



**Construction Contingency Increase for Digester
and Thickener Facilities Upgrade Project**
San José City Council Meeting – Item 7.3

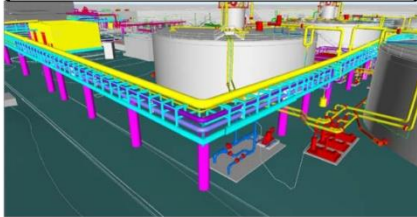


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June 12, 2018

Project Site and Scope

NEW ELEVATED PIPE RACK

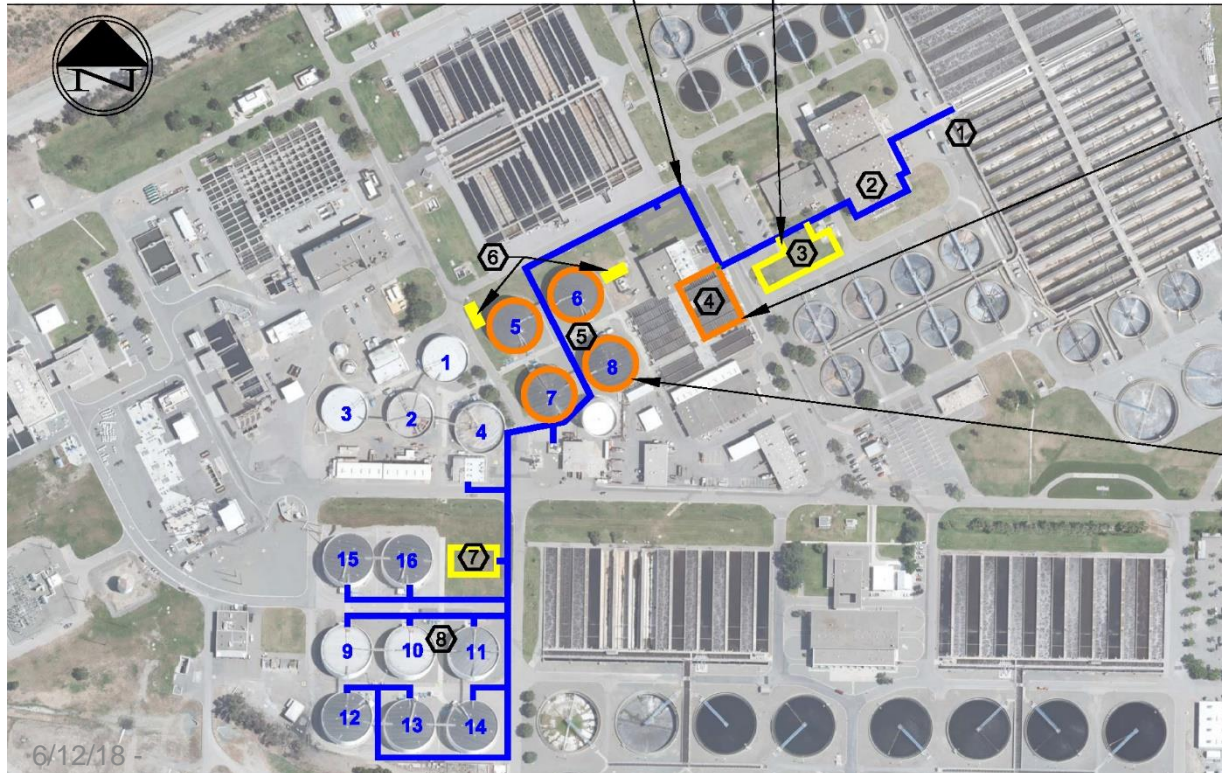


NEW SLUDGE SCREEN, ODOR CONTROL, STEAM CONVERTERS, AND POLYMER STORAGE/BLENDING FACILITIES

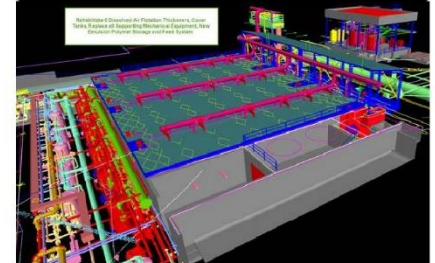


PROJECT SITE AREAS

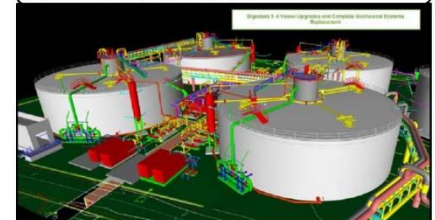
