

Vendor Open House

Capital Improvement Program December 5, 2018





- RWF Overview
- CIP Overview
- Project Highlights by Package
- Procurement
- Questions & Answers





RWF Overview

Regional Wastewater Facility



Largest advanced wastewater facility on the West Coast

- 167 MGD capacity
- 2,600 acre site

Serves

- 1.4 million people
- 17,000 businesses
- 8 cities & County areas

Continually operating 24/7 since 1956

4

Historical Improvements





Recent Accomplishments



- November 2013: Plant Master Plan and Environmental Impact Report adopted
- December 2014: Odor Strategy adopted
- March 2015: Project Delivery and Procurement Strategy adopted
- June 2015: Biosolids Transition Strategy adopted
- June 2015: CIP Funding Strategy adopted
- June 2017: Owner-Controlled Insurance Program approved
- 13 programmatic studies and 6 projects completed
- Established a process shutdown request. (PSR) process



CIP Goals:

Build capital solutions that are safe, reliable, innovative, and cost effective, to ensure regulatory compliance and predictable performance

and capacity.

Enhance the quality of life for our community, and protect and improve the environment.

Retain and recruit talented employees by providing a safe, healthy, and rewarding place to work. Be a leader in environmental stewardship through energy

efficiency, resource recovery, and reduced environmental impact.

CIP Overview

Capital Improvement Program

- \$1.4 billion, 10-year CIP (2014-2024)
- Consists of 33 projects
 - 22 active projects
- Integrated team
 - City Staff (Environmental Services and Public Works)
 - Program Management Consultants (Stantec and Carollo)
 - Support from Program-Level and Project-Specific Consultants
- Multiple systems and tools
 - Project Delivery Model
 - EADOC (a construction document management system)



CIP Project Delivery Model

Design-Bid-Build







?

22 Active Projects Organized Into 4 Packages





All amounts are subject to change. Source: Adopted 2019-2023 CIP

Biosolids Package Overview



Bid/Award

 Digested Sludge Dewatering Facility (\$116M, progressive design-build)

Construction

Digester and Thickener
 Facilities Upgrade (\$196M)



All total project budget amounts are subject to change.

- Filter Rehabilitation
- Nitrification Clarifiers Rehabilitation Phase 1
- Advanced Facility Control and Meter Replacement Phase 2

Liquids Package

Liquids Package Overview

Feasibility/Development

Aeration Tanks Rehabilitation (\$81M)

<u>Design</u>

- Advanced Facility Control and **Meter Replacement Phase 2** (\$19M)
- Filter Rehabilitation (\$43M)
- Headworks Improvements and New Headworks (\$145M, progressive design-build)
- Nitrification Clarifier **Rehabilitation Phase 1 (\$53M)**
- Nitrification Clarifier Rehabilitation Phase 2 (to be approved)

Construction

- Advanced Facility Control and Meter Replacement Phase 1 (\$13M)
- Blower Improvements (\$52M)





Filter Rehabilitation

Filter Rehabilitation Project Site Plan



Filter Rehabilitation Project Description

- Granular Media Filters
 - Replace filter media
 - Repair underdrains
 - Remove existing surface wash system
 - Install air scour system
- Electrical Improvements
 - Replace switchgears and motor control centers
 - Reroute duct banks
- Filter Building Improvements
 - Replace valves and actuators in filter gallery
 - Improve lighting
 - Repair concrete on filter deck

- Delivery Method:
 Design-Bid-Build
- Design Consultant: Kennedy/Jenks Consultants
- Engineer's Estimate: \$28M (Class 3 OPCC based on 30% design)



Filter Rehabilitation Project Schedule

- Current Stage: Detailed Design
- Pre-Qualification Advertisement: May 2019
- Bid Advertisement: November 2019
- Construction Award: June 2020
- Substantial Completion: March 2023



Photo taken during an inspection of filter media. This project will replace filter media and remove the surface wash system.



All dates are subject to change.

Filter Rehabilitation Project Considerations

- Procurement of long lead electrical and mechanical equipment
- Maintaining RWF operations during implementation of complex construction activities (shutdowns)
- Bypass pumping required
- Space and accessibility constraints for valve replacement in filter gallery
- Construction interfaces with other projects



There is limited space for valve replacement in the filter gallery.





