



City of Palo Alto

City Council Staff Report

(ID # 8913)

Report Type: Consent Calendar

Meeting Date: 6/18/2018

Summary Title: Approve Three Public Works Contracts for Sludge Hauling and Offsite Treatment Services

Title: Approval of Three General Services Contracts for Approximately \$2.0 Million per Year in Annual Expenses in the Wastewater Treatment Enterprise Fund: a Contract With Denali Water Solutions, LLC for Sludge Hauling Services in an Amount Not to Exceed \$2,181,000 for a 3-Year Term; and a Contract With Lystek International Limited in an Amount Not to Exceed \$3,649,000 and a Contract With Synagro-WWT, Inc. in an Amount Not to Exceed \$3,415,000, Both for Offsite Sludge Treatment Services for a 5-Year Term

From: City Manager

Lead Department: Public Works

Recommendation

Staff recommends that Council approve and authorize the City Manager or his designee to:

1. Execute the attached contract with Denali Water Solutions, LLC (Attachment A) in an amount not to exceed \$2,181,000 for sludge hauling services for the Regional Water Quality Control Plant (RWQCP) for a term of three years;
2. Execute the attached contract with Lystek International Limited (Attachment B) in an amount not to exceed \$3,649,000 for sludge treatment services for the RWQCP for a term of five years; and
3. Execute the attached contract with Synagro-WWT, Inc. (Attachment C) in an amount not to exceed \$3,415,000 for sludge treatment services for the RWQCP for a term of five years.

Background

Council approved retiring the City's two 46-year-old sewage sludge incinerators (Staff Report ID#8487) as a key to reducing carbon dioxide emissions by over 12,000 metric tons annually. To fully retire the sludge incinerators, construction of the sludge dewatering and truck loadout facility must be completed and contracts for hauling and treatment of resultant sludge established.

The Regional Water Quality Control Plant (RWQCP) has operated sewage sludge incinerators since 1972 and currently requires a weekly pickup of the resultant residual ash, which is managed by the City's contractor PSC Industrial Outsourcing as a state hazardous waste and placed in a hazardous waste landfill ([Staff Report ID# 6696](#) and [ID# 8062](#)).

Discussion

To replace the sewage sludge incinerators, a Sludge Dewatering and Truck Loadout Facility ([Staff Report ID# 7871](#)) is under construction. When complete, ash disposal will be replaced with a sludge hauling contract and two different regional sludge treatment facility operator contracts for daily treatment and end use of generated sludge.

To retire the incinerators in early 2019, startup testing of the RWQCP's new sludge dewatering and truck loadout facility is expected in September 2018 with full startup in the succeeding months. For testing and full startup, contracts must be in place to haul sludge and treat approximately 25,000 annual wet tons of sludge to USEPA standards at regional treatment facilities. Lystek, one of the sludge treatment facilities identified for contract award, must complete some minor capital improvements prior to receiving sludge from the RWQCP, which is why Council approval of these contracts is required now rather than closer to startup.

Public Works staff utilized a Request for Proposal (RFP) to solicit proposals for hauling and treating the RWQCP's sludge for terms of three and five years, respectively. On September 1, 2017, the City posted the RFP notice for General Services for the RWQCP Sludge Hauling and Treatment. Proposers were given the option of proposing for either sludge hauling, sludge treatment, or both services. The solicitation period was 77 days. On November 17, 2017, six proposals were received.

Summary of Solicitation Process

Proposal Title/Number	General Services for Sludge Hauling and Treatment RFP 169607
Proposed Length of Project	36 months – sludge hauling 60 months – sludge treatment
Number of Notices sent to Vendors via City's eProcurement system	511
Number of solicitation packages Downloaded by Vendors	26
Total Days to Submit Proposal	77
Pre-Proposal Meeting	N/A
Number of proposals Received:	6
Number of Companies Interviewed	4
Range of Proposal Amounts (\$/wet ton)	\$16.40 – \$34.50 Sludge Hauling \$35.00 – \$85.00 Sludge Treatment

Evaluation of Proposals

An evaluation committee consisting of three Public Works staff was formed to review the proposals and conduct interviews. The committee carefully reviewed each firm's qualifications and submittal in response to the criteria identified in the RFP. Proposers had the option of proposing on hauling and/or treatment. While some vendors are capable of both, no proposals were received from a single vendor for both. The committee interviewed the lowest cost sludge hauler and all three treatment facility proposers.

Sludge Hauling

Staff recommends the proposal submitted by Denali Water Solutions, LLC (Denali) based on experience and cost-effectiveness required at the RWQCP. Denali is a large residual biosolids management company that has worked with each of the recommended treatment facilities and served many other similar organizations including the City of San Mateo, City of Santa Cruz, Los Angeles County Sanitation District, City of Los Angeles, and Orange County Sanitation District. Of the three proposals, Denali provided the lowest cost hauling unit price to each of the three treatment facilities. A cost comparison is included below.

	Hauler Unit Price: US \$/Wet Ton of Sludge			Increases	
Hauler	EBMUD	Lystek	Synagro	Year 2 Increase	Year 3 Increase
Denali	\$16.40	\$24.40	\$27.90	CPI-U	CPI-U
Lone Tree	\$18.25	\$25.00	\$29.60	3.0%	4.0%
S&S	\$18.40	\$26.45	\$34.50	4.0%	4.0%
	Year 1 Price Calculation to Haul 25,000 TPY				
Hauler	EBMUD	Lystek	Synagro		
Denali	\$410,000	\$610,000	\$697,500		
Lone Tree	\$456,250	\$625,000	\$740,000		
S&S	\$460,000	\$661,250	\$862,500		
CPI-U = Consumer Price Index – Urban Wage Earners and Clerical Workers TPY = wet tons of sludge per year					

Hauling unit prices relate to distance and route logistics from RWQCP to the treatment facility (e.g., costs and time for toll bridges, CHP weigh stations, and traffic). The requested contract not to exceed amount of \$2,181,000 for Denali to haul sludge is based on all of the wet tons of sludge hauled to the more distant Synagro treatment facility at \$27.90 per wet ton of sludge in the event that the Lystek treatment facility is unavailable. The estimated total volume processed in contract year one is 25,000 wet tons, contract year two is 25,750 wet tons and contract year three is 26,523 wet tons.

The term of the contract includes a short period for test loads during the startup phase and three years of daily hauling services after full startup.

Sludge Treatment

Staff believes that the proposals submitted by Lystek and Synagro fit the overall cost, experience, and operational flexibility needed at the RWQCP. Each treatment facility site is successfully handling large quantities of sludge. The unit price cost summary of all three facilities is included below.

Site	Min Tons TPY ¹	Max Tons TPY ¹	Unit Price US \$/WT ¹	Years 2 to 5 Increase	Notes
EBMUD	-- ³	-- ³	\$80.00	CPI-U ²	3, 4

Lystek	15001	25000+	\$68.00	3.0%	
	6501	15000	\$71.00	3.0%	
	6500	6500	\$85.00	3.0%	
Synagro	12501	25000+	\$35.00	2.0%	
	10000	12500	\$37.00	2.0%	
¹ TPY = wet tons of sludge per year; WT = wet tons ² CPI-U = Consumer Price Index - Urban Wage Earners and Clerical Workers ³ 1 truck/day min & max; truck load is 21-24 WT / load (appx. 7602-8688 TPY) ⁴ 1 truck/day min does not apply to Thanksgiving, Christmas, and New Years' Day					

EBMUD

EBMUD is a municipal utility district located in Oakland, approximately 37.5 miles one-way from the RWQCP. EBMUD provides wastewater treatment service to 685,000 people in Oakland, Berkeley, and other East Bay communities. EBMUD uses eleven anaerobic digesters (1.8 million gallons each) and runs a two-stage digestion process in the thermophilic temperature range to produce a USEPA Class B product (16,284 dry metric tons in 2016). After dewatering in one of five centrifuges, the biosolids are hauled offsite in dry weather season for land application on farms in Merced County, primarily forage crops and apple trees, approximately 130 miles from the EBMUD facility. When land application is not available due to wet weather regulatory constraints, the biosolids are used as landfill "alternative daily cover" (ADC) approximately 45 miles from the EBMUD facility. EBMUD is working to innovatively phase out ADC disposal over time as regulations change. In 2018, EBMUD's contracted hauling plan is for 25% ADC and 75% land application in Merced County. EBMUD's digesters convert sludge into biogas. EBMUD has 11 megawatts of production capacity. EBMUD uses the electricity from the biogas for 100% of EBMUD's onsite demand. Since 2012 surplus electricity has been delivered to the electrical grid for sale to the Port of Oakland via a Power Purchase Agreement. EBMUD provides the Port of Oakland Renewable Energy Credits to help the Port of Oakland meet its Renewable Portfolio Standards obligations as a Publicly Owned Utility.

Lystek

Lystek is a corporation and has a sludge treatment facility approximately 82 miles from the RWQCP, located at the Fairfield-Suisun Sewer District (FSSD) site under a 20-year lease that ends January 1, 2036. FSSD is a special district. Lystek has treated sludge from the City of San Francisco, EBMUD, Marin County, City of

Petaluma, City of Santa Rosa, and other Bay Area agencies. Lystek is annually processing 50,000 wet tons of trucked-in sludge; Lystek's total processing capacity of 150,000 annual wet tons is more than sufficient for Palo Alto's additional sludge. Lystek uses a low-temperature hydrolysis process involving high-speed shearing, alkali, and low pressure, low-temperature steam injection. Up to 8,400 tons per year of Palo Alto's sludge would make a product (branded as LysteMize) that would be added to the FSSD anaerobic digesters. LysteMize will help FSSD reduce volatile solids, improve biogas and electricity yields, decrease residual biosolids volumes, and reduce FSSD's demand from PG&E for both natural gas and electricity by meeting onsite electric energy demands when combusting the extra biogas in FSSD's engine generators. The final product of all sludge sent to Lystek and from the FSSD anaerobic digesters is a USEPA Class A product (i.e., Lystek's LysteGro product, which is a registered fertilizer with California Department of Food and Agriculture). LysteGro is land applied year-round within 100 miles of the Lystek facility. LysteGro is not subject to local ordinances that limit land application of USEPA Class B sludge to the dry season only; it can be applied year-round.

To keep Palo Alto's sludge separate from other Class B trucked-in sludge, Lystek needs six months to prepare a new receiving station and adapt processing equipment. Lystek has informed the City that the capital cost for the new equipment is \$1.8 million, which is built into the unit price of sludge. If Palo Alto terminates the contract for convenience, the City will be contractually obligated to pay Lystek the documented capital costs as an expense for the convenience of early termination. Because the capital costs are built into the unit price, the amount due and payable by the City would be up to \$30,000 per month for each month remaining over the 60 month term. This reimbursement provision for early termination is unique to Lystek.

