



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: November 21, 2022

Approved

Date

11/29/22

SUBJECT: AWARD OF DEWATERED BIOSOLIDS TRANSPORTATION AND BENEFICIAL USE SERVICE AGREEMENTS FOR THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

- (a) Adopt a resolution approving the Addendum to the Environmental Impact Report for the San José-Santa Clara Water Pollution Control Plant Master Plan (SCH #2011052074), Biosolids Disposition Project, File No. ER20-129, in accordance with the California Environmental Quality Act (CEQA), as amended.
- (b) Approve and execute the following dewatered biosolids transportation and beneficial use service agreements to manage the dewatered biosolids produced annually by the San José-Santa Clara Regional Wastewater Facility:
 - (1) Denali Water Solutions, LLC to manage approximately 35% of the dewatered biosolids produced annually by the San José-Santa Clara Regional Wastewater Facility through June 30, 2029, with options to extend through June 30, 2033, and a maximum compensation of \$18,400,000, subject to the appropriation of funds.
 - (2) Synagro West, LLC to manage approximately 57% of the dewatered biosolids produced annually by the San José-Santa Clara Regional Wastewater Facility through June 30, 2029, with options to extend through June 30, 2033, and a maximum compensation of \$29,600,000, subject to the appropriation of funds.
 - (3) Lystek International Limited to manage approximately 8% of the dewatered biosolids produced annually by the San José-Santa Clara Regional Wastewater Facility through June 30, 2029, with options to extend through June 30, 2033, and a maximum compensation of \$7,300,000, subject to the appropriation of funds.
- (c) Adopt a resolution delegating authority to the City Manager or their designee to negotiate and execute amendments to the biosolid transportation and beneficial use service agreements with Denali Water Solutions, LLC, Synagro West, LLC, and Lystek International Limited to account for necessary changes to the percentage of the dewatered biosolids managed under each agreement and the corresponding compensation and/or execute extensions to the initial term of the agreement so long as such amendments do not exceed the combined total of \$55,300,000.

OUTCOME

Approval of the transportation and beneficial use service agreements will secure the capacity required to manage all the dewatered biosolids produced upon completion of the Digested Sludge Dewatering Facility (Dewatering Facility), ensure that competitive rates are paid for these services, and ensure that the dewatered biosolids are managed in accordance with the approved Biosolids Transition Strategy and Dewatered Biosolids Management Strategy. These agreements may also provide flexibility through June 2033, as staff works on implementing the longer-term strategies that were previously approved.

EXECUTIVE SUMMARY

Upon completion of the Dewatering Facility, anticipated to be in 2025, the San José-Santa Clara Regional Wastewater Facility (RWF) will need to manage approximately 100,000 tons of dewatered biosolids each year. To manage the RWF's mechanically dewatered biosolids, staff recommends awarding transportation and beneficial use service agreements to the three companies that ranked highest following a competitive procurement process. These agreements are consistent with the previously approved Plant Master Plan (PMP), Biosolids Transition Strategy, and Dewatered Biosolids Management Strategy and help align the RWF's biosolids management with Senate Bill (SB) 1383.

The three companies recommended for award offer sufficient capacity to beneficially use the RWF's dewatered biosolids via land application, further processing (such as composting and fertilizer manufacturing), or a combination. The rates negotiated for the transportation and beneficial use services are comparable to the rates from the 2019 biosolids disposition market assessment (once adjusted for inflation) and are comparable to the rates currently paid by several peer agencies in Northern California.

The recommended agreements will expire on June 30, 2029, but can be extended for up to two, two-year terms through June 30, 2033.

BACKGROUND

Dewatered Biosolids Management Strategy and Implementation Timing

The PMP, which was approved in 2013, established operational, economic, environmental, and social guiding principles for the RWF. It also envisioned modifying the biosolids treatment process to reduce odors, diversifying disposition options, reducing the footprint of the processing area, and creating flexibility to respond to regulatory and market changes. The Biosolids Transition Strategy, which was approved in 2015, recommended proceeding with the design and

construction of a mechanical dewatering facility, retiring the RWF's lagoons and drying beds, and entering contracts for off-site disposition.¹

On May 20, 2021 and June 8, 2021, the Treatment Plant Advisory Committee (TPAC) recommended and the San José City Council (City Council) subsequently approved the Dewatered Biosolids Management Strategy.² The Dewatered Biosolids Management Strategy built upon the recommendations of the PMP, Biosolids Transition Strategy, and previous market assessments that evaluated biosolids disposition options around the San Francisco Bay Area.