Nitrification Clarifier Rehabilitation Phase 1

Nitrification Clarifiers Project Site Plan



21

Nitrification Clarifiers Project Description

- Replace the clarifiers' sludge collectors, bridges, and groundwater pressure relief valves
- Replace clarifier influent and return activated sludge (RAS) pipeline flow meters, valves, and actuators
- Supporting electrical, instrumentation and controls
 - Replace motor control centers and enclosures
 - Replace conductors and conduits
- Repair RAS pipelines with cured-inplace-pipe (CIPP)
- Install groundwater monitoring wells

All amounts are subject to change.

- Delivery Method:
 Design-Bid-Build
- Design Consultant: HDR Engineering
- Engineer's Estimate: \$43M (Class 2 OPCC based on 60% design)



Nitrification Clarifiers Project Schedule

- Current Stage: Detailed Design
- Pre-Qualification Advertisement: January 2019
- Bid Advertisement: May 2019
- Construction Award: October 2019
- Substantial Completion: March 2022



Internal clarifier components, including drive cage, support arms, suction header, sludge collector, and bridge, will be replaced.



Nitrification Clarifiers Project Considerations

- Procurement of long lead equipment (clarifier internals)
- Limited access for CIPP of RAS lines
- Maintaining RWF operations during implementation of complex construction activities (shutdowns)
- Valve and actuator replacement
- Limited work allowed during wet season





Advanced Facility Control and Meter Replacement Phase 2

Meter Replacement Project Site Plan

Nitrification – Battery A (Summer 2021 Construction)

- 13 Flow Meters
- 24 Valves and 12 Actuators
- 10 Sensors Secondary – Battery A

(Summer 2022 Construction)

40 Flow Meters

• 17 Sensors East Primary Tanks

• 2 Flow Meters

• 4 Density Meters *Filters*

34 Sensors



Meter Replacement Project Description

- Replace critical, obsolete, and inaccurate instrumentation, valves, and actuators throughout the RWF
 - 65 Analytical Pieces of Equipment
 - 55 Flow Meters (10"-48")
 - 24 Valves
 - 12 Actuators

- Delivery Method: Design-Bid-Build
- Design Consultant: Black & Veatch
- Engineer's Estimate: \$11M (Class 2 OPCC based on 90% design)



Meter Replacement Project Schedule

- Current Stage: Detailed Design
- Pre-Qualification Advertisement: July 2019
- Bid Advertisement: October 2019
- Construction Award: April 2020
- Substantial Completion: December 2022



This project will replace 20" valves, meters, and piping in the Nitrification Tunnel.



All dates are subject to change.

- Fire Life Safety Upgrades
- Outfall Bridge and Levee Improvements
- 96-inch and 87-inch Settled Sewage Pipe Rehabilitation

Facilities Package

Facilities Package Overview

Feasibility/Development

- Facility-wide Water Systems Improvements (\$18M)
- Fire Life Safety Upgrades (\$5M)
- Flood Protection (\$9M)
- HVAC Improvements (\$14M)
- Outfall Bridge and Levee Improvements (\$8M)
- Storm Drain System Improvements (\$14M)
- Yard Piping and Road Improvements (\$120M, progressive design-build)

<u>Design</u>

 96-inch and 87-inch Settled Sewage Pipe Rehabilitation (to be approved)

Construction

 Cogeneration Facility (\$110M, progressive design-build)

Post-Construction

 Construction-Enabling Improvements (\$5M)





Fire Life Safety Upgrades

Fire Life Safety Upgrades Project Site Plan



Existing Buildings. New Buildings Not Shown.

egional

32

Fire Life Safety Upgrades Project Description

- Provide new local fire alarm systems in three existing buildings
- Provide a new centralized fire alarm monitoring system to monitor fire alarm panels in 11 existing buildings and 7 new buildings

- Delivery Method: 30% Low Bid Design-Build
- Design Consultant: Kennedy/Jenks Consultants
- Engineer's Estimate:
 \$0.9M (Class 4 OPCC based on 10% design)



Fire Life Safety Upgrades Project Schedule

- Current Stage: Conceptual Design (10%)
- Bid Advertisement: July 2019
- Construction Award: October 2019
- Substantial Completion: September 2022



This project will connect an existing fire alarm control panel in ESB to a new centralized monitoring system.

All dates are subject to change.



Outfall Bridge and Levee Improvements

Outfall Bridge Project Site Plan



San José-Santa Clara Regional Wastewater Facility 36

Outfall Bridge Project Description

- Replace Outfall Bridge
- Replace transformer
- Install rock riprap erosion protection at the weir
- Replace instrumentation on the bridge
- Replace final effluent flow meters at outfall pipes
- Install fiber optic system and add connections
 All amounts are subject to change.

