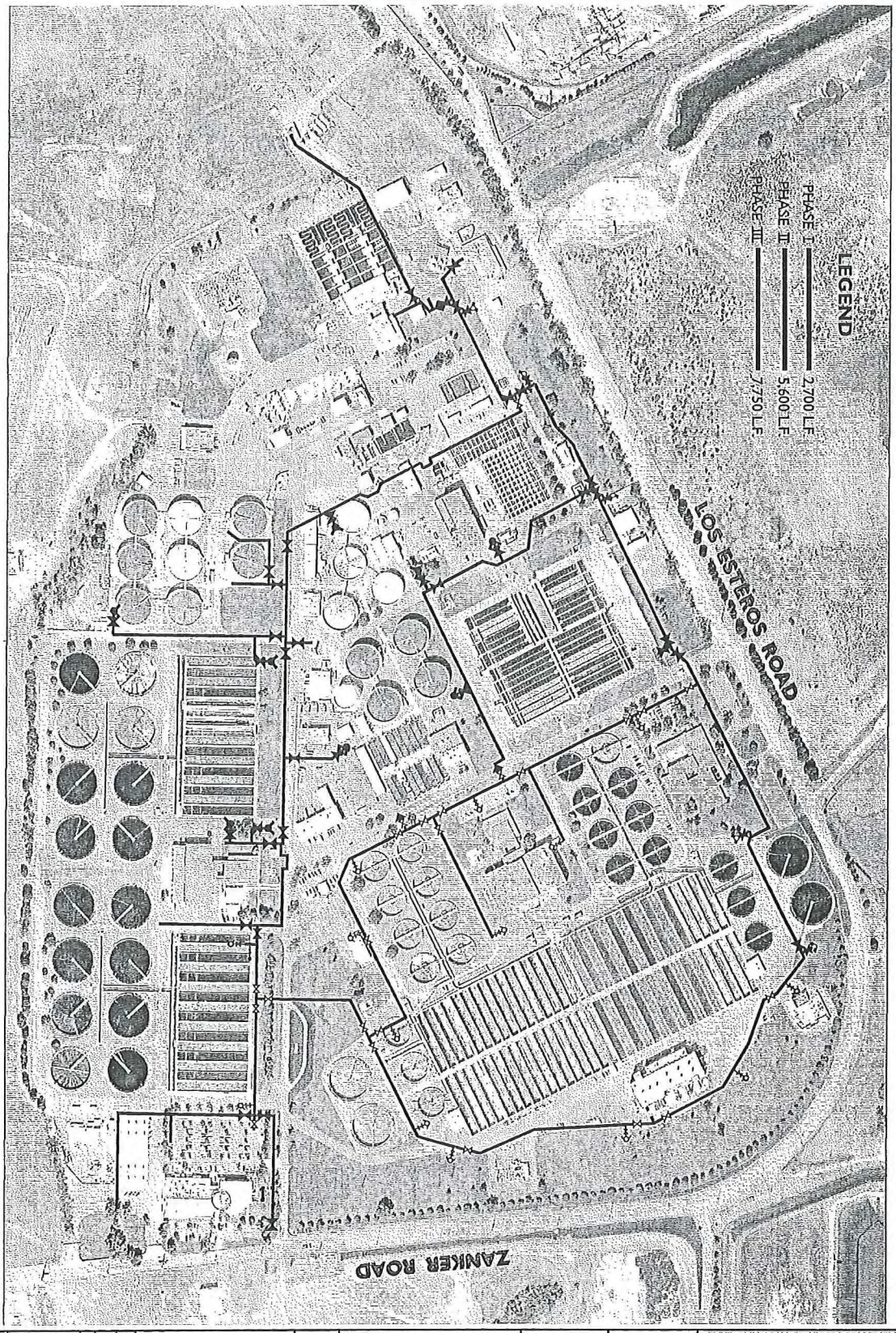
/s/ Ashwini Kantak for
KERRIE ROMANOW
Director, Environmental Services Department

/s/
DAVID SYKES
Director of Public Works

JENNIFER A. MAGUIRE
Deputy City Manager/Budget Director

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

Attachment: map



REV	DESCRIPTION	BY	DATE	APP'D

PLANT STAFF REVIEW

CONSTRUCTION ____ INSTRUMENTATION ____
PROCESS ____ POWER & AIR ____
COMPLIANCE ____ PROCESS CONTROL SYSTEM ____
OPERATIONS ____ GIS ____
MAINTENANCE ____
ELECTRICAL ____

APPROVALS
DESIGNED BY: J. COOK
DRAWN BY: J. COOK
CHECKED BY: HUYE
DATE
DATE

SHEET TITLE
CIVIL
FIRE MAIN REPLACEMENT PHASES I - 3

CPMS ID NO. - XXXX

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY
ENVIRONMENTAL SERVICES DEPT.
SAN JOSE - SANTA CLARA REGIONAL WASTEWATER FACILITY

DATE SIGNED

ENVIRONMENTAL SERVICES DEPARTMENT
SAN JOSE, CALIFORNIA

PROJECT TITLE
FIRE MAIN EXHIBIT

ASHWIN J. KANTAK
ASSISTANT DIRECTOR
ENVIRONMENTAL SERVICES DEPT.
CITY OF SAN JOSE

SIZE D | DRAWING NUMBER NONE | REV. 0
SCALE XXXX | SHEET X OF X

5C

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 4/15/14
ITEM:

CITY COUNCIL ACTION REQUEST

Department(s): Environmental Services	CEQA: Exempt, File No. PP13-039	Coordination: PW, Finance, CMO - Budget Office, CAO, TPAC	Dept. Approval: /s/ Kerrie Romanow
Council District(s): Citywide			CMO Approval:

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR THE 7407 - BNR-2 CLARIFIERS GUARDRAIL REPLACEMENT

RECOMMENDATION:

1) Award of a construction contract for the 7407 - BNR-2 Clarifiers Guardrail Replacement to the lowest responsive bidder, Tucker Construction, Inc., in the amount of $320,793.
2) Approve a contingency in the amount of $32,100.

BASIS FOR RECOMMENDATION:

The nitrification treatment system (BNR-2) at the San José-Santa Clara Regional Wastewater Facility (RWF) consists of 16 aeration tanks and 16 circular clarifiers. The clarifiers are divided into two sections, A1 through A8, and B1 through B8. These were constructed in 1975 and 1981, respectively. A condition assessment study completed in December 2011 recommends replacement of the galvanized railing system along the exterior wall of clarifiers A1 through A-6, and B1 through B-6. The condition assessment found significant corrosion at the base of the railing posts and estimates a remaining useful life of less than five years for the railing system.

This project will replace approximately 2,700 linear feet of existing galvanized railings with new aluminum railings, including new top-mounted aluminum posts, brackets, epoxy anchor bolts, and toe boards. The new railing system will also be OSHA-compliant.

Bids were opened February 20, 2014 and eight bidders submitted proposals. Tucker Construction, Inc., of San Jose, CA, submitted the low bid in the amount of $320,792.50, which is 53 % under the Engineer's Estimate. All of the bids received range from 13% to 53% under the Engineer's Estimate. The two lowest bids are 6% apart and both bidders have extensive experience working at the Facility. The favorable bids can be attributed to a competitive bidding environment and increasing interest from the construction community for upcoming work at the RWF.

Staff considers this low bid amount acceptable and the City Council approved standard contingency of 10 percent appropriate for this project

COST AND FUNDING SOURCE:

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $551,152.50

2. COST OF PROJECT:

Project Delivery	$198,260.00*
Construction	$320,793.00
Contingency	$32,100.00
TOTAL PROJECT COSTS	**$551,153.00**
Expenditures to Date:	36,490.00
REMAINING PROJECT COSTS	**$514,663.00**

** Project delivery includes $30,200 for design services, $144,000 for construction management services, and $24,060 for project award and close-out.*

SOURCE OF FUNDING: 512 – San José-Santa Clara Treatment Plant Capital Fund, 5690 – Plant Infrastructure Improvements ($3,210,000 for 2013-2014).

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

5D

T&E AGENDA: 4/07/2014
ITEM: d(3)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: March 20, 2014

Approved Donald A Maguire Date 3-27-14

SUBJECT: WHOLESALE RECYCLED WATER RATES FOR FY 2014-2015

RECOMMENDATION

Adopt a resolution to establish the wholesale recycled water service rates for the South Bay Water Recycling Program effective July 1, 2014, superseding Resolution No. 75430.

OUTCOME

Approval of this resolution would continue the recycled water discount rate for irrigation users of $105, bringing the net rate to $642 per acre foot, and reduce the current discount rate to industrial and agricultural users from $325 to $215, resulting in a net rate of $532 per acre foot. The discount rates are calculated from the wholesale recycled water rate charged by the Santa Clara Valley Water District (District) for untreated water. Based on projected customer usage, the proposed rates should increase revenues from the sale of recycled water between $50,000 to $300,000 in FY 2014-2015. This will bring the system operations and maintenance budget, which is 82% of the overall budget, to full cost recovery.

BACKGROUND

The City is the administering agency for the San José/Santa Clara Regional Wastewater Facility (Wastewater Facility)[1] and South Bay Water Recycling (SBWR), which provides more than 10,000 acre foot (AF) per year of recycled water to water retailers in San José, Santa Clara, and Milpitas. SBWR is funded by sanitary sewer ratepayers from San José, Santa Clara and the Wastewater Facility tributary agencies. SBWR began operations in 1995 as a wastewater diversion program to meet the Wastewater Facility's National Pollutant Elimination Discharge

[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.*

System (NPDES) permit, and keep wastewater discharge to the Bay below 120 million gallons per day (mgd). Today, SBWR supplies more than 75% of all recycled water used in Santa Clara County, with county-wide recycled water use accounting for 5% of the total water supplied.

As an incentive to promote the use of recycled water, SBWR wholesale rates for recycled water have been set below the rate for untreated water charged by the District. Significantly larger discounts are available for Industrial and Agricultural category users (37% of SBWR recycled water deliveries) as compared to irrigation users (63% of SBWR recycled water deliveries). This stepped discount structure was developed to incentivize new industrial recycled water customers. Starting in 2004 (Resolution 72167), wholesale rates have been indexed to the price of untreated water from the District. The following table shows the discount and rate trends for industrial and irrigation users that have been adjusted through successive rate resolutions in 2008 (Resolution 74448), and 2010 (Resolution 75430) to adjust the wholesale rate discount. Table 1 includes the Rates the user pays after the discount is applied to the Untreated Water Rate.

Table 1 – SBWR Wholesale Rate Discounts for Recycled Water by User type Per Acre Foot

Fiscal Year	**Irrigation Users**		**Industrial and Agricultural Users**		**Untreated Water Rate**
	Rate	Discount	Rate	Discount	
2004-2005	$240	$165	$40	$365	$405
2005-2006	$255	$165	$55	$365	$420
2206-2007	$270	$165	$70	$365	$435
2007-2008	$310	$165	$110	$365	$475
2008-2009	$375	$145	$175	$345	$520
2009-2010	$395	$125	$175	$345	$520
2010-2011	$415	$105	$195	$325	$520
2011-2012	$464	$105	$244	$325	$569
2012-2013	$517	$105	$297	$325	$622
2013-2014	$575	$105	$355	$325	$680
2014-2015	$642	$105	$532	$215	$747

Prior to 2009 the City received financial support ($115 per acre foot) from the District to support the production and delivery of recycled water that would offset the potable water supply. When this incentive was discontinued, those costs were effectively shifted from the District to sewer rate payers. The Wastewater Facility's flow of fresh water to the Bay is now significantly below the required 120 MGD target. This removes the regulatory driver for continued expansion of recycled water use to comply with diversion mandates. In August 2012, the City Auditor recommended the City explore opportunities to achieve full cost recovery of SBWR operations in order to minimize the cost to sanitary sewer ratepayers. The report recommended reducing costs, and increasing revenues, including having recycled water ratepayers bear a greater financial burden of the program by covering operating and maintenance costs. Since 2012, SBWR has implemented cost control measures that have lowered operating expenses by

approximately 10%. In addition to these efforts, revenue increases are also necessary to cover program costs for recycled water delivery.

The City and District entered into an integration agreement to financially support the production and use of recycled water in Santa Clara County consistent with each party's distinct interests: wastewater treatment and disposal for the City, and water quality and supply for the District. This agreement included a partnership with the District for the construction and operation of the Silicon Valley Advanced Water Purification Center (SVAWPC) on Wastewater Facility lands. The SVAWPC will process secondary treated effluent delivered from the Wastewater Facility and further treat the water by passing it through microfiltration and reverse osmosis facilities. The SVAWPC product water will then be blended with tertiary-treated recycled water from the Wastewater Facility to improve the quality of recycled water delivered throughout Santa Clara Valley. The most noticeable effect for SBWR customers will be the reduction in total dissolved solid (TDS), or the "hardness" of the water. The SVAWPC is expected to commence operations in Spring 2014, triggering the cost sharing provision of the integration agreement that incentivizes SBWR to be profitable. If SBWR is not at cost recovery or better after the SVAWPC is online, the City could owe up to $2 million in cost sharing payments to the District.