Synagro

Synagro is a corporation and operates a number of sludge composting facilities in the US including the El Nido Central Valley Composting (CVC) facility located in Dos Palos, approximately 114 miles from RWQCP. CVC uses an open windrow processing method that combines RWQCP sludge with a bulking agent (primarily green waste and wood waste). High temperature aerobic composting will convert RWQCP sludge into a USEPA Class A product that is sold in bulk to the region's agricultural market; the product is typically land applied within 30 miles of the

Synagro CVC facility. Synagro’s compost is not subject to local ordinances that limit land application of USEPA Class B sludge to the dry season only; it can be applied year-round. The CVC facility is permitted by CalRecycle to handle up to 100,000 tons per year of feedstock. The CVC has serviced the City of Fresno, City of Sunnyvale, Silicon Valley Clean Water in Redwood City, City of San Francisco, Union Sanitary District in Union City, South County Regional Wastewater Authority serving Gilroy and Morgan Hill, and the Delta Diablo Sanitation District in Antioch.

Combined Sludge Haul and Treatment

The results of combining the unit prices for haul and treatment costs at the tonnage restrictions of each facility are summarized below.

Site	Min Tons TPY¹	Max Tons TPY¹	Year 1 Unit Price US \$/WT¹	Years 2 to 5 Increase
EBMUD	-- ^{3,4}	-- ^{3,4}	\$96.40	CPI-U ²
Lystek	15001	25000+	\$92.40	3.0%
	6501	15000	\$95.40	3.0%
	6500	6500	\$109.40	3.0%
Synagro	10000	12500	\$64.90	2.0%
	12501	25000+	\$62.90	2.0%
¹ TPY = wet tons of sludge per year; WT = wet tons ² CPI-U = Consumer Price Index - Urban Wage Earners and Clerical Workers ³ 1 truck/day min & max; truck load is 21-24 WT / load (appx. 7602-8688 TPY) ⁴ 1 truck/day min does not apply to Thanksgiving, Christmas, and New Years’ Day				

RWQCP produces approximately 25,000 wet tons per year of sludge at 28% dryness (i.e., 72% water) but this estimate is expected to increase primarily based on increases in sewershed residential and daytime population but also based on dewatering characteristics, wet-weather debris loads, and wastewater treatment process upgrades. After meeting the minimum 10,000 per year (Synagro) and 6,500 per year (Lystek) tonnage commitments, RWQCP sludge will be directed to Synagro due to their lower overall prices; an additional 1,900 tons per year will be directed to Lystek (8400 tons per year total) to maximize biogas production from the LysteMize product.

The summary table below reflects total annual costs based on a split of approximately one-third to Lystek and two-thirds to Synagro and includes annual fee increases.

Estimated Annual Contract Expenses in \$ (000)/Contract Year For All Three Contracts Based on 25,000 – 28,138 TPY¹						
Site	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Lystek Tons	8,400	8,400	8,400	8,400	8,400	42,000
Synagro Tons	16,600	17,350	18,123	18,918	19,738	90,728
Total Tons	25,000	25,750	26,523	27,318	28,138	132,728
Denali ^{2, 3}	\$706	\$727	\$748	\$771	\$793	\$3,745
Lystek	\$687	\$708	\$729	\$751	\$774	\$3,649
Synagro	\$601	\$640	\$681	\$724	\$769	\$3,415
Total	\$1,994	\$2,075	\$2,158	\$2,246	\$2,336	\$10,809

1. TPY = wet tons of sludge per year, increasing at 3% per year
2. Denali contract (Years 1-3 only)
3. Denali successor for years 4-5 at an estimated CPI-U 2.75% increase

Contingency for Force Majeure Situations and Regulatory Changes

Unit prices will govern each agreement up to the authorized not to exceed amounts and pursuant to tonnage minimums as well as actual production of RWQCP sludge. A force majeure may limit sludge disposal options (e.g., damaged roadways, earthquake damage, process breakdowns, new regulatory constraints, etc.). In these three contracts, Palo Alto has the benefit of diversified disposal options at Lystek and Synagro, as well as two landfill sites identified by Denali. In the event sludge deliveries must be suddenly increased to one of the two treatment facilities, notification timelines for each agency are constrained. The RWQCP's 24/7 production of sludge requires a disposal option be activated and available within one to two days, depending on RWQCP's available onsite storage. The contracted hauler, Denali, has listed two landfills as emergency backup should the two treatment facilities be unavailable. Every effort will be made to limit landfill use; use of landfills is problematic because it works against City zero waste policies rather than beneficial reuse; landfill disposal prices are not guaranteed; there are operational and regulatory constraints using a landfill for sludge disposal; and because the landfill would only consider sludge disposal acceptable in short-term emergency situations due to limited ongoing capacity.

For operational testing purposes, one truckload every contract year (approximately) will be directed to the two landfills. Approximate unit prices for combined hauling and disposal at the landfills are listed below:

- Portrero Hills Landfill in Suisun City - \$57/wet ton
- Altamont Landfill in Livermore - \$63/wet ton

At this time, neither Lystek nor Synagro has capacity restrictions impacting additional RWQCP sludge, but EBMUD does. EBMUD's proposal includes a minimum and maximum daily limit of one truck per day through January 2019 and thereafter a maximum of eight loads per week, two loads per day, and four loads per rolling three-day period without prior approval. While these constraints might be workable, they lead to more complex sludge management obligations for the RWQCP. Though EBMUD is planning improvements to eliminate capacity restrictions, these constraints would be in place for the foreseeable future. Lystek has onsite sludge drying beds that serve as a secondary backup should the main processing facility be unavailable. Synagro and Lystek can both receive all the RWQCP produced sludge.

Both Lystek and Synagro produce sludge meeting USEPA Class A standards (Attachment E) suitable for year-round land application, while EBMUD produces a USEPA Class B sludge and utilizes alternative daily cover (ADC) as a disposal practice. Approximately 50% of dry biosolids in the region are disposed of as ADC. Various regulatory drivers are indicating the biosolids used as ADC will be phased out during the five-year contract term (e.g., CARB Short-Lived Pollutant Reduction Strategy, AB341, CalRecycle rules for green waste disposal which may have indirect impacts on sludge disposal, and SB1383). These regulatory changes and practical bans will not impact Lystek and Synagro, however EBMUD will require a contract re-opener; the additional costs (estimated at \$7 to \$10/wet ton) would be passed on to Palo Alto.

Considering the regulatory drivers, tonnage commitments, operational flexibility, and cost, staff recommends Synagro and Lystek as the two treatment facilities for Palo Alto's sludge.

Long-Term Onsite RWQCP Biosolids Handling

A long-term biosolids treatment solution was established with the October 2014

Biosolids Facilities Plan. In that plan, generation of USEPA Class A biosolids and RWQCP onsite energy production with pretreatment via thermal hydrolysis was selected as the desired technology. Completion of a preliminary design led to an updated cost estimate of \$75M for the complete system, significantly higher than the \$57M originally estimated.

Staff will continue to work with neighboring plants, technology providers, and the RWQCP partner agencies on emerging technologies (such as gasification and pyrolysis, which may be more compatible with RWQCP's small footprint constraints) and cooperative treatment/disposal solutions to maximize the cost efficiency of biosolids disposal for environmental benefit and an update to the Biosolids Facilities Plan prepared to re-evaluate long-term onsite treatment options.

Biosolids have some potential fuel value in pyrolysis systems. Currently, the wastewater treatment plant in Redwood City (Silicon Valley Clean Water (SVCW)) is in partnership with BioForceTech Corporation to operate a low-energy biosolids dryer followed by a BAAQMD permitted pyrolysis system. The dryer and pyrolysis units have been constructed and are operating. Dewatered wastewater solids from RWQCP have been sent to SVCW for testing. Results were promising, and the BioForceTech technology is a potential candidate for onsite treatment of RWQCP sludge. The Lystek treatment process is another small footprint technology that could be evaluated for potential effectiveness with RWQCP sludge.

Staff will continue to follow the development of these and other new technologies and if possible, recommend a new onsite biosolids treatment technology to Council. If not, staff will return to Council for approval on new contracts to continue sludge hauling and treatment operations.

Resource Impact

Funds for the first year of the contracts have been appropriated in the FY 2019 Wastewater Treatment Enterprise Fund operating budget. Funds for years two through five are contingent upon Council approval of budget for each subsequent year.

Policy Implications

This recommendation does not represent any change to existing City policies.

Environmental Review

The activity that is the subject of the proposed contracts was evaluated in the environmental review for the sludge dewatering and loadout facility under provisions of the California Environmental Quality Act (CEQA). An Initial Study/Mitigated Negative Declaration was prepared for the project, and Council approved the environmental documentation on March 28, 2016 ([SR ID # 6424](#)).

Attachments:

- Attachment A - Denali Contract
- Attachment B - Lystek Contract
- Attachment C - Synagro Contract
- Attachment D - Key Terms

CITY OF PALO ALTO CONTRACT NO. C18169607A**GENERAL SERVICES AGREEMENT**

THIS AGREEMENT made and entered into on the 18th day of June, 2018, by and between the **CITY OF PALO ALTO, a California chartered municipal corporation** ("CITY"), and **Denali Water Solutions, LLC**, a Delaware Limited Liability corporation, located at 3031 Franklin Avenue, Riverside, CA 92507, Telephone Number: 714-799-0801 ("**CONTRACTOR**"). In consideration of their mutual covenants, the parties hereto agree as follows:

1. **SERVICES.** CONTRACTOR shall provide or furnish the services (the "Services") described in the Scope of Services, attached at Exhibit A.

☐ Optional On-Call Provision (This provision only applies if checked and only applies to on-call agreements.)

Services will be authorized by CITY, as needed, with a Task Order assigned and approved by CITY's Project Manager. Each Task Order shall be in substantially the same form as Exhibit A-1. Each Task Order shall designate a CITY Project Manager and shall contain a specific scope of work, a specific schedule of performance and a specific compensation amount. The total price of all Task Orders issued under this Agreement shall not exceed the amount of Compensation set forth in Section 5 of this Agreement. CONTRACTOR shall only be compensated for work performed under an authorized Task Order and CITY may elect, but is not required, to authorize work up to the maximum compensation amount set forth in Section 5.

2. **EXHIBITS.** The following exhibits are attached to and made a part of this Agreement:

- ☒ "A" - Scope of Services
- ☒ "A-1" - Palo Alto Sludge Characteristics
- ☒ "A-2" - Construction Contractor (C. Overra Co.) Cake Storage Bin Loadout Testing Hauler Coordination Required
- ☒ "B" - Schedule of Performance
- ☒ "C" - Schedule of Fees
- ☒ "D" - Insurance Requirements
- ☒ "E" - Performance and/or Payment Bond

CONTRACT IS NOT COMPLETE UNLESS ALL INDICATED EXHIBITS ARE ATTACHED.

3. TERM.

The term of this Agreement is from September 1, 2018 to March 31, 2022 inclusive, subject to the provisions of Sections R and W of the General Terms and Conditions.

4. SCHEDULE OF PERFORMANCE. CONTRACTOR shall complete the Services within the term of this Agreement in a reasonably prompt and timely manner based upon the circumstances and direction communicated to CONTRACTOR, and if applicable, in accordance with the schedule set forth in the Schedule of Performance, attached at Exhibit B. Time is of the essence in this Agreement.