- Delivery Method: 30% Low Bid Design-Build
- Consultant: AECOM
- Engineer's Estimate: \$3M (Class 5 OPCC from Project Alternative stage)



A diver inspected flow meters inside outfall pipes in 2018.

37

Outfall Bridge Project Schedule

- Current Stage: Conceptual Design (10%)
- Bid Advertisement: May 2019
- Construction Award: October 2019
- Substantial Completion: March 2021



Final effluent discharges over the weir, mixes with tidal water, and travels to the San Francisco Bay through Artesian Slough and Coyote Slough.





96-inch and 87-inch Settled Sewage (SES) Pipe Rehabilitation

96-inch and 87-inch SES Project Site Plan



San José-Santa Clara Regional Wastewater Facility 40

96-inch and 87-inch SES Project Description

- Rehabilitate 96-inch settled sewage pipeline using Cured-in-Place Pipe (CIPP)
- Rehabilitate 87-inch x 136inch settled sewage pipeline using Spiral Pipe Renewal (SPR)

- Delivery Method: Design-Bid-Build
- Design Consultant: Black & Veatch
- Engineer's Estimate: \$5M (Class 4 OPCC based on 10% design)



96-inch and 87-inch SES Project Schedule

- Current Stage: Detailed Design
- Pre-qualification Advertisement: February 2019
- Bid Advertisement: May 2019
- Construction Award: October 2019
- Substantial Completion: December 2020



This project will repair crown corrosion observed in the oval 87-inch x 136-inch Settled Sewage Pipe during a condition assessment in 2018.



All dates are subject to change.

Switchgear M4 Replacement and G3 & G3A Removal

Power and Energy Package

Power and Energy Package Overview



<u>Design</u>

 Switchgear M4 Replacement and G3 & G3A Removal (\$7M)

Post-Construction

 Plant Instrument Air System Upgrade (\$5M)



All total project budget amounts are subject to change.



Switchgear M4 Replacement and G3 & G3A Removal

Switchgear Project Site Plan



Switchgear Project Description

- Replace 4.16KV M4 switchgear and its enclosure
- Replace two 4.16KV bus ducts connecting M4 to 115/4.16KV transformers
- Replace 125VDC battery bank and its enclosure
- Remove 4.16KV G3/G3A switchgears at Building 40

- Delivery Method: Design-Bid-Build
- Design Consultant:
 Brown and Caldwell
- Engineer's Estimate: \$4M (Class 5 OPCC from Project Scoping stage)



Switchgear Project Schedule

- Current Stage: Detailed Design
- Bid Advertisement: August 2019
- Construction Award: January 2020
- Substantial Completion: March 2022



Replacement of the existing M4 switchgear enclosure and bus ducts will begin once the Cogeneration Facility is fully commissioned in 2020.



Procurement

Procurement Process

Pre-Qualification (If Applicable)

Advertisement on BidSync

Pre-Qualification Submittal

Evaluation and Selection Process

Notice of Determination

Design-Bid-Build

100% Plans & Specifications Advertisement on BidSync

Bid Submittal

Notice of Intent to Award

Notice of Award

Contract Execution

Low Bid Design-Build

30% Plans and Specifications Advertised on BidSync

Bid Submittal

Notice of Intent to Award

Notice of Award

Contract Execution

All communication is via BidSync, the City's procurement solicitation website.



Recent City Charter Amendments

- On November 6, 2018, San José voters approved changes to the City Charter described in Measure S
- Minor Public Works Contract: Engineer's Estimate threshold increased from \$100,000 to \$600,000
- Major Public Works Contract: The City has the option of using "Best Value Contracting" for projects with an Engineer's Estimate of \$600,000 or greater
 - Currently, the City awards contracts to the lowest responsive and responsible bidder
- Design-Build Threshold: Engineer's Estimate threshold decreased from \$5,000,000 to \$1,000,000
 - State law allows use of design-build projects if a project's Engineer's Estimate is \$1,000,000 or greater
- Changes are anticipated to go into effect in January/February 2019



Project Labor Agreement Update

Project Labor Agreement (PLA)

– <u>http://sanjoseca.gov/DocumentCenter/View/80712</u>

Negotiated Draft Agreement

<u>http://sanjoseca.gov/index.aspx?NID=6224</u>

Contract Execution Date: To Be Determined



Solicitation Website



register with Biddingo.