In addition to program cost reductions and the proposed rate increases, a comprehensive joint planning effort by SBWR and the District is underway. Topics include considering the most favorable approaches for operating and maintaining current and future SBWR assets, improving distribution system reliability and water quality, and balancing the fiscal considerations of the SBWR system. Due to increasing maintenance and operating expenses, and reduced regulatory drivers to increase wastewater diversion, the SBWR program has reduced capital investment in program expansion until full cost recovery can be achieved. SBWR system repair and replacement is currently being reviewed for prioritization through the Master Planning process, including an asset management system analysis that will highlight the service impact of limited capital investment. City and District collaboration on SBWR Master Planning will also address capital improvement and recommend a long term rate approach to support system maintenance and capital investment. This long term rate strategy is expected to result in a rate structure modeled around the cost to operate and maintain the system rather than a discount to the District untreated water rate.

ANALYSIS

The continuation of the approved discount of $105 for Irrigation bringing the net rate to $642 per acre foot, and implementing the proposed change to $215 for Industrial and Agricultural category users, bringing the net rate to $532 per acre foot, would preserve the substantial discounts from potable water rates and maintain the monetary incentive for SBWR customers to continue using recycled water versus potable water. This rate proposal would allow for full cost recovery of system operations and maintenance in FY 2014-2015 (which are estimated to be approximately $6.1 M), while the SBWR Master Plan capital improvement recommendations and rate structure analysis are being completed.

Initial Master Planning indicates that additional revenue would be required in the future to support continued infrastructure maintenance and replacement, enable any desired water delivery expansion, and allow the continued connection of new customers. Additionally, certain infrastructure maintenance costs have been deferred to mitigate sharp rate increases to rate payers. Therefore, the current rate proposal should be viewed as an interim step to avoid additional sanitary sewer ratepayer increases required to support SBWR costs. Future rate changes may be necessary to generate sufficient revenue to meet infrastructure maintenance needs, and avoid the higher cost of emergency repairs.

EVALUATION AND FOLLOW-UP

The proposed wholesale rate structure for water recycling will be included as part of the FY 2014-2015 Proposed Operating Budget. If approved, the new wholesale rate will be effective on July 1, 2014. When SBWR completes the Master Planning process, Staff will return to Council in 2015 with a formalized budget analysis and revised recycled water rates for longer term planning purposes.

PUBLIC OUTREACH/INTEREST

☐ **Criterion 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**

☒ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

City staff held meetings with SBWR retailers throughout February 2014 to provide information about the Master Planning process, as well as outlining plans for the proposed rate increase. Retailers preferred the small and incremental increases proposed by SBWR, and are developing strategies to integrate the new costs into their retail operations.

COORDINATION

This item has been coordinated with the City Attorney's Office, as well as the City Manager's Budget Office. This item is scheduled to be heard at the April 10, 2014 meeting of the Treatment Plant Advisory Committee.

COST SUMMARY/IMPLICATIONS

The proposed wholesale recycled water rates for industrial, agricultural and irrigation customers with an effective date of July 1, 2014 is estimated to generate between $50,000 and $300,000 in additional revenue that will for the first time cover SBWR's operating and maintenance costs. This will bring the system operations and maintenance budget, which is 82% of the overall budget using the $50,000 revenue estimate, to full cost recovery. Staff plans to return to Council in 2015 with a long-term recycled water rate plan that will continue SBWR program cost recovery for operating, maintenance and capital infrastructure costs.

CEQA

Not a project

For more information, please contact Michele Young, at (408) 975-2519.

/s/
KERRIE ROMANOW
Director, Environmental Services

5E

T&E AGENDA: 04-07-14
ITEM: d(2)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
David Sykes

SUBJECT: SEE BELOW

DATE: March 19, 2014

Approved Andrew Maguire Date 3-27-14

SUBJECT: SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY CAPITAL IMPROVEMENT PROGRAM SEMIANNUAL STATUS REPORT, JULY – DECEMBER 2013

RECOMMENDATION

1. Accept the Semiannual Status Report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period of July through December 2013; and
2. Cross-reference this item to the April 29, 2014 City Council meeting for acceptance.

OUTCOME

This Semiannual Status Report on the San José-Santa Clara Regional Wastewater Facility[1] Capital Improvement Program (CIP) provides the Transportation and Environment Committee (T&E), the Treatment Plant Advisory Committee (TPAC), and City Council with current information on the progress of the CIP implementation and the active projects in the Fiscal Year 2013-2014 Adopted Capital Budget.

BACKGROUND

The Wastewater Facility is embarking on a CIP of unprecedented scale, primarily due to aging infrastructure and the need to improve and update numerous treatment processes. Given the magnitude of the CIP anticipated over the next several years, regular updates on the CIP projects will be provided to the City Council, the City of Santa Clara, and the tributary agencies.

The Office of the City Auditor Report 12-06 "Environmental Services: A Department at a Critical Juncture" also recommended the Environmental Services Department provide regular status reports to TPAC and the City Council on the Master Plan implementation, including overall progress to date and individual project updates, performance measures, and any issues that have arisen, in particular those that may have rate impacts. This Semiannual Status Report

[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.

responds to the Auditor's recommendation by providing visibility and accountability for this significant CIP effort.

The first Semiannual Status Report was published in April 2013 and focused on progress and activities from July through December 2012. A second Semiannual Status Report was published on October 2013 and covered activities completed from January through June 2013.

ANALYSIS

This Semiannual Status Report highlights key projects and activities completed between July and December 2013. Significant accomplishments during this six-month period included:

- Adoption of the Plant Master Plan (PMP) and approval of the Environmental Impact Report by the San José and Santa Clara City Councils.
- Award of contract for Program Management consultant services.
- Significant progress on the program management start-up efforts and PMP project validation process by the program management team to develop the 2015-2019 Proposed Five-Year Capital Improvement Program.
- Award of contract for consultant design services for the Digester and Thickener Facilities Upgrade project.
- Completion of the Project Definition Report for the New Cogeneration Facility.
- Completion of two construction projects totaling approximately $1 million.
- Award of two new consultant service orders totaling nearly $1 million.
- Substantial design progress on the Emergency Diesel Generators, Digester Gas Compressor Upgrade, Digester Gas Storage Replacement, BNR 2 Clarifiers Guardrail Replacement, and Fire Main Replacement – Phase 3 projects.
- Pre-qualification of contractors for the Emergency Diesel Generators project.

Significant activity is expected in the upcoming six-month period and will be discussed in the next Semiannual Status Report to T&E. These major work efforts include:

- Completion of the project validation process, including schedule, resource, financing, and delivery approach analysis.
- Completion of several significant deliverables by the program management start-up team including the Program Execution Plan (PEP), Project Delivery Model (PDM), and various program systems and tools such as the CIP Portal, master schedule, and reports.
- Completion of a biosolids treatment and disposal options analysis.
- Obtain design-build authority for implementation of the New Cogeneration Facility project.
- Initiation of nine programmatic technical studies.
- Bid and award of several significant projects, including Emergency Diesel Generators, Digester Gas Compressor Upgrade, Digester Gas Storage Replacement, BNR 2 Clarifiers Guardrail Replacement, and Fire Main Replacement – Phase 3.
- Recruitment to fill several capital program vacancies.

EVALUATION AND FOLLOW-UP

No follow up action is required at this time. Staff will continue to provide regular updates to T&E, TPAC and Council on significant changes or issues (particularly as related to rate impacts) as the program implementation progresses. In addition to the Semiannual Status Report, progress reports will also be presented to TPAC on a monthly basis.

PUBLIC OUTREACH/INTEREST

- ☐ **Criterion 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**
- ☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- ☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This report does not meet the criteria listed above. This memorandum will be posted on the City's website for the April 29, 2014 Council agenda.

COORDINATION

This report has been coordinated with the City Manager's Budget Office and will be coordinated with the Treatment Plant Advisory Committee.

CEQA

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

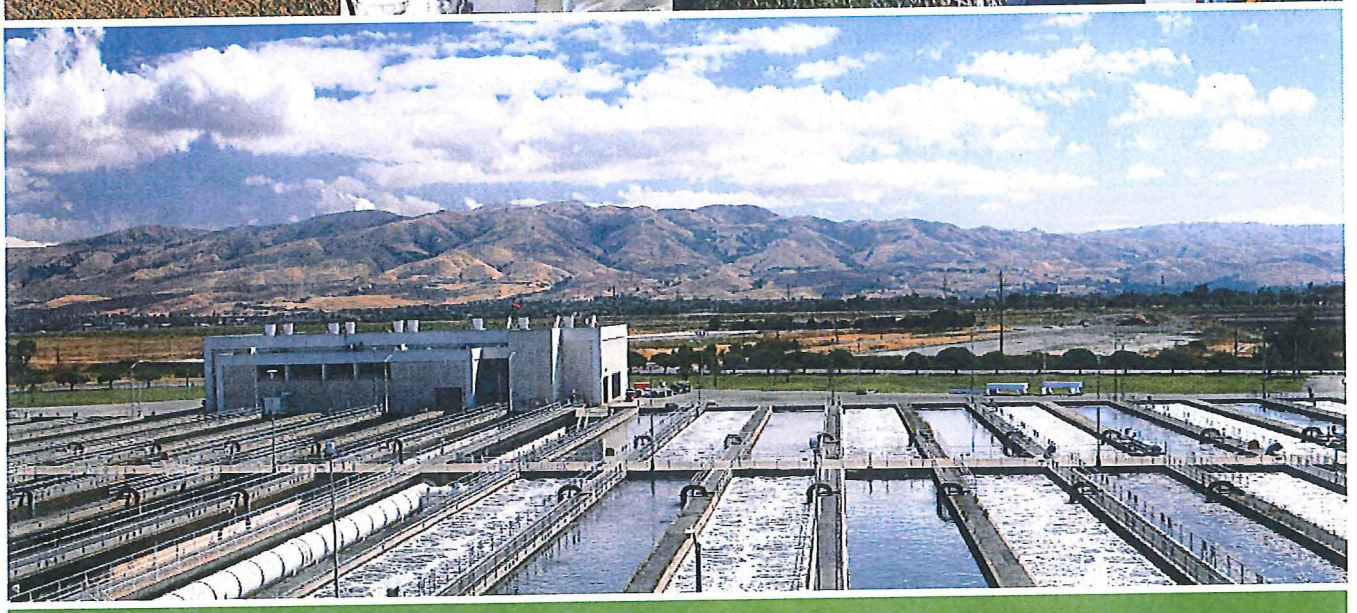
/s/
KERRIE ROMANOW
Director, Environmental Services

/s/
DAVID D. SYKES
Director, Public Works

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

Attachment
Semiannual Status Report

San José-Santa Clara Regional Wastewater Facility
Capital Improvement Program



Semiannual Status Report
July - December 2013

San José - Santa Clara Regional Wastewater Facility

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

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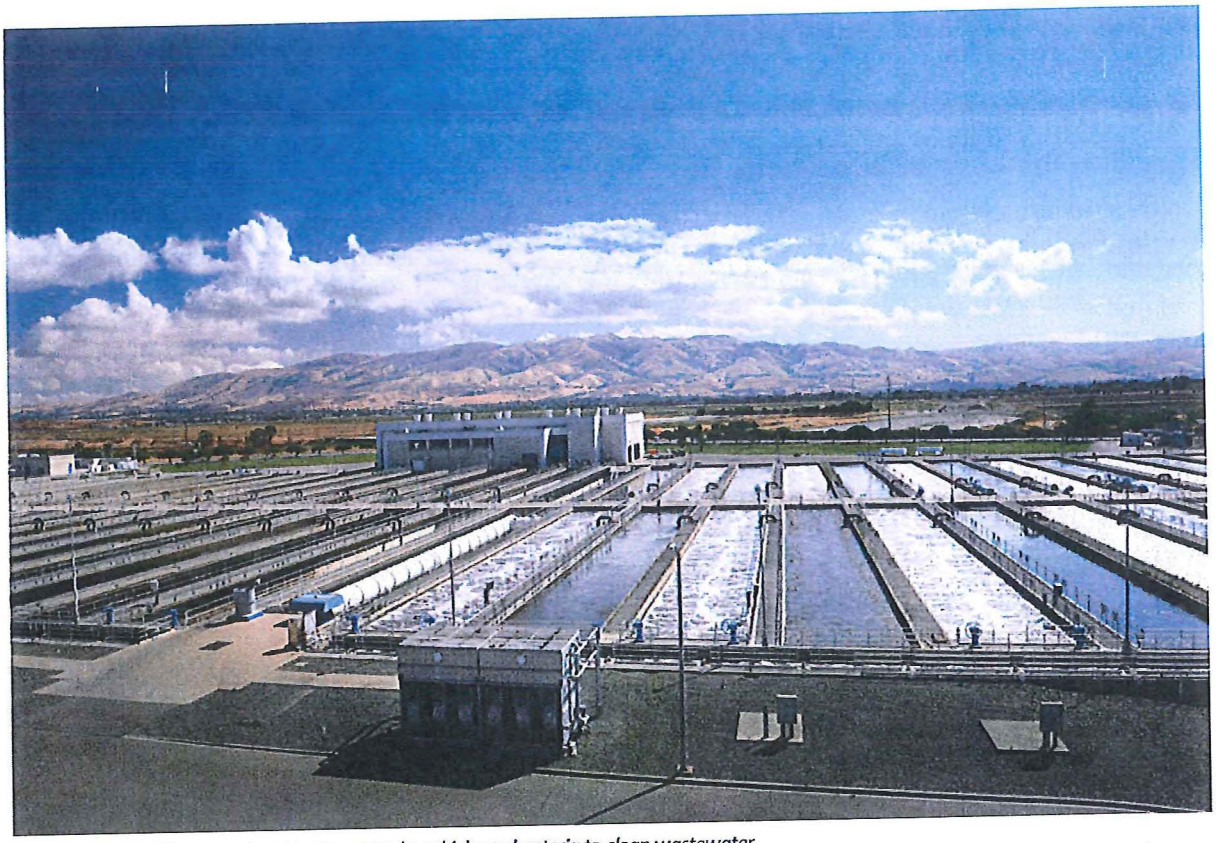


Eastward view of the secondary treatment tanks, which use bacteria to clean wastewater.

