COUNCIL AGENDA: 11/28/17
ITEM: 7.1 (17-309)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Barry Ng
Jennifer A. Maguire

SUBJECT: SEE BELOW

DATE: November 2, 2017

Approved Julie E. Myers Date 11/2/17

SUBJECT: CONSTRUCTION CONTINGENCY INCREASE FOR THE 7382-DIGESTER AND THICKENER FACILITIES UPGRADE PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Approve a $15,000,000 increase to the construction contingency amount of $13,490,625 for a revised total contingency amount of $28,490,625 and increasing the contract not-to-exceed amount from $121,415,625 to a total revised contract amount not-to-exceed $136,415,625 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 Yard Piping and Road Improvements appropriation to the Environmental Services Department by $8,000,000;
   (2) Decrease the Aeration Tanks and Blower Rehabilitation appropriation to the Environmental Services Department by $7,000,000; and
   (3) Increase the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department by $15,000,000.

OUTCOME

Approval of the recommended construction contingency increase will provide funding for the significant unanticipated work necessary for the proper completion of the 7382-Digester and Thickener Facilities Upgrade Project (Project) at the San José-Santa Clara Regional Wastewater Facility[1] (RWF).

[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.*

EXECUTIVE SUMMARY

In May 2016, the City Council awarded a contract for the construction of the 7382-Digester and Thickener Facilities Upgrade Project for $107,925,000, with a construction contingency of $13,490,625. Construction began in July 2016 and is approximately 35% complete. The Project has experienced significant construction challenges and is currently behind schedule. Delays occurred in most of the categories shown in the table below, however many of them can be considered concurrent. The total final negotiated delay impact to date is 140 working days. Approved and pending Contract Change Orders (CCOs) to address these challenges have consumed approximately $11.59 million (86%) of the approved contingency. The primary causes of delay and contingency use to date are:

Cause of Contract Change	Approved and Pending CCOs to Date
Underground utility conflicts and unforeseen conditions	$2,506,434
Design changes	$2,583,313
Unexpected regulatory requirements	$1,472,171
Deteriorated pipe conditions	$3,583,320
Seismic design issues	$1,000,000
Hazardous materials mitigation	$445,279
TOTAL	$11,590,517

This memorandum describes the challenges and delays that have been experienced on the Project to date, and the much higher than expected use of contingency at this early stage of construction. Major issues have arisen that will delay the project further and add significant costs to complete the project so that the improvements can function properly. The most significant unforeseen issues are deteriorated pipe conditions, seismic design issues, and hazardous materials mitigation. The deteriorated pipe repairs will require over $14 million in additional funding. Evaluation of the seismic design and hazardous materials issues is underway and will require a future project contingency increase to resolve once the details are developed.

Approval of the recommended contingency increase will allow the project to proceed towards completion in the summer of 2020. The restored contingency balance will provide the funds necessary to complete known changes to the work and future unforeseen project conditions, except for future costs related to seismic design and hazardous materials mitigation issues that are currently being investigated. Staff will return to the Treatment Plant Advisory Committee (TPAC) and the City Council within six months with recommendations for further contingency increases related to seismic design work and hazardous materials mitigation.

BACKGROUND

On May 24, 2016 (Item 7.1), the City Council awarded a construction contract for the 7382-Digester and Thickener Facilities Upgrade Project (Project) to the low bidder, Walsh Construction Company II, LLC, ("Contractor") in the amount of $107,925,000 and approved a 12.5% construction contingency in the amount of $13,490,625. Key construction elements included in this construction contract are rehabilitation of four digesters to operate as a Temperature-Phased Anaerobic Digestion (TPAD), six Dissolved Air Flotation Thickener (DAFT) units to operate as co-thickening units, a new primary sludge screening facility, two new electrical buildings and associated electrical equipment, an external elevated gas piping system and gas flare system, and miscellaneous civil works. See Attachment A for a project site map.

The City issued the Notice to Proceed for construction on June 22, 2016 with an original contract duration of 790 working days. Construction is approximately 35% complete to date and includes the installation of 79 concrete footings and columns for the elevated pipe rack, demolition of DAFT tank exterior walls and internal equipment, utility relocation and connections, digester tank cleaning, and removal of the 100-foot diameter tank roofs, original post-tensioned cables and exterior concrete. New concrete work includes floor and drains in the bottom of the tanks, column supports for the new roof, foundation and walls for the new fine-screening building, and relocating/removing facilities in the tunnels to make way for new pipe installation.