5. COMPENSATION FOR ORIGINAL TERM. CITY shall pay and CONTRACTOR agrees to accept as not-to-exceed compensation for the full performance of the Services and reimbursable expenses, if any:

- ☐ The total maximum lump sum compensation of dollars (\$);
OR
- ☐ The sum of dollars (\$) per hour, not to exceed a total maximum compensation amount of dollars (\$); **OR**
- ☒ A sum calculated in accordance with the fee schedule set forth at Exhibit C, not to exceed a total maximum compensation amount of two million one hundred eighty-one thousand dollars (\$2,181,000).

CONTRACTOR agrees that it can perform the Services for an amount not to exceed the total maximum compensation set forth above. Any hours worked or services performed by CONTRACTOR for which payment would result in a total exceeding the maximum amount of compensation set forth above for performance of the Services shall be at no cost to CITY.

- ☐ CITY has set aside the sum of dollars (\$) for Additional Services. CONTRACTOR shall provide Additional Services only by advanced, written authorization from the City Manager or designee. CONTRACTOR, at the CITY's request, shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort, and CONTRACTOR's proposed maximum compensation, including reimbursable expense, for such services. Compensation shall be based on the hourly rates set forth above or in Exhibit C (whichever is applicable), or if such rates are not applicable, a negotiated lump sum. CITY shall not authorize and CONTRACTOR shall not perform any Additional Services for which payment would exceed the amount set

forth above for Additional Services. Payment for Additional Services is subject to all requirements and restrictions in this Agreement.

6. COMPENSATION DURING ADDITIONAL TERMS.

- ☐ CONTRACTOR'S compensation rates for each additional term shall be the same as the original term; **OR**
- ☐ CONTRACTOR's compensation rates shall be adjusted effective on the commencement of each Additional Term. The lump sum compensation amount, hourly rates, or fees, whichever is applicable as set forth in section 5 above, shall be adjusted by a percentage equal to the change in the Consumer Price Index for Urban Wage Earners and Clerical Workers for the San Francisco-Oakland- San Jose area, published by the United States Department of Labor Statistics (CPI) which is published most immediately preceding the commencement of the applicable Additional Term, which shall be compared with the CPI published most immediately preceding the commencement date of the then expiring term. Notwithstanding the foregoing, in no event shall CONTRACTOR's compensation rates be increased by an amount exceeding five percent of the rates effective during the immediately preceding term. Any adjustment to CONTRACTOR's compensation rates shall be reflected in a written amendment to this Agreement.

7. CLAIMS PROCEDURE FOR "9204 PUBLIC WORKS PROJECTS". For purposes of this Section 7, a "9204 Public Works Project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind. Public Contract Code Section 9204 mandates certain claims procedures for Public Works Projects, which are set forth in "Appendix ___ Claims for Public Contract Code Section 9204 Public Works Projects".

- ☐ **This project is a 9204 Public Works Project** and is required to comply with the claims procedures set forth in Appendix ___, attached hereto and incorporated herein.

OR

- ☒ **This project is not a 9204 Public Works Project.**

8. INVOICING. Send all invoices to CITY, Attention: Project Manager. The Project Manager is: James Allen, 2501 Embarcadero Way, Palo Alto, CA 94303 Dept.: Public Works, Telephone: 650-329-2243, email: James.Allen@cityofpaloalto.org

Invoices shall be submitted in arrears for Services performed. Invoices shall not be submitted more frequently than monthly. Invoices shall provide a detailed statement of Services performed during the invoice period and are subject to verification by CITY. CITY shall pay the undisputed amount of invoices within 30 days of receipt.

Invoice shall include:

- Contract Number
- Item description
- Itemized spreadsheet, auditable at any time for individual load tickets
- Certified net weight of each load times contract price per ton

Invoice shall be electronic pursuant to City administrative standards; a PDF email is acceptable.

GENERAL TERMS AND CONDITIONS

- A. ACCEPTANCE.** CONTRACTOR accepts and agrees to all terms and conditions of this Agreement. This Agreement includes and is limited to the terms and conditions set forth in sections 1 through 8 above, these general terms and conditions and the attached exhibits.
- B. QUALIFICATIONS.** CONTRACTOR represents and warrants that it has the expertise and qualifications to complete the services described in Section 1 of this Agreement, entitled "SERVICES," and that every individual charged with the performance of the services under this Agreement has sufficient skill and experience and is duly licensed or certified, to the extent such licensing or certification is required by law, to perform the Services. CITY expressly relies on CONTRACTOR's representations regarding its skills, knowledge, and certifications. CONTRACTOR shall perform all work in accordance with generally accepted business practices and performance standards of the industry, including all federal, state, and local operation and safety regulations.
- C. INDEPENDENT CONTRACTOR.** It is understood and agreed that in the performance of this Agreement, CONTRACTOR and any person employed by CONTRACTOR shall at all times be considered an independent CONTRACTOR and not an agent or employee of CITY. CONTRACTOR shall be responsible for employing or engaging all persons necessary to complete the work required under this Agreement.
- D. SUBCONTRACTORS.** CONTRACTOR may not use subcontractors to perform any Services under this Agreement unless CONTRACTOR obtains prior written

consent of CITY. CONTRACTOR shall be solely responsible for directing the work of approved subcontractors and for any compensation due to subcontractors.

- E. TAXES AND CHARGES.** CONTRACTOR shall be responsible for payment of all taxes, fees, contributions or charges applicable to the conduct of CONTRACTOR's business.
- F. COMPLIANCE WITH LAWS.** CONTRACTOR shall in the performance of the Services comply with all applicable federal, state and local laws, ordinances, regulations, and orders.
- G. PALO ALTO MINIMUM WAGE ORDINANCE.** CONTRACTOR shall comply with all requirements of the Palo Alto Municipal Code Chapter 4.62 (Citywide Minimum Wage), as it may be amended from time to time. In particular, for any employee otherwise entitled to the State minimum wage, who performs at least two (2) hours of work in a calendar week within the geographic boundaries of the City, CONTRACTOR shall pay such employees no less than the minimum wage set forth in Palo Alto Municipal Code section 4.62.030 for each hour worked within the geographic boundaries of the City of Palo Alto. In addition, CONTRACTOR shall post notices regarding the Palo Alto Minimum Wage Ordinance in accordance with Palo Alto Municipal Code section 4.62.060.
- H. DAMAGE TO PUBLIC OR PRIVATE PROPERTY.** CONTRACTOR shall, at its sole expense, repair in kind, or as the City Manager or designee shall direct, any damage to public or private property that occurs in connection with CONTRACTOR's performance of the Services. CITY may decline to approve and may withhold payment in whole or in part to such extent as may be necessary to protect CITY from loss because of defective work not remedied or other damage to the CITY occurring in connection with CONTRACTOR's performance of the Services. CITY shall submit written documentation in support of such withholding upon CONTRACTOR's request. When the grounds described above are removed, payment shall be made for amounts withheld because of them.
- I. WARRANTIES.** CONTRACTOR expressly warrants that all services provided under this Agreement shall be performed in a professional and workmanlike manner in accordance with generally accepted business practices and performance standards of the industry and the requirements of this Agreement. CONTRACTOR expressly warrants that all materials, goods and equipment provided by CONTRACTOR under this Agreement shall be fit for the particular purpose intended, shall be free from defects, and shall conform to the requirements of this Agreement. CONTRACTOR agrees to promptly replace or correct any material or service not in compliance with these warranties, including incomplete, inaccurate, or defective material or service, at no further cost to CITY. The warranties set forth in this section shall be in effect for a period

of one year from completion of the Services and shall survive the completion of the Services or termination of this Agreement.

- J. MONITORING OF SERVICES.** CITY may monitor the Services performed under this Agreement to determine whether CONTRACTOR's work is completed in a satisfactory manner and complies with the provisions of this Agreement.
- K. CITY'S PROPERTY.** Any reports, information, data or other material (including copyright interests) developed, collected, assembled, prepared, or caused to be prepared under this Agreement will become the property of CITY without restriction or limitation upon their use and will not be made available to any individual or organization by CONTRACTOR or its subcontractors, if any, without the prior written approval of the City Manager.
- L. AUDITS.** CONTRACTOR agrees to permit CITY and its authorized representatives to audit, at any reasonable time during the term of this Agreement and for three (3) years from the date of final payment, CONTRACTOR's records pertaining to matters covered by this Agreement. CONTRACTOR agrees to maintain accurate books and records in accordance with generally accepted accounting principles for at least three (3) following the terms of this Agreement.
- M. NO IMPLIED WAIVER.** No payment, partial payment, acceptance, or partial acceptance by CITY shall operate as a waiver on the part of CITY of any of its rights under this Agreement.
- N. INSURANCE.** CONTRACTOR, at its sole cost, shall purchase and maintain in full force during the term of this Agreement, the insurance coverage described at Exhibit D. Insurance must be provided by companies with a Best's Key Rating of A-:VII or higher and which are otherwise acceptable to CITY's Risk Manager. The Risk Manager must approve deductibles and self-insured retentions. In addition, all policies, endorsements, certificates and/or binders are subject to approval by the Risk Manager as to form and content. CONTRACTOR shall obtain a policy endorsement naming the City of Palo Alto as an additional insured under any general liability or automobile policy. CONTRACTOR shall obtain an endorsement stating that the insurance is primary coverage and will not be canceled or materially reduced in coverage or limits until after providing 30 days prior written notice of the cancellation or modification to the Risk Manager. CONTRACTOR shall provide certificates of such policies or other evidence of coverage satisfactory to the Risk Manager, together with the required endorsements and evidence of payment of premiums, to CITY concurrently with the execution of this Agreement and shall throughout the term of this Agreement provide current certificates evidencing the required insurance coverages and endorsements to the Risk Manager. CONTRACTOR shall include all subcontractors as insured under its policies or shall obtain and provide to CITY

separate certificates and endorsements for each subcontractor that meet all the requirements of this section. The procuring of such required policies of insurance shall not operate to limit CONTRACTOR's liability or obligation to indemnify CITY under this Agreement.

