CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Matt Cano
Jim Shannon

SUBJECT: SEE BELOW

DATE: February 2, 2022

Approved  Date **2/2/2022**

SUBJECT: APPROVAL OF AN AMENDED AND RESTATED DESIGN-BUILD CONTRACT FOR THE DESIGN AND CONSTRUCTION OF THE DIGESTED SLUDGE DEWATERING FACILITY PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Approve the Amended and Restated Design-Build Contract with Walsh Construction Company II, LLC for the final design, construction, commissioning and acceptance testing of the Digested Sludge Dewatering Facility Project at the San José-Santa Clara Regional Wastewater Facility in a lump sum amount not to exceed $131,161,646.

(b) Approve a construction contingency in the amount of $12,115,379 for adjustments to the lump sum contract amount, all in accordance with the Amended and Restated Design-Build Contract.

(c) Adopt the following 2021-2022 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 $3,100,000; and
   (2) Increase the Digested Sludge Dewatering Facility appropriation to the Environmental Services Department by $3,100,000.

OUTCOME

Approval of the Amended and Restated Design-Build Contract (Amended Contract) with Walsh Construction Company II, LLC (Walsh) for the Digested Sludge Dewatering Facility Project (Project) will establish the terms, conditions and pricing for Walsh's final design, construction, commissioning, and acceptance testing (collectively, Design-Build Work) of the Project.

EXECUTIVE SUMMARY

The Project will convert the San José-Santa Clara Regional Wastewater Facility's (RWF) existing solar drying operation to a mechanical process in accordance with the Plant Master Plan (PMP) and Biosolids Transition Strategy, which was recommended by the Treatment Plant Advisory Committee (TPAC) and approved by Council. The current operation uses 750 acres of land and requires four years to dry digested sludge (biosolids). The new dewatering facility will use 10 acres of land and dewater digested sludge biosolids in less than one day.

Construction of the new dewatering facility will: 1) position the RWF to have multiple and diversified disposition options with the eventual closure of Newby Island Landfill, 2) reduce the footprint of the biosolids processing area and enable other land uses, 3) create flexibility to respond to regulatory changes governing the allowable disposal of treated biosolids, specifically the impact of Senate Bill No. 1383 (SB 1383), which calls for diversion of organics, including biosolids, from landfills, and 4) reduce odors in the community.

In September 2019, Council approved a design-build contract with Walsh (Original Contract), consisting of a preliminary services phase and a design-build phase. Walsh is the overall Design Builder and Black and Veatch Corporation (B&V) is the Designer of Record for the project. During the preliminary services phase, Walsh performed subsurface investigations and developed the design to a 60 percent level of completion. Walsh was also required to develop a proposal for the construction of the project, including a Guaranteed Maximum Price (GMP) amount for the Design-Build Work (Definitive Project Submittal). Walsh submitted the final Definitive Project Submittal in November 2021.

The preliminary services phase also included an early work package (EWP) consisting of site preparation and foundation work, as well as final design that commenced in July 2021.

As part of the Definitive Project Submittal development, the Design Builder developed bid packages, obtained competitive bids from subcontractors and vendors, and priced work to be self-performed. City staff and Walsh participated in numerous workshops and meetings to negotiate the terms and conditions of the Amended Contract and to finalize the GMP.

Because the progressive design-build delivery model takes a different approach to pricing than the traditional low-bid design-bid-build delivery model, City staff put considerable time and effort into the GMP negotiations to ensure a fair Project cost for RWF ratepayers. The process of controlling and validating cost and risk in a progressive design-build project is an iterative process that starts during design and continues until a GMP is agreed upon.

For this specific project, the final negotiated price took into account the following activities: 1) value engineering during the design process; 2) development of an independent bottom-up cost estimate adjusted to reflect current Bay Area construction market conditions to validate and

identify potential deviation areas in the cost model presented by Walsh; 3) negotiation of provisions to address potential delays and liquidated damages; and 4) procurement of subcontractors and process equipment using a competitive, best-value, selection process.

Additionally, City staff negotiated a reduction of the overall contract price by $3,750,000 by converting the contract from a GMP to a Fixed Price. A Fixed Price lessens the administrative burden for both the design-builder and the City, while still requiring a detailed review of payment applications by City staff prior to approval. Allowances have been agreed for specific items for which quantities are uncertain. Any costs savings from the allowance items will be returned to the City. The City believes that this is a fair and competitive price and recommends approval of the Amended Contract based on a lump sum (Fixed Price), of $131,161,646 and a construction contingency of $12,115,379.

BACKGROUND

Project History and Purpose

The addition of a mechanical dewatering facility to replace the existing lagoons and drying beds has been identified as a priority project since the adoption of the RWF PMP that TPAC recommended and Council approved in 2013, which incorporated the Milpitas Guiding Principles. This transition was recommended to:

- Position the RWF to have multiple and diversified disposition options besides use of biosolids as Alternative Daily Cover;
- Reduce the footprint of the lagoons and drying beds area to enable other land uses;
- Create flexibility to respond to future regulations governing the disposal of treated biosolids; and
- Reduce potential odors in the community.

The need for mechanical dewatering was reaffirmed by the Biosolids Transition Strategy, which TPAC recommended in May 2015 and Council approved in June 2015, and the Odor Control Implementation Plan, which TPAC unanimously recommended and Council approved in October 2015. Recommendations in the Biosolids Transition Strategy included proceeding with the design and construction of a mechanical dewatering facility and entering contracts for off-site management options, such as land application and composting. The Odor Control Implementation Plan determined that the completion of four capital projects (i.e., Digester and Thickener Facilities Upgrade, New Headworks, Digested Sludge Dewatering Facility, and East Primary Clarifiers Rehabilitation) and decommissioning of the lagoons and drying beds was needed to achieve the RWF's Phase 1 odor goal and odor fence line. The decommissioning of the active lagoons and drying beds cannot start until the Project is completed. A memorandum presented to TPAC on March 8, 2018, provides additional information on the RWF's biosolids

transition and lists the numerous times staff has provided information on this topic to TPAC and Council.[1]

Construction of the new dewatering facility will position the RWF to have diversified and multiple disposition options for its biosolids. Dewatered cake is a desirable end product based on previously completed market surveys and will ensure that the RWF has disposition options in compliance with the SB 1383 regulations that came into effect in January 2022. The regulations intend to reduce the amount of organic waste sent to landfills to reduce emissions of short-lived climate pollutants, like methane. The regulations include biosolids in the definition of organic waste and deem the use of organic waste for alternative daily cover to be landfill disposal. The City advertised a Request for Proposals for new disposition contracts in November 2021 that will allow for the selection of contractors that can beneficially reuse the biosolids produced. Proposals are due in February 2022. The new dewatering facility will also reduce odors in the community and allow the RWF to reduce its biosolids processing operational footprint from 750 acres to 10 acres.

Project Description

The Project will construct a new dewatering building to house mechanical dewatering equipment; dewatered cake storage, conveyance, and truck load-out facility; chemical feed station; pump station to return centrate to headworks; operations and maintenance space and storage; and associated mechanical, electrical, and instrumentation equipment. The Project scope also includes new sludge transfer pumps and sludge storage tanks; a new sludge export pump station and pipelines; vehicle storage and parking; and general civil work. The proposed facilities will transfer sludge from the digesters to the new dewatering building on the east side of Zanker Road, as illustrated in Attachment A. The dewatered sludge will be loaded into trucks and hauled away for a variety of beneficial uses.

The Project has been designed to process a wide range of digested sludge flows, loads, and characteristics including projected flow and load conditions over the next 30+ years. Its operation will integrate with the existing RWF biosolids treatment process. Ultimately, the Project will allow the RWF to retire its current open-air operation, which uses more than 500 acres of land and requires four years to produce sundried biosolids. By comparison, the new dewatering facility will use 10 acres of land and dewater biosolids in less than one day. The process is estimated to result in 110,000 to 137,000 wet tons per year comprised of 19 to 22 percent total solids.

[1] See the memorandum and attachments included for item 6.A at https://www.sanjoseca.gov/home/showpublisheddocument/40248/637068109865900000.

Design-Build Contract

On September 17, 2019, the Council approved the Original Contract with Walsh in the amount of $7,492,564 that covered the preliminary services phase of the Project.[2] Council also approved a ten percent City-held design contingency of $749,256 and authorized the City Manager to execute a separate amendment to the contract for Walsh to proceed with the EWP consisting of site preparation, foundation work and final design services in an amount of $10,007,856.

The preliminary services phase of the work was concluded in November 2021. The preliminary services work consisted of initial investigations of existing site conditions, development of the basis of design report, detailed design to a 60-percent completion level, and development of the Definitive Project Submittal, which included the GMP, and led to the recommended Amended Contract that contains the terms and conditions to complete the Project.

As part of the design development, key criteria were established including site selection, flow and loading criteria, process configuration and equipment, and civil, mechanical, HVAC, electrical, and instrumentation requirements. Preliminary investigations included geotechnical and hydrologic analysis, hazardous material investigations, soil testing, underground utilities investigations, odor modeling and dewatering equipment testing which was performed to reduce the risk of discovering unknown conditions during construction.

The EWP, with a value of $10,007,856, was awarded as part of preliminary services and commenced in July 2021. The EWP work includes services to complete site preparation and foundation work at the Project site and allow B&V to proceed with the final design while the Definitive Project Submittal was being negotiated to avoid potential delays.

A key element of the preliminary services phase was Walsh's Definitive Project Submittal, which included pricing for the Design-Build work. As part of the City's negotiations with Walsh on the Definitive Project Submittal, Walsh worked with their designer, B&V to develop bid packages, obtain competitive bids from subcontractors and vendors, and price work to be self-performed. City staff and Walsh participated in numerous workshops and meetings, between September through December 2021, to negotiate the terms and conditions of the Amended Contract and to finalize the amount and structure of the pricing the City would pay for the Design-Build Work.

Walsh submitted its final technical and cost submittal to the City for the Project in November 2021. This submittal included proposed revisions to the terms and conditions of the Original Contract, the pricing for the Design-Build Work and a schedule for completion of the Project.