A 15% construction contingency is typically set aside for all RWF projects to address unknown site conditions and other unanticipated issues. Since this project was over $100 million and bids were significantly over the Engineer's Estimate, staff proposed a 12.5% construction contingency to manage risk while managing the project budget. As construction has progressed on this complex and widespread project, it has become clear that the construction contingency is not adequate.

A total of 24 change orders have been issued to date, totaling $6,395,551 for various items of work. This represents approximately 47% of the approved contingency amount of $13,490,625. Additional change orders totaling $5,194,966, or 39% of the approved contingency, are pending or under review. These change orders are related to unforeseen site conditions, including utility conflicts, removal of additional hazardous materials, compliance with additional environmental requirements, and several significant design changes that were not part of the original scope of the Project. Attachment B summarizes the paid and pending change orders to date.

ANALYSIS

This Project is one of the most complex and extensive capital projects in the RWF's ten-year capital program, spreading over the majority of the RWF operational area, including work in underground tunnels and galleries, connections to major process piping and underground structures. All construction is being completed while maintaining all operational aspects of the facility and complying with all environmental permits.

The Project has faced numerous unforeseen challenges since the beginning of construction. To date, the Project is delayed by 140 days and has used approximately 86% of the approved contingency through approved or pending change orders (See Attachment B). Many of these issues are typical of large, complex construction projects, however the magnitude of these issues on this Project have consumed a disproportionate amount of contingency at this early stage of construction.

Underground Utility Conflicts and Unforeseen Conditions

Upgrades to the existing facility and location of new structures were based on available record drawings and information at the time of design. Over 100 potholes (excavations performed to verify buried utility locations) were completed during the design phase to try to confirm the location of major utilities. However, once excavation started, it became apparent that the number and types of buried utilities far exceeded what was shown on existing record drawings and what was verified in the field. These findings are not limited to one area, but common across the entire Project site. In many cases City staff and the Contractor had to resolve these conflicts by confirming and removing abandoned pipes and relocating active pipes and duct banks. In other cases, the design consultant, Brown and Caldwell, had to redesign portions of the Project to avoid some of the more critical utilities and large electrical duct banks.

Unforeseen conditions are often encountered during construction, usually requiring a design change from what was specified in the contract documents. A partial list of the unforeseen conditions encountered on this Project include:

- Uneven floors in the digester tanks, requiring adjustment of the columns and mixing equipment;
- Tanks that were believed to be round, were slightly misshapen, requiring modifications to the circular roof design;
- Rebar congestion that resulted in rerouting of conduit and anchors;
- A concrete ledge around the tops of the digester tanks, that required sawcutting to accommodate the numerous seismic cables;
- Specified equipment that did not fit the actual field conditions, and required modifications to work properly; and
- Unexpected steel mesh in the digester tank exterior, requiring significant extra effort to remove.

This additional work has resulted in approximately $2.5 million in executed and pending change orders. Excavation and demolition for the Project is largely complete, so the cost to manage future unknowns related to underground utilities and unforeseen conditions are anticipated to not exceed $1,000,000.

Design Changes

As construction has progressed there have been multiple areas where the original design has required modification. These changes are due primarily due to insufficient design details

necessary to construct the work, incompatible equipment specifications, improper equipment sizing, conflicts with existing structures/utilities, and incomplete process and instrumentation diagrams. Design changes are a normal occurrence in all projects; however, changes due to design errors and omissions have occurred at a higher rate than expected for this stage of construction. Changes to date amount to $2.58 million. Future design changes, not related to the seismic issue described below, are estimated to not exceed $2.0 million.

Unexpected Regulatory Requirements

Another major unforeseen situation on the Project was the approach to the removal of the gas piping from the tunnels. Initially, gas bypass work was planned to be constructed with minimal temporary piping, and carried out with controlled atmospheric venting of digester gas. This was understood to be in compliance with the RWF's existing air permit from the Bay Area Air Quality Management District (BAAQMD), and current best-practice. Work was initially planned to be completed on January 27, 2017. However, negotiations with the BAAQMD resulted in the agency making a different interpretation of the permit conditions and instructing the City to implement a system that sent all gas through the existing permitted abatement devices. This new approach involved building a complete gas bypass system that connected all functional digesters to the existing flare to avoid venting of gas. This solution has proven difficult to implement due to the size and complexity of the existing system, which must be kept on-line while the bypass work is taking place. The new system has been designed and authorized under a change order at the additional cost of over $1.4 million.