The Dewatered Biosolids Management Strategy consists of the procurement of off-site beneficial use service agreements in the short-term, development of an on-site partner facility that further processes the dewatered biosolids in the long-term, and the permitting of local natural and working lands to receive biosolids. Procurement of the off-site beneficial use service agreements is the first step in the plan to provide the City with flexibility and reliability needed once the RWF's Dewatering Facility comes on-line. This will allow staff to continue working on the development of an on-site partner facility as a second step.

On February 10, 2022 and March 1, 2022, TPAC recommended and City Council subsequently approved an amended and restated design-build contract for the Dewatering Facility project at the RWF, respectively.³ The design and construction of the Dewatering Facility project is estimated to cost \$174.9 million and funding in the San José-Santa Clara Treatment Plant Capital Fund is included in the 2022-2023 Adopted Capital Budget and the 2023-2027 Capital Improvement Program.⁴ Completion of the Dewatering Facility project will enable the transition from an open-air drying operation to an enclosed mechanical dewatering process and the transition from disposal to beneficial use of the RWF's biosolids, in accordance with previously approved PMP and strategies.

Current and Future Biosolids Management

At the RWF, wastewater sludge currently undergoes anaerobic digestion to reduce the volume of organic material and generate methane gas. The digested material (biosolids) is then pumped to open-air lagoons where it stabilizes for approximately three and a half years before it is dried by the sun for approximately six months in open-air drying beds. Each fall, the sundried biosolids are hauled to the adjacent Newby Island Landfill and used as alternative daily cover. The active open-air lagoons and open-air drying beds take up more than 500 acres of land. During the fall of

¹ The memorandum that recommended approval of the Biosolids Transition Strategy can be accessed at https://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516437.

² The memorandum that recommended approval of the Dewatered Biosolids Management Strategy can be accessed at <https://sanjose.legistar.com/View.ashx?M=F&ID=9441134&GUID=94F73A21-B7D9-4880-B26E-51DF098D7360>.

³ The memorandum that recommended approval of the amended and restated design-build contract can be accessed at <https://sanjose.legistar.com/View.ashx?M=F&ID=10536199&GUID=7E8C4E25-7EFD-479C-99B5-335151F1F471>.

⁴ The 2022-2023 Adopted Capital Budget and 2023-2027 Capital Improvement Program can be accessed at <https://www.sanjoseca.gov/home/showpublisheddocument/91127/638024800016670000>.

2022, this process resulted in 3,587 truck trips to dispose of 66,911.87 tons of biosolids comprised of an average of 86.8% total solids.

Upon completion of the Dewatering Facility project, anticipated to be in 2025, biosolids will be pumped from the RWF's main operational area across Zanker Road where enclosed mechanical equipment (centrifuges) will remove some water to reduce the weight and volume of the material requiring transport. The Dewatering Facility will take up approximately 10 acres of land. The future process is anticipated to result in approximately 100,000 tons of biosolids comprised of 22% total solids in the first full year of the Dewatering Facility's operation. Assuming trucks transport an average of 22 tons per load, the new process will also result in an estimated 4,545 truck trips from the RWF per year. The tonnage and truck trips are expected to increase over the years as the RWF's flows and loads increase due to projected population growth and if there are changes in the treatment process (e.g., changing from conventional to chemically enhanced primary treatment, or the addition of fats, oil, and grease). New disposition contracts need to be in place before the Dewatering Facility starts operation. Newby Island Landfill will not accept biosolids that are less than 50% solids, and there are recent regulations that encourage beneficial use of biosolids.

