

Active Wastewater Treatment Plant Projects

46T003 WWTP Nutrient Removal and Wet Weather Flow Management Upgrade

Project Description:

The WWTP Upgrade and Expansion Project will replace aging infrastructure, provide capacity for wet weather flows, comply with regulatory requirements, enhance reliability, and produce a higher quality effluent that meets current and future permit requirements and Title 22 recycled water quality. Producing a higher quality effluent will enable the City to develop a water reuse Program.

Project Inside	
Project Manager	Leswin DCunha
Project Type	Wastewater System
Phase	Construction

GMP1 – Contract	
Contractor	Sundt
Award Date	5/6/2019
Construction NTP	6/4/2019
Duration (calendar days)	1124
Contracted Completion Date	7/1/2022
Total Original Contract Amount	\$33,098,178.00
Contingency Amount	\$1,725,000.00
Substantial Completion Date	2/1/2023
Current Contracted Amount	\$34,783,550.00
Actual Expended	\$31,630,697.00

GMP2 – Contract	
Contractor	Sundt
Award Date	5/4/2020
Construction NTP	5/5/2020
Duration (calendar days)	619
Contracted Completion Date	01/14/2022
Total Original Contract Amount	\$17,716,049.00
Contingency Amount	\$1,645,000.00
Substantial Completion Date	2/1/2023
Current Contracted Amount	\$17,963,767.00
Actual Expended	\$17,206,534.00

GMP3 – Contract	
Contractor	Sundt
Award Date	9/21/2020
Construction NTP	9/22/2020
Duration (calendar days)	1563
Contracted Completion Date	1/2/2025
Total Original Contract Amount	\$379,880,747.00
Revised Contract Amount	\$383,790,833.00
Original Contingency Amount	\$13,900,000.00
Revised Contingency Amount	\$15,336,910.00
Forecast Completion Date	1/2/2025
Current Contracted Amount	\$395,988,119.00
Actual Expended	\$300,692,660.00

Current Period Activities

Project/Construction Management

- Procuring the Air Gap for the domestic water system.
- Coordinating the Special Inspections Services
- Providing Construction Inspection Services
- Reviewing and recommending approval of change orders
- Administering the Consultant and Subconsultants contracts
- Assisting with the Startup and Commissioning training of Plant Staff

- Monthly WWTP update meeting with Foster City management team.

Engineering Design/ Services During Construction

- Interpretive Signage: RHAA working on the final design phase.
- ESDC: HDR continued review of submittals and RFIs on GMP 3; development of design change notices; onsite and remote support by Resident Engineer. .HDR has started the preparation of electronic Operations and Maintenance Manuals

Permitting

- Nothing to report.

Public Outreach

- PM/CM and the CWP Public Outreach Lead coordinated on regular project updates to the website, newsletter, social media, etc.

Construction

GMP-1

- Project close out is almost completed.

GMP-2

- Project close out is almost completed.

GMP-3

- Commissioning meetings were held to continue discussing start-up activities, including roles and responsibilities.
- Yard piping is nearing completion.
- Continued to install Electrical (gear including cabinets, breakers, switches, conduit and wiring) and Mechanical Equipment (piping with structural supports, motors and pumps) in Areas 51 (Headworks), 52 (Primary Clarifiers), 53 (Bio Actiflo), 55 (BNR) and 56 (MBR).
- Continuing the installation of protective coatings in Area 51, 52 and 70 (Chemical Storage)
- Continue exterior of building, including installation of siding, installation of interior utilities, flooring and cabinetry for Area 80 (Admin. Building)
- Continue installation of the exterior panels and interior work for the Warehouse
- Earthwork - excavation, grading, and backfilling specifically around the entry of the Administration Building

Next Period Activities

Project/Construction Management

- HDR's to continue to provide ESDC services including development of process O&M manuals, process training, expanded discipline-specific Resident Engineer services, and related known scope reflected in the contingency budget.

Engineering Design/Services During Construction

- Interpretive Signage: RHAA to issue the final design.
- ESDC: HDR to continue to provide onsite resident engineering services.