[2] September 17, 2019 Council Memo for design-build contract: https://sanjose.legistar.com/View.ashx?M=F&ID=6298296&GUID=21436F30-C836-4470-BD79-CE8724719812

ANALYSIS

Walsh's Definitive Project Submittal has been reviewed by City staff and the City's consultants to assess the suitability of the proposed scope of work, evaluate the adequacy of the plans and specifications, and validate the proposed pricing in Walsh's cost model. Walsh has proposed that the Design-Build Work be performed for a Fixed Price, meaning the City will pay Walsh on a percent complete basis against an itemized schedule of values subject to the maximum Fixed Price amount. In addition, allowances have been agreed for specific items for which quantities are uncertain; the City will reimburse Walsh actual costs for these items up to a maximum amount. This ensures that the City only pays for actual allowance quantities, which will be verified by the City, with any cost savings from unused allowances returned to the City.

City staff and Walsh participated in numerous workshops and meetings, over a three-month period, to negotiate the terms and conditions of the Amended Contract and the Fixed Price. Because the progressive design-build delivery model takes a different approach to pricing than the traditional low-bid design-bid-build delivery model, staff put considerable time and effort into pricing negotiations to ensure a fair Project cost for RWF ratepayers. To this end, Walsh was required to develop a cost model early in the Project and update it at key milestones. Key components of the cost model include:

1. Direct Construction Costs (including labor, subcontractors, material and equipment)
2. Engineering Costs (e.g., completion of design from 60-percent to 100-percent, engineering services during construction, and startup and commissioning)
3. General Conditions Costs (e.g. field staff, field offices, utilities, safety equipment)
4. Overhead and Profit
5. Design-Builder Contingency
6. Escalation

To ensure fair pricing, the following actions were taken:

1. Establishment of process configuration, equipment selection, and design criteria to ensure an effective, reliable, and maintainable Dewatering Facility.
2. Value engineering session led at the Basis of Design Report (BODR) stage by one of the CIP's value engineering consultants, Hazen and Sawyer.
3. Development of an independent, bottom-up, cost estimate by the City's owner's advisor consultant (OA), Brown and Caldwell, based on the 30-percent design documents.
4. Review of the OA's and Walsh's 30-percent estimates by the CIP's third-party cost estimating consultant, Leland Saylor Associates (Saylor), that took into consideration the current Bay Area construction market conditions.

5. Review of Walsh's 60-percent estimate by the OA and Saylor to reconcile remaining estimate discrepancies.
6. Review and validation of Walsh's risk register to negotiate the agreed upon design-builder contingency amount.
7. Procurement of subcontractors (electrical, HVAC, I&C) and process equipment (pumps, conveyors, cake bins, polymer blend units) using a competitive, best-value, selection process at the 60-percent level of design.
8. Procurement and selection of centrifuge manufacturer using a competitive, best value selection process at the 60-percent level of design.

Prior to procuring the design-builder for the Project, in September 2019, the City's Owner's Advisor, Brown and Caldwell, produced a Project Definition Report (equivalent to a Conceptual Design) that outlined the project scope and provided an initial cost estimate for budgetary purposes. The original estimate of $85 million included in the project budget at the time of the award of the Original Contract, was based on a planning level estimate from the Project Definition Report. However, as stated in the September 2017 Council memorandum, construction costs at that level of design are within an accuracy of -30% to +50% since most of the scope elements are still at an early stage of development. Therefore, it was anticipated that construction costs could be higher than this planning level estimate.

It should also be noted that the feedback from the three proposers during the proposal phase indicated the opinion that the cost would be significantly higher than the original estimate. To address these budget concerns, one of the first tasks of the preliminary services phase was to evaluate the project scope and look at alternative options to optimize project costs. Based on this more comprehensive evaluation, the initial GMP prepared by Walsh at BODR phase was $137 million (inclusive of EWP), and a revised estimate of $125 million for the GMP was developed and included in the 2022- 2026 Adopted Capital Improvement Program.

Subsequent GMPs were developed and updated as the project progressed from BODR to 60 percent design, to reflect scope development and the latest market pricing. Value engineering and cost control allowed the team to identify cost savings for the facility. However, the COVID-19 pandemic resulted in upward cost escalation pressure on both materials and equipment due to the impact of supply chain disruption, negating some of the savings that had been achieved in the Project at earlier stages of design. Through the collaborative approach offered by design-build, these increased costs were effectively mitigated through agreed scope changes to maintain the GMP within the initial BODR estimate. This resulted in a final GMP proposal of $134.7 million which was still $2.3 million lower than the initial BODR estimate. The final GMP included a Design Builder's fee of 8.9 percent and general conditions fee of 11.2 percent as well as a Design Builder contingency of $7.2 million which reflects the complexity and risk profile of the Project, including $2.3 million for continued COVID-19 escalation risk.

Staff worked actively with Walsh after receiving the final GMP proposal stage to evaluate the option to convert the proposed GMP to a discounted lump sum Fixed Price. This option resulted

in a reduction of additional $3.8 million and a final lump sum offer of $131.0 million. A fixed price contract does not require the Design-Builder to substantiate every single cost while performing the Design-Build Work, and experience on the Headworks Project has confirmed that Fixed Price significantly reduces administrative time and effort for both the Design-Builder and City staff in preparing and reviewing monthly pay applications, with payment based instead on percentage of physical work achieved, which is verified by City staff as part of the payment application approval process.

Staff also negotiated higher delay liquidated damages for the project, with an increase from $1,000/day to $7,000/day. The higher delay liquated damages reflect the costs the City would incur if the Project was delayed beyond the agreed completion date.

As noted above, in addition to the lump sum for construction items, the Amended Contract includes a few allowance items that will be individually tracked and, in the event, actual quantities are less than the maximum amount, the unused funds would be returned to the City. The Amended Contract also includes Transition Services to provide monitoring and advice on the City's operations and maintenance of the new dewatering facility and to assist the City in training City staff for a one–year period after construction. It is expected that these services will be funded from the City Contingency. The Amended Contract also contains detailed acceptance testing requirements and guarantees for the performance of all major process equipment (centrifuges, conveyers, digested sludge pumps) and provisions for liquidated damages associated with construction delays and buydown provisions associated with failure to meet full performance standards.

The Amended Contract requires Walsh and their subcontractors to participate in the City's Owner Controlled Insurance Program (OCIP) for the RWF CIP. The OCIP provides a number of key insurance coverages, such as commercial general liability, workers' compensation, and builder's risk insurance, and requires participants to purchase their own professional liability insurance.

There will be an increase in the RWF's operations and maintenance (O&M) costs which is currently estimated at $5 million due to a need for increased labor, electricity, chemicals (polymer), parts and vendor services, and biosolids disposition associated with the Project. At startup, operation of the new dewatering facility is currently estimated to cost an additional $15 million per year. Nearly $10M is attributed to the transportation and beneficial use of the dewatered biosolids. Actual O&M costs may vary depending on the contracts procured for disposition (proposals are due in February 2022) and polymer (anticipated to be procured in early 2024). Costs attributed to the disposition contracts for the dewatered biosolids are anticipated to reduce the anticipated fertilizer partner facility when developed at the RWF, which is a component of the Dewatered Biosolids Management Strategy recommended by TPAC in May 2021 and approved by Council in June 2021. Another reduction in the RWF's O&M costs is expected after the active lagoons and drying beds are emptied, which cannot be completed until at least four years after the startup of the dewatering facility. As such, there will be at least four

years during which the RWF will incur disposition costs for sundried biosolids and dewatered biosolids.

There is the potential for the scope of work to increase as the design is developed from 60-percent to 100-percent and during construction. If the scope of work increases for certain causes specified in the Amended Contract, such as a City-directed change or differing site condition, Walsh will be entitled to an adjustment to the Fixed Price to account for the increased work. One potential cause of increased scope during construction would be a differing site condition. As this project is being delivered using progressive design-build, it was possible to reduce the risk of differing site conditions by having Walsh perform site investigations as part of the preliminary services phase and EWP with the information obtained being used to inform the design. The site investigations identified one area containing contaminated soil that requires remediation; however, the scope of the Project is such that it was not possible to explore all potential areas that will be impacted by the Project. Removing and disposing of the contaminated soil from the known area is included in Walsh's fixed price. However, if contamination is discovered during construction at other locations or if the amount of contaminated soil at the known location is significantly greater than estimated, then Walsh may be entitled to a Fixed Price adjustment.

Another potential change may come from the interfacing and connection between new and existing aging systems; while the number of tie-ins to existing infrastructure are limited for this project, experience on prior RWF projects has shown that some of existing infrastructure is in substandard condition, and once uncovered or disturbed, may need to be repaired or replaced. These circumstances may also entitle Walsh to a change in its fixed price and would need to be covered by City-held contingency. Several risks are included within Walsh's fixed price, including the risk of cost escalation, risks associated with the management of subconsultants, the risk of not meeting the specified date for Acceptance, and the risk of Project performance as measured during the Acceptance Test among others.

Staff recognizes that despite the best efforts that have been made to develop an all-inclusive scope, there may be still unknown conditions and changes to the design required to accommodate potential regulatory issues, changes in existing conditions, changes in law, items identified by project stakeholders outside the original scope, etc. Staff is requesting that Council approve a City-held contingency of $12.1 million, which is approximately 10 percent of the Fixed Price (excluding $10M associated with EWP). The City-held contingency is managed independently of the Fixed Price and would cover costs associated with risks that the City has assumed under the Amended Contract and future Transitional Services.

Project Schedule

As part of the negotiations, the City and Walsh agreed to a project schedule for completion of the Project which is reflected in the pricing negotiated. Key milestones for the design-build work include:

- March 2022 – Notice to Proceed for Design-Build work
- February 2025 – Substantial Completion of Design-Build work
- July 2025 – Final Completion of design build work
- July 2026 – Completion of the Transition Services

CONCLUSION

Approval of the Amended Contract will allow staff to authorize Walsh to finalize the design and construct, commission and complete acceptance test the Project. The Amended Contract is the result of months of detailed negotiations. Given the due diligence performed as part of the GMP negotiations, staff recommends approval of the Amended Contract with a Fixed Price of $131,161,646 and a City-held contingency of $12,115,379.

EVALUATION AND FOLLOW-UP

A progress report on this Project will be made to the Transportation and Environment Committee and the City Council on a semi-annual basis. Quarterly progress reports of the RWF CIP will also be submitted to TPAC and posted on the City's website. No additional City Council action is anticipated at this time.

CLIMATE SMART SAN JOSE

The recommendation in this memorandum has no effect on Climate Smart San José energy, water, or mobility goals.