SB 1383

In 2016, California enacted SB 1383 to reduce the emissions of short-lived climate pollutants, such as methane, that result from the landfill disposal of organic waste. SB 1383 set statewide diversion targets, including a 75% reduction in the amount of organic waste disposed in 2014 by 2025, to be achieved through regulations developed and enforced by the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle finalized the regulations in November 2020. The regulations went into effect on January 1, 2022.

SB 1383 regulations include biosolids in the definition of organic waste and require jurisdictions (i.e., cities, counties, and special districts that provide solid waste collection services) to take certain steps to increase the recycling of organic waste. For example, jurisdictions must use certain collection containers, conduct education and outreach to waste generators, implement an edible food recovery program, and use high diversion organics processing facilities. The regulations also establish annual procurement targets for jurisdictions based on the jurisdiction's population that can be met by procuring certain products produced from the diverted organic waste (i.e., compost, mulch, renewable gas, and/or electricity from biomass conversion). Although the regulations do not ban wastewater facilities from landfilling biosolids, they do encourage wastewater facilities to beneficially use biosolids. For example, renewable gas from a wastewater facility may only count toward a jurisdiction's procurement target if the wastewater facility diverts at least 75% of its biosolids from landfills and the wastewater facility meets a few other requirements.

2019 Market Assessment Conclusions

Staff conducted a biosolids disposition market assessment in 2019 to evaluate the changes in capacity and costs for biosolids disposition options since 2014. The market assessment included interviews of wastewater agencies, including the San Francisco Public Utilities Commission, East Bay Municipal Utility District, Union Sanitary District, City of Santa Rosa, City of Santa Cruz, and others, and service providers in Northern California. Based on the interviews, staff concluded that there was limited beneficial use capacity around the San Francisco Bay Area; no single service provider had sufficient capacity to manage all the RWF’s dewatered biosolids. Additionally, the costs to beneficially use biosolids had increased and staff anticipated the costs to continue increasing. In 2019, rates for land application ranged from \$20-\$60 per wet ton, rates for composting ranged from \$37-\$66 per wet ton, and rates for liquid fertilizer production ranged from \$65-85 per wet ton. These rates only accounted for beneficial use service costs, not transportation. Therefore, staff determined that early procurement of transportation and beneficial use services would ensure adequate capacity was secured in time, limit increases to the cost of services, and would allow service providers sufficient time to prepare to manage the RWF’s large amount of biosolids.

ANALYSIS

The City issued a Request for Proposals (RFP) on November 30, 2021, seeking proposals for transportation and beneficial use services to manage the RWF’s dewatered biosolids that will be produced starting during the commissioning of the Dewatering Facility. The solicitation number was PUR-RFP2021.11.10138. The City received five proposals by the March 4, 2022 deadline. A six-member panel evaluated the proposals. The evaluation panel consisted of staff from the cities of San José and Santa Clara, and a peer wastewater agency. The evaluation criteria, scores and ranking of the five proposers are listed in the subsequent table, Table 1. The maximum points possible for each criterion is indicated in parenthesis.

Table 1 – Final Scores of the Transportation and Beneficial Use Service Providers

Ranking	Company	Qualifications & Experience (15)	Approach / Reliability of Service (25)	Greenhouse Gas Emissions (5) ^a	Safety History (5)	Price Proposal (30) ^b	Oral Interview (10)	Local Business Enterprise (5)	Small Business Enterprise (5)	Total Score (100)
1	Denali Water Solutions, LLC	13	19	5	5	30	9	0	0	81
2	Synagro West, LLC	14	23	0	4	23	8	0	0	72
3	Lystek International Limited	13	23	5	2	3	9	0	0	55
4	Mannco Solutions of California LLC	5	7	4	5	26	6	0	0	53
5	Aries Clean Technologies LLC	2	2	3	5	5	5	0	0	22

Notes:

- a. Staff calculated greenhouse gas emissions estimates (metric tons of carbon dioxide equivalent per wet ton) considering the mode of transportation, site distances, processing technologies, and beneficial uses (including any potential carbon sequestration benefit) noted in each company's proposal. The company with the lowest estimated emissions received all the points, and the company with the highest emissions received zero points. Companies with emissions between the highest and lowest values were assigned points on a proportional basis.
- b. Pricing (cost per ton) and capacity (tons per year) information were separately scored and added together for the price score. Pricing received up to 50% of the maximum points and capacity received up to 50% of the maximum points. The company that offered the greatest capacity received all points for capacity. Points for capacity were proportionately allocated to companies that offered lesser capacity. The company that proposed the lowest cost per ton received all points for pricing, and the company that proposed the highest cost per ton received zero points. Companies with cost per ton values between the highest and lowest values proposed were assigned points on a proportional basis.