53

Contact David French, CIP Procurement Manager

<u>david.french@sanjoseca.gov</u>

- When procurements go live, all questions must be submitted via BidSync.
 - www.bidsync.com





Questions & Answers

RWF CIP Construction Forecast



All dates are subject to change.

Additional Information

CIP Document Library

- www.sanjoseca.gov/cip
- San José-Santa Clara Regional Wastewater Facility
 - www.sanjoseca.gov/rwf









The San José-Santa Clara Regional Wastewater Facility's (RWF) Capital Improvement Program (CIP) is rebuilding and modernizing the RWF. The CIP envisions an investment of approximately \$1.4 billion in the first 10 years, with an approximate total investment of \$2.1 billion over 30 years.

The City of San José (City) has consolidated all procurement solicitations to post on BidSync (<u>https://www.bidsync.com/</u>). All bid documents, questions and answers, addenda, and results will be available electronically via BidSync during the procurement process. Interested firms must register on BidSync to receive notifications when procurements are posted.

The City plans to advertise the following procurements within the next six months.

Procurement Name Description		Anticipated Advertisement ¹	Construction Estimate ²
Request for The project will rehabilitate the strue		January 2019	\$43,400,000
Qualifications for influent control system, and return activated			
Nitrification Clarifiers	sludge (RAS) pipelines for eight clarifiers.		
Rehabilitation Phase 1 ³ New stainless steel mechanisms will replace			
	existing ones. The project will also replace		
	all supporting electrical equipment;		
	instrumentation and control equipment;		
	RAS and influent flowmeters, valves and		
	actuators for 16 clarifiers.		
Request for	The project will rehabilitate existing	February 2019	\$5,400,000
Qualifications for 96-inch	pipelines with crown corrosion using cured-		
and 87-inch Settled	in-place pipe and spiral pipe renewal		
Sewage Pipe	techniques.		
Rehabilitation ⁴			
Request for	The project will place the media in 16	May 2019	\$28,200,000
Qualifications for Filter	existing filters, install an air scour system,		
Rehabilitation ⁵	and repair concrete in the Filtration Building.		
	This project will also replace all supporting		
	electrical equipment, instrumentation and		
	control equipment, and filter galley valves		
	and actuators.		

Construction Pre-Qualification Opportunities

Design-Build Opportunities

Procurement Name	Description	Anticipated Advertisement ¹	Construction Estimate ²
Request for Bids for Outfall Bridge and Levee Improvements	The low bid design-build project will replace an existing wood bridge with a prefabricated aluminum bridge, extend the RWF's fiber optic communications, and replace probes, meters, and a transformer.	May 2019	\$3,200,000

¹ All dates are estimates and are subject to change.

² All amounts are estimates and are subject to change.

³ Contractors who are pre-qualified will be eligible to bid on this project. The City anticipates advertising this project's Request for Bids in May 2019.

⁴ Contractors who are pre-qualified will be eligible to bid on this project. The City anticipates advertising this project's Request for Bids in May 2019.

⁵ Contractors who are pre-qualified will be eligible to bid on this project. The City anticipates advertising this project's Request for Bids in November 2019. Last Updated December 5, 2018 Page 1 of 1

Capital Improvement Program Attendee List



San José-Santa Clara Regional Wastewater Facility

Meeting Information:			
Meeting Name:	Vendor Open House		
Date:	Wednesday, December 5, 2018	Time:	1:30 p.m. – 5:00 p.m.
Location:	Administration Building, 700 Los Esteros Road, San José, CA 95134		