POLICY ALTERNATIVES

Alternative #1: Do not approve the Amended Contract; negotiate with Walsh to advance the design to 100 percent, prepare a bid package and solicit bids to construct the facility using traditional design-bid-build.
Pros: Obtains market pricing from additional bidders.
Cons: Delays completion date and City's ability to transition out of the RWF's lagoon and drying bed operations to manage biosolids, and potential cost increase due to market escalation.

Reason for not recommending: Current equipment for pumping solids to lagoons is aging. Delaying the completion of the Dewatering Facility would require unnecessary further maintenance to a system of pumps that should be retired upon completion of the Dewatering Facility. Delaying the solicitation of construction bids while completing the design to 100-percent and preparing a bid package for advertisement will likely result in cost increases, as the construction market shows ongoing escalation. The Project would not be able to take advantage of the significant schedule and cost benefits of early construction if this alternative were selected.

Alternative #2: Delay the Project and continue with the RWF's current biosolids treatment and management practices.
Pros: Biosolids disposition costs are low as the City has a long-term contract that allows continued use of Newby Island Landfill while in operation (currently permitted through 2040)
Cons: Does not align with existing policy direction, including the PMP (which also incorporated the Milpitas Guiding Principles), Biosolids Transition Strategy, and RWF Odor Control Implementation Plan. Dismisses resources expended to date and progress made on the Digested Sludge Dewatering Facility project, and likely increases future RWF capital costs by several millions due to escalation. Does not allow the decommissioning of any active lagoons, which are a source of greenhouse gas emissions, and could make it difficult to comply with new regulations concerning climate pollutants in the future (e.g., the Bay Area Air Quality Management District's Regulation 13), and prevents the RWF from achieving the Phase 1 odor goal and odor fence line. Does not align with Senate Bill (SB) 1383 regulations, which seek to reduce the methane emissions resulting from the landfill disposal of organics and went into effect on January 1, 2022. Does not reduce the inherent risk from having a single biosolids disposition outlet or service provider. Increases the risk of having fewer or no beneficial use options geographically close to RWF, thereby increasing operating costs and transportation-related emissions for managing dewatered biosolids in the future. A 2019 market assessment concluded that there is limited capacity to beneficial use biosolids in and around the San Francisco Bay Area as more wastewater treatment plants diversify away from landfills, partly in recognition that biosolids are valuable resources and in response to SB 1383 regulations.
Reason for not recommending: Continuing with the RWF's current biosolids treatment and management practices does not align with past decisions made by the San José City Council and the TPAC. Implementing this alternative may hinder the RWF's ability to respond to future regulatory or market changes concerning biosolids disposal, greenhouse gas emissions, and odors. Staff anticipates continued and increasing pressure to reduce emissions as state, regional, and local permit agencies enact requirements to combat climate change. There will be also no significant net cost savings in the long run, since potential operational cost savings will be offset by higher future capital costs. The RWF would still need to identify another disposition outlet or service provider for the sundried biosolids as Newby Island Landfill's closure approaches if the Project is not completed in time to allow emptying of the lagoons and drying beds before 2041.

PUBLIC OUTREACH

As part of the Design-Builder procurement process, an RFQ was advertised on BidSync on March 16, 2018.

This memorandum will be posted on the City's Council Agenda website for the March 1, 2022 Council Meeting following the TPAC meeting on February 10, 2022.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the Finance Department, and the Planning, Building Code, and Enforcement Department.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the February 10, 2022 TPAC meeting. A supplemental memo with the Committee's recommendation will be included in the amended March 1, 2022 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the Council-approved budget strategy to address rehabilitation and replacement of critical infrastructure and equipment at the RWF and to improve operational efficiency.

COST SUMMARY/IMPLICATIONS

1.	AMOUNT OF RECOMMENDATION:	$131,161,646
	Project Delivery*	$30,885,071
	Design-Build Work (Fixed Price)	$131,161,646
	City held Contingency (10%)	$12,115,379
	Total Project Costs	$174,162,096
	Prior Year Expenditures	$28,261,600
	REMAINING PROJECT COSTS	**$145,900,496**

* ***Project delivery includes $4.32M for project management during feasibility/development, $12.97M for project management during design, $1.58M for bid and award, $11.57M for construction***

management, and $0.449M for post-construction and project closeout. The estimated project delivery cost is 27 percent of the construction cost, which is in line with project delivery costs for capital projects of this magnitude at other wastewater facilities.

2. COST ELEMENTS OF CONTRACT
The City will pay Walsh on a defined, lump sum basis subject to a maximum limit (i.e. the Fixed Price), above which the City is not obligated to pay for costs that are not otherwise subject to reimbursement under the Contract. The Fixed Price not-to-exceed price for the Project is as follows:

Fixed Price – Construction	$121,153,790
Early Work Package 1	$10,007,856
Cumulative Total: Design-Build Fixed Price	**$131,161,646**

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

To ensure sufficient resources are available to execute the $131.2 million agreement, this memorandum includes a recommendation to reallocate funding of $3.1 million to the Digested Sludge Dewatering Facility appropriation from the Yard Piping and Road Improvements appropriation, due to the construction award of Yard Piping Improvements – Phase 2 and start of Yard Piping Improvements – Phase 3 being pushed out to 2022-2023. Funding to complete Yard Piping Improvements – Phase 2 will be included in the 2022-2023 Proposed Capital Budget and 2023-2027 Capital Improvement Program.

The recommended budget action brings total available appropriation for the Project in 2021-2022 to $138.3 million, which is approximately $7.6 million less than the remaining project cost of $145.9 million. This remaining amount, primarily consisting of construction management costs that will be incurred in future fiscal years, will be fully funded during the development of the 2022-2023 Proposed Capital Budget and 2023-2027 Capital Improvement Program.

4. FISCAL IMPACT: O&M costs in Fund 513 - San José-Santa Clara Treatment Plant Operating Fund are anticipated to increase significantly because the Project involves a new facility and process, which will require more labor, electricity, chemicals (polymer), parts and vendor services, and beneficial reuse of dewatered biosolids. At startup, operation of the new facility is estimated to cost $15 million per year. Actual O&M costs will depend on the contracts procured for disposition (determined mid 2022) and polymer (determined early 2024). Until the lagoons and drying beds can be fully retired, it is anticipated there will be several years with the new dewatering facility and existing lagoons and drying beds in concurrent operation.

5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), this project is allocated 40% to BOD and 60% to TSS.

BUDGET REFERENCE

The table below identifies the fund and appropriations to fund the contract recommended as part of this memorandum. The remaining estimated cost of $7.6 million for construction management costs that will be incurred through 2023-2024 will be included in the 2022-2023 Proposed Capital Budget and 2023-2027 Capital Improvement Program.

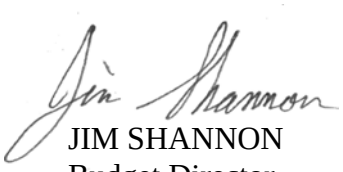
Fund #	Appn #	Appn. Name	Total Appn	Budget Action Required	Amt. for Contract	2021 – 2022 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7452	Digested Sludge Dewatering Facility	$135,194,000	$3,100,000	$131,161,646	251	10/19/2021 30682
512	7396	Yard Piping and Road Improvements	$16,102,000	($3,100,000)	N/A	269	10/19/2021 30682

CEQA

San Jose-Santa Clara Regional Wastewater Facility Digested Sludge Dewatering Facility Project Addendum, File No. PP18-018. An Addendum to the Environmental Impact Report for the San Jose-Santa Clara Water Pollution Control Plant Master Plan (SCH#2011052074) was completed for the Project and posted to the City's website and the City's NewsFlash website on September 6, 2019 and is available at http://sanjoseca.gov/index.aspx?nid=4968. **Attachment B** includes the Mitigation Monitoring and Reporting Program.

/s/
KERRIE ROMANOW
Director, Environmental Services

/s/
MATT CANO
Director, Public Works



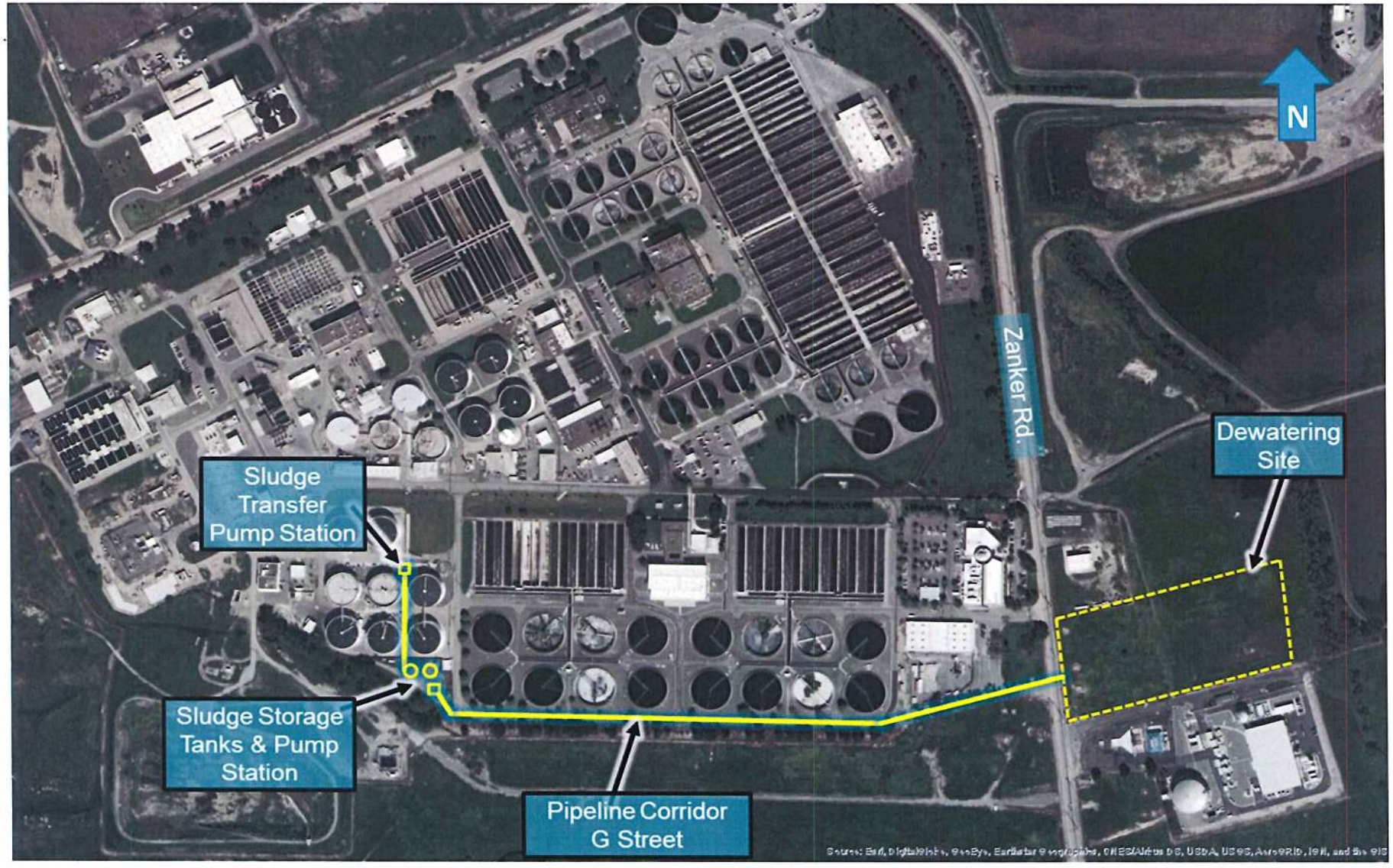
JIM SHANNON
Budget Director

For questions, please contact Napp Fukuda, Assistant Director, Environmental Services Department at (408) 793-5353.