San José-Santa Clara Regional Wastewater Facility
Capital Improvement Program
Semiannual Status Report
July - December 2013

I. Introduction

Report Objective and Contents

This report provides information on the implementation of capital improvement projects at the San José-Santa Clara Regional Wastewater Facility* (Facility). All projects discussed in the report are guided by the Plant Master Plan (PMP) and included in the 2014-2018 Adopted Capital Improvement Program (CIP). South Bay Water Recycling projects, which are not considered Facility projects, are not part of this report.

The projects discussed in the report are tracked in the Capital Project Management System (CPMS) database and fall under one of three classifications:

- **Construction Projects:** Capital improvement projects that are designed by City staff or consultants, then bid to a contractor for construction. Such projects may also be built by City staff, or by other entities through an agreement.
- **Non-Construction Projects:** Non-construction projects that may lead to the construction of capital improvements such as feasibility studies, pilot studies, and master planning efforts.
- **Public Art Projects:** The CIP also funds projects that involve public art installations; these projects may be associated with a specific capital improvement or may be part of a larger public art strategy with funding support from the CIP.

This report also describes the policy context that guides decision making; outlines accomplishments and specific issues; provides detailed summaries of project schedules and budgets; and highlights key projects in the CIP.

Facility Background

The Facility is a regional advanced wastewater treatment plant that serves eight South Bay cities and four special districts, including:

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

Jointly owned by the cities of San José and Santa Clara, the Facility is managed and operated by the City of San José's Environmental Services Department (ESD).

Facility groundbreaking, 1956

The Facility is the largest tertiary wastewater treatment plant in the western United States. Operating on a 24-hour schedule, 365 days per year, the Facility treats an average of 110 million gallons per day (mgd) of wastewater, has an average dry weather flow design capacity of 167 mgd, and peak hourly flow capacity of 271 mgd. The Facility's operational area occupies 180 acres of a 2,600-acre site at the southern edge of the San Francisco Bay.

Constructed in 1956 as a primary treatment plant for agricultural wastewater and a growing population, the Facility subsequently expanded in response to continued population and economic growth and to meet state regulations. Facilities for secondary treatment were constructed in 1964, followed by another expansion to tertiary treatment in 1979 to meet Clean Water Act regulations. Additional expansions included the South Bay Water Recycling facility in 1998, and the Silicon Valley Advanced Purification Center (SVAPC) in 2014, scheduled to commence operations this year in partnership with the Santa Clara Valley Water District (SCVWD).

** 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.*

Importance to the Region and Environment

As the South Bay has grown, so has the critical importance of the Facility to the region. The Facility ensures that the wastewater it receives is cleaned to meet strict standards to protect public health and the environment. The Facility serves more than 1.4 million residents and approximately 17,000 businesses in an area greater than 300 square miles. South Bay communities depend on it to reliably protect their quality of life as well as safeguard wildlife habitat and Bay water quality. Businesses such as food service, automotive, metal finishing, photo processing, and manufacturing rely on the Facility to ensure that their wastewater is further treated to meet regulations. In protecting residents, businesses, and the environment, the Facility supports the local economy.

The Facility recycles about 10 mgd of its highly treated wastewater annually for use in landscape irrigation, industrial processes, cooling towers, and toilet flushing in certain commercial areas of San José, Santa Clara, and Milpitas. The recycled water program saves an average of 2.2 billion gallons of drinking water each year. This number is likely to grow as advanced treatment for recycled water becomes available through the SVAPC.

Facility Energy Accomplishments

- **2010:** The Facility was honored with a Green California Leadership Award for its energy innovations.
- **2009:** The federal Environmental Protection Agency included the Facility in a nationwide list of the top 10 on-site alternative energy producers and users.

The Facility generates up to 75 percent of its own energy, an important contribution to local air quality and energy reliance efforts. Like other similar plants, the Facility is a large energy user. Its secondary treatment aeration process, followed by pumping and heating, represent two major sources of demand. The Facility's daily energy demand can range from 8 to 11 megawatts (MW). By using on-site power generation equipment and a blend of digester, landfill, and natural gases, the Facility can produce as much as 8 MW of power daily. In the future, new biosolids dewatering and thermal drying facilities will create additional power demands; however, these increases can be largely offset by secondary treatment improvements to reduce aeration demands. The Facility has been recognized for its energy accomplishments, and will continue working towards the City's Green Vision goal of 100 percent energy self-sufficiency by 2022, to the extent feasible.

Infrastructure Condition Assessment and PMP

Most of the Facility's infrastructure is now more than 50 years old and has exceeded its useful life, with repairs needed to every process area. Still, the Facility must continue to provide uninterrupted service and meet the strict requirements of more than 18 federal, 13 state, and four regional regulations for treated wastewater discharge, use of recycled water, disposal of biosolids, air emissions, safety requirements, and land use controls. The Facility's key role as protector of public and environmental health underscores the critical need for infrastructure rehabilitation and replacement.

In 2007, the Facility completed an Infrastructure Condition Assessment report that identified nearly $1 billion in needed projects to refurbish its aging electrical, mechanical, and structural assets. The report recommended $250 million in immediate critical repairs to the Facility's electrical and solids digestion systems and $750 million in other significant but lower-priority capital replacements. The report also identified a funding gap of approximately $40 million annually, based on a recommended capital reinvestment level of $250 million per five-year CIP cycle to address decades of deferred maintenance.

> Rebuilding and improving the Facility is among the largest public works efforts in the South Bay's history.

As the assessment study focused only on existing condition deficiencies, staff recommended the development of a master plan that would address how the different treatment processes interrelate, the impacts of future regulations, changes to flow and loads, risks from rising sea levels, and opportunities for implementing new technology or process optimization.

In late 2007, the San José City Council and the Treatment Plant Advisory Committee (TPAC) approved a consultant agreement to develop a Plant Master Plan (PMP). A Steering Committee comprised of staff from the cities of San José, Santa Clara, and the tributary agencies guided the three-year planning process, with extensive technical oversight and stakeholder input. The project team provided regular updates to TPAC and San José's Transportation and Environment Council Committee (T&E). This work resulted in the Draft PMP Preferred Alternative, approved by TPAC and the City Council in April 2011.

A Draft Environmental Impact Report (DEIR) on the Draft PMP was circulated for public review and amended in 2013. In November 2013, San José's Planning Commission certified the EIR, and the San José City Council formally adopted the EIR and the PMP. The Santa Clara City Council adopted the documents in December 2013. The PMP is now being implemented.

II. Program Overview

The PMP envisions approximately $2 billion in investments over the next 30 years to rebuild and modernize the Facility, with more than $1 billion occurring in the first 10 years.

Project Criteria. Capital projects recommended by the PMP were evaluated and prioritized based on six criteria:

1. **Infrastructure condition:** Risk of failure requires repairs or rehabilitation
2. **Regulatory requirements:** Future regulations require new or modified infrastructure
3. **Economic benefit:** Opportunities exist to save operations and maintenance costs by modifying or replacing infrastructure
4. **Improved performance benefit:** Modifying or replacing existing infrastructure improves reliability or treatment performance
5. **Increased flows or increased loading:** Increased flows trigger the need for additional infrastructure
6. **Policy decision:** Policy direction triggers improvements

Capital Improvement Program

The table below summarizes all PMP-recommended projects by process area over the 30-year planning period. These recommendations are considered each year as part of five-year CIP development. Over the next six months, a program management consultant hired by the City in September 2013 will perform a detailed review and validation of PMP projects. The consultant will also recommend updated five- and 10-year CIPs and a long-term rate and financing strategy for the capital program. The 2014-2018 Adopted CIP for the Facility is shown on page 25, with highlights of selected capital projects on page 18.

Table 1 — Summary of PMP-Recommended Capital Improvements

Process Area	PMP Cost Estimate
1. Preliminary Treatment Projects	$151.2 M
2. Primary Treatment Projects	$150.4 M
3. Secondary Treatment Projects	$240.0 M
4. Tertiary Treatment Projects	$201.0 M
5. Biosolids	$518.6 M
6. Electrical Systems and Power Generation	$198.8 M
7. Advanced Process Control and Automation Systems	$9.8 M
8. Site Facility Improvements	$599.5 M

Program Management Strategy

In September 2013 ESD began implementing a program management strategy designed to meet the objectives outlined in the PMP. The strategy, which builds on earlier work, serves as a transition between the high-level PMP and an implementable capital program. It moves forward with new tools to develop a validated program that gains efficiencies with greater consistency, control, and monitoring. Key tools include a project delivery model and a project validation process, described in detail below.

Don Edwards National Wildlife Refuge.

The strategy uses outside consultants and technical experts to:

- Develop alternative implementation strategies;
- Address construction sequencing for uninterrupted Facility operations; and
- Provide additional expertise in light of current staff vacancies at the Facility.

Strategy elements include:

- Partnering with the City's Public Works Department to optimize capital project delivery;
- Hiring expert consultants to advise and assist with program management, provide technical direction and coordinate design/bid/build and design/build procurements; and
- Implementing a phased approach that schedules CIP projects to minimize disruptions to Facility operations, lower the risk of permit violations, meet the Facility's good neighbor goals, and manage rate impacts.

A program management team comprised of City staff and consultants is now located at the Facility to manage the program, share knowledge, and coordinate with Facility staff. This integrated team provides program support, including design and construction management, cost estimating, scheduling, document management, budgeting, and reporting.

New project delivery tools will help bring critical projects to reality with greater efficiency.

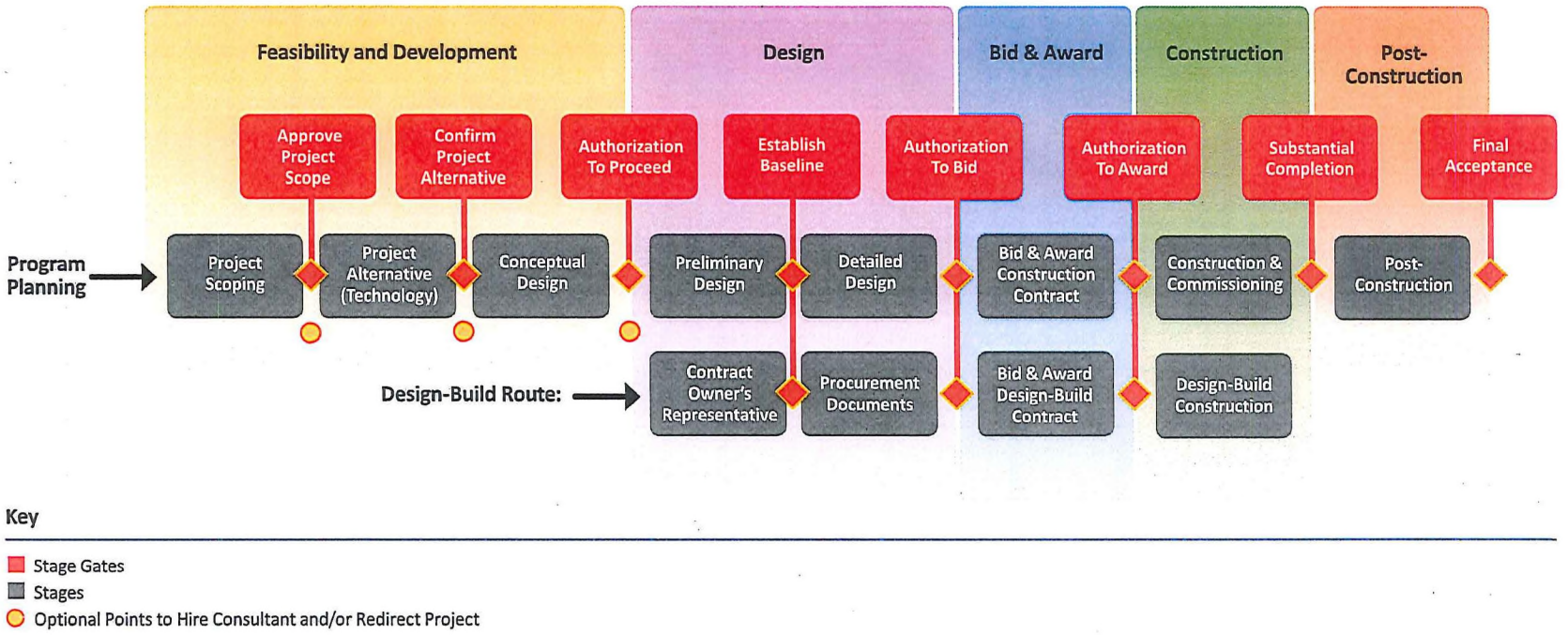
Project Delivery Model

For the CIP, which has multiple complex projects, an over-arching project delivery model (PDM) is needed to ensure a consistent approach to planning, approval, alignment, and control. As shown in Figure 1 on page 8, the PDM established by ESD consists of the following components:

- **Life cycle:** A series of project stages laid out in chronological order, with each stage broken down into individual activities.
- **Governance framework:** Approval points, or "gates," between stages that confirm project alignment with CIP goals and objectives and provide clear direction for advancement to the next stage.
- **Value management:** Points in the life cycle that ensure the project scope and solution provide the maximum value for the project and overall CIP.