A notice of intended award was issued on June 2, 2022, and no protests were filed during the subsequent 10-day period.

As part of staff's due diligence, all customer references were checked. Staff also reviewed the litigation and dispute history and financial statements of the three highest ranked companies. No significant issues were discovered as part of this review.

During negotiations, staff confirmed each company's approach to managing the RWF's dewatered biosolids, the availability and capacity of the sites to be used, and clarified the commercial terms of the agreements in coordination with the Office of the City Attorney. Staff recommends proceeding with the award of agreements to the three highest ranked companies: Denali Water Solutions, LLC (Denali), Synagro West, LLC (Synagro), and Lystek International Limited (Lystek). All three companies are widely recognized and used by other wastewater agencies in the United States and Canada.

Denali has been providing residuals management services since it was founded as Terra Renewal in 1995. The original focus of the company was the handling and disposal of wastewater residuals from industrial plants. The focus expanded over time and the name of the company was changed. The company is now the second largest handler of municipal biosolids in the United States, the largest provider of industrial food processing residuals management, and operates in all 50 states. Among Denali's customers are the cities of Houston and Los Angeles, as well as San Francisco Public Utilities Commission and East Bay Municipal Utility District. In response to the RFP, Denali proposed using its employees to transport the RWF's dewatered biosolids and using a combination of land application sites and composting facilities to beneficially use the RWF's dewatered biosolids.

Synagro was founded in 1986 and its core business is the environmentally sound and economically viable management of municipal biosolids. Synagro is North America's leading biosolids service provider, managing more than 14 million tons of wastewater biosolids and other organic by-products annually. Synagro provides service to more than 150 customers in California including some of the largest wastewater agencies such as the Los Angeles County Sanitation Districts, Orange County Sanitation District, and East Bay Municipal Utility District.

In response to the RFP, Synagro proposed using subcontractors to transport the RWF's dewatered biosolids and using a combination of land application sites and composting facilities to beneficially use the RWF's dewatered biosolids.

Lystek was founded in 2000 with the development of a patented thermal hydrolysis process by industrial microbiologists at the University of Waterloo in Canada. Since then, Lystek has grown into North America's leading provider of thermal hydrolysis solutions for the beneficial and sustainable management of biosolids and organics. Lystek has been providing services to the wastewater community in the greater San Francisco Bay Area since 2016, when it began operating the Organic Material Recovery Center (OMRC) at the Fairfield-Suisun Sewer District. In response to the RFP, Lystek proposed using subcontractors to transport the RWF's dewatered biosolids and processing them further at the OMRC prior to beneficially using the liquid fertilizer product.

All three companies will be responsible for managing the RWF's dewatered biosolids in a manner that ultimately results in their beneficial use. They may apply the RWF's dewatered biosolids directly onto agricultural fields that have been permitted to receive biosolids. They may also process the RWF's dewatered biosolids further and use them as feedstock for compost or fertilizer manufacturing operations. The marketing, selling, and distribution of the final biosolids-containing product is part of their responsibility.

Scope of Services

The scope of services in the recommended agreements requires contractors to provide year-round transportation and beneficial use services to manage the RWF's dewatered biosolids, starting during the commissioning of the Dewatering Facility anticipated to be in late 2024 or early 2025.

Contractors must manage the RWF's dewatered biosolids containing a minimum of 17% total solids and meeting the *Standards for the Use or Disposal of Sewage Sludge* set by the United States Environmental Protection Agency (40 CFR Part 503) for metals and Class B biosolids. On the rare occasion that the RWF's dewatered biosolids do not meet some or all the applicable requirements, contractors must cooperate with the City to identify and transport to appropriate disposition options.