Delay Damages

The combination of issues described above has significantly delayed the Project. The City completed a time impact analysis (TIA), reviewing all activities and their impact on the critical path for the Project. As a result, City staff and the Contractor have agreed that the impact to the project schedule through the end of September is equivalent to 140 working days. This 140-day delay may be considered compensable under the contract since the Contractor could not have reasonably foreseen the issues encountered in the project that have led to delay. The City and Contractor are currently negotiating the amount which is estimated to be approximately $3.2 million. It is considered a best-practice to negotiate and settle undisputed delays and associated costs at the time they are identified. Waiting until the end of the project often leads to disagreements about how and when the delays occurred, and who is at fault. This often results in claims and litigation. Staff recommends a $3.2 million increase to the Project contingency to pay for delay damages incurred to date and avoid future claims associated with those delays.

The range of issues listed above are typical of most large projects, especially when it involves rehabilitation work at an old facility. The City Council-approved contingency was set aside to manage these challenges as they arise, however this Project has encountered an inordinate amount of challenges requiring a higher than expected use of the Project contingency in the early stages of construction.

The issues described below, however, are not typical of large projects and will have a major impact on the overall Project budget and schedule. By far the most significant issues encountered to date are due to deteriorated pipe conditions, seismic design issues, and hazardous material mitigation that were unforeseen at the time of award of the construction contract.

Deteriorated Pipe Conditions

In November 2016, the Contractor completed a visual inspection of a 78-inch primary effluent pipe in preparation to make a necessary connection to this line. During the inspection, the pipe and adjacent junction structure were found to have been severely corroded due to hydrogen sulfide gas eating away at the inside top of the concrete pipe and disintegrating the rebar. This situation raised serious concerns about its condition and of the other adjacent pipes (a 96-inch and 87-inch by 136-inch elliptical pipes). In February 2017, the Contractor performed a detailed inspection of nearly 1,200 linear feet of pipe using laser scanning and closed-circuit TV. Examination of the pipes showed they indeed were in poor to severely corroded condition (See Attachment C).

The Project must make a connection to these pipes to bring the rehabilitated digesters on line. It is also important to note that the Contractor cannot proceed safely with construction of other aspects of the Project due to the risk of damage to these pipes and junction structure unless repairs are made to them first. At some point, the Project will effectively be on hold until this issue is addressed. Given the timing and the criticality of the repairs, staff began considering alternatives to repair these structures, including an analysis of a range of design lives and associated costs. Short term solutions included providing a concrete cap over the pipe or a welded steel pipe liner that would allow for minimal repairs to be completed within the Project and have the final repairs completed by a future project. Longer term repairs included replacement of structures or structural slip-lining.

Since there is no redundant system to carry this flow, any repair to the pipes and structures requires that they be taken out of service and bypassed. A bypass pumping system is needed to send the flow, normally conveyed by the 78" pipe, directly to the aeration tanks. The bypass system itself is a major undertaking, as it needs to be sized to manage 100 million gallons per day (MGD), or nearly 60% of the rated flow capacity through the RWF. To minimize the impacts to operations and to mitigate risks associated with the failure of the pumping system, construction activities and the associated bypass are limited to the dry weather period (May to October).

Typically, bypass pumping equipment would be rented for the duration of construction and would usually run on diesel. City staff evaluated options for renting pumps and piping to provide the required 100 MGD capacity and it was found to be nearly equivalent to the cost of purchasing the equipment. The estimated purchase price of this bypass system is $5 million. Purchasing the system would be adequate to provide bypass capacity to rehabilitate three additional sections of large pipes (two segments of 96-inch and 87-inch by 136-inch elliptical pipe) which are planned to be done as part of a future project, potentially saving the City up to $3 million by avoiding future bypass rentals.

Because both the short-term and long-term repairs require a complete bypass system, staff concluded that the long-term repairs would provide the best value since the bypass system necessary to repair the 78-inch pipe and junction structure would only be required once. The pipe repair work is estimated to cost $9.4 million. Given the significance of the damage to the 78-inch pipe and junction structure, the immediate need to connect to these facilities and the associated costs, staff recommends increasing the construction contingency for the Project to complete the repairs in a timely manner. All bypass materials and equipment need to be on-site and installed by April 2018, in order to test and fine-tune the operation and promptly start repairs by May 2018 in order to complete all work within the upcoming dry season.