All CIP projects are required to follow the PDM, which is designed to improve project delivery consistency and create efficiencies across the CIP.

Figure 1 — CIP Project Delivery Model



Project Validation

The project validation process, launched in October 2013, is a systematic approach to project identification, prioritization, and sequencing that uses combined knowledge from City and consultant engineering, the Facility's Operations and Maintenance Division (O&M), and executive leadership. The integrated program management team is applying the process to all 114 of the PMP's recommended projects.

> The objective of project validation is to decide which PMP projects will be included in the Facility's capital program. The goal: revised five - and 10 - year CIPs.

As part of the process, the program management team is reviewing current PMP studies, as well as other projects initiated since the PMP was completed. The team also obtained additional input on Facility needs to develop the revised CIPs. The project validation process schedule is being driven by ESD's five-year CIP budget submittal deadline of February 5, 2014.

A validation team with representation from staff and the CIP program consultant is leading the process in each of four key areas:

- Liquid treatment
- Solids treatment
- Energy and automation
- Plant-wide facilities

Working Groups for each of these areas will lead project development and review activities throughout the validation process. To develop the revised CIPs, these groups will use a six-step process that includes workshops at each step to review progress and receive input from senior leaders.

Team members collaborate in a working group meeting.

III. Program Accomplishments and Challenges

Several capital program milestones were achieved during the first two quarters of FY 2013-2014, including completion of two projects:

RSM Supernatant Ammonia Management

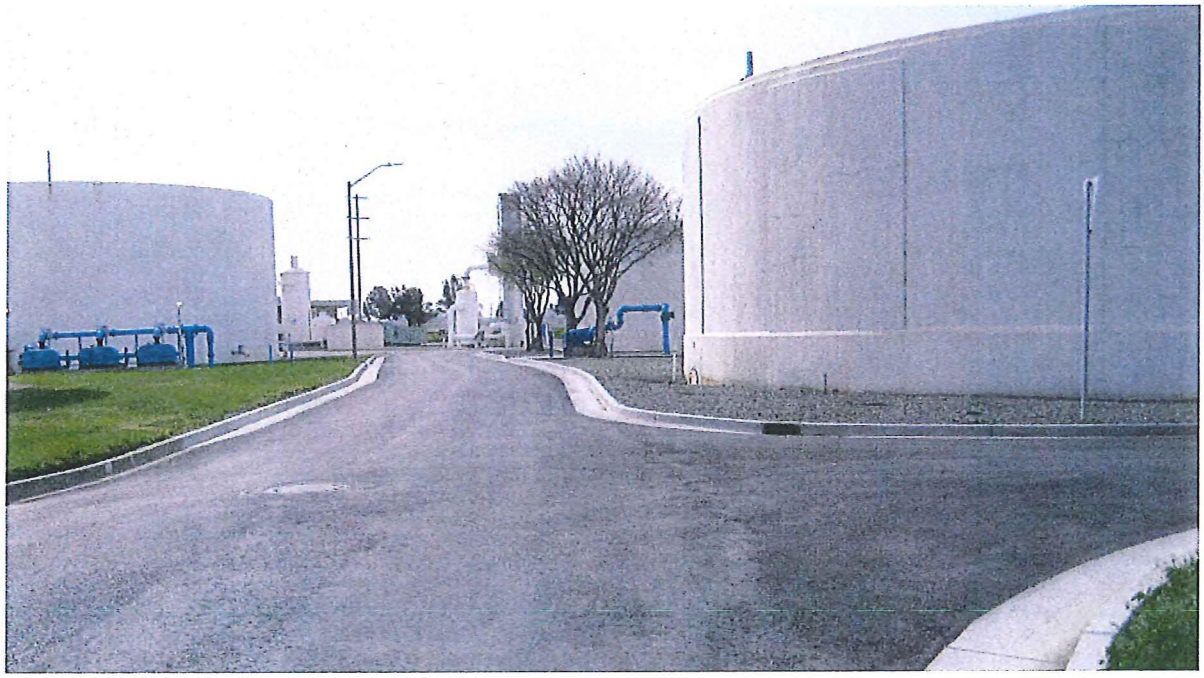
Start date: April 2010
Baseline completion date: August 2013 **Actual completion date:** November 2013
Baseline budget: $507,900 **Actual expenses:** $504,875
Original contract amount: $298,900 **Approved change orders:** $43,720

This project installed flow measuring devices, flow control valves, and other instrumentation to improve efficiency in monitoring and managing the supernatant flow from the residual sludge management area to the headworks. Supernatant is the liquid layer that naturally forms over the sludge lagoons as a result of precipitation and settling of solids.

Street Rehabilitation – Phase 2

Start date: July 2012
Baseline completion date: April 2014 **Actual completion date:** December 2013
Baseline budget: $443,600 **Actual expenses:** $450,046
Original contract amount: $279,598 **Approved change orders:** $23,379

This project was the second phase of a multi-phased rehabilitation of the Facility's five miles of streets and access roads. Phase 2 rehabilitated approximately 2,600 linear feet (LF) of pavement along Main Street, from the main gate to Center Street.



Rehabilitated Facility street provides safer access.

Additional Accomplishments

- Two service orders totaling $800,000 were awarded under existing master agreements to initiate consultant work on Filtration Building B2 and B3 Valve and Pipe Replacement, and on a feasibility study and contracting strategy for Biosolids Transition.
- On September 24, 2013, the City Council approved a consultant contract for a program management firm to provide a broad array of services and program tools to manage the capital program. Key services in the contract include validating existing and proposed CIP and PMP projects and establishing program-wide standards and systems, including budgetary and schedule controls.
- On October 8, 2013, the City Council approved a consultant contract for engineering design, construction support, testing, and commissioning services for the Digester and Thickener Facilities Upgrade project.
- In December 2013 the project definition report for the New Cogeneration Facility was completed.
- On December 16, 2013, the City Manager approved a one-year extension to a consultant contract for a program technical coordinator to lead coordination and communication between the Facility's O&M and CIP staff for optimal CIP implementation.
- Staff made significant design progress on several projects including Digester Gas Compressor Upgrade, Digester Gas Storage Replacement, Emergency Diesel Generators, BNR 2 Clarifier Guardrail Replacement, and Fire Main Replacement - Phase 3.
- As part of the intense program startup phase, the program management team and staff conducted or participated in more than 25 workshops to develop the PDM, program execution plan, and various program systems and tools.
- On August 28, 2013, ESD hosted a career exploration fair to provide information about job opportunities at the Facility. Facility and Human Resources staff met with 121 attendees to provide information on specific positions and how to apply for them.

Challenges

For successful delivery of the large and complex Facility CIP, staff must meet the following key challenges:

- **Recruit and fill key vacancies** – Experienced project managers, designers, and process engineers; O&M staff; and additional program support staff are critical to program success. Some of these staff are already in place; however, a number of vacancies in both the CIP and O&M divisions still need to be filled. Recruitments are underway with the recognition that new staff will need time and training to become completely familiar with the Facility, its systems and operations.
- **Build foundational systems** – Key systems are required for long-term success and effective CIP oversight. Schedule and budget control, document management, and asset management systems are all needed. Development and rollout of these systems will present some initial challenges. However, with training and continued use, the systems should promote accountability, efficiency, and improved planning and decision making.
- **Develop program delivery processes** – Clear governance, processes, and procedures are needed to manage risk and provide a standard approach for effective and efficient program and project delivery. Standardized project delivery tools; design standards and specifications; control system and integration strategies; startup; commissioning; and training procedures are being developed, but will require training and practice.

To address these challenges, the integrated program management team is collaborating on efforts including:

- Establishing the program management plan and office;
- Validating and prioritizing the 114 PMP-recommended projects, including conducting gap analyses and construction sequencing reviews; and
- Developing communications and program decision-making protocols.

Other significant challenges include exploring financing options and alternative delivery methods, including obtaining design-build authority for implementation of several projects.

IV. Capital Project Performance

Performance Measures

A key goal of this Semiannual Status Report is to provide regular updates on project performance based on schedule and budget commitments. Project schedules and budgets described in this report follow the same definitions and conventions as the Citywide CIP Annual Status Report.

Schedules

Baseline schedules are established as a commitment for delivery and a measurement of on-time project delivery performance. Project schedules are set once project scope and requirements have been established, and fall into one of the following categories:

- **On schedule:** Projects are considered to be on schedule if completed within two months of the committed completion date. Projects are also in this category if no schedule commitment existed prior to this report.
- **Extended schedule:** Projects have extended schedules if they are running more than two months behind the committed delivery date.
- **Schedule reset:** Project schedules are reset when committed schedules are no longer feasible as a result of significant changes in scope, bid protests, or Council-directed reprioritization. This reset process occurs as part of the City Council's consideration of the Citywide Annual CIP Status Report.
- **Schedule pending:** Projects that do not have schedules at the time of this report are noted as pending. The schedules for these projects are uncertain due to incomplete scoping, community concerns, or funding issues.
- **Schedule on hold:** Project schedules that have been deferred are placed on hold.

Phases

CIP projects are described as progressing through the following phases:

- **Planning:** Work can include condition assessments, pilot tests, feasibility studies, scope development, preliminary engineering, and environmental clearance.
- **Design:** Work can include preparation and review of plans and specifications, selection and management of consultants, and project coordination.
- **Bridging Documents:** These documents and drawings describe all components that go into building, and are designed to give each design-build bidder a clear understanding of what the Facility requirements on a given project.
- **Bid and Award:** Work can include bid advertisement, pre-bid meetings, preparation of addenda, evaluation of bids, and recommendation for award.
- **Construction:** Work can include execution of contract and issuance of the Notice to Proceed, construction management, and construction inspection.
- **Design-Build:** A combination of design and construction phase tasks performed by the design-build contractor, based on plans and specifications developed during the bridging documents phase.
- **Post-construction/startup:** Work can include final inspection, project closeout, warranty tracking and documentation, operations and maintenance training, startup, and commissioning.

Budgets

Baseline budgets are established as a commitment for delivery and a measurement of on-budget project delivery performance. Project budgets are generally established once the project scope is complete and a schedule has been determined. Projects are considered on budget if total project costs are within 1 percent of the established baseline budget. The baseline budget may differ from the CIP budget in that baseline budgets may include funding that has not yet been identified and appropriated by the San José City Council. Any resets of baseline budgets will occur during Council consideration of the Citywide Annual CIP Status Report.

Performance Summary

Table 2 shows active projects by phase. Nine projects are in the Conceptual Planning phase, which precedes the Planning phase. These projects do not yet have detailed scopes, schedules, or budgets. In order for a baseline schedule and budget to be established, a project in the Conceptual Planning phase will require further clarification and refinement of project goals; environmental clearance; and engineering analysis, such as feasibility studies and technology evaluations. Projects in the Conceptual Planning phase are included in **Table 3** on page 17.

In addition, a summary chart of current active projects with budgets and schedules is provided on the next page in **Figure 2**.