- | | |
|---------------------------------|--------------------------|
| ① TIE-IN TO EXISTING LINES | ⑤ DIGESTER 5-8 AREA |
| ② SECONDARY BLOWER BUILDING | ⑥ MOTOR CONTROL CENTER |
| ③ NEW SLUDGE SCREENING FACILITY | ⑦ NEW GAS FLARE |
| ④ DAFT AND DAFT GALLERY | ⑧ REMOTE DIGESTER (9-16) |



MODIFICATION TO DAFT 1-6

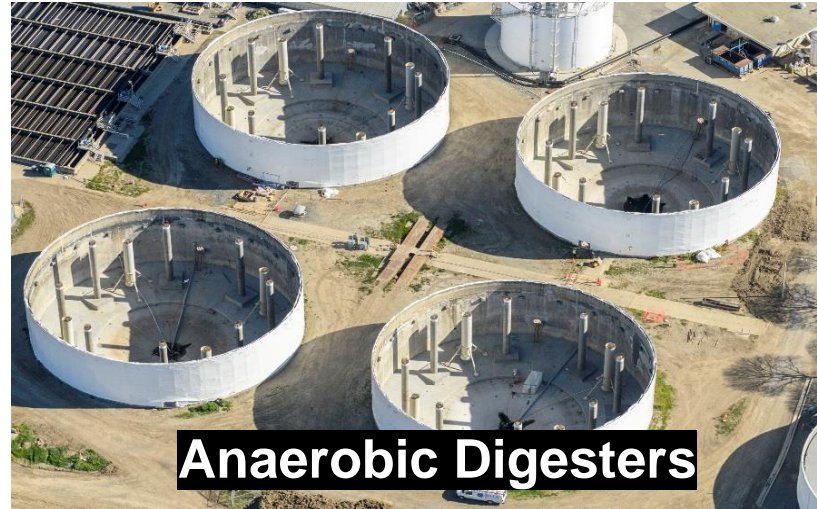


MODIFICATIONS TO DIGESTER 5-8



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Construction Progress – 45% Construction Complete