Current estimates for the bypass pumping system and pipe repairs are approximately $14.3 million. To date, a total of $1.4 million has been issued via change order to allow for the procurement of long lead-time items, such as concrete piping and electrical equipment. An additional $2.2 million to purchase pumps and begin fabrication of the bypass system is under negotiation with the contractor and is pending approval. An additional $10.7 million (for a total of $14.3 million) is required to complete the demolition and replacement of the deteriorated pipe and the junction structure. The Contractor is very concerned about the potential for further damage to adjacent pipes, or that the bypass system somehow causes damage to other RWF facilities. The $14.3 million includes approximately $1 million in risk pricing for this work. Given the uncertain condition of the underground utilities, staff agrees that it is prudent to compensate the Contractor to assume this risk.

Repair of this line was originally planned as a first phase of a separate capital project, Yard Piping and Road Improvements Project (Yard Piping), with construction scheduled to begin 2020. Funding for this bypass and repair work is proposed to be funded primarily from the current Yard Piping appropriation as discussed in the Cost Summary/Implications section below. In the event the City Council does not approve the recommendations contained in this memorandum, the purchased materials will be stored for use at a later date when the Yard Piping design-builder has been procured.

Issues with Unknown Impacts

Seismic Design Issues

The second most significant challenge to the Project has been the identification of structural issues related to seismic design of the digester tanks. The existing tank walls are not adequately connected to the foundation to resist seismic uplift forces as required by current building codes. The issue and resolution options are currently being evaluated to understand the implications on the timing, cost, and functionality of the Project. Although options are currently being evaluated as the facts are developing, staff has determined that these structural changes are the result of inadequate design. The design consultant is in the process of developing a solution that can be implemented with the minimum disruption to the Project, however the cost and schedule delays will be significant.

The full impact of these changes is unknown at this time. To date, $400,000 has been approved through a change order to temporarily wrap the post-tensioning cables on the digester tanks to prevent degradation due to harmful ultraviolet light. Another $600,000 is pending approval to procure and install stress plates at new tank wall penetrations. This memorandum requests the addition of $1 million to restore the contingency used to address the initial costs of this change. Within the next six months, once the full costs and delay impacts are known, staff anticipates returning to the City Council with funding recommendations to address this issue.

Staff is in the process of identifying the necessary actions to resolve the design issues and discussing with the design consultant how associated costs will be determined. It is staff's position that responsibility for the design issues will reside with the design consultant, however, resolving the issues will likely take some time. Staff is tracking all costs associated with the design issues and staff will bring forward to the City Council recommendations regarding the responsibility for these costs.

Hazardous Materials Mitigation

In 2014, a hazardous materials survey was performed during the planning phase of the Project with the purpose of identifying potentially hazardous materials that could be disturbed during construction. The survey was completed in accordance with the requirements of Cal/OSHA and BAAQMD. The results of the survey were incorporated in the contract documents and the handling, removal and disposal of these materials was included in the bid pricing submitted by the contractor. The survey identified the presence of asbestos in piping insulation, gaskets and roof sealants, lead-containing paint, and Polychlorinated Biphenyls (PCBs) in the caulk outside the base of the digester tanks. As construction progressed, lead paint and PCBs were found in additional areas outside the scope of the hazardous materials survey that were only accessible after construction began. Approximately $445,000 has been approved in change orders to date to address hazardous materials issues.

Staff is currently in discussions with the U.S. Environmental Protection Agency to develop a PCB management strategy for the rest of the Project. Additional testing and removal of PCBs will be required as the Project progresses, which will likely cause delays and additional removal and disposal costs. Additional remediation costs are expected and staff will return to Council with a strategy for funding and implementing the work.

Lessons Learned

The quantity and scale of the unforeseen issues on this Project have created serious challenges to the Project team and the Contractor. One way to minimize these issues in the future is to improve the existing utility mapping and record drawings of underground facilities at the RWF. The RWF-GIS group is documenting all utilities exposed by the Contractor to help ensure that the locations of utilities are accurately being reflected in their maps. Upon completion of this Project, all record drawings and "as-builts" will be transmitted to the City in electronic format for easy use on other projects.