- O. HOLD HARMLESS.** To the fullest extent permitted by law and without limitation by the provisions of section N relating to insurance, CONTRACTOR shall indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents from and against any and all demands, claims, injuries, losses, or liabilities of any nature, including death or injury to any person, property damage or any other loss and including without limitation all damages, penalties, fines and judgments, associated investigation and administrative expenses and defense costs, including, but not limited to reasonable attorney's fees, courts costs and costs of alternative dispute resolution), arising out of, or resulting in any way from or in connection with the performance of this Agreement. CONTRACTOR's obligations under this Section apply regardless of whether or not a liability is caused or contributed to by any negligent (passive or active) act or omission of CITY, except that CONTRACTOR shall not be obligated to indemnify for liability arising from the sole negligence or willful misconduct of CITY. The acceptance of the Services by CITY shall not operate as a waiver of the right of indemnification. The provisions of this Section survive the completion of the Services or termination of this Agreement.
- P. NON-DISCRIMINATION.** As set forth in Palo Alto Municipal Code Section 2.30.510, CONTRACTOR certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person because of the race, skin color, gender, age, religion, disability, national origin, ancestry, sexual orientation, housing status, marital status, familial status, weight or height of such person. CONTRACTOR acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements and the penalties for violation thereof, and agrees to meet all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.
- Q. WORKERS' COMPENSATION.** CONTRACTOR, by executing this Agreement, certifies that it is aware of the provisions of the Labor Code of the State of California which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and certifies that it will comply with such provisions, as applicable, before commencing and during the performance of the Services.
- R. TERMINATION.** The City Manager may terminate this Agreement without cause by giving ten (10) days' prior written notice thereof to CONTRACTOR. If CONTRACTOR fails to perform any of its material obligations under this

Agreement, in addition to all other remedies provided by law, the City Manager may terminate this Agreement immediately upon written notice of termination. Upon receipt of such notice of termination, CONTRACTOR shall immediately discontinue performance. CITY shall pay CONTRACTOR for services satisfactorily performed up to the effective date of termination. If the termination is for cause, CITY may deduct from such payment the amount of actual damage, if any, sustained by CITY due to CONTRACTOR's failure to perform its material obligations under this Agreement. Upon termination, CONTRACTOR shall immediately deliver to the City Manager any and all copies of studies, sketches, drawings, computations, and other material or products, whether or not completed, prepared by CONTRACTOR or given to CONTRACTOR, in connection with this Agreement. Such materials shall become the property of CITY.

- S. ASSIGNMENTS/CHANGES.** This Agreement binds the parties and their successors and assigns to all covenants of this Agreement. This Agreement shall not be assigned or transferred without the prior written consent of CITY. No amendments, changes or variations of any kind are authorized without the written consent of CITY.
- T. CONFLICT OF INTEREST.** In accepting this Agreement, CONTRACTOR covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of this Contract. CONTRACTOR further covenants that, in the performance of this Contract, it will not employ any person having such an interest. CONTRACTOR certifies that no CITY officer, employee, or authorized representative has any financial interest in the business of CONTRACTOR and that no person associated with CONTRACTOR has any interest, direct or indirect, which could conflict with the faithful performance of this Contract. CONTRACTOR agrees to advise CITY if any conflict arises.
- U. GOVERNING LAW.** This Agreement shall be governed and interpreted by the laws of the State of California.
- V. ENTIRE AGREEMENT.** This Agreement, including all exhibits, represents the entire agreement between the parties with respect to the services that may be the subject of this Agreement. Any variance in the exhibits does not affect the validity of the Agreement and the Agreement itself controls over any conflicting provisions in the exhibits. This Agreement supersedes all prior agreements, representations, statements, negotiations and undertakings whether oral or written.
- W. NON-APPROPRIATION.** This Agreement is subject to the fiscal provisions of the Charter of the City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in

the event that funds are not appropriated for the following fiscal year, or (b) at any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Contract are no longer available. This Section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Contract.

X. ENVIRONMENTALLY PREFERRED PURCHASING AND ZERO WASTE REQUIREMENTS. CONTRACTOR shall comply with CITY's Environmentally Preferred Purchasing policies which are available at CITY's Purchasing Division, which are incorporated by reference and may be amended from time to time. CONTRACTOR shall comply with waste reduction, reuse, recycling and disposal requirements of CITY's Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, CONTRACTOR shall comply with the following zero waste requirements:

- All printed materials provided by CONTRACTOR to CITY generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless otherwise approved by CITY's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable based inks.
- Goods purchased by Contractor on behalf of CITY shall be purchased in accordance with CITY's Environmental Purchasing Policy including, but not limited to, Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Division's office.
- Reusable/returnable pallets shall be taken back by CONTRACTOR, at no additional cost to CITY, for reuse or recycling. CONTRACTOR shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

Y. AUTHORITY. The individual(s) executing this Agreement on behalf of the parties represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

Z. PREVAILING WAGES

☒ **This Project is not subject to prevailing wages.** Contractor is not required to pay prevailing wages in the performance and implementation of the Project in accordance with SB 7, if the contract is not a public works contract, if contract does not include a public works construction project of more than \$25,000, or

the contract does not include a public works alteration, demolition, repair, or maintenance (collectively, 'improvement') project of more than \$15,000.

OR

☐ **Contractor is required to pay general prevailing wages** as defined in Subchapter 3, Title 8 of the California Code of Regulations and Section 16000 et seq. and Section 1773.1 of the California Labor Code. Pursuant to the provisions of Section 1773 of the Labor Code of the State of California, the City Council has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in this locality for each craft, classification, or type of worker needed to execute the contract for this Project from the Director of the Department of Industrial Relations ("DIR"). Copies of these rates may be obtained at the Purchasing Division's office of the City of Palo Alto. Contractor shall provide a copy of prevailing wage rates to any staff or subcontractor hired, and shall pay the adopted prevailing wage rates as a minimum. Contractor shall comply with the provisions of all sections, including, but not limited to, Sections 1775, 1776, 1777.5, 1782, 1810, and 1813, of the Labor Code pertaining to prevailing wages.

AA.DIR REGISTRATION. In regard to any public work construction, alteration, demolition, repair or maintenance work, CITY will not accept a bid proposal from or enter into this Agreement with CONTRACTOR without proof that CONTRACTOR and its listed subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work, subject to limited exceptions. City requires CONTRACTOR and its listed subcontractors to comply with the requirements of SB 854.

CITY provides notice to CONTRACTOR of the requirements of California Labor Code section 1771.1(a), which reads:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

CITY gives notice to CONTRACTOR and its listed subcontractors that CONTRACTOR is required to post all job site notices prescribed by law or

regulation and CONTRACTOR is subject to SB 854-compliance monitoring and enforcement by DIR.

CITY requires CONTRACTOR and its listed subcontractors to comply with the requirements of Labor Code section 1776, including:

Keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by, respectively, CONTRACTOR and its listed subcontractors, in connection with the Project.

The payroll records shall be verified as true and correct and shall be certified and made available for inspection at all reasonable hours at the principal office of CONTRACTOR and its listed subcontractors, respectively.

At the request of CITY, acting by its project manager, CONTRACTOR and its listed subcontractors shall make the certified payroll records available for inspection or furnished upon request to the project manager within ten (10) days of receipt of CITY's request.

☐ [For state- and federally-funded projects] CITY requests CONTRACTOR and its listed subcontractors to submit the certified payroll records to the project manager at the end of each week during the Project.

If the certified payroll records are not produced to the project manager within the 10-day period, then CONTRACTOR and its listed subcontractors shall be subject to a penalty of one hundred dollars (\$100.00) per calendar day, or portion thereof, for each worker, and CITY shall withhold the sum total of penalties from the progress payment(s) then due and payable to CONTRACTOR.

Inform the project manager of the location of CONTRACTOR's and its listed subcontractors' payroll records (street address, city and county) at the commencement of the Project, and also provide notice to the project manager within five (5) business days of any change of location of those payroll records.

BB. CONTRACT TERMS. All unchecked boxes do not apply to this Agreement. In the case of any conflict between the terms of this Agreement and the exhibits hereto or CONTRACTOR's proposal (if any), the Agreement shall control. In the case of any conflict between the exhibits hereto and CONTRACTOR's proposal, the exhibits shall control.

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

CITY OF PALO ALTO

City Manager or Designee

Approved as to form:

City Attorney or Designee

DENALI WATER SOLUTIONS, LLC

Officer 1

DocuSigned by:

By 

9F01CC9684F74D6...

Name Jeff Thurber

Title Vice President

Officer 2 (Required for Corp. or LLC)

By 

CCD44950D6254A7...

Name Mark Marasco

Title CFO

EXHIBIT A SCOPE OF SERVICES

1. BACKGROUND AND PURPOSE

- a. The work is for services to daily load and haul sludge from the City of Palo Alto's sludge dewatering facility. CONTRACTOR (referred to herein as the "Hauler") shall transport sludge to disposal sites as listed in this scope of services.
- b. This work requires backup treatment facilities. The Hauler's backup treatment sites are as listed in this scope of services.

2. PICKUP ADDRESS

Palo Alto Regional Water Quality Control Plant ("RWQCP")
Attn: Operations Shift Supervisor or Senior Operator
2501 Embarcadero Way
Palo Alto, CA 94303
650-329-2598 - phone

3. PALO ALTO SLUDGE CHARACTERISTICS

- a. The material covered under this Agreement is a mix of raw, dewatered wastewater sludge and scum (hereafter, collectively referred to as "sludge") that has not yet been stabilized.
- b. The wastewater sludge is collected as waste sludge from activated sludge tanks (about 29% of total content) and primary sludge settling tanks (about 71% of total content). This blend is then thickened in gravity thickeners to 3% to 4% solids. The sludge blend is processed through grinders before being sent to a blend tank. The sludge is kept blended with mix pumps and aerated by a blower in a 100,000 gallon mix tank, is pumped to a belt filter press, is treated for odors in-line with a sodium hypochlorite solution, and is then dewatered using a high molecular weight cationic polymer solution on a belt filter press. Upstream preliminary treatment processes include grit removal and mechanically raked barscreens using $\frac{3}{4}$ " spacing at the headworks.
- c. Primary tank scum is pumped through a grinder, sent to a scum concentrator, and thickened to about 50% solids. This scum will be added to the 20% plus sludge cake screw conveyors that feed into sludge cake bins.
- d. Solids content of filter press cake will have a solid content of not less than 20%.

- e. Except as stated herein, the City cannot guarantee condition or quality of the material. Therefore, notice is hereby given that the content and nature of the sludge and scum may change depending on RWQCP process control changes, treatment plant changes, influent characteristics, or treatment plant effectiveness.
- f. The City will certify that the wastewater sludge and scum pollutant concentrations are at or below the metal concentration limits established in 40 CFR 501.13, Table 1 and Table 3.
- g. Hauler is aware that wastewater sludge contains pathogenic microorganisms and does not meet all 40 CFR 503 regulations. The City declares, and Hauler acknowledges, that:
 - i. The sludge does not meet the pathogen reduction requirements of 40 CFR 503.32(B)(3) ["PRSP"].
 - ii. The sludge does not meet the vector attraction reduction requirements of 40 CFR 503.33(b(1)).
- h. Furthermore, sludge and scum quality data is included as Exhibit A-1 to this Exhibit for the Hauler's reference. Hauler shall verify, by analyzing the data provided and making inquiries, as needed, as to the characteristics of the wastewater sludge/scum mix and their ability to haul to and process the wastewater sludge at the treatment/disposal site(s).
- i. At no time during the term of this Agreement shall the City make available to the Hauler, nor shall the Hauler be obligated to handle, any wastewater sludge which is designated a hazardous waste under applicable law, rule, or regulation, and nothing herein shall relieve the City of liability or responsibility with respect to any sludge generated at its facilities which is a hazardous waste.