Permitting

- Record the WWTP Final Parcel Map with the County.

Public Outreach

- Provide project updates to the CWP Public Outreach Lead for monthly newsletter, website, and social media updates.
- Continue as-needed support in response to resident queries via the communication hotline.

Construction

GMP-1

- Close out project

GMP-2

- Close out project.

GMP-3

- Continue to install Electrical (gear including cabinets, breakers, switches, conduit and wiring) and Mechanical Equipment (piping with structural supports, motors and pumps) in Areas 51 (Headworks), 52 (Primary Clarifiers), 53 (Bio Actiflo), 55 (BNR) and 56 (MBR).
- Continue install the protective coatings in Area 51, 52 and 70 (Chemical Storage)
- Continue exterior of building, including installation of siding, installation of interior utilities, flooring and cabinetry for Area 80 (Admin. Building)
- Continue installation of the interior work for the Warehouse
- Earthwork - excavation, grading, and backfilling specifically around the entry of the Administration Building

Risks and Opportunities

- **Cal Water's New Potable Water Main Extension:** Completed
- **PG&E's New Primary Service:** Completed
- **Relocation of PG&E's Utilities from Detroit Drive:** Completed

Financial Status

- Current update shows an overrun (\$18.43M) of original budget.



Schedule Status

- Part of re-baseline efforts. Current forecast shows to be completed on time in January 2025.

46T009 IAP Package II

Project Description:

Replace and repair aging infrastructure at the WWTP by adding screening, flexibility, and redundancy for WWTP solids processes. The project includes: (1) Mechanical bar screen and repair of concrete wall at the IJB; (2) Effluent PS #1 pumping and piping improvements; (3) replace two of the oldest pumps in PS #1; (4) Cake pumping system: add second cake pumping system; and (5) Second cake hopper system: add a second cake hopper, slide gate, access walkway, and platform.

Project Inside	
Project Manager	Tyler Kirkendall
Project Type	Wastewater System
Phase	Construction
Design Firm	Stantec, HDR

Current Period Activities

Project/Construction Management

- Coordinated City negotiations with Contractor for time extension / delays.
- Worked with Contractor on Cake pump issues.

Engineering Design/ Services During Construction (Various)

- Stantec ESDC is ongoing through the remainder of its construction period.

Permitting

- ✓ No activities this period.

Public Outreach

- ✓ No activities this period.

Construction

Immediate Action Projects, Package II (IAP II)

- ✓ Installation of Hopper Modifications

IAP II – Contract	
Contractor	Myers & Sons
Award Date	2/11/2019
Construction NTP	2/19/2019
Duration (calendar days)	848
Contracted Completion Date	6/14/2021
Contract Amount	\$6,340,000
Contingency Amount	\$934,000
Forecast Completion Date	3/31/2024
Current Contracted Amount	\$7,167,599
Actual Expended	\$7,142,099

Next Period Activities

Project/Construction Management

- Continued change management support.

Engineering Design and Engineering Services During Construction

- Stantec ESDC is ongoing through the remainder of its construction period.
- Continue review of submittals and RFI.

Permitting

- No activities this period.

Public Outreach

- No activities this period.

Construction

Immediate Action Projects, Package II (IAP II)

- Work with Contractor to Complete fix to the cake pump issue

Risks and Opportunities

- Sludge Cake Hopper No. 1 has not successfully completed start-up testing. Contractor working to identify issue affecting Cake Pump No. 1 and requested both design engineer and Vendor assistance in their troubleshooting of Cake Pump No. 1. Design Engineer provided new sludge cake measurement technology selection in DC 8, which was issued to the Contractor in September. City contracted with a third party to provide recommendations for fixing the Cake pump. The third party has recommended removal of welded pipe and installation of new piping. City working with Contractor for a solution.
- Delays to the project by sludge cake pumping system will result in significant delays to the project.

Financial Status

- Current update shows an overrun (\$4.45M) of original budget.