Contractors will be responsible for providing sufficiently skilled personnel (e.g., drivers with proper and valid licenses and certifications) and equipment (e.g., trucks and top-loading containers with covers) to load and transport dewatered biosolids from the RWF's Dewatering Facility on any given day (i.e., 24 hours per day, seven days per week, 365 days per year, including holidays). The schedule to pick up loads from the RWF's Dewatering Facility will be coordinated with staff in advance.

Each contractor will manage its allocation of the RWF's dewatered biosolids in a beneficial manner; however, once loaded into truck containers, it will be each contractor's discretion to determine whether the RWF's dewatered biosolids are land applied, processed further, or a

combination. Contractors will only be allowed to use enclosed composting processes to ensure the transportation and beneficial use of the RWF’s dewatered biosolids resulting in fewer greenhouse gas emissions than the RWF’s current process. While open windrow composting is usually the most cost-effective composting process on a commercial-scale, it also tends to have the highest fugitive emissions of greenhouse gasses compared to other/enclosed composting processes (e.g., covered aerated static pile composting and in-vessel composting). Contractors may also temporarily store (e.g., during wet weather) the RWF’s biosolids prior to beneficially using them. Contractors must maintain sufficient permitted capacity at their beneficial use sites to manage the portion of the RWF’s dewatered biosolids allocated to them. Contractors may not direct the RWF’s dewatered biosolids to any landfill without the City’s pre-approval. Staff will only consider the use of a landfill as a last resort during an emergency.

Contractors will also be required to provide reports to the City to support the City’s annual reporting requirements to regulatory agencies.

Rates

Each contractor will be compensated based on two all-inclusive rates—one for their services during the Dewatering Facility’s commissioning period (expected to last a maximum of six months) and another for services during the Dewatering Facility’s normal operations (i.e., after project completion). The agreements allow for these rates to be adjusted based on changes in the consumer and diesel fuel price indices.

Biosolids are not anticipated to be put through the Dewatering Facility’s equipment until near the end of the project’s commissioning period. Services during the Dewatering Facility’s commissioning are expected to span three to six months. During that period, the total solids of the RWF’s dewatered biosolids may vary due to the ongoing testing and fine tuning of the equipment, and drivers may need to spend more time on-site, therefore the need for a separate rate. During normal operations, the RWF’s dewatered biosolids are expected to be more consistent and loading is expected to take no more than an hour for each truck.

The rates negotiated with Denali, Synagro, and Lystek vary as each company will reserve a different capacity and will manage the RWF’s dewatered biosolids differently. The rates negotiated with Denali, Synagro, and Lystek are listed in the subsequent table, Table 2.

Table 2 – Negotiated Rates with the Three Highest Ranked Companies

Company	Negotiated Rates (per wet ton)	
	Services During the Dewatering Facility’s Commissioning	Services During the Dewatering Facility’s Normal Operations
Denali	\$101.00	\$89.70
Synagro	\$91.24	\$88.47
Lystek	\$234.00	\$156.00

The rates negotiated for transportation and beneficial use services during the Dewatering Facility’s normal operations are comparable to the land application and composting rates

currently paid by several Northern California wastewater and the rates paid by the agencies surveyed in 2019 for the same type of services when those rates are adjusted based on changes in the Consumer Price Index and to include a transportation cost, including San Francisco Public Utilities Commission and East Bay Municipal Utility District.

Lystek's rates are higher due to its different management approach, which results in the production and use of a registered fertilizer, and the inclusion of transportation costs in its rates, which is a service it does not usually provide to other customers. Staff recommends awarding a minor portion of the RWF's dewatered biosolids to Lystek due to the advantages and risk reduction its management approach provides. Lystek's facility is located close to the RWF, is available year-round, and can receive the RWF's dewatered biosolids even if they do not meet the percent total solids or Class B specifications. Also, staff considers Lystek to offer resiliency against potential future changes in the biosolids market. Lystek's product is registered as a fertilizer with the California Department of Food and Agriculture, which allows it to be more widely distributed and land applied than Class B biosolids.