The Facility's CIP projects have been renumbered according to the Capital Project Management System (CPMS). This system links interested viewers to a web-based database that provides greater detail on projects. The CPMS can be accessed at: **http://sanjoseca.gov/index.aspx?NID=295**

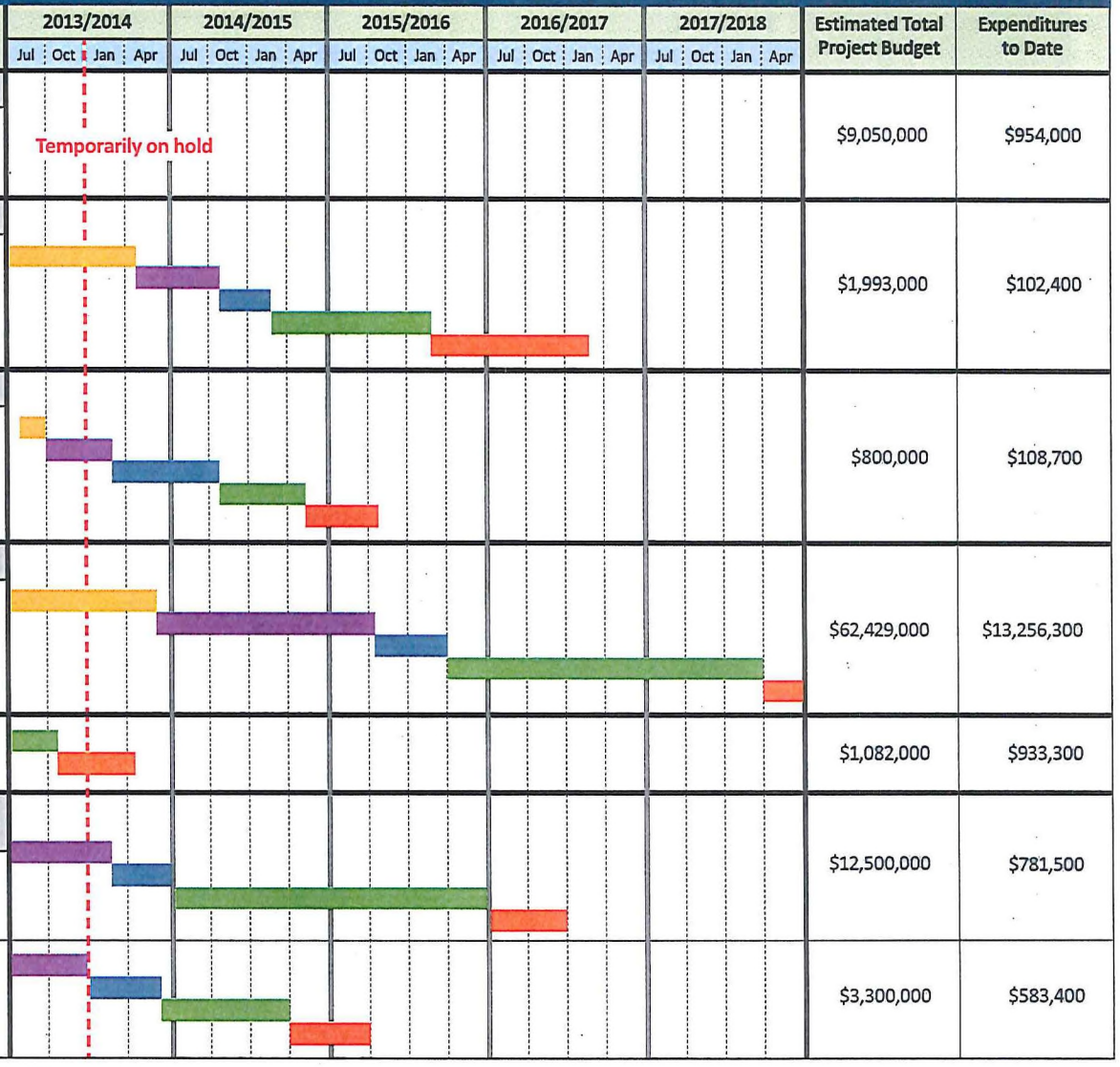
Table 2 — Active Projects by Phase

Project Phase	Number of Projects
Conceptual Planning	9
Planning	1
Design/Bridging Documents	11
Bid and Award	0
Construction	5
Design-Build	0
Post-Construction/Startup	1
Total	**27**

Clarifier tanks help settle solids during the secondary treatment process.

Figure 2 — 2014-2018 Project Schedule and Budget Chart

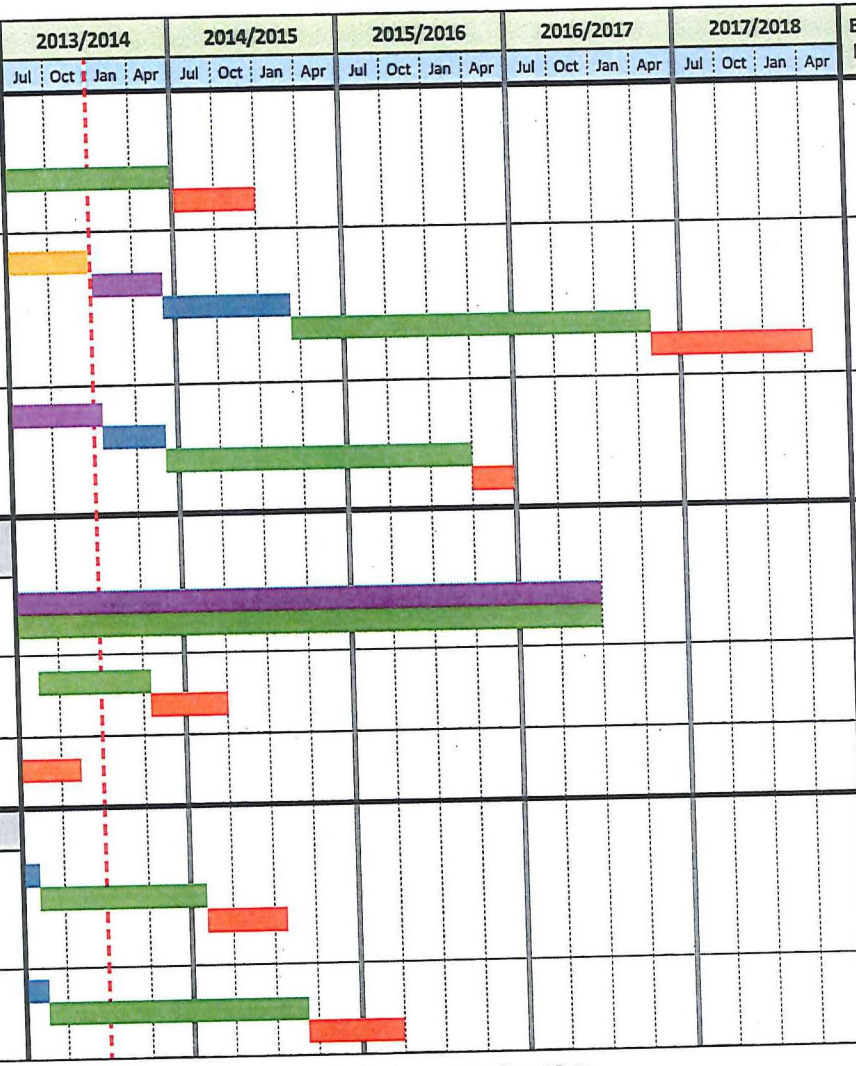
CPMS No.	Projects by Category	Estimated Total Project Budget	Expenditures to Date
Preliminary Treatment			
6013	Headworks No. 2 Enhancement – Phase 1	$9,050,000	$954,000
Primary Treatment			
6717	Iron Salt Feed Station	$1,993,000	$102,400
Tertiary Treatment			
6833	Filtration Building B2 & B3 Valve & Pipe Replacement	$800,000	$108,700
Biosolids			
7382	Digester and Thickener Facilities Upgrade	$62,429,000	$13,256,300
6631	Dissolved Air Flotation Dissolution Improvements	$1,082,000	$933,300
Electrical Systems and Power Generation			
7100	Digester Gas Compressor Upgrade	$12,500,000	$781,500
7157	Digester Gas Storage Replacement	$3,300,000	$583,400



Planning | Design | Bid and Award | Construction | Post-Construction/Startup | Report Date

Figure 2 continued from page 14

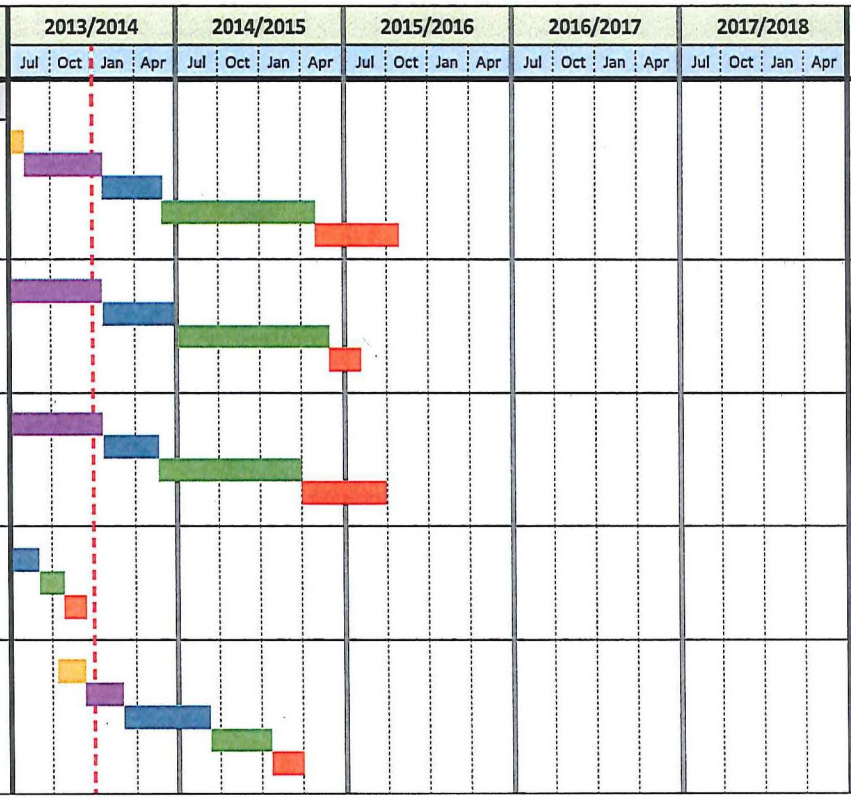
CPMS No.	Projects by Category	Estimated Total Project Budget	Expenditures to Date
	Electrical Systems and Power Generation	$655,000	$608,500
7079	115kV Circuit Breaker Replacement		
7418	New Cogeneration Facility	$87,000,000	$1,206,900
7394	Emergency Diesel Generators	$21,722,000	$523,600
	Advanced Process Control and Automation	$4,564,000	$2,791,600
7045	Distributed Control System Upgrade		
6927	DCS Fiber Optic Network Expansion	$957,000	$938,200
6778	RSM Supernatant Ammonia Management	$508,000	$504,900
	Site Facility	$437,000	$413,200
7076	Influent Magnetic Meter Valve Replacement for Nitrification Clarifiers A-5 and A-6		
6835	Handrail Replacement–Phase 5	$1,855,000	$1,644,500



Planning | Design | Bid and Award | Construction | Post-Construction/Startup | Report Date

Figure 2 continued from page 15

CPMS No.	Projects by Category	Estimated Total Project Budget	Expenditures to Date
Site Facility			
7407	BNR 2 Clarifier Guardrail Replacement	$1,174,000	$17,200
7249	Training Trailer Replacement	$682,000	$69,300
6998	Fire Main Replacement – Phase 3	$2,100,000	$172,100
7086	Street Rehabilitation – Phase 2	$444,000	$450,000
7474	Street Rehabilitation – Phase 3	$775,000	$44,300



Planning | Design | Bid and Award | Construction | Post-Construction/Startup | Report Date

V. Capital Project Highlights

This section provides a detailed look at selected CIP projects and key Facility improvements. These projects showcase work that is critical to ongoing Facility operations. Some, like the New Cogeneration Facility project, also pave the way for continued innovation and efficiency in how the Facility produces and uses energy.

Figure 3 below shows the location of each project at the Facility site.

In addition to information on project description, benefits, status, schedule, and budget, each page in the highlights section shows a budget estimate level. Capital project budget estimate levels are defined as:

- **Program level:** Created for long-term planning and initial feasibility studies; level of certainty plus or minus 35 percent.
- **Preliminary level:** Based on planned sizes of buildings and functional areas, not formal engineering work; level of certainty plus or minus 20 percent.
- **Budget level:** Based on current scope and schematic design work derived from previous similar projects; level of certainty plus or minus 10 percent.
- **Engineer's level:** Based on final construction plans and specifications; level of certainty plus or minus 5 percent.