Attachment A: Dewatering Project Site Map
Attachment B: Mitigation Monitoring and Reporting Program

ATTACHMENT A
Dewatering Project Extents

New Digested Sludge Dewatering Facility and Project Extents
for the San José-Santa Clara Regional Wastewater Facility



Attachment B

MITIGATION MONITORING AND REPORTING PROGRAM

San José-Santa Clara Regional Wastewater Facility Digested Sludge Dewatering Facility Project Addendum

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

August 2019

Planning File No. PP18-018

PREFACE

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program whenever it approves a Project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring or reporting program is to ensure compliance with the mitigation measures during Project implementation.

The Addendum to the Environmental Impact Report for the San José-Santa Clara Water Pollution Control Plant Master Plan concluded that implementation of the Project could result in significant effects on the environment and mitigation measures are required as a condition of Project approval. This Mitigation Monitoring and Reporting Program addresses those measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the Addendum concluded that the impacts from implementation of the Project would be less than significant.

The City of San José hereby agrees to fully implement the Mitigation Measures described below which have been developed in conjunction with the preparation of an Addendum for the proposed project. The City understands that these mitigation measures or substantially similar measures shall be adopted as conditions of approval to avoid or significantly reduce potential environmental impacts to a less than significant level.

The following abbreviations are used:

BAAQMD = Bay Area Air Quality Management District
CCR = California Code of Regulations
CDFW = California Department of Fish and Wildlife
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
CM = Construction Management Resources Team
DTSC = Department of Toxic Substance Control
ESD = Environmental Services Department
ET= Environmental Team Project Lead
HASP = Health and Safety Plan
HCP = Santa Clara Valley Habitat Conservation Plan
NAHC = Native American Heritage Commission
OSHA = Occupational Safety and Health Administration
PM = San José-Santa Clara Regional Wastewater Facility Capital Improvements Program - Project Manager
PBCE = Planning, Building and Code Enforcement
RWQCB = Regional Water Quality Control Board
SCCDEH = Santa Clara County Department of Environmental Health
SCVHA = Santa Clara Valley Habitat Agency
SVOCs = semi-volatile organic compounds
USACE= U.S. Army Corps of Engineers
USFWS = U.S. Fish and Wildlife Service
VOCs = volatile organic compounds

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Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
AIR QUALITY						
AQ-1	The Project could violate an air quality standard or contribute substantially to an existing or projected air quality violation.	**Bay Area Air Quality Management District (BAAQMD) Basic Control Measures** • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours.	1. Ensure that contract documents include a requirement for BAAQMD Basic Construction Measures. 2. Monitor to ensure that contractor implements measures in contract documents: • Include discussion of this mitigation measure in contractor environmental training sessions. • Post signage. • Maintain site inspection checklists. • Review contractor's equipment tune-up and emissions logs. • Notify PM and ET of non-compliance and ensure corrective action.	1. Design 2. Construction	1. Project Manager (PM) 2. Construction Management (CM)	1. Environmental Team (ET) 2. ET
BIOLOGICAL RESOURCES						
BIO-1	The Project could have a substantial adverse effect, either directly or through habitat modifications, on Congdon's tarplant and pappose tarplant.	**Mitigation Measure BIO-1: Reduce Impacts to Tarplant.** For purposes of reducing direct impacts to Congdon's tarplant and pappose tarplant, the project proponent shall: • Conduct surveys for Congdon's tarplant and pappose tarplant May 1st through October 31st (inclusive). This shall be conducted by a qualified biologist. • Avoid damaging or removing individuals of Congdon's tarplant and pappose tarplant while conducting the above activities whenever possible. • When mowing is necessary, conduct mowing in areas occupied by Congdon's and pappose tarplant (known natural and reseeded locations) before May 1st (to avoid the blooming season [May to mid-November]) or after seeds have been set (mid-November). Do not mow in areas with Congdon's and pappose tarplant from May to mid-November, even if those areas have burrowing owls or are part of the burrowing owl habitat management area. Mow no lower than 6 inches	The Project proponent shall prepare and submit to the satisfaction of the Planning Environmental Division Manager the following: • Signed electronic copies (pdf) of the plant survey; • Signed documentation of seed collection and post-construction seeding results if required; • Signed documentation of mowing and annual weed control activities; and • If reseeding is required, annual monitoring reports documenting success of the planted population. • Signed documentation of appropriate trail signage. • A report of any instance of noncompliance with these measures.	Prior to, during, and after ground disturbing activities	ET and qualified biologist	Department of Planning, Building and Code Enforcement (PBCE)

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		in areas with Congdon's tarplant in order to minimize removal of tarplant foliage prior to flowering. Conditions in areas occupied by burrowing owl, and Congdon's tarplant and pappose tarplant will change over time, and conflicts between measures to reduce impacts to the tarplant and burrowing owl habitat management strategies (e.g., mowing) may arise. To adapt to changing conditions, this measure may require refinement by a qualified biologist in coordination with CDFW to ensure adequate protection of these species. If individuals of Congdon's tarplant and pappose tarplant cannot be avoided through the provisions listed above, the permanent loss of Congdon's and pappose tarplants shall be mitigated at a minimum mitigation-to-impact ratio of 1:1. To address permanent loss of Congdon's tarplant and pappose tarplant individuals, the following measures shall be implemented: • During October 1st and November 30th (inclusive) the project proponent shall track Congdon's tarplant and pappose tarplant within the area to determine when plants have set seeds. Once seeds have set, seeds from individuals of Congdon's tarplant and pappose tarplant from within the area shall be collected during October 1st or November 30th, inclusive prior to initiation of activities that will impact individuals, and immediately sown at reseeding location(s) to allow the plant to flower and produce seed before the end of the next blooming period, thereby avoiding a temporal loss (i.e., the species missing a flowering cycle). • Seed of Congdon's tarplant and pappose tarplant shall be applied either alone or as a component of the revegetation mix within the impact area for any temporary impacts and within a proposed replacement area for permanent impacts. The replacement area shall be determined in consultation with CDFW. • Areas seeded with Congdon's tarplant and pappose tarplant shall be monitored during the first 5 years following reseeding. Monitoring shall be conducted during the peak blooming period (May1 st – November 30th, inclusive). The planted population will be compared to a known reference population each time monitoring is conducted to accurately verify the degree of success of the planted population. • During the first year of monitoring, revegetation shall be considered successful if the species in 70% of the reseeded area are occurring at densities comparable to the reference population. If unsuccessful, seed shall be collected and sown in the unsuccessful areas prior to the rainy season that year. If reseeding is necessary at any point during the				

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		monitoring period, the monitoring period shall reset (extended by five years) for the affected area. • During each subsequent year of monitoring, revegetation will be considered successful if the species is found to be occurring in 80% of the reseeded area at densities comparable to the reference population. If revegetation is unsuccessful for two consecutive years, seed will be collected and sown in the unsuccessful areas prior to the rainy season that year. • During the final two years of monitoring, if seeding of previously unoccupied habitat is successful (plants occur in 80% of the reseeded area at densities comparable to the reference population), then the mitigation will be deemed successful and no additional monitoring will be required. If unsuccessful, the area will be deemed unsuitable habitat. In this case, revegetation of additional areas, determined in consultation with CDFW will occur, and an additional two years of monitoring will be conducted. For purposes of reducing indirect impacts on Congdon's tarplant and pappose tarplant, the project proponent shall: • Modify weed control activities, in areas of occupied Congdon's tarplant and pappose tarplant habitat. Broadcast herbicides will not be used in or around areas supporting Congdon's tarplant and pappose tarplant. In areas supporting Congdon's tarplant and pappose tarplant, herbicides will only be applied through spot treatment. Herbicide applications will be conducted by persons familiar with Congdon's tarplant and pappose tarplant and able to identify the species to avoid it. • Install informational and warning signs in areas adjacent to habitat occupied by Congdon's tarplant and pappose tarplant instructing people utilizing the site to stay clear of known occurrences.				
BIO-2	The Project could have a substantial adverse effect, either directly or through habitat modifications, on raptors and migratory birds.	**Mitigation Measure BIO-2d: Raptor and Migratory Bird Nest Measures.** If possible, construction shall be scheduled between September 1st and January 31st (inclusive) to avoid the nesting season. If Project construction is scheduled during breeding bird season (February 1st–August 31st, inclusive), City's Environmental Services Department (ESD) or its contractor shall retain a qualified wildlife biologist to conduct a survey for nesting raptors and	1. If possible, schedule construction between September 1st and January 31st (inclusive).	1. Construction	1. PM	1. ET