Millions



Schedule Status

Project schedule temporary on hold while issues are being resolved. Anticipates construction to be completed by March 31, 2024

46T010 IAP Package III

Project Description:

Upgrade aging infrastructure and increase reliability for the effluent PS at the WWTP. Improvements include perform hydraulic analysis on the effluent PS and flow meters; replace MCCs P1, P2, P3, and P4 in the Main Structure Building; add variable-frequency drives (VFDs) and check valves on stormwater pumps; replace check valves (3) for dry weather pumps; replace MCCs/VFDs (4) and control panels (4) for dry weather pumps; and replace doors (3) and windows (10), repair roof, and add HVAC for the PS.

Project Inside	
Project Manager	Daniel Patten
Project Type	Wastewater System
Phase	Engineering

Current Period Activities

Project/Construction Management (City/Jacobs)

- Project Bid opened on April 6, 2023
- Project awarded to Mountain Cascade for \$11,703,696
- EAC revised to \$18,535,797.

Engineering Design/ Services During Construction (HDR)

- None reported.



Next Period Activities

Project/Construction Management (City/Tanner Pacific)

- Awarded Project Construction Management to Tanner Pacific.

Engineering Design/ Services During Construction

- HDR to begin EDSC.

Risks and Opportunities

- Rescoping the project **push out the completion date of the project.**

Financial Status

- Current update shows an overrun (\$16.02M) of original budget.



Schedule Status

- Current forecast shows final completion in August 2024.

46T090 Annual Major Component WWTP

Project Description:

Maintain reliable plant operations to meet regulatory permit requirements and repair and replace critical WWTP infrastructure. The operations and maintenance team maintain an active list of potential projects that are implemented as funds are available.

Project Inside	
Project Manager	Daniel Patten
Project Type	Wastewater System
Phase	Engineering

Current Period Activities

Project/Construction Management (City/ Jacobs)

- Additional AMC project
 - ✓ Update WWTP Biosolids and Energy Management Plan
 - ✓ Digester 1 Improvements
 - ✓ Centrifuge and Centrifuge Feed Pump Replacement
 - ✓ Solids Handling Systems I&C Improvements
 - ✓ Digester Transfer Pump Project
 - ✓ 3 Water Pumping Improvements
 - ✓ DAFT Corrosion Improvements

Permitting (Various)

None

Construction

- EPS (Express Plumbing Services) Inc. submitted as-builts for AMC 6 + 23.



Next Period Activities

Project/Construction Management (City/ Jacobs)

- None

Engineering Design/ Services During Construction

- Design Consultants working on the AMC projects.

Permitting

- None

Construction

- None

Risks and Opportunities

- AMC 36 Centrifuge Conveyor Replacement is on hold.

Financial Status

- Project shows EAC over budget by \$1.06 million

Millions

Budget		\$8.92
Actual Cost to date		\$1.38
Estimate at Completion		\$9.98

Schedule Status

- AMC 6 +23 was completed in November 2022. All other AMC Projects are in the predesign phase.

Completed Projects

Wastewater Treatment Plant Projects

Updated to latest values from EDEN (January 2020)

Name	Start Date	Finish Date	Actual Cost
469948: SCADA Immediate Projects: Phase 2 (IAP)	1/2/2015	11/25/2015	\$1,524,717
469962: Short-Term MCC Replacement Project (IAP)	1/2/2015	11/25/2015	\$49,628
469973: Secondary System: Immediate Projects: SCs 1-4 and return-activated sludge Pump Values (IAP)	1/2/2015	11/25/2015	\$426,918
469975: Solids: Immediate Projects: GT 1&2 (IAP)	1/2/2015	11/25/2015	\$372,358
469976: Immediate Projects: Boiler Replacement	1/2/2015	4/29/2016	\$475,296
469978: Solids Building: Immediate. Projects: Centrifuge Hoist Project (IAP)	1/2/2015	11/25/2015	\$2,410
46T002 IAP Package I	8/1/2018	8/28/19	\$18,621,868
TOTAL			\$21,472,951