#	Company	First Name	Last Name	Email Address
1	ABB	Vijay	Rengaraju	vijay.rengaraju@us.abb.com
2	AECOM	Tsu Ling	Peng	tsuling.peng@aecom.com
3	AIMS/PVIC, CA LLC DBA AIMS Companies	Amber	Demain	ademain@aimscompanies.com
4	AIMS/PVIC, CA LLC DBA AIMS Companies	Matt	Duff	mduff@aimscompanies.com
5	Ameresco, Inc.	Paul	Douglas	pdouglas@ameresco.com
6	AP/M Permaform	Donald	Sims	d.sims@earthlink.net
7	Aquadyne Associates	Raymond	Burns	
8	Arcosa Lightweight	Nick	Barrett	nick.barrett@arcosa.com
9	Bear Electric Solutions	Roy	Hays	roy@bear-electrical.com
10	Black & Veatch	Randy	Fiorucci	fioruccirw@bv.com
11	Black & Veatch	Craig	Lichty	lichtyc@bv.com
12	Brown and Caldwell	Manjit	Saini	msaini@brwncald.com
13	Brown and Caldwell	Anup	Shah	ashah@brwncald.com
14	C. Overaa & Co.	Paul	Cassinelli	paulc@overaa.com
15	Cal Engineering & Geology	Dan	Peluso	dpeluso@caleng.com
16	CDM Smith	Tom	Frisher	frishertr@cdmsmith.com
17	CEL,Inc.	Martin	Meier	mmeier@ce-labs.com
18	CEL,Inc.	Robert	Morse	rmorse@ce-labs.com
19	Coombs Hopkin Company	Dean	Boode	dean@chcwater.com
20	Duran Construction Group	Ismael	Cortez	ismael.cortez@durancg.com
21	Duran Construction Group	Ray	Duran	ray.duran@durancg.com
22	Duran Construction Group	Maria	Duran	maria.duran@durancg.com

23	Forterra	Edgar	Benitez	edgar.benitez@forterrabp.com
24	Fugro	Grace	Lui	glui@fugro.com
25	Graniterock	Robert	Ellenwood	rellenwood@graniterock.com
26	Graniterock	Butch	Paredes	bparedes@graniterock.com
27	Hazen and Sawyer	Swaid	Alhajri	salhajri@hazenandsawyer.com
28	Hazen and Sawyer	Elsabeth	Girma	egirma@hazenandsawyer.com
29	HDR	Gary	Binger	gary.binger@hdrinc.com
30	HDR	Hany	Gerges	hany.gerges@hdrinc.com
31	HydroScience Engineers	Mary	Hoang	mhoang@hydrosceince.com
32	Jacobs Engineering	Susan	Dennis	susan.dennis@jacobs.com
33	Jacobs Engineering	John	Ryan	john.ryan1@jacobs.com
34	JMI Sourcing LLC	Jennifer	Varma	varmajennifer@gmail.com
35	Jovan Construction, Inc.	John	Van Arsdall	johnv@jovancdbm.com
36	K.J. Woods Construction, Inc	lan	Daly	idaly@kjwoods.com
37	Kennedy/Jenks Consultants	Christy	Suttich	christycavano@kennedyjenks.com
38	Kiewit Infrastructure West Co.	Marc	Wheeler	marc.wheeler@kiewit.com
39	LEE & RO, Inc	Tony	Park	tony.park@lee-ro.com
40	LEE & RO, Inc	Zaheer	Shaikh	zaheer.shaikh@lee-ro.com
41	MNS Engineers, Inc.	John	Mukhar	jmukhar@mnsengineers.com
42	Monterey Mechanical Co.	James	Troup	j.troup@montmech.com
43	Mountain Cascade, Inc.	Reid	Van Duyn	reidv@mountaincascade.com
44	Ninyo & Moore	Ruchil	Shah	jotoole@ninyoandmoore.com
45	Noodoe	Ray	Rosel	rayrosel@noodoe.com
46	Northern Underground Construction Inc.	Eric	Gonzales	egonzales@northernunderground.com
47	Parsons	Eric	Mische	eric.mische@parsons.com
48	Rain For Rent	Bobbie	Lampe	blampe@rainforrent.com
49	Rain For Rent	Doug	Мое	dmoe@rainforrent.com
50	SAK Construction, LLC	Casey	Smith	csmith@sakcon.com
51	Silveira Consulting, Inc.	Jamie	Silveira	jamie.silveira@live.com
52	South Bay Communications	Ariel	Long	ariel@southbaycommunications.com
53	Spire Consulting Group	Roger	Nelson	rogern@spirecg.com
54	Statewide Traffic Safety and Signs	Michael	Griffiths	mgriffiths@stssi.com
55	Steve P. Rados, Inc.	Warren	Skraber	wskraber@radoscompanies.com
56	The Handy Hipsters	Eddy	Ngo	eddyngo87@gmail.com

57	Trench Plate Rental Company	Tracy	Novogradac	tnovogradac@tprco.com
58	Tricertus, LLC	Angela Bella	Taitano	angelataitano@tricertus.com
59	Uretek	Joseph	Diaz	jdiaz@uretekusa.com
60	Water Works Engineers	Cindy	Bertsch	cindyb@wwengineers.com