It must also be noted that rates for biosolids management have been rising in the last few years because of increased demand for beneficial use services as more wastewater agencies seek to shift away from landfills for biosolids management, partly in recognition that biosolids are valuable resources and in response to SB 1383. Therefore, staff recommends executing these agreements to secure capacity and lockdown competitive service rates for the RWF early and in advance of the Dewatering Facility's operation.

Available Capacities and Tonnage Allocations

The RWF is the largest producer of biosolids in the San Francisco Bay Area on a dry ton basis. Thus, in consideration of the 2019 biosolids disposition market assessment finding that no single provider had sufficient capacity to manage all the RWF's dewatered biosolids and the PMP's goal to diversify the RWF's disposition options, the RFP noted that the City planned to award more than one agreement and that the amount of the RWF's dewatered biosolids allocated to each awardee would be at the City's discretion.

Staff recommends allocating approximately 35% of the RWF's annual dewatered biosolids to Denali, approximately 57% to Synagro, and approximately 8% to Lystek. To determine the portion of the RWF's dewatered biosolids to allocate to Denali, Synagro, and Lystek, staff considered the primary and backup beneficial use sites each company proposed to manage the RWF's dewatered biosolids, the sites' year-round availability and current permitted capacity, and service rates. The recommended allocation provides the best diversification in terms of service providers and disposition sites. The recommended allocation should also provide good reliability to the RWF as Synagro and Lystek operate a few sites that are available year-round. Denali is currently developing a composting facility in Alameda County that will be available year-round once construction is completed, which is anticipated to be before the end of 2024. The disposition sites planned to be used by Denali, Synagro, and Lystek are summarized in the

subsequent table, Table 3, along with the estimated daily truck loads that correspond to their respective recommended allocation.

Table 3 – Disposition Sites, Recommended Allocations and Corresponding Truck Trucks

Company	Recommended Allocations ^a	Approximate Daily Truck Loads ^b	Disposition Sites	
			Primary Beneficial Use Sites	Backup Sites
Denali	35%	4-5	<ul style="list-style-type: none"> •Land application sites in Merced County (available during dry weather) •Possibly Jess Ranch Compost Facility in Alameda County (under development, will be available year-round) 	<ul style="list-style-type: none"> •Landfill (requires City pre-approval)
Synagro	57%	7	<ul style="list-style-type: none"> •Land application sites in Sacramento County (available year-round), Merced County (available during dry weather), and Solano County (available mid-April to mid-October) •Liberty Compost Facility in Kern County (available year-round) 	<ul style="list-style-type: none"> •Other beneficial use sites operated in California (further away than primary sites)
Lystek	8%	1	<ul style="list-style-type: none"> •Thermal hydrolysis processing at Fairfield OMRC (available year-round; fertilizer product sold in bulk for land application in Solano, Yolo, and Colusa counties) 	<ul style="list-style-type: none"> •Temporary storage at Fairfield OMRC •Yolo Composting Facility

Notes:

- It is estimated the RWF will produce 95,000 to 122,000 wet tons of biosolids comprised of 22% total solids on average each year during the term of the agreements.
- The daily truck load amounts assume the RWF produces 100,000 wet tons a year and that trucks can transport an average of 22 tons per load.

In the event there are significant future changes in the permit status or availability of disposition sites used by Denali, Synagro, or Lystek, staff recommends delegation of authority to the City Manager or their designee to amend the percentage of the RWF’s dewatered biosolids allocated in the agreements.

Agreements

The exemplar dewatered biosolids transportation and beneficial use service agreement issued with the RFP was developed using as a basis the City’s general terms and conditions, City’s commercial solid waste agreements, and sample biosolids service agreements from a few nearby and/or large wastewater agencies.