Another way to mitigate unforeseen issues is to perform more detailed condition assessments of facilities that may be impacted by future construction. This will require significant analysis and process shutdowns, well in advance of construction, however the investment in time and effort will in all likelihood far outweigh the potential cost and schedule impacts of discovering these issues during construction. Projects in the planning phase are currently re-evaluating the scope of condition assessment work to ensure enough effort is being done to evaluate the impacted facilities.

Recommended Contingency Increase

The combination of issues described above represent a total of approximately $15 million of extra work that was not anticipated at the time of award of the construction contract. The full extent of the seismic design issue as well as PCB remediation work are unknown at this time and will be brought forward for City Council consideration once they are known. The criticality of this Project requires that the additional work identified at this time be addressed immediately. The total amount of contingency increase requested in this memorandum is summarized in the following Table 1:

Table 1 – Approved/Pending Change Orders and Forecasted Needs

Reason for Change Orders	Approved and Pending Change Orders	Forecasted Need	Total
Underground utility conflicts, unforeseen conditions	$2,506,434	$1,000,000	$3,506,434
Design changes	2,583,313	2,000,000	4,583,313
Unexpected regulatory requirements	1,472,171	0	1,472,171
Delay Damages	0	3,200,000	3,200,000
Deteriorated pipe conditions	3,583,320	10,700,000	14,283,320
Seismic design issues (partial funding)*	1,000,000	TBD	1,000,000
Hazardous materials (partial funding)*	445,279	TBD	445,279
Total	**$11,590,517**	**$16,900,000**	**$28,490,517**
Approved Contingency			**$13,490,625**
Additional Contingency Required			**$14,999,892**

* Final costs for hazardous materials and seismic design issues are not known at this time.

EVALUATION AND FOLLOW-UP

The final cost and delay impacts of the seismic design changes and hazardous material remediation described above are unknown at this time. Staff anticipates returning to the City Council with funding recommendations for these costs once they are known, likely within the next six months.

A progress report on this and other RWF capital projects is presented on a semiannual basis to the Transportation and Environment Committee, most recently on October 2, 2017. Monthly progress reports of the RWF Capital Improvement Program (CIP) are submitted to the Treatment Plant Advisory Committee (TPAC) and posted on the City's website.

POLICY ALTERNATIVES

Alternative 1: Bid the pipe repair work as a separate project.
Pros: Potentially gets better bids for the work
Cons: Delays the work until a complete design package can be developed, bids solicited and received, and mobilization of the contractor. Also creates significant coordination and interface challenges with the existing contract.
Reason for not recommending: The 78-inch SES line repairs are critical since the deterioration of the pipe places it at risk of imminent failure that could result in upwards of 100 MGD of primary effluent spilling into the San Francisco Bay. There is no time to put a complete bid package together without significantly delaying the current contract, at significant additional cost. There is also the logistical concern of having multiple contractors working on the same facilities at the same time; the likelihood of interference, safety concerns and conflicts further delaying the completion of the work and adding cost. Staff recognizes that contemplating a significant amount of work under a change order scenario may not result in the best pricing of the work, however there is little choice but to work with the existing contractor to perform the work quickly and efficiently, thus keeping the delays to a minimum and driving the Project to completion. Additionally, the multitude of other issues, especially the seismic design and hazardous materials issues, would not be adequately addressed, jeopardizing the ability of the Project to be completed and function as intended.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the November 28, 2017, City Council meeting.

COORDINATION

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

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the November 9, 2017, TPAC meeting. A supplemental memorandum with the committee's recommendation will be included in an amended November 28, 2017, City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the City Council-approved focus on improving wastewater treatment efficiency, protecting vital core services, and meeting air permit discharge requirements.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: $15,000,000

2. COST OF CONTRACT

Original Construction Contract Amount	$107,925,000
Original Contingency (12.5%)	$13,490,625
Original Total Contract Amount	**$121,415,625**
Contingency Increase (13.9%)	$15,000,000
Total Contract Amount	**$136,415,625**

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

4. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), the cost for the Project is allocated 40 percent to biochemical oxygen demand (BOD) and 60 percent to total suspended solids (TSS). The cost for the Yard Piping Project is allocated between the four billable parameters relative to a rolling weighted average distribution of all RWF assets. The cost for the Blower Improvements Project is allocated 20 percent to flow, 60 percent to BOD, and 20 percent to ammonia (NH_3). This results in revised cost allocations for San José, Santa Clara, and the Tributary Agencies as outlined in the table below.