4. SLUDGE PRODUCTION ESTIMATES

- a. This scope of services covers the disposal, including loading, transportation/hauling, delivery, and unloading of approximately 25,000 annual wet tons of raw wastewater sludge.
- b. The City produces wastewater sludge twenty-four (24) hours per day, seven (7) days per week, resulting in approximately 25,000 wet tons annually. A breakdown is included in the table below for sludge sent to the current incinerators. Note that the data below involves a weekly shutdown for about 12 hours; the shutdown will not be occurring in the new sludge dewatering and loadout operation. This change will smooth out the sludge

production data included below, lessening peak catch-up days and reducing the occurrence of days with minimal production. The Hauler's transport system must have the capacity to handle the maximum levels of wastewater sludge during peak production periods (esp. after large storms that bring in extra solids).

Palo Alto RWQCP Incinerator Sludge Feed Amounts							
2015, 2016, Jan-2017 (assumes 28% sludge cake for wet ton calculations)							
	MG per day	DT / day	WT / day	WT / 2-days	WT / week	WT / 30-days	WT / year
minimum	0.00	0	0	34	315	1616	
25th percentile	0.12	16	58	114	430	1912	
50th percentile/median	0.14	20	72	137	484	2093	
average	0.14	19	69	137	480	2061	25013
75th percentile	0.16	23	82	159	525	2197	
maximum	0.21	35	124	245	701	2533	
standard deviation	0.04	6	21	32	64	212	
Notes: MG = million gallons; DT = dry tons; WT = wet tons							

- c. Production rates may be varied or stopped to match RWQCP operational needs. Operation may also be interrupted occasionally for maintenance or repair. Advance notice of temporary interruption will be given to the Hauler whenever possible.
- d. The wastewater sludge shall become the property of the Hauler at the time the material is deposited in the Hauler's trailer. Therefore, it is the Hauler's responsibility to make any and all arrangements for disposal at the treatment/disposal sites identified and approved by the City (referred to herein as the "treatment/disposal sites").
- e. The amount of biosolids to be hauled is an estimate only. Therefore, notice is hereby given that the quantity, content, and nature of the material may change depending on the speed of startup of the new sludge dewatering and truck loadout facility, RWQCP process control changes, process upsets, plant upgrades, repairs, maintenance, operational improvements, belt press dewatering schedule, day of week, holidays, seasonal changes, storm-induced increases in produced solids, changes in community population, treatment plant changes, and so forth.
- f. No minimum wastewater sludge generation rate is guaranteed. However, the Hauler will be required to dispose of 100% of all wastewater sludge that the City designates for disposal pursuant to this Agreement even if the total quantity exceeds the estimate.

5. GENERAL RESPONSIBILITIES

- a. The Hauler shall know, follow, comply with, and stay updated on all federal, state, and local laws, regulations, statutes, ordinances, orders, decrees, and permits that affect this work. This includes loading and unloading, treatment site operation and maintenance, monitoring and reporting, processing and disposal of sludge, USDOT, transportation, driver and operator certifications, environmental and pollution regulations, noise control, and inspections by authorized representatives as required by such requirements. Hauler shall provide documentation of specific permits, orders, decrees, registrations, and so forth upon request. All costs associated with obtaining such permits and licenses shall be considered as included in the unit price. Federal Regulations, including 40 CFR Parts 257, 258, 403 and 503, provide specific requirements for biosolids disposal and must be complied with by Hauler.
- b. The Hauler agrees to furnish all information as required by the City in order to fulfill the responsibilities of the City for reporting on compliance with wastewater sludge rules and regulations as well as for accurate payment.
- c. Transportation shall be by a USDOT licensed, registered hauler.
- d. The Hauler will be required to furnish to City and update, as necessary, a list of telephone numbers and names of responsible parties to be called on a 24-hour, 7 days per week basis in the event of an emergency or unusual operating conditions. The Hauler's designated representative must be available to respond to City staff within a mutually acceptable time span (within three to four hours). It will be mandatory to have dedicated business cell phones and email for supplementary communications. The Hauler shall coordinate and cooperate with staff at the RWQCP and disposal site owners/operators (in consultation with the City) to fulfill their respective requirements.
- e. Prior to initiating services under the Agreement, the Hauler's operational team will meet with RWQCP management, operations management, and accounts payable team members at the RWQCP.
- f. Raw sludge contains micro-organisms from the wastewater treatment process that include pathogens. Precautions are required, such as adequate training, wearing proper PPE (e.g., latex or nitrile gloves, boots, etc.), washing hands with soap, and access to potable drinking water and OSHA approved first aid kits. The Hauler is to follow an Exposure Control Plan for Blood Borne Pathogens pursuant to CalOSHA rules and California Code of Regulations, Title 8, Section 5193. The Exposure Control Plan is to be on file for review, if requested.
- g. The Hauler shall attend periodic meetings, as needed, to discuss items

such as: operational requirements at RWQCP and treatment site(s), performance reviews, safety/spill response planning, and strategies for common benefit. Input and constructive feedback to improve all aspects of this Agreement is expected during the Agreement term. Meetings will be one-hour quarterly meetings held at RWQCP, treatment sites, a mutually agreeable location, or by telecon.

6. LOADING REQUIREMENTS

- a. Prior to start of work, Hauler shall visually observe the truck loadout facility and verify that the Hauler's equipment can safely operate at the RWQCP.
- b. The processed wastewater sludge is conveyed to a cake storage bin for trailer loading. Vertical clearance loading access below the bin's lowest point of discharge gate is approximately 14 feet above the floor, per the design; Hauler is to field verify vertical clearance prior to start of work.
- c. The City owns and maintains the RWQCP, the sludge dewatering equipment, and the truck loadout facility. The Hauler shall only provide trucks and trailers compatible with the existing system. Trucks shall be empty upon arrival for loading at the RWQCP.
- d. The Hauler will have free and easy access to the site pursuant to the security and entry protocols established by the City, as needed. Whether working in auto mode or manually, the Hauler will be responsible for opening and closing the RWQCP entrance and exit gates as well as the sludge dewatering building truck loadout bay's roll-up doors. Any damage to City property, including landscaping, building systems, entry systems, gates, and roll-up doors caused by the Hauler shall be promptly repaired by the Hauler at no cost to the City. Hauler shall observe traffic signs and RWQCP speed limit of 5 MPH.
- e. The Hauler will load all wastewater sludge into the Hauler's trailers. The trailer will be positioned directly under the cake hoppers for loading. The cake hoppers distribute the dewatered raw sludge in the hauler's trailer via cake loadout chutes. During the trailer loading process, a computer program is used to track the total weight of the dewatered sludge loaded into the trailer. The Hauler will be responsible for monitoring the total weight entering the trailer, load distribution in the trailer and ensuring the load does not exceed the "Full Load" established by the Hauler for each trailer. Overweight tickets are the responsibility of the Hauler.
- f. The Hauler shall bring problems with the loadout system to the attention of RWQCP management, supervisory staff, and the designated-operator-in-charge immediately.

- g. Once the Hauler's trailer is full, Hauler shall cover the load with the tarp that is on each trailer to minimize release of odors and avoid spillage from the dewatered raw sludge while the trailer is in transport to the final treatment site. The truck shall be promptly driven from the RWQCP site directly to the treatment/disposal site.
- h. The Hauler's trucks shall be cleaned and free of any foreign matter/contamination (from any pre-hauling or back-hauling operation) such that only dewatered sludge will be transported to the treatment/disposal site(s).
- i. The City reserves the right to set a loading target below the CalDOT road limit (e.g., 2000 pounds less) to account for errors in weight readings and uncertainty caused by loadout bin weight calculations by the City's PLC. It is the Hauler's responsibility to pay overweight limit fines. There are no onsite zones or facilities at the RWQCP for unloading excess material to return a Hauler's truck to a legal weight limit. There is no separate weigh scale onsite to aid the Hauler in how much material to remove.
- j. The RWQCP is not a staging/storage site. Hauler shall not store or stage equipment at the RWQCP.

7. HAULING SCHEDULE

- a. The Hauler shall receive and haul wastewater sludge daily and must have the capability to haul up to seven trailers a day, seven days a week from the RWQCP. The City reserves the right to make modifications in this schedule to meet the needs of the City.
- b. Loading, unloading, and treatment may be required on both a daily scheduled and as-required basis, according to the requirements of the City. The Hauler shall develop, for approval, a pickup and delivery schedule with the Project Manager. The Hauler shall be required to respond to all requests for service within twenty-four (24) hours. The RWQCP operates year round, and it is mandatory that the Hauler be available to perform the work all 365 days of the year. If the Hauler coordinates with the City in advance, it may be possible to store sludge onsite at the RWQCP in the sludge cake bins and upstream sludge tanks for a short period over specific holidays.
- c. Commencement of Services: Services under this Agreement will commence when the City's sewage sludge incinerators are fully retired and the new Sludge Dewatering and Truck Loadout Facility is in operation. CITY will issue a Notice to Proceed that specifies the date that regular services will commence, which date will be considered the first

day of the contract year (i.e., Year 1). The time frame when a designated Treatment Facility receives test loads during startup testing of the new Sludge Dewatering and Truck Loadout Facility, prior to regular services commencing, shall not be considered part of the contract year while CITY works out startup issues.

8. HAULING REQUIREMENTS

- a. The sludge shall become the property of the Hauler at the time the material is deposited in the Hauler's trailer. Hauler shall not commingle sludge from another facility prior to delivery final treatment and disposal.
- b. The Hauler shall be responsible for all transportation, holding, and unloading. The Hauler shall ensure that trailers are completely empty when they arrive at the RWQCP. The Hauler shall further ensure that the exterior of the truck and trailer is clean prior to leaving the RWQCP and the treatment/disposal site destination. The Hauler shall be responsible for coordination with appropriate authorities to conduct acceptable unloading operations to meet both City and the treatment/disposal site's requirements.
- c. *Emergency / Spill Response Plan:* The Hauler must submit to the City an Emergency / Spill Response Plan within three (3) weeks of Agreement award. The Hauler will ensure that their drivers are properly trained to carry out this Plan in the event of a spill. No hauling will be permitted until the Plan is received and approved by the City. In the event of a spill, the Hauler must immediately report it to the City and clean up the material to the satisfaction of governing authorities and the RWQCP. If the Hauler does not clean the spill, the City may clean the spill and back-charge the Hauler for all costs. A "spill" as used herein includes tracking of residuals onto public roads.
- d. The Hauler must have and maintain for the term of the Agreement all hauling permits needed for the work under this Agreement.
- e. The Hauler must furnish only experienced and skilled operators and other personnel as required. Hauler must ensure that employed workers have proper and valid licenses and/or certifications. The Hauler shall, at the request of the City, supply proof of these licenses and/or certifications.
- f. The Hauler shall be responsible for controlling and abating any odor, spillage, insect, vermin, or any other nuisance arising from the operation.
- g. City shall provide plant process water (nonpotable, aka W4 at 90 psi) and a wash down area in the truck loadout bay, which is to be used by the Hauler to keep the loading site at the RWQCP and trucks clean and free of

spillage before leaving the RWQCP. The City will provide two 1.5” nonpotable (W4) water stations with 1.5” hoses in the truck loadout bay. One is at the front of the loadout bay and one on the back side, both on the passenger side of the truck. After use, the Hauler is to put hoses away on hose stations before leaving. Any spillage or discharge of material to City or public roads shall be cleaned up promptly by the Hauler. If the City is required to clean up any spillage or discharge, all costs incurred including direct and administrative costs shall be reimbursed by the Hauler or withheld from Hauler payments.