Figure 3 – Locations of Highlighted Projects

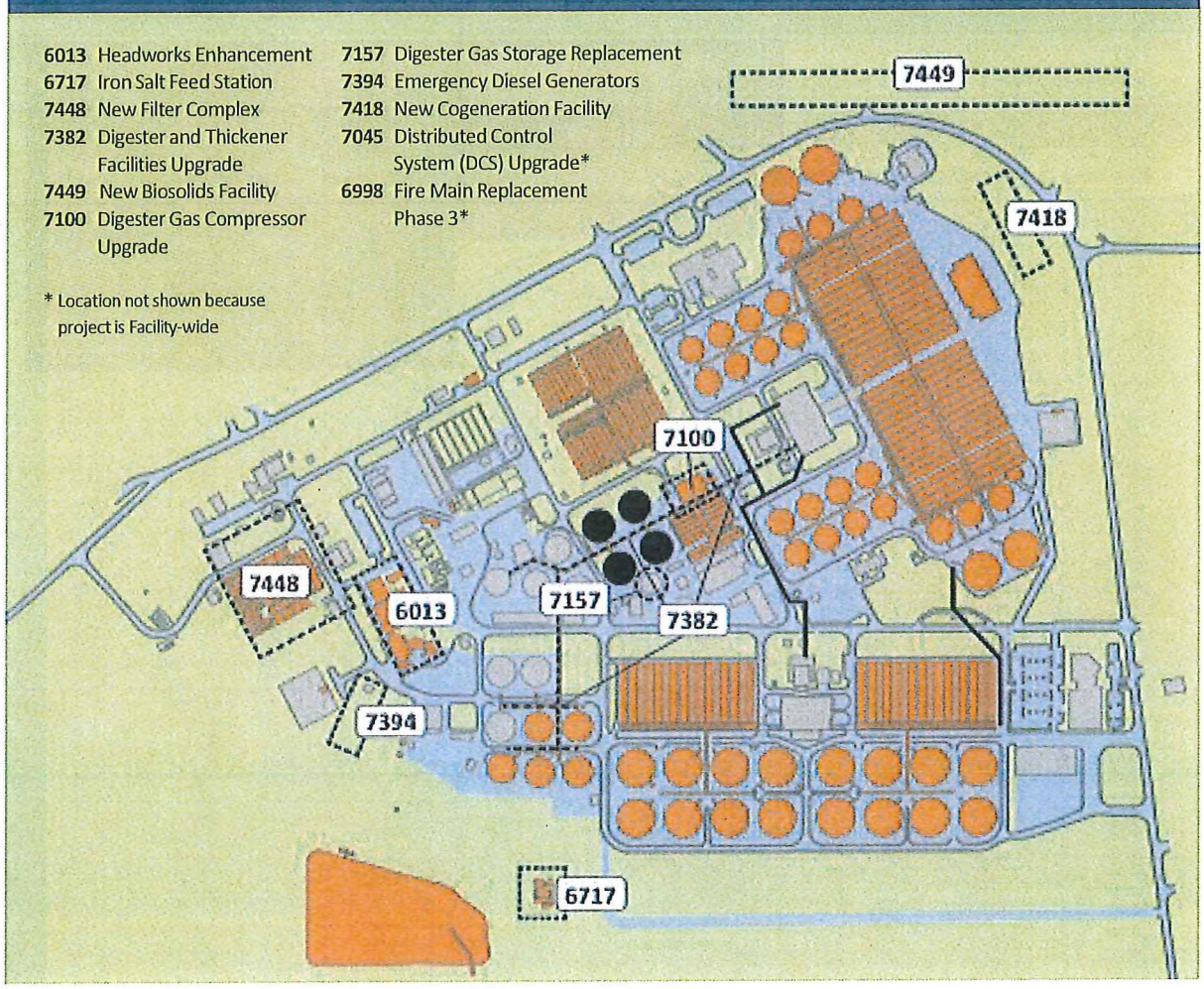


Table 3 – 2014-2018 Project Schedule and Budget – Conceptual Planning	
Project by Category	**Adopted Project Budget**
Preliminary Treatment	
Headworks No. 1 Repair and Rehabilitation	$5,975,000
Headworks No. 2 Expansion	$79,400,000
Primary Treatment	
East Primary Rehabilitation	$82,025,000
Secondary Treatment	
Biological Nutrients Removal 1 and 2 Connection	$14,486,000
Secondary and Nitrification Clarifier Rehabilitation	$39,724,000
Tertiary Treatment	
New Filter Complex	$134,000,000
Biosolids	
New Biosolids Facility	$326,000,000
Electrical Systems and Power Generation	
Switchgears S40, G3 & G3A, and M4 Controls Upgrade	$2,500,000
Advanced Process Control & Automation	
Plant-wide Flowmeter Replacement Program	$6,250,000

PRELIMINARY TREATMENT

Headworks bar screens

Headworks No. 2 Enhancement Phase 1

Estimate Type: Budget Level
Current Project Budget: $9,050,000
CPMS No. 6013

Description

This project will make enhancements to Headworks No. 2 so that it can serve as the main headworks until a new headworks facility comes online. Phase 1 work will include mechanical upgrades, construction of a new connection pipeline, and rerouting of recycle and other process water flows that currently connect to Headworks No. 1.

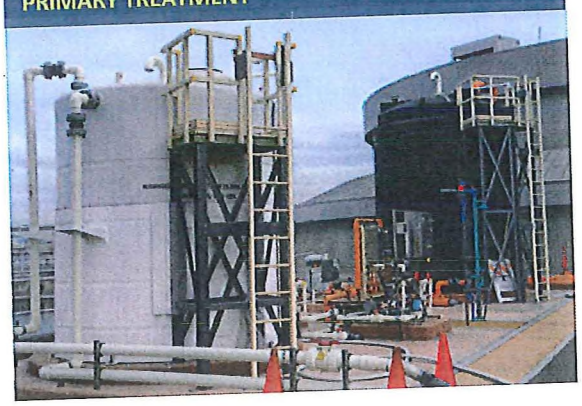
Current Status

A third-party feasibility report completed in December 2013 identified improvements to Headworks No. 2 for reliable short- and long-term preliminary treatment, and alternatives for future expansion of the headworks capacity. This project is currently on hold while staff evaluate these alternatives and consider how to incorporate the report's recommendations.

Next Milestone

Complete project definition report: *Fall 2014*

PRIMARY TREATMENT



Dosing station

Iron Salt Feed Station

Estimate Type: Program Level
Current Project Budget: $1,993,000
CPMS No. 6717

Description

This project will design and construct a chemical dosing station to add iron salt and polymer to incoming wastewater. Iron salt helps control the formation of hydrogen sulfide gas, reduce corrosion and odor, and enhance the settling of sludge. Hydrogen sulfide gas is sometimes present at high levels in the Facility's digesters, and is a potential air quality problem. Work will include construction of a chemical feed station and a concrete containment structure, as well as installation of pumps, piping, and instrumentation to dose and deliver the iron salt solution.

Current Status

Negotiations for consultant services are underway.

Next Milestone

Issue service order for design services: *Spring 2014*

For more information on CIP projects, visit **http://ca-sanjose.civicplus.com/index.aspx?NID=295**

TERTIARY TREATMENT

Disc filters

New Filter Complex

Estimate Type: Program Level
Current Project Budget: $134,000,000
CPMS No. 7448

Description

The Facility's 1970s-era gravity filters need to be refurbished or replaced with more efficient and advanced filter technologies. This project will evaluate and potentially pilot test one or more new replacement filter technologies in advance of a full-scale transition to a new filter complex.

Current Status

An October 2013 feasibility study evaluated new filter technologies and compared costs for a new filter complex with refurbishing the existing building. The study found these costs to be equivalent and recommended a detailed condition assessment to further evaluate the refurbishment requirements for the existing building.

Next Milestone

Detailed condition assessment of the existing filter complex: *Fall 2014*

BIOSOLIDS

Digesters

Digester and Thickener Facilities Upgrade

Estimate Type: Budget Level
Current Project Budget: $62,429,000
CPMS No. 7382

Description

The Facility has 16 anaerobic digesters constructed between 1956 and 1983. Six of these digesters are out of service due to age and condition; all are more than 30 years old. The first phase of this project will rehabilitate four digesters (Nos. 5, 6, 7, and 8), including installing new covers and mixing systems; heating system and gas collection system upgrades; structural and seismic retrofits; electrical, instrumentation, and control system upgrades; and dissolved air flotation thickeners modifications to allow for sludge co-thickening, including new odor control.

Current Status

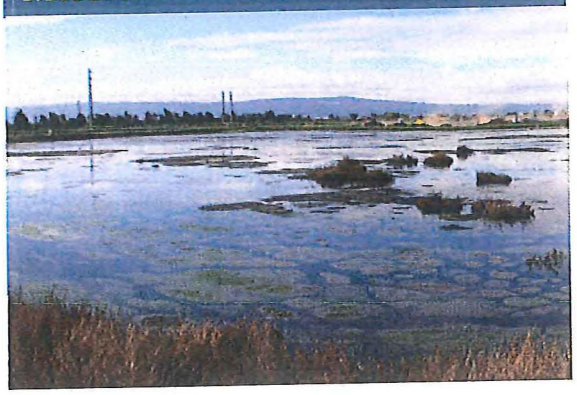
A design contract was awarded in October 2013. The conceptual design phase for the project is underway.

Next Milestone

Design completion: *Fall 2015*

For more information on CIP projects, visit **http://ca-sanjose.civicplus.com/index.aspx?NID=295**

BIOSOLIDS



Lagoon for drying sludge

New Biosolids Facility

Estimate Type: Program Level
Current Project Budget: $326,000,000
CPMS No. 7449

Description

The Facility currently manages its post-digestion biosolids through stabilization lagoons and open-air drying beds prior to shipping the sludge to a nearby landfill for use as an alternative daily cover. With the imminent closure of the landfill, the City is studying its disposal options. Covered mechanical dewatering and drying of sludge, coupled with new odor treatment technologies, would increase these options and reduce odor impacts to surrounding communities.

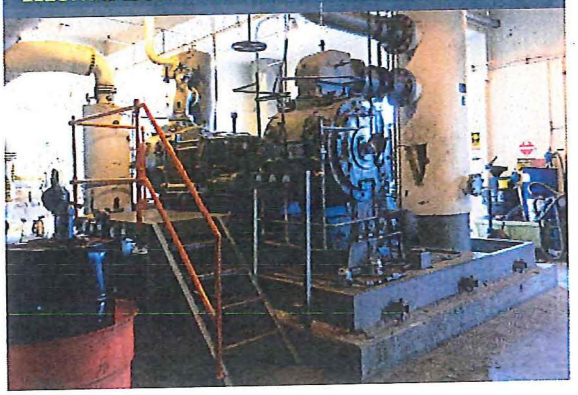
Current Status

A consultant has been hired to assist with scope definition and project delivery approach. Because this project is being evaluated as part of the project validation process, a detailed schedule and budget is not yet available.

Next Milestone

Complete project definition report: *Summer 2014*

ELECTRICAL SYSTEMS AND POWER GENERATION



Existing digester gas compressor

Digester Gas Compressor Upgrade

Estimate Type: Budget Level
Current Project Budget: $12,500,000
CPMS No. 7100

Description

The Facility operates three digester gas compressors located in the Sludge Control Building: two smaller gas compressors installed in 1964, and one installed in 1984. The two older compressors are increasingly unreliable and difficult to maintain. The newer compressor is also nearing the end of its useful life due to continuous use. This project will construct an approximately 4,400 square-foot (SF) structure to house two new gas compressors.

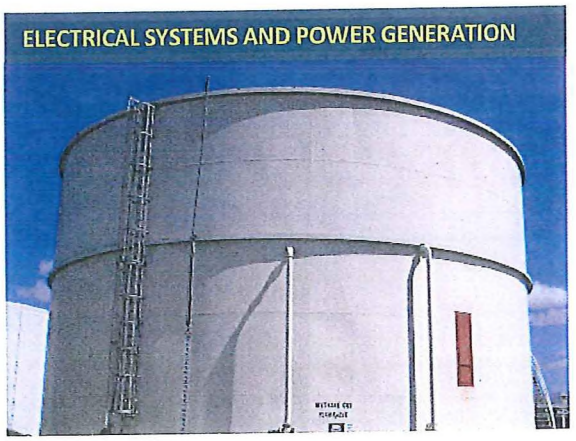
Current Status

The prequalification process to select design-builders has been completed.

Next Milestone

Award project: *Spring 2014*
Construction start: *Summer 2014*

For more information on CIP projects, visit **http://ca-sanjose.civicplus.com/index.aspx?NID=295**



Gas holder

Digester Gas Storage Replacement

Estimate Type: Budget Level
Current Project Budget: $3,300,000
CPMS No. 7157

Description

The Facility has an existing digester gas holding tank that was originally built in 1984. The tank's gas holder experienced two failures, one in 2002, and one in 2012. A structural evaluation during the 2012 failure revealed the gas holder cover skirt was damaged beyond repair. This project will demolish and replace the existing wet seal gas holder with a new dry seal gas holder. The new gas holder will be located at the same site as the existing gas holder.

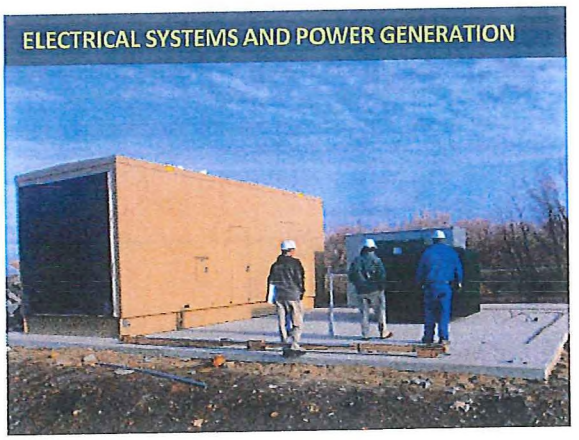
Current Status

The design was completed in December 2013. Contract documents have been developed and a request for bids is scheduled to advertise in January 2014. Bid opening will be in February 2014.