Agency Name	Original Cost Allocation	Updated Cost Allocation	Change
City of San José	9,994,860	10,398,000	403,140
City of Santa Clara	2,335,500	2,429,700	94,200
West Valley Sanitation District	927,190	820,500	(106,690)
City of Milpitas	606,290	483,900	(122,390)
Cupertino Sanitation District	1,024,270	783,600	(240,670)
County Sanitation District 2-3	74,710	59,400	(15,310)
Burbank Sanitary District	37,180	24,9000	(12,280)
Total	**15,000,000**	**15,000,000**	**-**

The updated cost allocations for the Project result in an increase of approximately $403,060 to the proportional share of Project costs for San José and approximately $94,200 for Santa Clara, with a corresponding decrease in the proportional share of Project costs for the

Tributary Agencies. The 2017-2018 Adopted Capital Budget has sufficient Ending Fund Balance to offset the expected decrease in revenue to support the recommended cost allocation adjustments for San José. Adjustments to the 2017-2018 budgetary revenue contributions may be brought forward to the City Council at a future date based on these updated cost allocations.

5. FISCAL IMPACT: Funding in the Project appropriation in 2017-2018 is insufficient to increase the contingency. Budget actions are recommended in this memorandum to increase the total appropriation budget by $15,000,000. To offset this increase and minimize impacts to ratepayers of San José and Santa Clara, as well as the tributary agencies, staff recommends decreasing existing project appropriations as outlined below:
   - Yard Piping and Road Improvements ($8,000,000): Repair of the 78-inch pipe was originally scoped and programmed as part of the Yard Piping project, so the scope of this project will be decreased, as this work will now be done under the Digester Project.
   - Aeration Tanks and Blower Rehabilitation ($7,000,000): Construction award for the Blower Improvements Project is now anticipated in early 2018-2019. New funds will need to be programmed for these costs in the 2019-2023 Capital Improvement Program (CIP), and are therefore subject to appropriation in that process.

   In developing the 2019-2023 Proposed CIP, staff will explore options to potentially defer one or more projects to balance the overall five-year capital budget.

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contingency increase recommended as part of this memorandum.

Fund #	Appn #	Appn Name	Current Total Appn	Rec. Budget Action	2017-2018 Adopted Capital Budget (Page)	Last Budget Action (Date, Ord. No.)
512	4127	Digester and Thickener Facilities Upgrade	$1,861,000	$15,000,000	282	6/20/2017, 29962
512	7396	Yard Piping and Road Improvements	$11,716,000	($8,000,000)	299	6/20/2017, 29962
512	7677	Aeration Tanks and Blower Rehabilitation	$40,222,000	($7,000,000)	280	6/20/2017, 29962

CEQA

San José-Santa Clara Regional Wastewater Facility Digester and Thickener Facilities Upgrade Project Mitigated Negative Declaration, File No. PP15-055.

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

/s/
BARRY NG
Director of Public Works

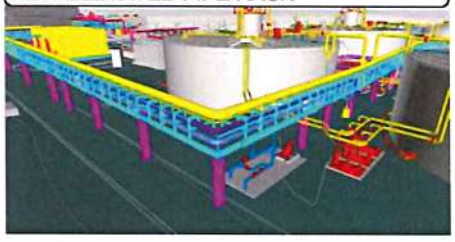
JENNIFER A. MAGUIRE
Senior Deputy City Manager/
Budget Director

Attachment A – Site Location Map
Attachment B – Table of Approved and Pending Change Orders
Attachment C – Photographs of pipe corrosion damage