The recommended agreements will expire on June 30, 2029, and are extendable for up to two, two-year terms through June 30, 2033. The optional term extensions provide the City flexibility during the implementation of the Dewatered Biosolids Management Strategy, particularly the development of an on-site partner facility which is intended to be the RWF’s long-term plan for biosolids management. If the on-site partner facility is not operational by 2029, staff could procure new service agreements or could extend the term of the recommended agreements. Staff

will return to City Council if extending the term of any agreement requires an increase to the combined maximum compensation total of the recommended agreements.

All agreements require the contractors to provide and maintain commercial general liability, automobile liability, workers' compensation and employers' liability, and pollution liability insurance throughout the term of the agreement. All agreements also require the contractors to provide payment and performance bonds in an amount not less than their respective estimated annual compensation immediately after agreement execution and maintain them through the term of agreements.

CONCLUSION

Consistent with the approved Biosolids Transition Strategy and Dewatered Biosolids Management Strategy and based on the evaluation of proposals and negotiations with the three highest ranked companies, staff recommends awarding dewatered biosolids transportation and beneficial use service agreements to Denali, Synagro, and Lystek. Staff recommends that each company manage a different percentage of the RWF's dewatered biosolids based on their respective beneficial use sites, capacities, and service rates. Approval of the transportation and beneficial use service agreements will provide reliability, secure capacity, and set competitive service rates in advance of the Dewatering Facility's operation.

EVALUATION AND FOLLOW-UP

Funding for the Dewatering Facility's operating costs, such as the costs resulting from the transportation and beneficial use services, will be requested as part of future budget processes, and will be brought forward to TPAC and City Council for further consideration.

CLIMATE SMART SAN JOSE

The recommendation in this memorandum aligns with one or more Climate Smart San José energy, water, or mobility goals.

POLICY ALTERNATIVES

Alternative #1: Only award agreements to Denali and Synagro to manage 35% and 65% of the RWF's dewatered biosolids production, respectively.

Pros: Annual transportation and beneficial use costs would be less.

Cons: Having two contractors, instead of three, would result in access to fewer beneficial use sites and less diversification in the types of beneficial use sites.

Reason for not recommending: Having fewer contractors could result in less operational flexibility, as Lystek offers one of the closest beneficial use sites to the RWF that is available year-round and can receive the RWF's dewatered biosolids even if they do not meet the percent

solids or Class B specifications. Staff also considers the higher service rates from Lystek to be reasonable, as its service involves further processing and the subcontracting for transportation services, which it does not typically do for its customers.

Alternative #2: Cancel this procurement and delay the award of dewatered biosolids transportation and beneficial use service agreements to closer to the completion of the Dewatering Facility.

Pros: The City may be able to obtain proposals from other companies.

Cons: Companies recommended for award might not propose (e.g., they will lose interest and/or have no remaining capacity). Service rates may be higher due to additional market escalation. There is a risk that the future award will not be completed prior to the start of the Dewatering Facility's commissioning start when such services will be needed.

Reason for not recommending: Postponing the award of dewatered biosolids will likely result in fewer proposals, and proposals from companies with lesser available capacities and/or sites that are further away, which will likely result in increased operating costs for the RWF. Awarding the recommended agreements facilitates the planning for the RWF's operating budget.

Alternative #3: Continue with the RWF's current biosolids management practices (i.e., continue sending biosolids to the RWF's lagoons and drying beds, and then Newby Island Landfill).

Pros: The cost to dispose of the RWF's sundried biosolids is 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: Contradicts past decisions, such as the approval of the PMP, Biosolids Transition Strategy, Dewatered Biosolids Management Strategy, and amended and restated design-build contract for the Dewatering Facility which is now in construction. Disregards resources committed and expended to date on the Dewatering Facility and this procurement and will likely result in increased operating costs for the RWF due to escalation as transitioning away from Newby Island Landfill is inevitable (e.g., due to its closure or future regulations). Prevents the retirement of the active lagoons, which are a source of greenhouse gas emissions. Prevents the RWF from achieving its odor goals. Does not align with the intent of SB 1383. May hinder the RWF's ability to respond to future regulatory or market changes concerning disposal, greenhouse gas emissions, and odors. 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.