- h. The Hauler shall provide water for all vehicles used in hauling wastewater sludge to complete wash down before leaving the treatment/disposal site. The interior of trailers, as well as all exterior surfaces, including tires and mud flaps shall be completely hosed down to minimize tracking of wastewater sludge off of the treatment/disposal site.
- i. The Hauler shall provide immediate cleanup of any spill during the transportation of the wastewater sludge. The Hauler shall be fully responsible for all costs associated with the cleanup or mitigation of spills during the transportation of wastewater sludge. In addition to any other required notifications, the Hauler shall immediately notify the City by telephone at (650) 329-2598 of any spillage of wastewater sludge along the haul route and the estimated time for cleanup to be completed. The Hauler shall provide a written report within five (5) days describing any spillage incident, including at a minimum, the date, time, and location of the spill, the amount of material spilled, the methods used to clean up the spill, the cause of the spill, steps taken to prevent reoccurrence of a similar spill, and certification that the spill has been cleaned up to the satisfaction of any and all agencies having jurisdiction. Hauler will train their staff and comply with Palo Alto Emergency and Spill Response Plan.
- j. It is further the Hauler’s responsibility to be cognizant of all the factors involved in furnishing labor and equipment to dispose of raw sludge including transportation, hauling, delivery and unloading of wastewater sludge from the RWQCP. Such factors include, but are not limited to, complete familiarity with the layout of the City’s facilities. The Hauler shall have complete familiarity with all access roads to the RWQCP facility, including difficulties involved in maneuvering large vehicles in confined areas. Hauler shall have available an adequate number of vehicles and trained, knowledgeable drivers to haul sludge and be able to keep a close liaison with City staff concerning scheduling or any problems related to production rates.
- k. Drivers must ensure that all trucks have tailgate pins, chains, and alternate/secondary locking mechanisms in place while loaded and before leaving any site. Hauler shall use public highways and designated truck

routes, ensuring that laden trucks are not left parked in high-traffic areas for extended periods of time. Hauler shall understand truck routes and traffic conditions along routes. Hauler is responsible for freeing any incapacitated truck, traffic delays, weather impacts, and road conditions.

1. Hauler shall report any significant hauling incidents, including but not limited to spills, accidents and substantial delays, to the City's project manager within three (3) hours of an occurrence. The Hauler must make all reasonable attempts to contact the City immediately following an incident. Regardless of contact being made with the City, the Hauler is expected to use best management practices for immediate corrective action. Upon notification of the City, incidents will be investigated. If required, Hauler shall resolve the incident. City may also identify problems such as contaminated or misplaced loads. If the incident is not resolved, the Hauler may receive a formal warning. Significant incidents include, but are not limited to, such things as:
 - i. Delays of loading, hauling, or dumping of 48 hours or more;
 - ii. Spills of any size (including any tracking of sludge onto public roads);
 - iii. Traffic accidents;
 - iv. Damage to equipment, persons, or property; and
 - v. Any other incidents outside normal operations

9. HAULING EQUIPMENT

- a. Hauler must operate and maintain trucks per USDOT regulations.
- b. The Hauler's truck fleet must be California Air Resources Board (CARB) compliant including a truck fleet with engines that are 2010 or newer engine model year.
- c. Hauler's trailers must hold 21 tons minimum.
- d. Hauler is to provide leak-proof aluminum or stainless steel trailers with seals, tailgate seals, and wide splashguards as a requirement for hauling wastewater sludge. Each trailer shall be appropriate for wastewater sludge containment and equipped with covers (canvas or suitable alternative material) that can be securely fastened to reduce odors and contain wastewater sludge in case the trailer overturns.
- e. All hauling trucks shall be equipped with a back-up alarm consisting of a warning horn or beep that will activate any time the truck is in reverse. Each vehicle shall be equipped with scraper, shovel, broom, and other tools as necessary to allow the driver to clean vehicle and respond to drips or small spills.

- f. The Hauler shall be solely responsible for the condition of its equipment. All equipment shall be properly maintained. Only equipment in good working condition as judged by the City is acceptable. The City may reject pieces of equipment found to be in unsatisfactory condition or performing unsatisfactory work. In the event of any rejection by the City, the Hauler must remove the unsatisfactory equipment and replace it with good and acceptable equipment immediately.
- g. The Hauler shall provide the City with a list of identification numbers and maximum legal load limit for all wastewater sludge hauling trailers being utilized under this Agreement. Hauler shall conspicuously mark each trailer unit with the maximum legal weight of the unit when loaded and a corresponding "full load" indicator inside the trailer to guide loading.
- h. The City will not be responsible for loss or damage of any equipment or property owned or operated by the Hauler, its agents, or employees on or off City property.
- i. Hauler shall ensure that gas/oil/hydrocarbon spill-containment kits are kept on each truck and/or piece of equipment in use, and drivers are trained in their use. Each truck is to have potable water and a first aid kit.

10. UNLOADING REQUIREMENTS AT TREATMENT SITE

- a. If the Hauler must use an emergency backup alternative because a primary treatment/disposal site (as identified in subsection (b) below) is not available, the Hauler must consult with the City prior to deposit at the backup alternative. The City reserves the right to refuse "landfill disposal" as an alternative to other emergency backup options that may cost more; the City may elect to dispose at the landfill or pay the higher hauling and disposal cost for another site, at its own discretion.
- b. Sludge shall be hauled to one of the two sites below in quantities to be determined by the City (these sites are the primary treatment/disposal sites):
 - i. Lystek International Limited Organic Material Recovery Center on the site of Fairfield-Suisun Sewer District (FSSD) 1010 Chadbourne Rd, Fairfield, CA 94534
 - 1. Operating Hours 0400 – 2000, 7 days per week
 - 2. Receiving Hours 24 / 7
 - 3. 6,500 tons per year minimum, which is the City's contracted minimum obligation with Lystek
 - 4. Initial annual contract year target for Lystek will be 8,400 tons per year

ii. Synagro Central Valley Compost Facility (CVC) 13757 Harmon Rd,
Dos Palos, CA 93620

1. Operating Hours 0600 – 1700, 7 days per week
2. 10,000 tons per year minimum, which is the City's contracted minimum obligation with Synagro
3. Initial annual contract year target for Synagro will be all tons beyond the 8,400 tons per year to Lystek and 10,000 contracted tons with Synagro

c. As proposed by the Hauler, the Hauler shall deliver one truck load per year to the two backup sites below.

- i. Portrero Hills Landfill
- ii. Altamont Landfill

d. Hauler shall provide (and update as required) a current list of sites where wastewater sludge is being unloaded and disposed, as needed when unloading and disposal sites change.

e. The Hauler shall make the listed site(s) available to receive the wastewater sludge at all times in accordance with provisions of the treatment/disposal site(s) permit. Provisions shall be made to accept the wastewater sludge during wet-weather periods as well as dry-weather periods.

f. The City is not responsible for any delays at the treatment/disposal site. All additional charges are the responsibility of the Hauler.

g. Hauler is to follow the procedures and rules established by any treatment/disposal site used, including the treatment and backup disposal sites listed in this section. Prior to the start of the services under this Agreement, Hauler shall have an approved permit and/or agreement in place with the treatment/disposal sites for the term of the Agreement. Hauler shall have needed training completed prior to the start of service. The Hauler shall meet insurance requirements of the treatment/disposal facilities, including, but not limited to, additional insured requirements.

11. SAFETY REQUIREMENTS AND TRAINING Hauler shall provide initial training, in the presence of RWQCP operations staff, for all new drivers for the purpose of safe and proper operation of the loadout equipment. At a minimum, drivers shall learn proper procedures for check-in, communication, paperwork, loading, clean-up, spill response, and safe driving routes and speeds. Hauler shall provide documentation of this training to the City's Project Manager for each driver and shall be responsible for all costs associated with this training.

12. PAYMENT AND PRICING CONDITIONS

- a. See Contract, Section 8, Invoicing.
- b. Payment for work is to be made on a wet tonnage basis as determined by weight tickets at the Treatment Facility. The Treatment Facility will generate a legible, licensed weigh-master's certificate showing gross weight, tare weight, and net weight of each truckload of material. Weight will be based on a certified scale owned, operated, and maintained by the Treatment Facility. The weight tickets shall be provided to the Hauler by the Treatment Facility, used by hauler for invoicing City, and kept on file by Hauler for review by City as needed.
- c. Full compensation for completing Agreement work is included in the unit prices paid for the various items of work and no separate payment will be made therefor.
- d. If Hauler's owned or leased sludge trailers that are damaged by the City, the Hauler may repair and invoice City at a quoted hourly rate for labor and parts invoiced at no more than cost plus 30%, provided that: (i) Hauler provides City with notice of damage immediately upon discovery, (ii) Hauler submits to City documentation of damage within two business days of discovery, (iii) Hauler provides City with an opportunity to inspect the damage prior to repair, and (iv) City approves the claim for damage including estimated repair cost.

13. DOCUMENTATION, PERMITS, AND INSURANCE

- a. The Hauler shall maintain all required permits to perform the services during the term of this Agreement.
- b. The Hauler shall, at all times during the transportation, storage, and disposal of sludge to be managed under this Agreement, know the location, condition and status of each item being managed.

14. GUARANTEE. The Hauler warrants and guarantees that equipment used are of the type and quality specified herein. If in the opinion of the City, the equipment is found to be imperfect or of a grade inferior to that set forth in the requirements or are found to be deficient against any other standard set forth in the Agreement, they will be rejected and must be replaced without expense to the City.

- a. The Hauler understands that prompt pickup and disposal of sludge is critical to RWQCP operations. The Hauler warrants and guarantees to meet requirements set forth in this Agreement, including this scope of services.
- b. In the event of failure to comply with the above-mentioned conditions within a reasonable time after notice, the City will take all necessary steps

to dispose of the sludge, at the expense of the Hauler, who agrees to pay the costs and charges therefore immediately upon demand.

- c. The signing of the Agreement by the Contractor shall constitute execution of the above guarantees.

15. **GOODS TO BE SUPPLIED AND WORK TO BE PERFORMED.** The Hauler shall perform all work necessary to complete the Agreement in a satisfactory manner. Unless otherwise provided, the Hauler shall furnish and provide all materials, equipment, tools, labor and incidentals necessary to transport, haul, deliver and unload per these specifications.

16. **HAULING SERVICES DURING FACILITY TESTING; HAULER COORDINATION REQUIRED WITH CITY CONSTRUCTION CONTRACTOR.** Hauler shall have a reciprocal agreement to provide services to the City's construction contractor building the new sludge dewatering and truck loadout facility. The contractor is Overaa Construction; 200 Parr Boulevard; Richmond, CA 94801; 510-234-0926. Any impacts from providing this service to the contractor shall be at no cost to the City. At a minimum, the Hauler shall coordinate with contractor and provide the contractor's needed services for the performance testing shown in Exhibit A-2 to this Attachment. The new facility has three (3) sludge cake bins that can hold 97,500 pounds (48.75 wet tons) each for a total capacity of 292,500 pounds (146.25 wet tons).