Next Milestone

Award project:	*Spring 2014*
Construction start:	*Summer 2014*

ELECTRICAL SYSTEMS AND POWER GENERATION



1.5 MW standby generator

Emergency Diesel Generators

Estimate Type: Program Level
Current Project Budget: $21,722,000
CPMS No. 7394

Description

This project was recommended in the 2012 Energy Management Strategic Plan for energy reliability in the event of power loss. The project will install four emergency diesel generators with capacity of 3 MW each. The generators will automatically start and energize the Facility's ring bus electrical distribution system within five minutes after a power outage. The generators will be located south of Substation 1, in the southwest area of the Facility, and will connect to the M3 switchgear.

Current Status

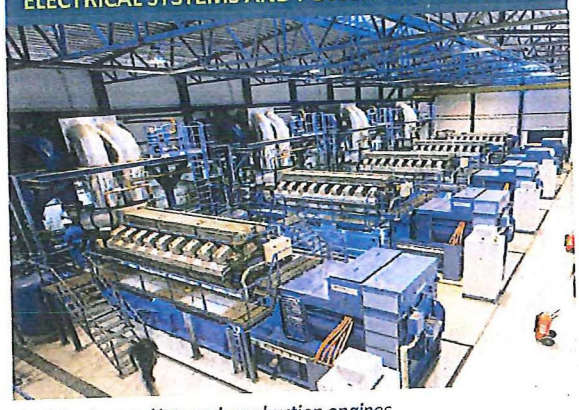
The project will be bid as low-bid/design-build. The contractor prequalification process was completed in December 2013 and bridging documents were completed in January 2014. The project bid process is underway, with bid opening scheduled for March 2014.

Next Milestones

Award project:	*Spring 2014*
Construction start:	*Summer 2014*

For more information on CIP projects, visit **http://ca-sanjose.civicplus.com/index.aspx?NID=295**

ELECTRICAL SYSTEMS AND POWER GENERATION



4 MW advanced internal combustion engines

New Cogeneration Facility

Estimate Type: Program Level
Current Program Budget: $87,000,000
CPMS No. 7418

Description

Improvements will include a new cogeneration building that will house four advanced 4 MW internal combustion engines. The engines' fuel source will be a blend of Facility digester gas and natural gas. Additional improvements include a gas treatment system, a new gas conveyance pipeline, emissions controls, system controls, and maintenance spaces.

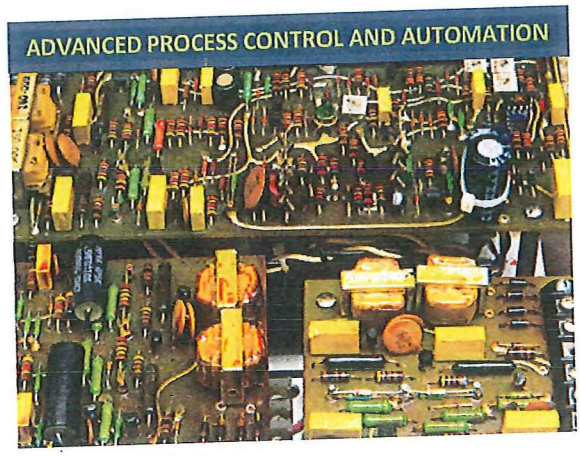
Current Status

The project definition report was completed in December 2013. Staff are currently developing the request for qualifications/proposals (RFQ/RFP) documents for a design-builder to construct the project.

Next Milestone

Obtain design-build authority:	*Spring 2014*
Issue RFQ/RFP for design-builder:	*Summer 2014*

ADVANCED PROCESS CONTROL AND AUTOMATION



Distributed control system

Distributed Control System (DCS) Upgrade

Estimate Type: Budget Level
Current Project Budget: $4,564,000
CPMS No. 7045

Description

This project upgrades the Facility's DCS, which monitors and controls many operational areas. The DCS is comprised of software and hardware components that have been in place since the early 1990s. The existing operating system platform is nearing obsolescence and will be phased out by the manufacturer in 2015. This upgrade includes the system software and hardware, user interface, technical training, and system testing.

Current Status

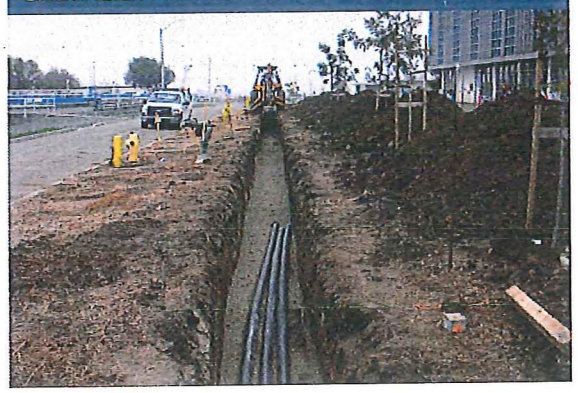
The contractor has completed assembling server cabinets; setting up servers, computers, and monitors; and configuring console operations.

Next Milestone

Project completion:	*Summer 2016*

For more information on CIP projects, visit **http://ca-sanjose.civicplus.com/index.aspx?NID=295**

SITE FACILITY IMPROVEMENTS



Fire main trench

Fire Main Replacement - Phase 3

Estimate Type: Budget Level
Current Project Budget: $2,100,000
CPMS No. 6998

Description

This project will replace approximately 7,800 LF of pipe along with associated valves, fire hydrants, and appurtenances. The Facility's fire protection system has more than 15,000 LF of fire mains consisting of cast iron and ductile iron pipes installed in stages over the past 50 years. A 2007 condition assessment revealed corrosion and potential piping failure throughout the system. As a result, a phased approach for replacement of the existing fire main system with corrosion-resistant plastic piping was initiated in FY 2007-2008.

Current Status

Final design drawings and specifications were completed in December 2013.

Next Milestone

Award project:	*Spring 2014*
Construction start:	*Summer 2014*

For more information on CIP projects, visit **http://ca-sanjose.civicplus.com/index.aspx?NID=295**

The following Financial Summaries Chart reflects project costs as adopted in the 2013-2014 CIP Budget. The chart also includes reserves, transfers, and non-construction elements that are not discussed in this status report.

2014-2018 Adopted Capital Improvement Program – Use of Funds (Combined)

	Estimated 2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	5-Year Total
Construction Projects							
Public Art							
Public Art	171,000	457,000	30,000	3,000			490,000
Total	**171,000**	**457,000**	**30,000**	**3,000**			**490,000**
Preliminary Wastewater Treatment							
1. Headworks No. 1 Repair and Rehabilitation	150,000	1,450,000	200,000				1,650,000
2. Headworks No. 2 Enhancement	337,000	7,874,000	3,000,000	300,000			11,174,000
3. Headworks No. 2 Expansion	300,000	200,000					200,000
Total	**787,000**	**9,524,000**	**3,200,000**	**300,000**			**13,024,000**
Primary Wastewater Treatment							
4. East Primary Rehabilitation, Seismic Retrofit, and Odor Control	1,000,000	715,000			2,000,000	5,000,000	7,715,000
5. Iron Salt Feed Station	18,000	1,900,000					1,900,000
Total	**1,018,000**	**2,615,000**			**2,000,000**	**5,000,000**	**9,615,000**
Secondary Wastewater Treatment							
6. Biological Nutrients Removal 1 and Biological Nutrients Removal 2 Connection		876,000					876,000
7. Secondary and Nitrification Clarifier Rehabilitation	8,000	3,162,000			1,400,000	4,000,000	8,562,000
Total	**1,008,000**	**4,038,000**			**1,400,000**	**4,000,000**	**9,438,000**

Financial Summaries continued from page 25

	Estimated 2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	5-Year Total
Construction Projects							
Tertiary Wastewater Treatment							
8. Alternative Disinfection	20,000	980,000					980,000
9. Filter Improvements	22,000	800,000					800,000
10. New Filter Complex	146,000	854,000					854,000
Total	**188,000**	**2,634,000**					**2,634,000**
Biosolids							
Inactive Lagoons Bio-Solids Removal	624,000						
11. Digester Rehabilitation	398,000	12,445,000	47,000,000	700,000	9,750,000	1,000,000	70,895,000
12. Dissolved Air Flotation Rehabilitation and Odor Control	736,000	264,000					264,000
13. New Biosolids Facility	1,000,000	3,000,000	70,000,000	115,000,000	97,000,000	40,000,000	325,000,000
Total	**2,758,000**	**15,709,000**	**117,000,000**	**115,700,000**	**106,750,000**	**41,000,000**	**396,159,000**
Electrical Systems and Power Generation							
Fuel Cell	20,000						
14. Combined Heat and Power Equipment Repair and Rehabilitation	1,166,000	9,934,000	250,000				10,184,000
15. Energy Generation Improvements	1,300,000	40,000,000	60,000,000				100,000,000
16. Plant Electrical Reliability	1,430,000	2,672,000					2,672,000
Total	**3,916,000**	**52,606,000**	**60,250,000**				**112,856,000**
Advanced Process Control & Automation							
17. Advanced Process Control and Automation	652,000	2,736,000					2,672,000
18. Plant-wide Flowmeter Replacement Program		1,000,000	5,000,000	250,000			6,250,000
19. Treatment Plant Distributed Control System	2,500,000	500,000	500,000	500,000	500,000		2,000,000
Total	**3,152,000**	**4,236,000**	**5,500,000**	**750,000**	**500,000**		**10,986,000**

Financial Summaries continued from page 26

	Estimated 2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	5-Year Total
Construction Projects							
Site Facility Maintenance and Improvements							
Plantwide Facilities	645,000						
Unanticipated/Critical Repairs	250,000						
20. Equipment Replacement	2,133,000	2,522,000	1,663,000	1,663,000	1,663,000	1,663,000	9,174,000
21. Plant Infrastructure Improvements	4,433,000	2,410,000	1,000,000	1,000,000	1,000,000	1,000,000	6,410,000
22. Treatment Plant Engine Rebuild	1,868,000	1,000,000					1,000,000
23. Treatment Plant Fire Main Rehabilitation	1,301,000	1,533,000					1,533,000
24. Treatment Plant Street Resurfacing	524,000	810,000	500,000	500,000	500,000	500,000	2,810,000
25. Urgent and Unscheduled Treatment Plant Rehabilitation	2,237,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Total	**13,391,000**	**9,775,000**	**4,663,000**	**4,663,000**	**4,663,000**	**4,663,000**	**28,427,000**
South Bay Water Recycling							
Recovery Act - South Bay Water Recycling Phase 1C	68,000						
SBWR Reservoir Facility	464,000	10,000					10,000
27. Plant Backup Water Supply	1,656,000	1,200,000					1,200,000
28. SBWR Extension	4,905,000	3,787,000					3,787,000
29. SBWR System Reliability and Infrastructure Replacement		2,300,000	1,500,000	1,500,000			5,300,000
Total	**8,293,000**	**7,297,000**	**1,500,000**	**1,500,000**			**10,297,000**
TOTAL CONSTRUCTION PROJECTS	**34,682,000**	**108,891,000**	**192,143,000**	**122,916,000**	**115,313,000**	**54,663,000**	**593,926,000**

Financial Summaries continued from page 27

	Estimated 2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	5-Year Total
Non-Construction Projects							
General Non-Construction							
2014 Bond Cost of Issuance			1,700,000				1,700,000
2014 Transfer to Clean water Financing Authority Debt Service			6,000,000	6,000,000	6,000,000	6,000,000	24,000,000
Capital Program and Public Works Department Support Service Costs	574,000	653,000	660,000	667,000	674,000	681,000	3,335,000
Transfer to Clean Water Financing Authority Debt Service Payment Fund	6,947,000	6,953,000	6,915,000	6,943,000	6,788,000	5,881,000	33,480,000
29. Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
30. Plant Master Plan	1,565,000	276,000					276,000
31. Preliminary Engineering	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
32. Program Management	1,077,000	4,498,000	3,590,000	3,605,000	3,275,000	2,800,000	17,768,000
33. SBWR Master Plan	2,027,000	419,000					419,000
34. State Revolving Fund Loan Repayment	4,464,000	4,464,000	4,464,000	4,464,000	4,464,000	4,464,000	22,320,000
Total	**17,659,000**	**18,268,000**	**24,334,000**	**22,684,000**	**22,206,000**	**20,831,000**	**108,323,000**
Contributions, Loans and Transfers to Special Funds							
Transfer to the City Hall Debt Service Fund	77,000	76,000	82,000	85,000	91,000	97,000	431,000
Total	**77,000**	**76,000**	**82,000**	**85,000**	**91,000**	**97,000**	**431,000**
Reserves							
Reserve for Equipment Replacement		5,000,000					5,000,000
Total		**5,000,000**					**5,000,000**
TOTAL NON-CONSTRUCTION	**17,736,000**	**23,344,000**	**24,416,000**	**22,769,000**	**22,297,000**	**20,928,000**	**113,754,000**
Ending Fund Balance	**118,373,157**	**51,245,157**	**139,503,157**	**79,008,157**	**26,834,157**	**17,447,157**	**17,447,157***
TOTAL USE OF FUNDS	**170,791,157**	**183,480,157**	**356,062,157**	**224,693,157**	**164,444,157**	**93,038,157**	**725,127,157***

* The 2013-2014 through 2016-2017 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

VII. Looking Ahead

Aerial view of Facility site looking eastward.