First Contingency Increase – November 2017



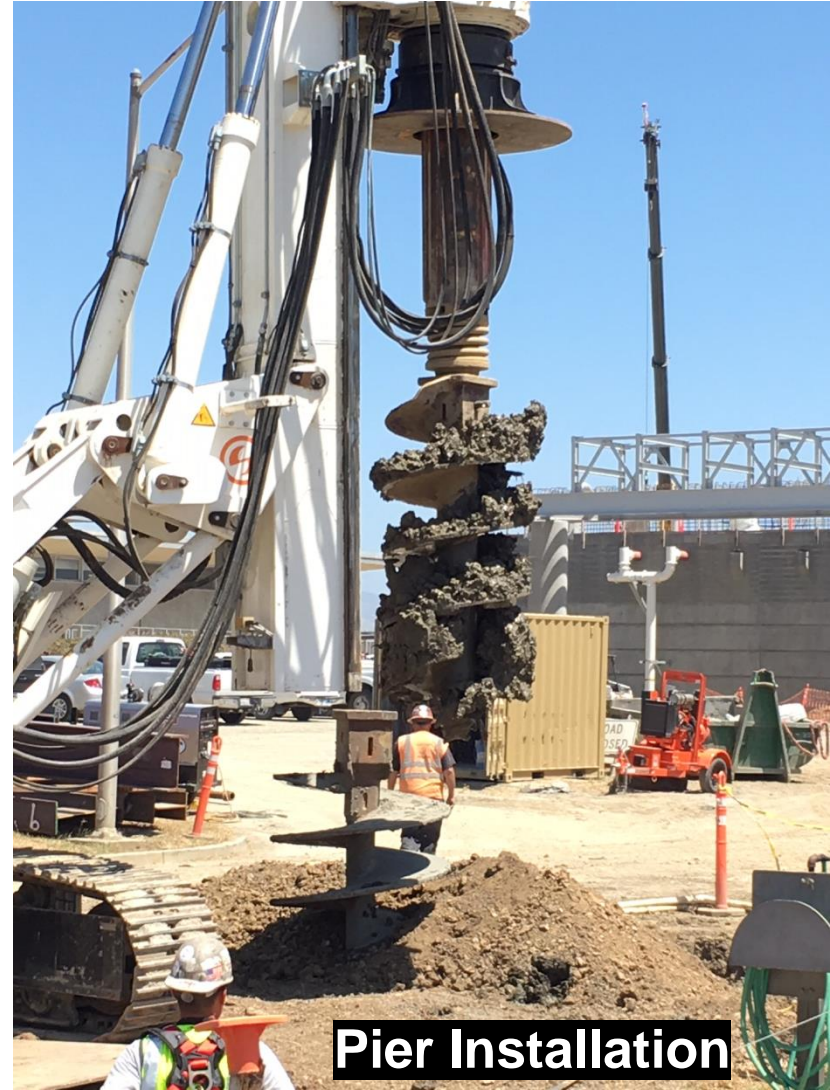
Construction Progress – Settled Sewage Re-route



Temp. Pumping System



Damaged 78-inch Pipe



Pier Installation

Hazardous Materials - PCBs



- PCBs present in caulk used in original construction
- EPA Approval (Phase I): Sep 2017 – Feb 2018
Final Approval expected Jul 2018
- Extensive concrete, soil and groundwater sampling to assess transference of PCBs into other substrates
- Additional Construction Cost: \$1.5M

Seismic Design Issues



- Required to fully address Seismic Forces
- Work requires larger excavation footprint and a 8' x 12' ring foundation using 6,000 cu. yards of concrete and 750,000 pounds of reinforcing steel.
- Additional Construction Cost: \$14.3M