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		migratory bird nests within 7 days of the start of construction or after any construction breaks of 14 days or more, within 7 days prior to the resumption of construction. Surveys shall be performed for the Project areas and for suitable habitat within 300 feet. If an active nest is discovered, a no-disturbance buffer zone around the nest tree (or, for ground-nesting species, or nests identified on Facility buildings, the nest itself) shall be established. The no disturbance zone shall be marked with flagging or fencing that is easily identified and avoided by the construction crew, and shall not affect the nesting birds. In general, the minimum buffer zone widths shall be as follows: 100 feet (radius) for non-raptor species and 300 feet (radius) for raptor species; however, the buffer zone widths may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer zone widths and other avoidance measures may be modified based on consultation with CDFW and the USFWS. Buffer zones shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest. Construction activities that are scheduled to begin outside the breeding season (September 1st through January 31st, inclusive) can proceed without surveys. If possible, all necessary tree and vegetation removal shall be conducted before the start of breeding bird season to minimize the opportunity for birds to nest at the Project site and conflict with Project construction activities. ESD shall notify the PBCE Senior Environmental Planner when the mitigation actions will occur for approval prior to the start of construction.	2. Contract a qualified biologist to conduct surveys for nesting raptors and migratory birds within 7 days of start of project construction or within 7 days of start of construction after any construction breaks of 14 days or more (if construction commences between February 1st and August 31st, inclusive). If active nests are located during survey, establish buffer zones and consult with USFWS/CDFW as required.	2. Within 7 days prior to construction	2. ET and qualified biologist	2. CDFW, USFWS
			3. Monitor to ensure that contractor implements measures in contract documents regarding buffer zones and avoidance measures established by biologist and/or USFWS/CDFW: • Include discussion of this mitigation measure in environmental training sessions. • Maintain site inspection logs. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. ET or biological monitor	3. ET
			4. Submit reports, if applicable, to USFWS/CDFW per consultation requirements.	4. Construction	4. ET	4. USFWS, and/or CDFW
			5. Submit survey reports and any final compliance report, if applicable.	5. Construction	5. ET	5. PBCE
BIO-2 (cont.)	The Project could have a substantial adverse effect, either directly or through habitat modifications, on Western burrowing owls located at or near the Project site.	**Mitigation Measure BIO-2e: Western Burrowing Owl Measures.** To avoid or minimize direct impacts of Project activities on western burrowing owls, the City shall ensure the following procedures are implemented consistent with the HCP. This survey methodology is consistent with accepted survey protocols for this species. *a Habitat Survey* i Western burrowing owl habitat surveys shall be required in the Project area in all HCP modeled occupied habitat. Surveys are not required in sites that are mapped as potential burrowing owl nesting or only overwintering habitat. Modeled habitat types may change throughout the permit term based on the best available scientific data. Habitat surveys are required in both breeding and non-breeding seasons.	1. Retain a qualified biologist to conduct a habitat survey to map areas with burrows or burrow complexes that could support burrowing owls or occupied burrows in all HCP mapped occupied habitat. If suitable habitat is identified, perform two pre-construction surveys within 250 feet of construction activities, between 2 to 14 days prior to ground disturbing activities pre-construction surveys and establish buffer zones around active nests.	1. Pre-construction	1. ET/Qualified Biologist	1. ET/Habitat Agency, (CDFW)
			2. If suitable habitat is identified, ensure that requirements for compliance with nesting bird	2. Design	2. PM	2. ET

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		ii Qualified biologist(s) shall conduct a pedestrian survey of the Project area and accessible areas within 250-feet of the Project area. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be no more than 50 feet and can be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the biologist's ability to detect burrowing owls; therefore, the biologist shall avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. The biologist shall map areas with burrows or burrow complexes that could support burrowing owls and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement).	buffer zones, if needed, are included in contract documents.			
			3. If avoidance of active nests is not feasible and construction occurs in breeding season, prepare an Avoidance, Minimization and Monitoring Plan for CDFW approval. If avoidance measures are not feasible, coordinate with CDFW for passive relocation.	3. Pre-construction	3. ET/Qualified Biologist	3. CDFW
BIO-2 (cont.)		iii To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 150 feet wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons. iv If suitable habitat is identified during the habitat survey, and if the Project does not fully avoid impacts to the suitable habitat, preconstruction surveys shall be required. Suitable habitat is fully avoided if the project footprint does not impinge on a 250-foot buffer around the suitable burrow. *b Preconstruction Surveys* i A qualified biologist shall conduct preconstruction surveys in all suitable habitat identified in the habitat surveys within 250 feet of construction activity, between 14 and 4 days prior to initiating ground disturbance related to Project construction activities. The 250-foot buffer zone shall be surveyed to identify burrows and owls outside of the Project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. As burrowing owls may recolonize a site after only a few days, time lapses between Project activities shall require subsequent take avoidance surveys including but not limited to a final survey conducted no more than 2 days prior to ground disturbance to ensure absence. A minimum of two surveys shall be conducted (if owls are detected on the first survey, a second survey is not needed). ii The preconstruction survey shall be a minimum of 3 hours, beginning 1 hour before sunrise and continuing until 2 hours after sunrise (3 hours total) or beginning 2 hours before sunset and continuing until 1 hour after sunset. Additional time may be required for large project sites. *c Avoidance Measures* The City shall employ avoidance measures described below to avoid direct take of individual burrowing owls during Project construction. *Breeding Season Avoidance Measures - February 1 to August 31 (inclusive)* i If preconstruction surveys identify evidence of Western burrowing owls within 250 feet of the Project area during the breeding season, the Project proponent shall avoid all nest sites that could be disturbed by Project construction activities during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following	4. Monitor prior to and during Project construction as required by the mitigation measure.	4. Pre-construction and Construction	4. CM/Qualified Biologist	4. ET
			5. Monitor to ensure that contractor implements measures in contract documents regarding avoidance measures established by the biologist: • Include in environmental training. • Monitor site inspection logs. • Notify PM and ET of non-compliance and ensure corrective actions.	5. Construction	5. CM/ET	5. ET
			6. Submit final compliance reporting documentation, if applicable	6. Post-construction	6. ET/CM	6. PBCE
			7. Submit Avoidance, Minimization and Monitoring Plan report, if required, to CDFW.	7. Post-construction	7. ET	7. PBCE

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		fledging). Avoidance shall include establishment of a 250-foot no-disturbance buffer zone around active nest sites by a qualified biologist. ii If active nests cannot be avoided, construction may occur within 250 feet of active nest sites if 1) the nest is not disturbed, and 2) the Project proponent develops and implements an Avoidance, Minimization, and Monitoring Plan, subject to approval by CDFW the Habitat Agency overseeing the HCP. The plan shall incorporate the following criteria: 1. A qualified biologist shall monitor the owls for at least 3 days prior to Project construction to determine baseline nesting and foraging behavior (i.e., behavior without construction). The same qualified biologist shall monitor the owls during construction and find no change in owl nesting and foraging behavior in response to construction activities.				
BIO-2 (cont.)		2 If there is any change in owl nesting and foraging behavior as a result of Project construction activities, these activities shall cease within the 250-foot buffer. Construction shall not resume within the 250-foot buffer until the adult owls and juveniles from the occupied burrows have moved out of the project site. 3. If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the no-disturbance buffer zone may be removed. The biologist shall excavate the burrow to prevent reoccupation after receiving approval from CDFW. *Non-Breeding Season Avoidance Measures – September 1st to January 31st (inclusive)* i If preconstruction surveys identify evidence of Western burrowing owls within 250 feet of the Project area during the non-breeding season (September 1st to January 31st, inclusive), the Project proponent shall establish a 250-foot no-disturbance buffer around occupied overwintering burrows as determined by a qualified biologist. ii If occupied burrows cannot be avoided, construction may occur within 250 feet of overwintering burrows sites if: 1. A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction). 2. The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities. 3. If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities shall cease within the 250-foot buffer. 4. If the owls are gone for at least one week, the Project proponent may request approval from the HCP Habitat Agency for qualified biologist to excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the no-disturbance buffer zone shall be removed and construction may continue. Monitoring must				

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		continue as described above for the non-breeding season as long as the burrow remains active. *d Construction Monitoring* During construction, the no-disturbance buffer zones shall be established and maintained where applicable and based on the Project Avoidance, Minimization, and Monitoring Plan. A qualified biologist shall monitor the site consistent with the requirements described in the Avoidance Measures, described above, to ensure that buffers are enforced and owls are not disturbed. The qualified biological monitor shall prepare and perform an environmental training for all Project personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone. *e Passive Relocation* If avoidance measures described above cannot be implemented with the Project, Passive Relocation shall be implemented according to the protocol described in the HCP and in coordination with, and approval by CDFW.				
BIO-2 (cont.)	The Project could have a substantial adverse effect, either directly or through habitat modifications, on Western pond turtles located at or near the Project site.	**Mitigation Measure BIO-2b: Western Pond Turtle Measures.** a. Prior to the start of construction activities, the project proponent shall retain a qualified biologist to conduct preconstruction surveys for pond turtles in all suitable habitats (aquatic and upland) in the vicinity of the work site. Surveys shall take place no more than 72 hours prior to the onset of site preparation and construction activities with the potential to disturb turtles or their habitat. b. If preconstruction surveys identify active western pond turtle nests within the Project site, the biologist shall establish no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation shall be permeable to allow young turtles to move away from the nest following hatching. The radius of the buffer zone and the duration of exclusion shall be determined in consultation with the CDFW. The buffer zones and fencing shall remain in place until the young have left the nest, as determined by the qualified biologist. c. A qualified biologist shall monitor construction activities in the vicinity of suitable habitat within which western pond turtle is found (either during the survey or observed during construction), and remove and relocate western pond turtles in proposed construction areas to suitable habitat outside the project limits, consistent with CDFW protocols and handling permits. Relocation sites shall be subject to CDFW approval. d. If any turtles are found in the Project site, construction activities shall halt within 50 feet and the qualified biologist shall be notified. If the biologist determines the turtle is a western pond turtle, the turtle shall be relocated into nearby suitable habitat consistent with CDFW protocols and handling permits.	1. Ensure that requirements for compliance with any biological resources buffer zones and species protection are included in contract documents.	1. Design	1. PM	1. PBCE
			2. Retain a qualified biologist to perform preconstruction surveys. If active nests are located during the survey, establish buffer zones with fencing in consultation with CDFW.	2. Within 72 hours prior to onset of construction	2. ET and qualified biologist	2. N/A
			3. Monitor to ensure that exclusion fencing and buffer zones are implemented: • Include in environmental training. • Relocate turtles to suitable habitat, if encountered. • Maintain site inspection and monitoring logs, results of any consultation with CDFW. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. CM and qualified biologist	3. ET
			4. Submit reports, if applicable, to CDFW per consultation requirements. Submit final compliance monitoring report.	4. Post-construction	4. ET	4. ET/PBCE sign off