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

Digester and Thickener Facilities Upgrade
Project Site Map

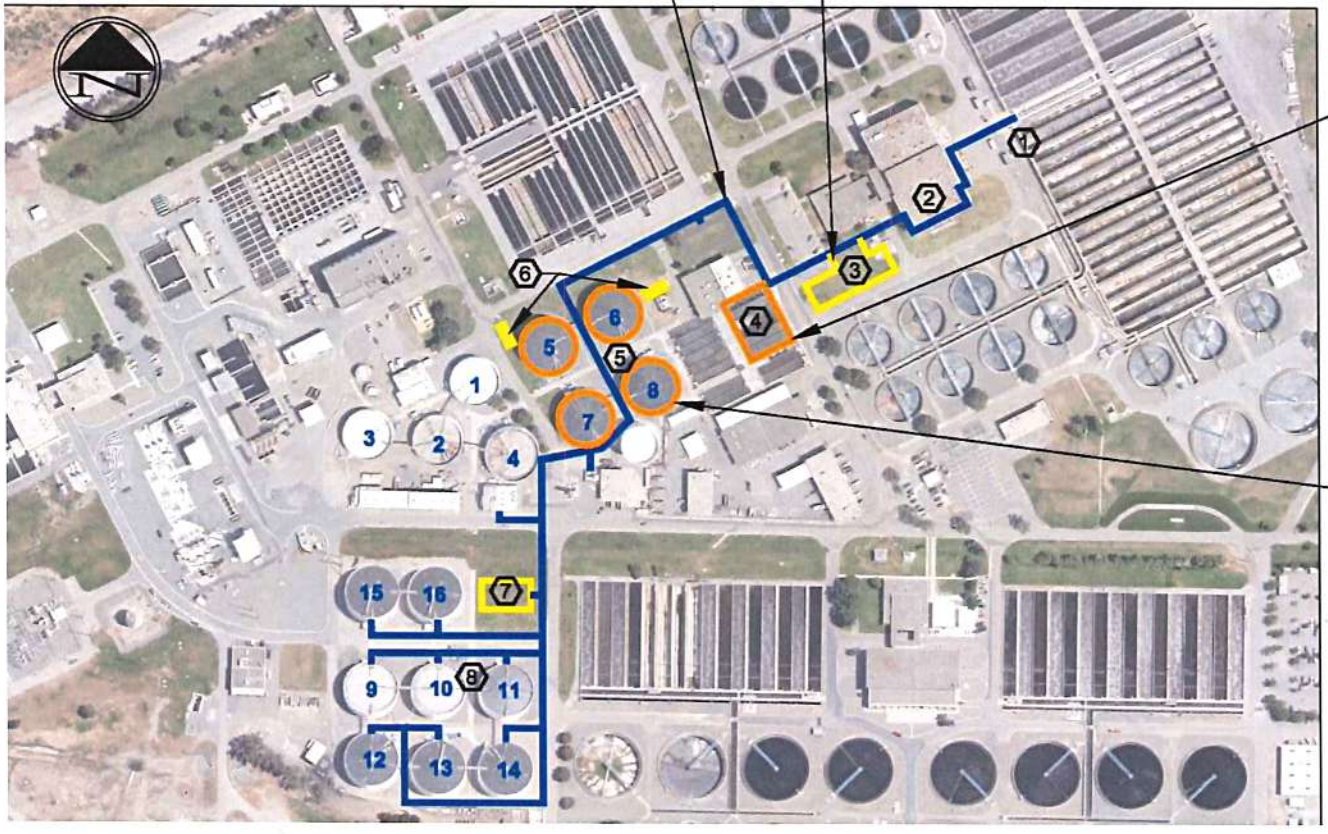
NEW ELEVATED PIPE RACK



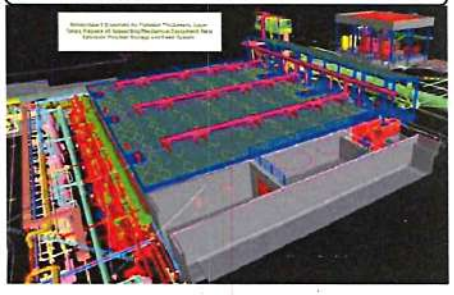
NEW SLUDGE SCREEN, ODOR CONTROL, STEAM CONVERTERS, AND POLYMER STORAGE/BLENDING FACILITIES