Reason for not recommending: Continuing with the RWF's current biosolids management practices does not align with past decisions made by TPAC and City Council. There will be no significant cost savings in the long run, since potential near-term operational savings will likely be offset by higher operational costs in the future. The City would eventually still need to identify another disposition site for the RWF's sundried biosolids if the City does not operate the Dewatering Facility in time to allow the complete emptying of the lagoons and drying beds before Newby Island Landfill's closure. There are limited beneficial use options for the RWF's sundried biosolids because the multi-year process results in biosolids with very little moisture.

PUBLIC OUTREACH

The RFP was advertised on Biddingo on November 30, 2021. This memorandum will be posted on the City’s Council Agenda website for the December 13, 2022 City Council meeting.

COORDINATION

This memorandum has been coordinated with the Office of the City Attorney, City Manager’s Budget Office, and the Planning, Building, and Code Enforcement Department.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the December 8, 2022 TPAC meeting. A supplemental memorandum with the Committee’s recommendation will be included in the amended December 13, 2022 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

The recommended agreements are consistent with the City Council-approved budget strategy to focus on the rehabilitation and replacement of critical infrastructure and equipment at the RWF and to improve operational efficiency.

COST SUMMARY/IMPLICATIONS

1.	AMOUNT OF RECOMMENDATION:	\$55,300,000
	Estimated Fiscal Year Costs:	
	22-23	0
	23-24	0
	24-25	5,200,000
	25-26	11,200,000
	26-27	12,000,000
	27-28	13,000,000
	28-29	13,900,000
	<hr/>	
	Cumulative Total Cost:	\$55,300,000
2.	COST ELEMENTS:	
	Estimated Transportation and Beneficial Use Service Costs:	
	Denali	18,400,000
	Synagro	29,600,000
	Lystek	7,300,000
	<hr/>	
	Cumulative Total Cost:	\$55,300,000

3. SOURCE OF FUNDING: San Jose/Santa Clara Treatment Plant Operations & Maintenance Funds (Fund 513)
4. FISCAL IMPACT: As stated in the memorandum that recommended the approval of the amended and restated design-build contract for the Dewatering Facility, operations, and maintenance (O&M) costs in Fund 513 - San José-Santa Clara Treatment Plant Operating Fund are anticipated to increase upon completion of the Dewatering Facility. The dewatered biosolids transportation and beneficial use services are anticipated to begin in late 2024 or early 2025, during the Dewatering Facility's commissioning. Thus, only half of the estimated annual costs are anticipated for fiscal year 2024-2025. Thereafter, service costs are estimated to increase by approximately 7.5% per year due to tonnage increases and inflation (i.e., increases in consumer and diesel fuel indices).

In the first full year of operation, currently anticipated to be fiscal year 2025-2026, the total Dewatering Facility operational cost is estimated at approximately \$15-16 million. Of this cost, approximately \$11 million is due to the transportation and beneficial use of the dewatered biosolids, and an additional \$4-5 million is due to labor, electricity, chemicals (e.g., polymer), parts, and vendor/contractor services. These amounts are consistent with the amounts stated in the memorandum that recommended approval of the amended and restated design-build contract for the Dewatering Facility.

Currently, the RWF's total cost for sundried biosolids is approximately \$5 million. Of this total cost, approximately \$1.3 million to \$1.5 million per year is due to hauling and disposal at Newby Island Landfill. During the initial four years after the Dewatering Facility's completion, both the new facility and current operations will run concurrently until the active lagoons and drying beds can be emptied and retired at which point the current cost of disposal will be eliminated. Therefore, the total O&M cost annually during this four-year period is approximately \$20 million. Ongoing O&M costs for the Dewatering Facility will be requested as part of future budget processes. The increase in the operating costs due to the completion of the Dewatering Facility will be included in future rate calculations for the City of San José Sewer Service and Use Charge.

CEQA

Addendum to the Environmental Impact Report for the San José - Santa Clara Water Pollution Control Plant Master Plan (SCH #2011052074), Biosolids Disposition Project, File No. ER20-129.

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Mariana Chavez-Vazquez, Deputy Director, Environmental Services Department, at (408) 635-4008.