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BIO-3	The Project could have indirect impacts on the riparian wetland community.	**Mitigation Measure BIO-3a: Riparian Woodland Habitat Avoidance Measures.** Design of program-level Regional Wastewater Facility (RWF) improvements and planned land uses will avoid areas of riparian woodland habitat to the extent feasible. Riparian habitat impact avoidance shall be consistent with the City's General Plan Riparian Habitat Policy and HCP setbacks. To reduce impacts on riparian woodland habitat during development east of Zanker Road construction and maintenance activities, the project proponent and/or its contractor shall implement the following measures: • Minimize cutting and trimming of adjacent shrubs and trees during construction and maintenance activities to the maximum extent possible. Shrubs that need to be trimmed should be cut at least 1 foot above ground level to leave the root systems intact and allow for regeneration. • Contract a certified arborist to perform or oversee necessary trimming of riparian trees. Install orange construction barrier fencing around the boundaries of riparian habitat to be avoided prior to initiation of construction activities. The protected area shall be designated an environmentally sensitive area and would be clearly identified on the construction specifications. Fencing shall be maintained throughout the construction period.	The project proponent shall prepare and submit to the satisfaction of the Planning Environmental Division Manager contract language meeting the requirements of this mitigation measure as well as documentation of the qualifications of the certified arborist. Construction inspector shall monitor contractor compliance, report non-compliance and ensure corrective action.	Pre-construction (especially any ground disturbance including vegetation removal, grading, soil hauling etc.)	PBCE, CM, CDFW, U.S. Army Corps of Engineers (USACE), ESD	
BIO-3 (cont.)		**Mitigation Measure BIO-3c: Control of Non-Native Invasive Plant Species.** To minimize introduction and spread of non-native invasive plant species, the project proponent or its contractor shall implement the following: a. A qualified biologist or botanist shall conduct field training for construction workers to inform them about invasive species and methods to minimize spread of invasive species for the duration of all associated project and program activities mentioned above.	1. Ensure that requirements for control of non-native invasive species and revegetation are included in contract documents. **(Spec. BIO-3c)**	1. Design	1. PM	1. PBCE

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		b. Revegetate areas disturbed during construction with approved native plant species. c. Remove invasive plant seeds and plant parts from all clothing, shoes, vehicles, and equipment prior to entering or working in or near any environmentally sensitive area, including riparian woodland habitat. d. Stage construction and maintenance equipment in weed-free areas. e. Gather and bag invasive plant seeds or plant parts found in the containment area and take them to an appropriate disposal facility. f. Implement the following measures to prevent the spread of noxious weeds and invasive plants when present. g. Educate crews in the use of weed-free materials when available, ensure vehicles leaving paved roads do not spread weeds in sensitive habitats (including salt marsh or upland refugia habitat for salt marsh harvest mouse, salt marsh wandering shrew, California clapper rail, California black rail, dusky footed woodrat, and all aquatic and wetland habitat); and h. Avoid entering patches of invasive plants to the maximum extent possible.	2. Monitor to ensure that contractor implements measures in contract documents regarding invasive plants and revegetation: • Include in environmental training. • Maintain site inspection logs. • Approve contractors's planting mix. • Notify PM and ET of non-compliance and ensure corrective action.	2. Construction	2. CM	2. ET
			3. Submit final compliance report, including documentation of revegetation.	3. Post-construction	3. ET	3. ET/PCBE sign off
BIO-4	The Project could have a substantial adverse effect on wetlands through direct removal, filling, hydrological interruption, or other means.	**Mitigation Measure BIO-4a: Wetland Avoidance Measures** Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional features. Prior to the beginning of any construction-related activities, the following measures shall be applied to protect potential jurisdictional features: 1. A protective barrier (such as silt fencing) shall be erected around water features adjacent to the Project at the "top of bank" or at the feature boundary to isolate them from Project activities and reduce the potential for incidental fill, erosion, or other disturbance; 2. Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities; 3. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the Project site until a representative of the City has inspected and approved the protection fencing; and 4. The City shall ensure that the temporary fencing is continuously maintained until the Project is completed. 5. Drainage from all proposed facilities where chemical spills could occur during Project operation shall be directed away from sensitive resources and/or include other measures to minimize potential for release of potential pollutants to the environment.	1. Ensure that wetlands are clearly designated on site plans and requirements for minimizing impacts to wetlands are included in contract documents.	1. Design	1. PM	1. ET
			2. Install construction fencing around designated wetlands according to delineation created by qualified biologist, and ensure that contractor erects signage for protection of environmentally sensitive areas.	2. Construction	2. CM/ET	2. ET
			3. Monitor to ensure that contractor implements measures in contract documents: • Include in contractor environmental training. • Maintain site inspection logs. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. CM/ET	3. ET
			4. Submit final compliance reporting documentation, if applicable.	4. Construction	4. ET	4. PBCE
			1. If wetlands cannot be avoided, retain a qualified biologist or permitting specialist to assist with preparation of resource agency permit applications to USACE, RWQCB, and	1. Design (and at least one year prior to construction)	1. ET	1. PBCE

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		Mitigation Measure BIO-4b: Wetlands Restoration for Project-Level Improvements. If it is determined during the design phase that impacts on wetland habitat cannot be avoided, the City's ET shall obtain permits and approvals from the SCVHA, USACE, Regional Water Quality Control Board (RWQCB), and/or CDFW, as applicable. In order to ensure that the Project results in no net loss of wetland habitat functions and values, the City shall compensate for the loss of wetland resources through on-site restoration/creation, off-site protection and enhancement of riparian and wetland habitat, and/or purchase of mitigation credits consistent with the terms and conditions of USACE Regional General Permit 18 for implementation of covered activities in the HCP. On-site or off-site habitat restoration/creation and/or purchase of mitigation credits consistent with the terms and conditions of USACE Regional General Permit 18 shall be determined in consultation with the resource agencies, as applicable. The City shall prepare a mitigation plan, which shall include monitoring applicable requirements and success criteria.	CDFW. This may include preparation of a Restoration Mitigation Monitoring Plan (RMMP).			
			2. Ensure that requirements for compliance with resource agency permits are included in contract documents (specifications to be determined). This may include site restoration according to RMMP.	2. Design	2. PM	2. PBCE
			3. Monitor to ensure that contractor implements measures in contract documents regarding permit requirements: • Include in environmental training. • Maintain site inspection logs. • Notify PM and ET of non-compliance and ensure corrective action.	3. Construction	3. CM and biological monitor	3. ET
			4. Submit reports, as applicable, to resource agencies per permit requirements.	4. Post-construction	4. ET and biological monitor	4. PBCE
			5. Perform post-construction compliance monitoring and corrective actions, as needed.	5. Post-construction / restoration	5. ET and biological monitor	5. PBCE, agencies
			6. Submit final compliance report to resource agencies, if applicable.	6. Post-restoration monitoring period	6. ET	6. PBCE
BIO-5	The Project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**Compensate for Removal of Protected Trees.** As part of the project condition of approval, the trees to be removed shall be replaced on-site or off-site at the accepted ratios or through payment of an in-lieu fee to Our City Forest to compensate for the loss of the trees. Protected trees that are lost shall be replaced at a minimum of four 24-inch box trees per tree removed. Tree replacement amounts shall be subject to the City's Arborist and/or PBCE, who would determine the final mitigation for impacts to protected trees. Replacement trees shall be planted in a suitable location on Facility property or on other City property, to be identified by the City Arborist and approved by PBCE.	1. Requirements for tree replacement or payment of in-lieu fees in accordance with City policies and guidelines shall be included in contract documents. Include the City's Tree Replacement Ratio information in the contract documents, if applicable.	1. Design	1. PM	1. ET
			2. Monitor contractor for compliance with tree replacement as specified by City policies and guidelines.	2. Construction	2. CM	2. ET
			3. Submit final compliance reporting documentation, if applicable.	3. Construction	3. ET	3. PBCE
		Mitigation Measure BIO-5b: Minimize Construction Effects on Protected Trees to be Retained. The project proponent shall implement the following tree-protection measures prior to and during project construction. • Retain a certified arborist to oversee protection of native trees to be retained on the project site.	1. Retain a qualified arborist to perform tree survey to identify ordinance trees, native trees, in project area and evaluate appropriate tree protection measures for trees to be retained.	1. Feasibility / Development	1. ET	1. N/A
			2. If trees in project area require pruning and/or protection, ensure that requirements related to tree protection are included in contract documents. **(Spec. BIO-5b)**	2. Design	2. PM	2. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		• Require that any tree or root pruning occurring for construction is first approved by the certified arborist. • Require that the certified arborist evaluate injuries to retained trees as soon as possible for appropriate treatment. With implementation of these conditions and measures, the Project would not result in any new or more significant impacts than those identified in the certified Plant Master Plan EIR.	3. If trees in project area to be protected, monitor to ensure that contractor implements measures in contract documents: • Include in environmental training. • Maintain site inspection checklists. • Notify PM and ET of non-compliance.	3. Construction	3. CM	3. ET
			4. Submit final compliance report, if applicable.	4. Post-construction	4. ET	4. PBCE
BIO-5	The Project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	**Mitigation Measure BIO-2: Western Burrowing Owl Measures**, as described above.				
CULTURAL RESOURCES						
CUL-1	Implementation of the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	**Mitigation Measure CUL-1a: Inadvertent Discovery of Archaeological Resources.** If prehistoric or historic-era archaeological resources are encountered by construction personnel during Project implementation, all construction activities within 100 feet shall halt and the contractor shall notify ESD personnel and the PBCE Senior Environmental Planner. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, hand stones, or milling slabs); and battered stone tools, such as hammer stones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. The City's ESD or its contractor shall retain a Secretary of the Interior-qualified archaeologist to inspect the findings within 24 hours of discovery. If it is determined that the Project could damage a historical resource as defined by CEQA (CEQA Guidelines §15064.5), construction shall cease in an area determined by the archaeologist until a mitigation plan has been prepared, approved by the PBCE Senior Environmental Planner, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who would be identified by the Native American Heritage Commission [NAHC]). If the Native American representative identifies the find as a tribal resource, ESD or its contractor shall proceed to Mitigation Measure CUL-1b. For archaeological resources, the archaeologist, in consultation with the PBCE Senior Environmental Planner and the City's Historic Preservation Officer, shall determine when construction can resume.	1. Ensure that measures related to archaeological discoveries are included in contract documents.	1. Design	1. ET and PM	1. ET
			2. Ensure that all personnel complete environmental training prior to beginning work. Monitor to ensure that the contractors implement measures in contract document.	2. Construction	2. ET and CM	2. ET
			3. Evaluate the potential discovery and advise the ET as to the significance of the discovery. If warranted, proceed with measures that may include the following: a. On-site preservation of resource; b. Archaeological monitoring program with prior review/approval of ET; or c. Archaeological testing program with prior review/approval of ET.	3. Construction	3. CM and qualified archeologist	3. ET PBCE, in consultation with City's Historic Preservation Officer (if there are archeological or tribal resources)
			4. Prepare a Final Archaeological Resources Report if warranted. Submit to ET for review and approval.	4. Construction	4. ET and qualified archeologist	4. PBCE
			5. Ensure that contract documents include measures related to discovery of human remains.	5. Design	5. ET and PM	5. ET