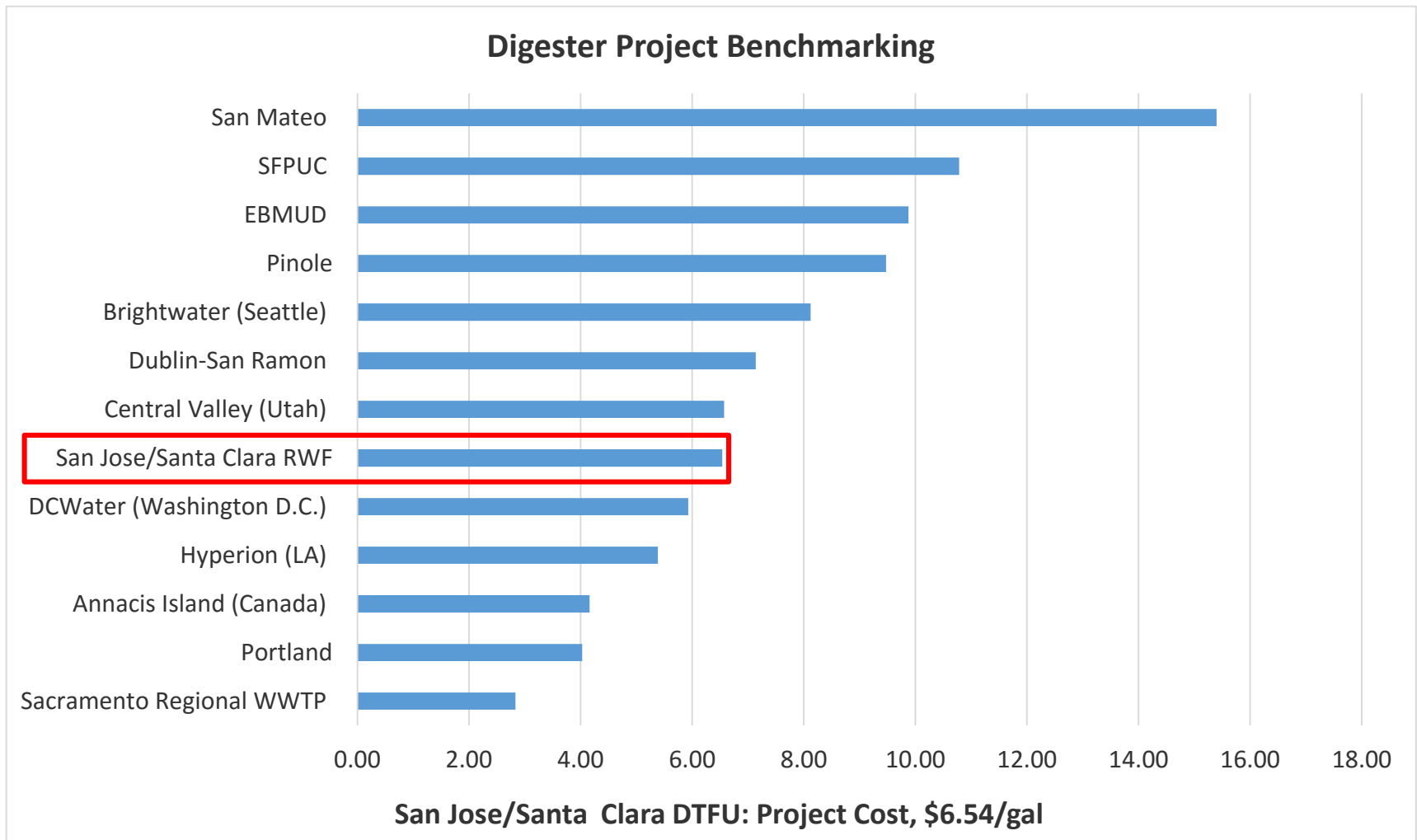
Second Contingency Increase

Reason for Change Orders	Approved and Pending CCOs	Forecasted Need	Total
Underground Utility Conflicts, Unforeseen Conditions, Design Changes, Unexpected Regulatory Requirements	\$7,601,252		\$7,601,252
Delay Damages	2,991,240	\$7,000,000	9,991,240
Deteriorated Pipe Conditions	14,222,563		14,222,563
Seismic Design Issues	729,948	13,600,000	14,329,948
Hazardous Materials	445,279	1,514,297	1,959,576
Future Potential Changes		5,386,046	5,386,046
Total	\$25,990,282	\$27,500,343	\$53,490,625
Approved Contingency			\$28,490,625
Additional Contingency Required			\$25,000,000

Questions and Considerations

- How are we addressing the costs of the seismic design error?
- Should a different project delivery method like Design Build have been used to better mitigate risk?
- Given the significant number of unforeseen conditions encountered would it have been better to build new digesters rather than rehabilitate existing ones?

Digester Capacity Benchmarking



Staff Recommendation

- (a) Approve a \$25,000,000 increase to the construction contingency amount of \$28,490,625 for a revised total contingency amount of \$53,490,625 and increasing the contract not-to-exceed amount from \$136,415,625 to a total revised contract amount not-to-exceed \$161,415,625 for the 7382 – Digester and Thickener Facilities Upgrade Project.

- (b) Adopt the following 2017-2018 Appropriation Ordinance Amendments in the San José- Santa Clara Treatment Plant Capital Fund:
 - (1) Decrease the Aeration Tanks and Blower Rehabilitation Appropriation to the Environmental Services Department by \$18,000,000;
 - (2) Decrease the Urgent and Unscheduled Treatment Plant Rehabilitation Appropriation to the Environmental Services Department by \$4,500,000;
 - (3) Decrease the Advanced Facility Control and Meter Replacement Appropriation to the Environmental Services Department by \$4,000,000; and
 - (4) Increase the Digester and Thickener Facilities Upgrade Appropriation to the Environmental Services Department by \$26,500,000