Over the next six months, the integrated program management team will complete the CIP project validation process and finalize program management office staffing. The team will also roll out and begin rigorous implementation of systems and tools designed to achieve cost savings and improved decision making for future CIPs. Key upcoming activities include:

- Completion of project validation and input into the City's budgeting and financing process;
- Implementation of the PDM across all active and new projects;
- Launch of a collaborative, web-based portal for project delivery and document management;
- Completion of a biosolids treatment and disposal options analysis;
- Initiation of the Headworks Rehabilitation Project, along with a number of technical studies needed for future projects;
- Bidding and construction on several projects, including Emergency Diesel Generators, Digester Gas Compressor Upgrade, Digester Gas Storage Replacement, and Fire Main Replacement-Phase 3; and
- Staffing of five capital program vacancies to help deliver CIP projects, including two senior engineer positions and three associate engineer positions.

Glossary

Biogas	A renewable energy source produced by the breakdown of organic matter, such as sewage or green waste, in the absence of oxygen. Biogas is comprised of methane, carbon dioxide, and small amounts of hydrogen sulfide and other components.
Biosolids	Treated sewage sludge.
Bufferlands	Open acreage used by wastewater treatment plants as a buffer between facility operations and nearby communities. Bufferlands minimize odor and operational impacts on neighboring communities, and often serve as wildlife habitat.
Cogeneration	The process of recovering and reusing industrial waste heat to produce electricity.
CPMS	The Capital Project Management System, a web-based database updated regularly to provide San José councilmembers, administrators, and the public access to current information on CIP projects.
DCS	A Distributed Control System, or DCS, is a computerized system that allows treatment facility staff to remotely monitor and control treatment processes.
Effluent	Treated wastewater that is discharged from a treatment facility.
EIR	An Environmental Impact Report (EIR) is a public document required under the California Environmental Quality Act to describe potential environmental impacts associated with a project. An EIR also describes measures to mitigate the impacts.
Headworks	Facilities that first receive incoming wastewater at a treatment plant. The headworks screen and remove sticks, grit, and other solid material from influent to protect downstream equipment in the treatment process.
Influent	Untreated wastewater that flows into a treatment facility.
mgd	Million gallons per day.
Preliminary treatment	The preparatory wastewater treatment stage, in which influent passes through headworks, which screen and remove sticks, rocks and debris; and grit chambers, which remove sand and gravel.
Primary treatment	The initial treatment for incoming wastewater, in which gravity settles solid material and rotating bars skim floating fats, oil, and grease from influent.
Ring bus system	An electrical substation switching arrangement of breakers connected in a closed loop.
Secondary treatment	The second stage of wastewater treatment, in which aeration tanks pump air into wastewater to promote the growth of naturally-occurring bacteria that remove organic pollutants.
Tertiary treatment	The final stage in advanced wastewater treatment, in which wastewater flows through filter beds, then through sodium bisulfite tanks to become 99 percent clean.
Wastewater	Water that enters the sanitary sewer system for processing at a treatment plant.

Appendix

PMP ID #	Project	PMP Cost Estimate* *(in millions)*
Preliminary Treatment Projects		
1	Headworks Enhancements Phase 1 and Phase 2	$6.7 ±
2	Miscellaneous Headworks 1 Repairs	$5.9 ±
3	Headworks 2 Modifications	$62.6 ±
4	Headworks Odor Control	$22.7 ±
5	Expand and Line Raw Equalization Basin to 10 MG	$9.0 ±
6	Demo Headworks 1	$11.5 ±
7	Refurbish/Demo P&E Building	$11.3 ±
8	Consolidate Influent Piping	$21.5 ±
	Program Subtotal	**$151.2 ±**
Primary Treatment Projects		
9-10	East Primaries Steel Conversion, Coating Rehabilitation, Concrete Repair, and Seismic Modification for Odor Control	$50.1 ±
11	Primary Treatment Odor Control	$49.9 ±
12	Tunnel Rehabilitation: West Primaries	$1.8 ±
13	Tunnel Rehabilitation: East Primaries	$2.4 ±
14	Iron Salt Facilities	$2.5 ±
15	Demo West Primaries	$22.1 ±
16	Additional 12 MG PE Equalization Basin	$21.6 ±
	Program Subtotal	**$150.4 ±**
Secondary Treatment Projects		
17	Secondary Air Plenum Filtration	$1.7±
18	Connect BNR1 and BNR2 Clarifiers	$14.6 ±
19	Connect Aeration Headers	$4.7 ±
20	Aeration Tank Rehabilitation (BNR 1 and BNR 2)	$62.1 ±
21	Rehabilitation of Remaining Secondary Clarifiers (BNR 2)	$13.2 ±
22	CFD Modeling and Rehabilitation of 1 Secondary Clarifier	$1.2 ±
23	Rehabilitation of Remaining Secondary Clarifiers (BNR 1)	$28.9 ±
24	Conversion to Fine Bubble Diffusers	$35.4 ±

Secondary Treatment Projects		
PMP ID #	**Project**	**PMP Cost Estimate*** *(in millions)*
25	Foam and Scum Control	$1.4 ±
26	Nocardia Control	$7.7 ±
27	Field Verification of Foam and Scum Control Options	$1.1 ±
29	Conversion to NAS (TN < 8mg/L regulation) – Alternative 2	$68.0 ±
28, 30	Other Alternatives	—
	Program Subtotal	**$240.0 ±**
Tertiary Treatment Projects		
31	Underdrain and Media (Remaining Bank A7 filters)	$3.2±
32	Miscellaneous Filtration Repairs	$12.2 ±
33	Field Verification of Alternative Filter Technology	$3.2 ±
34	Underdrain and Media (1 filter) + Field Verification	$0.4 ±
35	New Filters: 128 mgd Tetra Denite plus 52 mgd New Tertiary (NAS mode only) – Alternative 1	$132.6 ±
39	New Ultraviolet Disinfection Facilites – Alternative 3	$49.4 ±
36-38, 40-41	Other Alternatives	—
		$201.0 ±
Biosolids Digestion		
44	WAS and Primary Sludge Fine Screening	$11.8 ±
45	Digester Gas Manifold and Tunnel Improvements	$14.7 ±
46	Tunnel Rehabilitation: Digesters and DAFT	$6.8 ±
47-49	Digester Cover and Mixing Upgrades (4 digesters)	$30.1 ±
50	Digester Cover and Mixing Upgrades (3 digesters)	$26.0 ±
51	Digester Cover and Mixing Upgrades (3 digesters)	$27.9 ±
52	DAFT Final Upgrades (6 DAFTs)	$4.6 ±
53	Digester Heating Upgrades	$0.7 ±
54	Struvite Control Chemical Feed	$0.2 ±
55	Digestion Pre-Treatment Field Verification	$11.4 ±
56	FOG Receiving Station and 1/2-Mile Access Road	$9.2 ±
57	Fourteen-inch Digested Sludge Line Replacement (parallel pipe)	$12.9 ±
	Program Subtotal	**$156.3 ±**

Biosolids Residual Sludge Management		
PMP ID #	**Project**	**PMP Cost Estimate*** *(in millions)*
42	Inactive Lagoons Rehabilitation Phase 1	$13.9 ±
43	Inactive Lagoons Rehabilitation Phase 2	$13.9 ±
58	Sludge Dewatering Field Verification	$2.3 ±
59	2/3 Full Mechanical Dewatering (Centrifuges) Plus Feed Storage Tank	$84.7 ±
60	Cake Storage	$15.1 ±
61	1/3 Full Mechanical Dewatering (Centrifuges)	$41.9 ±
62	Lagoons/Drying Bed Retirement	$3.0 ±
63	2/3 Covered Lagoons (180 days storage)	$32.0 ±
64	Emergency Biosolids Storage	$7.6 ±
65	1/3 Covered Lagoons (180 days storage)	$19.8 ±
66	Sludge Drying Field Verification	$1.8 ±
67	2/3 Thermal Drying for 20 Percent of Solids Stream	$68.5 ±
68	1/3 Thermal Drying for 20 Percent of Solids Stream	$27.7 ±
69	Biosolids Greenhouse Demonstration Project (w/ BFPs)	$9.0 ±
70	2/3 Greenhouse: Full Scale (w/o dewatering)	$13.3 ±
71	1/3 Greenhouse: Full Scale (w/o dewatering)	$7.8 ±
	Program Subtotal	**$362.3±**
Power Generation		
72	Energy Strategic Plan	$0.4 ±
73	Fuel Cell	$1.4 ±
74	Facility Electrical Reliability (PER) – 4.6 MW Gas Turbine Phase 1 (w/o gas storage)	$36.0 ±
75	Gas Turbine Phase 2 (9.2 MW) (2 turbines)	$39.0 ±
76	Gas Turbine Phase 3 (4.6 MW)	$23.7 ±
77	Digester Gas Storage, Compressors, and Piping	$15.3 ±
78	Solar Power Facility Phase 1 (1 MW) – PPA	$0.8 ±
79	Solar Power Facility Phase 1 (1 MW) – Direct Purchase	$7.3 ±
80	Solar Power Facility Phase 2 (5 MW)	$42.3 ±
	Program Subtotal	**$166.2 ±**

Electrical Systems		
PMP ID #	**Project**	**PMP Cost Estimate*** *(in millions)*
81	PER – 115 kV Breaker Replacement	$2.9 ±
82	PER – M1, M2, M3 Switchgear Replacement	$0.5 ±
83	PER – MCC H1, H2, J1, J2	$0.2 ±
84	PER – MCC Phase II Replacements	$0.3 ±
85	PER – S11 Switchgear Replacement	$9.9 ±
86	PER – S40 and G3 Switchgear Update	$14.2 ±
87	PER – Standby Generator (Admin Building)	$0.6 ±
88	Double-ended Substation with Switchgear for Solids Handling Processes	$4.0 ±
	Program Subtotal	**$32.6 ±**
Advanced Process Control Systems Projects		
89-91	Advanced Process Control and Automation	$9.6 ±
92	EG2 and EG3 Engine Control Panel Upgrade	$0.2 ±
93	Side Stream Nitrogen Removal	—
	Program Subtotal	**$9.8 ±**
Site Facility Improvements		
94-96	Miscellaneous Heating and Cooling Upgrades	$3.0 ±
97	Handrail Replacement	$5.0 ±
98	Site Facility Improvements – Phase 1 (through 2025)	$9.1 ±
99	Site Facility Improvements – Phase 2 (2026 through 2040)	$12.2 ±
100	Yard Piping	$16.5 ±
101	Unanticipated/Critical Repairs	$25.4 ±
102	Unspecified Remaining Repair and Rehabilitation (2025 through 2040)	$416.0 ±
103-104	Tunnel Rehabilitation: BNR 1 and BNR 2	$10.3 ±
105	3W Pump Station Improvements	$1.1 ±
106-109	Warehousing Facility Additions and Support Building Improvements	$100.9 ±
110-112	Public Art Reserve – 2010 to 2040	TBD
	Program Subtotal	**$599.5 ±**

** Cost estimates follow the American Associate of Cost Engineering International (AACE International) Recommended Practice No. 18R-97 estimate classes 5 and 4. Typical accuracy range for Class 5 estimates are -20 percent to -50 percent on the low side, and +30 percent to +100 percent on the high side. Class 4 estimates are -15 percent to -30 percent on the low side, and +20 percent to +50 percent on the high side. Cost estimates for engineering, construction, and contingencies are escalated to the midpoint construction at 2 percent per annum.*

8A

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

MARCH 1, 2014 - MARCH 31, 2014

Description of Contract Activity [1]	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original $ Amount	Start Date	End Date	Additional $ Amount	Total $ Amount	Comments
NEW:										
FACILITY TECHNICAL TRAINING PROGRAM	FY13-14		AC 25736	CTS INTERNATIONAL CORP	$128,000	4/2014	6/6/14			SERVICE ORDER #2 (MASTER AGREEMENT TERM 10/23/13 - 6/30/17, WITH TWO (2) ADDITIONAL ONE (1) YR OPTIONS)
PROGRAM MANAGEMENT SERVICES	FY13-14		AC 25704	MWH AMERICAS, INC	$997,200	3/13/14	8/15/14			SERVICE ORDER #3 (MASTER AGREEMENT TERM 9/24/13-9/30/18)
ONGOING:										
COMPRESSED GASSES AND WELDING EQUIPMENT SERVICES & SUNDRIES	FY13-14	18297	49607	AIRGAS USA, LLC	$100,000	3/17/14	3/16/15			LABORATORY (40K) & MAINTENANCE (60K)
COATING REHABILITATION SERVICES OF FIVE (5) CLARIFIER TANKS	FY13-14	18676			$800,000	5/21/14	5/20/15			

[1] This report captures in process contract activity (Requisition Number or RFP Number) and completed contract activity (Purchase Order Number, Contract Term, and Contract Amount)