MITIGATION MONITORING AND REPORTING PROGRAM
DIGESTED SLUDGE DEWATERING FACILITY

Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		The preferred mitigation shall be preservation in place. If preservation in place is not physically or financially feasible, mitigation shall be data recovery through excavation. If preservation in place is selected as mitigation, the mitigation shall be accomplished through one of the four following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding the resource site into a permanent conservation easement. If preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to the satisfaction of the PBCE Senior Environmental Planner to recover the scientifically consequential information from the resource prior to any excavation at the resource site. Treatment for most of the resources that could be encountered shall consist of (but shall not necessarily be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.				
CUL-1 (cont.)		**Mitigation Measure CUL-1b: Inadvertent Discovery of Tribal Cultural Resources.** The Native American representative shall make recommendations to the City for the appropriate measures to treat the tribal cultural resource which shall be implemented in accordance with Section 15064.5 of the CEQA Guidelines.	1. Evaluate the potential discovery and advise the ET as to the significance of the discovery.	1. Construction	1. Native American representative, ET	1. PBCE
CUL-2	Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries.	**Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains.** If human remains are encountered by construction personnel during project implementation, all construction activities within 100 feet shall halt and the contractor shall notify the PBCE Senior Environmental Planner. ESD shall contact the Santa Clara County Coroner to determine whether or not the remains are Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall contact the NAHC within 24 hours. The NAHC would then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the City for the appropriate means of treating the human remains and any associated funerary objects which shall be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.	1. Include in environmental training. Monitor to ensure that the contractor implements measures in contract document including reporting human remains if encountered and suspending work in the vicinity.	1. Construction	1. ET and CM	1. ET
			2. Confirm identification of human remains, if needed. If human remains are confirmed, perform required coordination and notifications.	2. Construction	2. ET and qualified archaeologist	2. ET
			3. Monitor to ensure the appropriate disposition of human remains.	3. Construction	3. ET and qualified archaeologist	3. ET
			4. Submit final compliance report, if applicable.	4. Construction	4. ET	4. PBCE
GEOLOGY AND SOILS						
GEO-1	The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**Mitigation Measure CUL-2: Inadvertent Discovery of Paleontological Resources.** If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find and the contractor shall notify ESD personnel and the PBCE Senior Environmental Planner. ESD or its contractor shall retain a qualified paleontologist to inspect the findings within 24 hours of discovery to assess the nature and importance of the find and, if necessary, develop appropriate treatment measures in	1. Evaluate the potential discovery and advise the ET as to the significance of the discovery.	1. Construction	1. Qualified paleontologist, ET	1. PBCE

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	**Impact Summary**	**Mitigation Measures**	**Implementation Actions**	**Implementation Schedule**	**Responsible Party/Actions**	**Reviewing and Approving Party/Actions**
		conformance with Society of Vertebrate Paleontology standards, and in consultation with the PBCE Senior Environmental Planner.				
GREENHOUSE GAS EMISSIONS						
GHG-1	The Project's operational GHG emissions combined with the 30-year amortized construction emissions, would exceed the BAAQMD significance threshold for operation.	**Mitigation Measure GHG-1a: GHG Reduction Strategy Measures.** The following measures identified in the GHG Reduction Strategy shall be implemented: • An evaluation of post-2020 operational energy efficiency and associated design measures shall be completed for energy-intensive Facility improvements, such as the mechanical drying improvements. • The proposed number of parking spaces would not exceed requirements in the Municipal Code.	The project proponent shall prepare and submit to the satisfaction of the Director of PBCE or designee plans and specifications meeting the requirements of the mitigation measure. Project proponent shall submit prepare and submit to the satisfaction of the Planning Environmental Division Manager an evaluation of post-2020 operational energy efficiency meeting the requirements of this measure.	Design Post-Year 2020 Operations (for energy-intensive RWF improvements).	Director of Planning, Building & Code Enforcement	PBCE
HAZARDS AND HAZARDOUS MATERIALS						
HAZ-1	The Project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.	**Mitigation Measure HAZ-1a: Pre-Construction Hazardous Materials Assessment.** Prior to construction, ESD or its contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and groundwater quality. If the results reveal soils and/or groundwater contamination exist in excess of applicable regulatory screening levels (Environmental Screening Levels or California human health screening levels) for the proposed site use, the City shall contact the appropriate regulatory agency (the Santa Clara County Department of Environmental Health [SCCDEH], RWQCB, or DTSC), as appropriate. ESD or its contractor shall complete subsequent site investigations and/or remedial activities required by the regulatory agency to ensure that residual impact, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment. The results of the pre-construction hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure HAZ-1b, below, and the Soil and Groundwater Management	1. Evaluate project location with respect to known underground fuel tank leaks or spills and proximity to landfills. Assess need for subsurface sampling to evaluate potential presence of contaminants.	1. Feasibility / Development	1. ET and ESD's Hazardous Material Specialist	1. ET and ESD's Hazardous Material Specialist
			2. If warranted, retain a qualified environmental professional to prepare a workplan, conduct soil and groundwater sampling, and report results. Report shall provide recommendations for agency consultation and/or additional cleanup, depending upon findings.	2. Feasibility / Development	2. ET and qualified environmental professional	2. ET and ESD's Hazardous Material Specialist (RWQCB, DTSC, SCCDEH)
			3. Ensure that contract documents include site-specific sampling report and/or general information about potential soil and groundwater contaminants anticipated. If warranted, include site cleanup in project and prepare final cleanup report.	3. Design	3. PM and ET	3. ET
HAZ-1 (cont.)		Plan prepared in accordance with Mitigation Measure HAZ-1c, below, to determine whether: specific soil and groundwater management and disposal procedures for contaminated materials are required; excavated soils are suitable for reuse; and construction worker health and safety procedures for working with contaminated materials are required.	4. A copy of the pre-construction hazardous materials assessment shall be submitted to the Director of PBCE or designee for approval.	4. Construction	4. CM and ET	4. PBCE
		Mitigation Measure HAZ-1b: Health and Safety Plan. ESD or its contractor shall retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8	1. Ensure that contract documents include preparation of a Health and Safety Plan and documentation of compliance in accordance with the mitigation measure.	1. Design	1. PM	1. ET

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Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		CCR Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction. The HASP shall include the following information: • Results of sampling conducted in accordance with Mitigation Measure HAZ-1a. • All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. • Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP. • The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to 1) immediately stopping work in the vicinity of the unknown hazardous materials release; 2) notifying SCCDEH, RWQCB, or DTSC; and 3) retaining a qualified environmental firm to perform sampling, remediation, and/or disposal. • Documentation that HASP measures have been implemented during construction. • Provision that submittal of the HASP to ESD, or any review of the contractor's HASP ESD, shall not be construed as approval of the adequacy of the contractor as a health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.	2. Review contractor's Health and Safety Plan.	2. Design / Construction	2. PM and CM	2. ET
			3. Monitor compliance by the contractor, report non-compliance or discovery of suspect hazardous materials to PM and ET. Ensure corrective action, sampling, remediation and/or disposal as warranted. (Note contractor is solely responsible for health and safety of its employees).	3. Construction	3. CM and ET	3. ET and ESD's Hazardous Material Specialist
			4. A copy of the HASP shall be submitted to the Director of PBCE or designee.	4. Construction	4. CM and ET	4. PBCE
HAZ-1 (cont.)		**Mitigation Measure HAZ-1c: Soil and Groundwater Management Plan.** If hazardous materials or contaminated soil and groundwater above regulatory screening levels are identified under the pre-construction hazardous materials assessment, done in accordance with Mitigation Measure HAZ-1a, ESD shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The Soil and Groundwater Management Plan shall establish the sampling and laboratory analysis program which may include the following: 1)	1. Ensure that contract documents include a Soil and Groundwater Management Plan meeting the requirements of the mitigation measure and requirement for submittal of final compliance report documenting disposal of materials.	1. Design	1. PM	1. ET
			2. Review contractor's Soil and Groundwater Management Plan.	2. Design / Construction	2. PM, CM, and ESD's Hazardous Material Specialist	2. ET and ESD's Hazardous Material Specialist