END OF SECTION

Exhibit A-1 Palo Alto Sludge Characteristics

2016, 2017 Average Annual Wastewater Sludge Quality Data: 40CFR503 Sludge Regulation Trace Metal Analysis on Sludge					
Trace Metals	Dry-Weight Units	501.13 Ceiling Concentration Table 1	501.13 Pollutant Concentration Table 3	Average Annual Result	Single Results
Arsenic (As)	mg/kg	75	41	<2.70	--
Antimony (Sb)	mg/kg	--	--	--	ND<19 ^b
Barium (Ba)	mg/kg	--	--	--	50.2 ^b
Beryllium (Be)	mg/kg	--	--	--	ND ^{a, b}
Cadmium (Cd)	mg/kg	85	39	<1.61	--
Chromium (Cr)	mg/kg	--	--	13.0	--
Cobalt (Co)	mg/kg	--	--	--	ND<2 ^b
Copper (Cu)	mg/kg	4300	1500	291	--
Iron (Fe)	mg/kg	--	--	--	2650 ^b
Lead (Pb)	mg/kg	840	300	16.6	--
Mercury (Hg)	mg/kg	57	17	0.517	--
Molybdenum (Mo)	mg/kg	75	n/a	--	4.4 ^a ; ND<4 ^b
Nickel (Ni)	mg/kg	420	420	13.7	--
Selenium (Se)	mg/kg	100	100	--	6.3 ^a ; ND<17 ^b
Silver (Ag)	mg/kg	--	--	--	ND<4 ^b
Thallium (Tl)	mg/kg	--	--	--	ND<13 ^b
Vanadium (V)	mg/kg	--	--	--	5.97 ^b
Zinc (Zn)	mg/kg	7500	2800	--	520 ^a ; 166 ^b
Total Solids	%	--	--	27.0	--

^a Sampled 2/7/17 on 25% sludge cake; ^b Sampled 2/9/17 on 27% sludge cake

February 17, 2017 Scum Quality Data: 40CFR503 Sludge Regulation Trace Metal Analysis on Scum				
Trace Metals	Dry-Weight Units	501.13 Ceiling Concentration Table 1	501.13 Pollutant Concentration Table 3	Result
Arsenic (As)	mg/kg	75	41	ND
Beryllium (Be)	mg/kg	--	--	ND
Cadmium (Cd)	mg/kg	85	39	0.14
Chromium (Cr)	mg/kg	--	--	3.1
Copper (Cu)	mg/kg	4300	1500	30
Lead (Pb)	mg/kg	840	300	1.28
Mercury (Hg)	mg/kg	57	17	<0.0397
Molybdenum (Mo)	mg/kg	75	n/a	1.7
Nickel (Ni)	mg/kg	420	420	1.9
Selenium (Se)	mg/kg	100	100	<0.83
Zinc (Zn)	mg/kg	7500	2800	100
Total Solids	%	--	--	30.0

General Raw Sludge Characterization			
Trace Metals	Dry-Weight Units	Result	Sample date, comment
Total Kjeldahl Nitrogen (TKN)	mg/kg	44,000; 10,000	2/7/17 (25% cake); 2/9/17
Organic Nitrogen (25% sludge cake)	mg/kg	38,000	2/7/17
Ammonia-Nitrogen (25% sludge cake)	mg/kg	5,600	2/7/17
Grit Analysis: total residual solids in 30% sludge cake	%	0.52%	2/9/17 (dried at 103-105C)
Primary sludge volatile solids concentration	%	89%	2/7/13
Waste activated sludge (WAS) volatile solids concentration	%	80%	Typical value
Ratio Primary / Total Sludge	%	71 – 78%	2013 value
Ratio WAS / Total Sludge	%	22 – 29%	2013 value
Primary Sludge BTU Content – Dry	BTU/lb	8000	8/21/12 ASTM D5865-07a
WAS BTU Content – Dry	BTU/lb	7400	8/21/12 ASTM D5865-07a

Exhibit A-2:
Construction Contractor (C. Overra Co.) Cake Storage Bin Loadout Testing
Hauler Coordination Required

Performance Testing:

1. General (for information only):
 - a. Proposed test procedures shall be developed by the system supplier (i.e., C. Overra Co.'s supplier) and submitted to CH2MHILL for review, comment, and approval. Testing shall not begin until the test procedures have been approved by CH2MHILL.
 - b. For each of the tests specified below, system supplier and C. Overra Co. shall operate the equipment with assistance from Palo Alto.
 - c. If equipment does not meet the performance specified in construction contract requirements, the system supplier of C. Overra Co. shall have 5 days to rectify the deficiencies and repeat the testing. Testing shall be repeated until satisfactory performance is achieved.
 - d. System supplier shall prepare and submit a summary report of actual procedures used, monitoring methods, performance testing results, and all equipment and setpoint modifications made.
2. Stage 1 Loadout Test: The automatic loadout sequence shall be tested on each cake storage bin individually, with the following conditions:
 - a. Bin Inventory, Nominal: 50,000 pounds.
 - b. Discharge Amount Setpoint: 10,000 pounds.
 - c. Discharge Rate Setpoint: 2,000 pounds per minute.
3. Stage 2 Loadout Test: The automatic loadout sequence shall be tested on all three cake storage bins together, with the following conditions:
 - a. Bin Inventory, Nominal, per Bin: 90,000 pounds.
 - b. Discharge Amount Setpoint: 45,000 pounds total.
 - c. Discharge Rate Setpoint, per Bin: 3,000 pounds per minute.
 - d. Stage 2 loadout testing cannot be conducted until Stage 1 testing has satisfactory results.
4. Stage 3 Loadout Test: The automatic loadout sequence shall be tested on all three cake storage bins together, for three consecutive truck loads, with the following conditions:
 - a. Bin Inventory, Nominal, per Bin: 90,000 pounds.
 - b. Discharge Amount Setpoint: 45,000 pounds total.
 - c. Discharge Rate Setpoint, per Bin: 3,000 pounds per minute.
 - d. Stage 3 loadout testing cannot be conducted until Stage 2 testing has satisfactory results.
5. Residual Material Test: Each cake storage bin shall be fully emptied after completing satisfactory Stage 3 loadout testing. Residual material within each cake storage bin shall not exceed 2,000 pounds.

EXHIBIT B
SCHEDULE OF PERFORMANCE

CONTRACTOR shall perform the sludge treatment and disposal services in Exhibit A (Scope of Services) in accordance with Section 7 of Exhibit A.

EXHIBIT C SCHEDULE OF FEES

CITY shall pay CONTRACTOR according to the following rate schedule. The maximum amount of compensation to be paid to CONTRACTOR, including both payment for services and reimbursable expenses, shall not exceed the amounts set forth in Sections 5 and 6 of the Agreement. Any services provided or hours worked for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to CITY.

Hauler Unit Prices US \$/wet ton				
	To EBMUD	To Lystek	To Synagro	Y2, Y3 Increases on Contract Year Anniversary Date
Unit Price	\$ 16.40	\$ 24.40	\$ 27.90	CPI-U
CPI-U = See Contract Section 6, Compensation During Additional Terms				
Hauler Backup Sites to Landfill (LF) and Unit Prices in \$/wet ton				
	Portrero Hills LF Haul	Portrero Hills LF Haul & Disposal	Altamont LF Haul	Altamont LF Haul & Disposal
Unit Price	\$ 27.00	\$ 57.00	\$ 18.00	\$ 63.00

Pricing: Unit prices will be in US dollars and are price per wet ton for a term of contract. The unit price per wet ton includes all fees, taxes, and surcharges.

Miscellaneous

- a. Truck washout charges are to be included in the pricing.
- b. In case of price increase due to new regulatory fees, Hauler must notify the City of Palo Alto in writing before any additional fees will be allowed.
- c. Demurrage will not be charged for pickup of sludge up to and including 60 minutes of loading time. After 60 minutes, the demurrage charge of \$95/hour will apply if the City causes the delay.
- d. Demurrage will not be charged for delays caused by the Hauler not having proper paperwork at the time of arrival at the RWQCP site.
- e. A California No. 2 diesel ultra-low sulfur fuel surcharge is to be added to Denali or credited to Palo Alto on a monthly basis. The monthly average cost of diesel fuel will

be adjusted each month as determined from the California Energy Information Administration (EIA) website (www.eia.gov). The baseline amount of \$3.61/gallon will be used from the weekly value of diesel fuel at the time of the 11/14/17 proposal submission. A Denali fleet fuel efficiency of 5.5 miles per gallon and a truckload of 25 tons will be used for purposes of calculation. A maximum increase of \$0.50/gallon up to \$4.11 / gallon will be allowed during the contract term.

- i. To Lystek International: $\text{Surcharge/Credit} = (\text{EIA monthly average cost of diesel} - \$3.61) * 162 \text{ miles round trip} * 1 / 5.5 \text{ miles per gallon} * 1 / 25 \text{ tons}$
 - ii. Synagro Central Valley Composting: $\text{Surcharge/Credit} = (\text{EIA monthly average cost of diesel} - \$3.61) * 228 \text{ miles round trip} * 1 / 5.5 \text{ miles per gallon} * 1 / 25 \text{ tons}$
- f. A fee of \$8,350 (i.e., 1.25% of \$668,000) is included for the cost of providing a Performance Surety Bond in the first year of contract. Later contract years will be invoiced annually if a Performance Surety Bond is requested by the City.

EXHIBIT D INSURANCE REQUIREMENTS

CONTRACTORS TO THE CITY OF PALO ALTO (CITY), AT THEIR SOLE EXPENSE, SHALL FOR THE TERM OF THE CONTRACT OBTAIN AND MAINTAIN INSURANCE IN THE AMOUNTS FOR THE COVERAGE SPECIFIED BELOW, **AFFORDED BY COMPANIES WITH AM BEST'S KEY RATING OF A-VII, OR HIGHER, LICENSED OR AUTHORIZED TO TRANSACT INSURANCE BUSINESS IN THE STATE OF CALIFORNIA.**

AWARD IS CONTINGENT ON COMPLIANCE WITH CITY'S INSURANCE REQUIREMENTS, AS SPECIFIED, BELOW:

REQUIRED	TYPE OF COVERAGE	REQUIREMENT	MINIMUM LIMITS	
			EACH OCCURRENCE	AGGREGATE
YES YES	WORKER'S COMPENSATION EMPLOYER'S LIABILITY	STATUTORY STATUTORY		
YES	GENERAL LIABILITY, INCLUDING PERSONAL INJURY, BROAD FORM PROPERTY DAMAGE BLANKET CONTRACTUAL, AND FIRE LEGAL LIABILITY	BODILY INJURY	\$2,000,000	\$4,000,000
		PROPERTY DAMAGE	\$2,000,000	\$4,000,000
YES	AUTOMOBILE LIABILITY, INCLUDING ALL OWNED, HIRED, NON-OWNED	BODILY INJURY	\$1,000,000	\$1,000,000
		- EACH PERSON	\$1,000,000	\$1,000,000
		- EACH OCCURRENCE	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY AND PROPERTY DAMAGE, COMBINED	\$1,000,000	\$1,000,000
YES	POLLUTION LIABILITY	ALL DAMAGES	\$1,000,000	\$2,000,000
NO	PROFESSIONAL LIABILITY, INCLUDING, ERRORS AND OMISSIONS, MALPRACTICE (WHEN APPLICABLE), AND NEGLIGENT PERFORMANCE	ALL DAMAGES	\$1,000,000	
YES	THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED: CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONSULTANTS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS' COMPENSATION, EMPLOYER'S LIABILITY AND PROFESSIONAL INSURANCE, NAMING AS ADDITIONAL INSUREDS CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES.			