PROJECT SITE AREAS

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



MODIFICATION TO DAFT 1-6



MODIFICATIONS TO DIGESTER 5-8

ATTACHMENT A

Digester and Thickener Facilities Upgrade

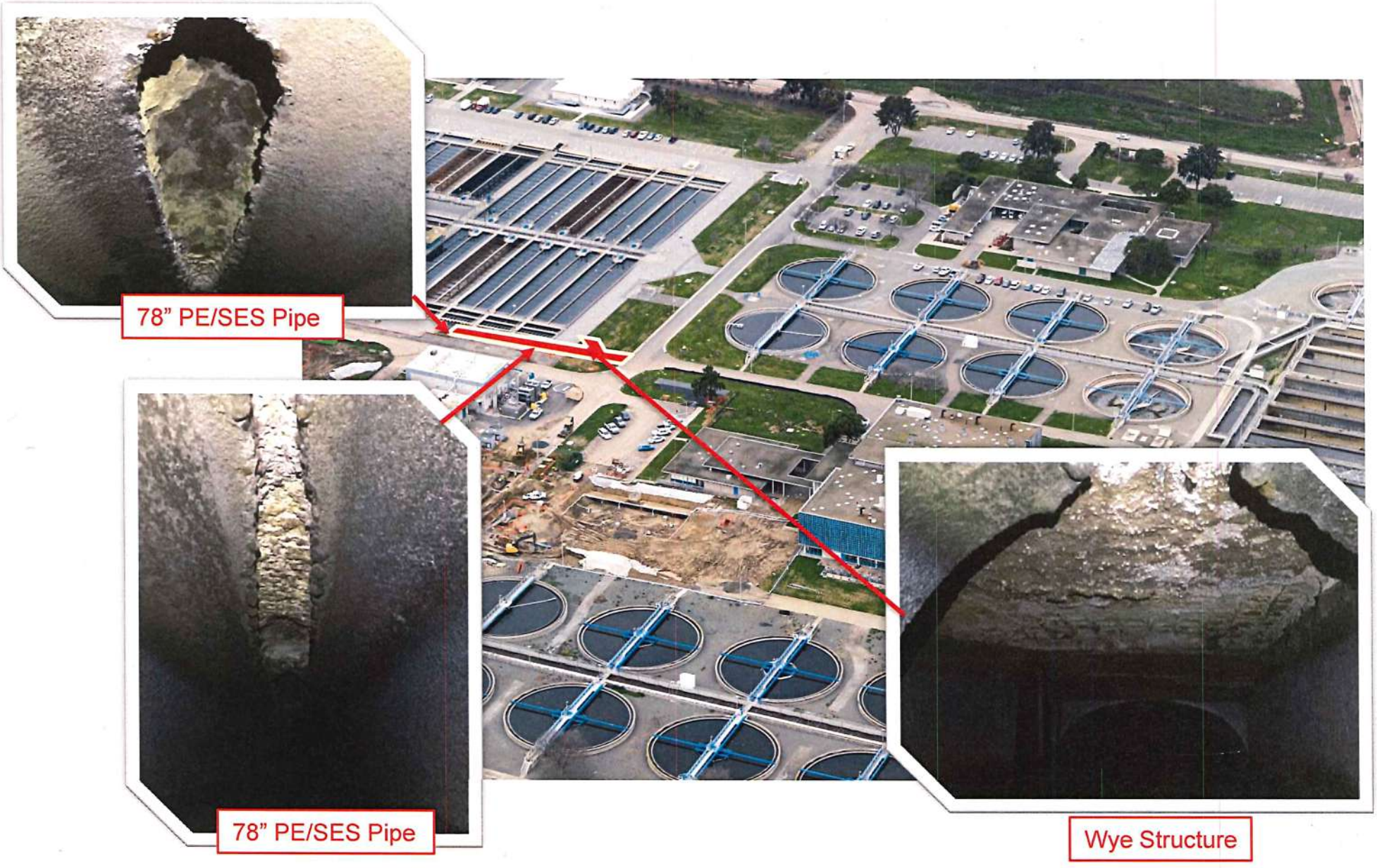
Approved and Pending Change Orders to Date and Forecasted Needs

Reason for Change Orders	Approved Change Orders	Pending or Under Review	Forecasted Need	Total
Underground utility conflicts, unforeseen conditions	1,795,480	710,954	1,000,000	3,506,434
Design changes	1,282,621	1,300,692	2,000,000	4,583,313
Unexpected regulatory requirements	1,472,171	0	0	1,472,171
Delay Damages	0	0	3,200,000	3,200,000
Deteriorated pipe conditions	1,400,000	2,183,320	10,700,000	14,283,320
Seismic design issues	0	1,000,000	TBD	1,000,000
Hazardous materials	445,279	0	TBD	445,279
Total	6,395,551	5,194,966	16,900,000	28,490,517
Approved Contingency				13,490,625
Additional Contingency Required				14,999,892

ATTACHMENT B

Digester and Thickener Facilities Upgrade

78" Pipe Corrosion and Structural Damage



ATTACHMENT C