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		analysis of subsurface soil samples within the Project site for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and volatile organic compounds (VOCs) or any other chemicals of concern to evaluate the potential presence of contamination; 2) groundwater samples if subsurface excavations are anticipated to require dewatering; and 3) additional analyses for VOCs and semi-volatile organic compounds (SVOCs) for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills. The Soil and Groundwater Management Plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The Plan shall include the following information. • Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility. • Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils. • Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method to be used to analyze groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods. The Pre-Construction Hazardous Materials Assessment (HAZ-1a), Health and Safety Plan (HAZ-1b), and Soil Management Plan (HAZ-1c) shall be submitted to the PBCE Senior Environmental Planner for approval.	3. Monitor compliance by the contractor, report non-compliance or discovery of suspect hazardous materials to PM and ET. Ensure corrective action, sampling, remediation and/or disposal as warranted.	3. Construction	3. CM and ET	3. ET and ESD's Hazardous Material Specialist
			4. Review contractor's final compliance report and retain all manifests for hazardous waste disposal.	4. Construction	4.CM	4. ET and ESD's Hazardous Material Specialist
			5. A copy of the Soil and Groundwater Management Plan shall be submitted to the Director of PBCE or designee	5. Construction	5. ET and ESD's Hazardous Material Specialist	5. PBCE
HAZ-2	Construction requiring one lane closure of Zanker Road could interfere with the use of Zanker Road during evacuation of the Facility.	Implementation of **Mitigation Measure TR-1**, described below in Transportation and Circulation, notifying Facility personnel of the temporary closure of Zanker Road and instructing personnel to evacuate using Mike Tocce Lane.				
HYDROLOGY AND WATER QUALITY						
HYD-1	Any changes or increases in runoff from the Project sites need to be adequately characterized and drainage systems need to be planned in a manner that avoids significant impacts related to flooding	**Mitigation Measure HYD-1: Comprehensive Drainage Plan.** The City shall prepare and implement a comprehensive drainage plan for the future plant expansion area, the south and east of the Facility operational area. The plan shall be consistent with the provisions and requirements of the Municipal Regional Permit (NPDES Permit Order R2-2009-0074), as well as with the subsequent policies and guidance set forth by the relevant	1. Retain a qualified hydrologic engineer to prepare a Comprehensive Drainage Plan in accordance with the measure. The comprehensive plan will establish the framework and requirements for site drainage, and may establish phasing for development of detailed drainage design as development progresses (i.e. initially for CIP sites outside the existing operational area,	1. Feasibility / Development	1. PM	1. PCBE

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		permittee(s) (e.g., the City of San José). This plan shall incorporate the following elements: • The storm drain system and treatment capacity shall be designed in a manner to accommodate peak conditions from a design storm. The City requires that the storm drain system have the capacity for a 10-year event; however, the comprehensive drainage plan shall also plan for a 100-year event. The plan need not avoid all ponding and flooding during a 100-year event, but shall consider where water would pool and flow and include measures to avoid draining excess runoff to offsite pumps, to avoid flooding structures, and to avoid the release of untreated sewage during a 100-year runoff event. • Actions necessary to prevent exceeding Headworks capacity and/or releasing of runoff offsite, as specified in the NPDES requirements, shall be identified and implemented. Such actions may include installation of additional pumping capacity or redirection of runoff to other surface waters (so long as such discharges are in compliance with NPDES requirements). • Proposed roads (including the Dixon Landing roadway east of the operational area) and recreational trails shall be designed to allow passage of surface water drainages, avoid fill within wetland habitats, and shall incorporate measures to reduce the impact of impervious surfaces on the rate and volume of stormwater runoff. The size and design of culverts, channels, cross drains, boardwalks, and/or bridges (as applicable) shall be determined based on drainage calculations that consider both a 10-year and 100-year storm event. The drainage plan shall also identify measures to ensure that current rates of groundwater infiltration are not decreased significantly by the increase in impervious area with implementation of proposed PMP land uses to the south and east of the operational area. Where soils are suitable, such measures might include bioswales, infiltration galleries, or other measures that promote stormwater retention and infiltration rather than offsite conveyance.	and later for proposed economic development). 2. Ensure project design complies with Comprehensive Drainage Plan and the requirements of this measure. 3. Ensure that drainage requirements are included in construction contract documents. (Spec HYD-1) 4. Ensure project construction includes drainage features as designed. 5. A copy of the Comprehensive Drainage Plan shall be submitted to the PBCE Senior Environmental Planner.	2. Design 3. Design 4. Construction 5. Post-construction	2. PM 3. PM 4. CM 5. ET	2. PBCE 3. PBCE 4. ET 5. ET / PBCE sign off

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
TRANSPORTATION AND CIRCULATION						
TR-1	The temporary closure along Zanker Road south of the Facility operational area would increase traffic volumes on the detour roadways.	**Mitigation Measure TR-4: Implement Project Traffic Control Plan.** ESD or its contractor(s) shall prepare and implement a Traffic Control Plan to reduce traffic impacts on the roadways at and near the work site, as well as to reduce potential traffic safety hazards and ensure adequate access for emergency responders. ESD or its contractor(s) shall coordinate development and implementation of this plan with City departments (e.g., Emergency Services, Fire, Police, Transportation), as appropriate. To the extent applicable, the Traffic Control Plan shall conform to the Caltrans' *California Manual on Uniform Traffic Control Devices*, Part 6 (Temporary Traffic Control)[1] and San José Public Works Department's Temporary Traffic Control Manual.[2] The Traffic Control Plan shall include, but not be limited to, the following elements: • Circulation and detour plans to minimize impacts on local road circulation during road and lane closures. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone. • Identifying truck routes designated by City of San José and Santa Clara County. Haul routes that minimize truck traffic on local roadways shall be utilized to the extent possible. • Controlling and monitoring construction vehicle movement through the enforcement of standard construction specifications by onsite inspectors. • Scheduling truck trips outside the peak morning and evening commute hours to the extent possible. • Limiting the duration of road and lane closures to the extent possible. • Notifying Facility personnel of the temporary closure of Zanker Road and instructing personnel to evacuate using Mike Tocce Lane during Zanker Road closure. • Maintaining pedestrian and bicycle access and circulation during project construction where safe to do so. If construction activities encroach on bicycle routes or multi-use paths, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted that indicate the presence of such users. • Identifying detours for bicycles and pedestrians, where applicable, in all areas affected by project construction. • Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized. • Implementing roadside safety protocols. Advance "Road Work Ahead" warning and speed control signs (including those informing drivers of State legislated double fines for speed infractions in a construction zone) shall be posted to reduce speeds and provide safe traffic flow through the work zone. • Coordinating construction administrators of police and fire stations (including all fire protection agencies). Operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures, where applicable. • Repairing and restoring affected roadway rights-of way to their original condition after construction is completed.	1. Incorporate into contract documents a requirement that contractor prepare a traffic plan in accordance with requirements of Coordinated Transportation Management Plan and this measure.	1. Design	1. PM	1. ET
			2. Review contractor's traffic control plan.	2. Pre-construction	2. PM and CM	2. CM
			3. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance to PM and ET and ensure corrective action.	3. Construction	3. CM	3. CM
			4. Submit final compliance reporting documentation, if applicable.	4. Construction	4. ET	4. PBCE

1 California Department of Transportation (Caltrans), *California Manual on Uniform Traffic Control Devices for Streets and Highways – Part 6: Temporary Traffic Control*, amended November 7, 2014.
2 City of San José, Public Works Department, *Temporary Traffic Control Manual*, September 27, 2005, available online at http://www.sanjoseca.gov/index.aspx?NID=3464, accessed October 2015.

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
TRIBAL CULTURAL RESOURCES						
TRC-1, TRC-2	Implementation of the Project could cause a substantial adverse change in the significance of a tribal cultural resource pursuant to §21074.	Implement **Mitigation Measures CUL-1a. Inadvertent Discovery of Archaeological Resources and CUL-1b. Inadvertent Discovery of Tribal Cultural Resources** See Cultural Resources section, above.				
UTILITIES AND SERVICE SYSTEMS						
UT-1	The Project could affect other utilities during construction.	**Mitigation Measure UT-6: Coordination With Utility Service Providers and Develop Utility Avoidance Plan** Prior to construction, the project proponent shall coordinate with appropriate utility service providers and related agencies to determine the location of utilities and the City will incorporate into construction specifications the requirement that the contractor develop a plan to reduce service interruptions. The plan shall be approved by the City and submitted to appropriate utility providers. Utilities to be addressed in the plan shall include, but may not be limited to: water, recycled water, sewer, gas, electricity, telephone, cable. Coordination efforts shall include the following: • The project proponent shall coordinate with San Jose Municipal Water Supply (SJMWS) as the water purveyor to minimize or eliminate potential water interruptions. Such coordination efforts may include requiring the construction contractor to hot-tap28 existing water lines for new water line connections when possible to maintain service of existing water lines. Another option is to isolate construction areas and back feed water through alternate lines to provide continuous service.	1. Coordinate with appropriate utility service providers to determine the location of utilities.	1. Feasibility / Development	1. PM	1. ET / PBCE
			2. Incorporate into contract documents a requirement that the contractor develop a utility avoidance plan to reduce service interruptions and address potential construction effects on existing utilities. **(Spec UT-6)**	2. Design	2. PM	2. PBCE
			3. Review contractor's utility avoidance plan.	3. Pre-Construction	3. PM	3. N/A
			4. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance to PM and ET and ensure corrective action.	4. Construction	4. CM	4. ET
			5. Submit compliance report, if needed.	5. Post-construction	5. ET	5. ET/PCBE sign off
CUMULATIVE IMPACTS						
C-TR-1	The Project could have transportation impacts that are individually limited, but cumulatively considerable.	**Mitigation Measure C-TR-1: Implement Coordinated Transportation Management Plan.** Prior to construction, the City's contractor(s) shall develop a Coordinated Transportation Management Plan and work with other projects' contractors and appropriate City departments (e.g., Emergency Services, Fire, Police, Transportation) to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Project as well as planned Facility improvements and land uses, and to address the transportation impact of the overlapping construction projects within the vicinity of the Project. The transportation management plan shall include, but not be limited to, the following requirements:	1. Prepare a Coordinated Transportation Management Plan to outline requirements of project-specific transportation plans.	1. Feasibility / Development	1. CM and PM	1. CM
			2. Incorporate into contract documents a requirement to ensure that contractor prepare a traffic plan in accordance with requirements of Coordinated Transportation Management Plan and this measure.	2. Design/Pre-Construction	2. PM	2. ET
			3. Monitor to ensure that contractor implements measures in contract documents. Report	3. Construction	3. CM	3. CM

MITIGATION MONITORING AND REPORTING PROGRAM DIGESTED SLUDGE DEWATERING FACILITY						
Impact No.	Impact Summary	Mitigation Measures	Implementation Actions	Implementation Schedule	Responsible Party/Actions	Reviewing and Approving Party/Actions
		• Coordination of individual traffic control plans for the Project with nearby projects. • Coordination between the Project contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address: – Full and partial roadways closures – Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices – Bicycle/Pedestrian detour plans, where applicable – Parking along public roadways – Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites • Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects. • A comprehensive and continual outreach program to notify affected citizens (i.e., residents of Alviso, commuters, etc.) of all construction activity and roadway closures for the duration of the projects.	noncompliance to PM and ET and ensure corrective action.			
SOURCE: San José-Santa Clara Regional Wastewater Facility Digested Sludge Dewatering Facility Addendum, August 2019.						