- I. INSURANCE COVERAGE MUST INCLUDE:
ENDORSEMENT PROVISIONS, WITH RESPECT TO THE INSURANCE AFFORDED TO
"ADDITIONAL INSUREDS"

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSUREDS.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS INSURED UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSURED, SHALL NOT INCREASE THE TOTAL LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE ISSUING COMPANY SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.
2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE ISSUING COMPANY SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

Vendors are required to file their evidence of insurance and any other related notices with the City of Palo Alto at the following URL:

<https://www.planetbids.com/portal/portal.cfm?CompanyID=25569>

OR

http://www.cityofpaloalto.org/gov/depts/asd/planet_bids_how_to.asp



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/08/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Brown & Brown of Russellville 706 West Main Russellville, AR 72801 Jordan Lieblong	CONTACT NAME: Jenny Lefevre PHONE (A/C, No, Ext): 479-968-3333 FAX (A/C, No): 479-968-4439 E-MAIL ADDRESS: jlefevre@bbgca.com												
INSURER(S) AFFORDING COVERAGE													
INSURED Denali Water Solutions, LLC dba Denali Waste Water Solutions 3308 Bernice Avenue Russellville, AR 72802	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">INSURER A : Commerce & Industry Ins Co</td> <td style="width: 20%;">NAIC # 19410b</td> </tr> <tr> <td>INSURER B : Nat'l Union Fire Ins Co of PA</td> <td>19445</td> </tr> <tr> <td>INSURER C : Western World Insurance Co</td> <td>13196</td> </tr> <tr> <td>INSURER D : Charter Oak Fire Insurance Co</td> <td>25615</td> </tr> <tr> <td>INSURER E : Travelers Prop Cas Co of AM</td> <td>25674</td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </table>	INSURER A : Commerce & Industry Ins Co	NAIC # 19410b	INSURER B : Nat'l Union Fire Ins Co of PA	19445	INSURER C : Western World Insurance Co	13196	INSURER D : Charter Oak Fire Insurance Co	25615	INSURER E : Travelers Prop Cas Co of AM	25674	INSURER F :	
INSURER A : Commerce & Industry Ins Co	NAIC # 19410b												
INSURER B : Nat'l Union Fire Ins Co of PA	19445												
INSURER C : Western World Insurance Co	13196												
INSURER D : Charter Oak Fire Insurance Co	25615												
INSURER E : Travelers Prop Cas Co of AM	25674												
INSURER F :													

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
C	<input checked="" type="checkbox"/> GENERAL LIABILITY	X	X	EVP1000779-00	04/01/2018	04/01/2019	EACH OCCURRENCE \$ 10,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ 10,000
	<input checked="" type="checkbox"/> Pollution/Profess						PERSONAL & ADV INJURY \$ 3,000,000
C	<input checked="" type="checkbox"/> Deduct: \$10,000			XCU & SEPARAT OF INSURED			GENERAL AGGREGATE \$ 10,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:			POLL/PROF IS CLAIMS MADE			PRODUCTS - COMP/OP AGG \$ 10,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC						Prof Liab \$ 10,000,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY	X	X	CA3761949	04/01/2018	04/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (PER ACCIDENT) \$
	<input checked="" type="checkbox"/> Owned Ded 2,000						HNO Deduct \$ 3,000
E	<input checked="" type="checkbox"/> UMBRELLA LIAB			ZUP-81M96226-18	04/01/2018	04/01/2019	EACH OCCURRENCE \$ 10,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB						AGGREGATE \$ 10,000,000
	<input type="checkbox"/> CLAIMS-MADE						Exc Over \$ Auto/WC
	DED RETENTION \$						
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	N/A	X	WC014220963	04/01/2018	04/01/2019	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	<input checked="" type="checkbox"/> Excess Liability			EVX1000780-00	04/01/2018	04/01/2019	Limit 1,000,000
D	<input checked="" type="checkbox"/> Installation Float			QT-660-7K974513-COF-18	04/01/2018	04/01/2019	Limit 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Excess policy excess over GL/Pollution/Professional
 Leased Equipment: \$500,000

CERTIFICATE HOLDER**CANCELLATION**

CITYPAL City of Palo Alto Attn: Jamie Allen PO Box 10250 Palo Alto, CA 94303	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
---	---

© 1988-2010 ACORD CORPORATION. All rights reserved.

The City of Palo Alto, its council members, officers, agent, and employees are including as an Additional Insured in regards to the General, Pollution, & Automobile Liability policies where required by written contract. As respects the coverage afforded the Additional Insured, this insurance is primary and non-contributory. The General Liability, Automobile Liability and Workers Compensation policy includes a blanket automatic waiver of subrogation as required by written contract. GL, Pollution, Auto, & WC Policies provide 30 Day notice of cancellation where required by written contract.

ENDORSEMENT

Named Insured: Denali Water Solutions LLC

Policy Number: EVP1000779-00

Endorsement

Effective Date: 04/01/2018

(12:01 AM Standard Time at the address of the
Named Insured as shown in the Declarations)

Endorsement

Number:

AMENDMENT OF CANCELLATION NOTICE ENDORSEMENT

This Endorsement changes the Policy. Please read it carefully.

It is agreed that:

Notwithstanding the appropriate provision of this policy, in the event cancellation of this policy is instigated by the Company for any reason except nonpayment of premium for which 10 days' notice is required, the Company will provide 30 days advance notice of such cancellation to the following: per schedule on file with carrier

This endorsement does not change any other provision of the Policy. The title and any headings in this endorsement are solely for convenience and do not affect its meaning.

ENDORSEMENT

Named Insured: Denali Water Solutions LLC

Policy Number: EVP1000779-00

Endorsement

Effective Date: 04/01/2018

(12:01 AM Standard Time at the address of the
Named Insured as shown in the Declarations)

Endorsement

Number:

AMENDMENT OF CANCELLATION NOTICE ENDORSEMENT – Including Material Change

This Endorsement changes the Policy. Please read it carefully.

It is agreed that:

Notwithstanding the appropriate provision of this policy, in the event cancellation of this policy is instigated by the Company for any reason except nonpayment of premium, for which 10 days' notice is required, the Company will provide << 30 >> days advance notice of such cancellation to the person or entity listed below. The Company will also provide << 30 >> days advance notice to the person or entity listed below of any material change in policy terms, including change in coverage, reduction of limits or non-renewal of the Policy.

Notice: per schedule on file with carrier

This endorsement does not change any other provision of the Policy. The title and any headings in this endorsement are solely for convenience and do not affect its meaning.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

CONTRACTOR'S POLLUTION LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
Any person(s) or organizations(s) whom the Named Insured agrees, in a written contract, to name as additional insured. However, this status exists only for the project specified in that contract.	Those project locations where this endorsement is required by contract.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Definitions is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

Includes copyrighted material of Insurance Services Office, Inc. with its permission

Policy Number: EVP1000779-00

COMMERCIAL GENERAL LIABILITY
CG 20 10 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS - SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Any person or organization as required by a signed written contract with the Named Insured.	As designated in a signed written contract with the Named Insured.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II — Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

POLICY NUMBER: . EVP1000779-00

COMMERCIAL GENERAL LIABILITY
CG 20 37 04 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

- x COMMERCIAL GENERAL LIABILITY COVERAGE PART
- x PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
Any person(s) or organization(s) to whom the insured agrees to provide Additional Insured status in a written contract signed by both parties and executed prior to the commencement of operations.	Those project locations where this endorsement is required by contract.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

- A. Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".
- However:
1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.
- B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:**
- If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:
1. Required by the contract or agreement; or
 2. Available under the applicable Limits of Insurance shown in the Declarations;
- whichever is less.
- This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

ENDORSEMENT

Named Insured: Denali Water Solutions LLC

Policy Number: EVP1000779-00

Endorsement

Effective Date: 04/01/2018

Endorsement

Number:

(12:01 AM Standard Time at the address of the
Named Insured as shown in the Declarations)

AUTOMATIC ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS

This Endorsement changes the Policy. Please read it carefully.

It is agreed that:

This endorsement modifies insurance provided under the following:

- x **COMMERCIAL GENERAL LIABILITY COVERAGE PART**
- x **CONTRACTORS POLLUTION LIABILITY COVERAGE PART**

Any person(s) or organization(s) whom the *Named Insured* agrees, in a written contract, to name as an additional insured is included as an insured, but only as respects the project specified in that contract and only with respect to that person's or organization's vicarious liability arising out of your ongoing operations performed for that insured. The limit of the additional insured coverage shall be the lesser of:

1. those limits required by written contract; or
2. the applicable per claim limit per the Declarations.



Authorized Representative

This endorsement does not change any other provision of the Policy. The title and any headings in this endorsement are solely for convenience and do not affect its meaning.

ENDORSEMENT

Named Insured: Denali Water Solutions LLC

Policy Number: EVP1000779-00

Endorsement

Effective Date: 04/01/2018

(12:01 AM Standard Time at the address of the
Named Insured as shown in the Declarations)

Endorsement

Number:

AUTOMATIC PRIMARY AND NON-CONTRIBUTORY INSURANCE ENDORSEMENT – DESIGNATED WORK OR PROJECT(S)

This Endorsement changes the Policy. Please read it carefully.

It is agreed that:

SCHEDULE

Name of Person or Organization:

Any person(s) or organization(s) whom the *named insured* agrees, in a written contract, to provide Primary and/or Non-contributory status of this insurance. However, this status exists only for the project specified in that contract.

In consideration of an additional premium of \$applied, and notwithstanding anything contained in this Policy to the contrary, it is hereby agreed that this Policy shall be considered primary to any similar insurance held by third parties in respect to work performed by you under any written contractual agreement with such third party. It is further agreed that any other insurance which the person(s) or organization(s) named in the schedule may have is excess and non-contributory to this insurance.



Authorized Representative

This endorsement does not change any other provision of the Policy. The title and any headings in this endorsement are solely for convenience and do not affect its meaning.

ENDORSEMENT

Named Insured: Denali Water Solutions LLC

Policy Number: EVP10000779-00

Endorsement

Effective Date: 04/01/2018

(12:01 AM Standard Time at the address of the
Named Insured as shown in the Declarations)

Endorsement

Number:

AUTOMATIC WAIVER OF SUBROGATION ENDORSEMENT

This Endorsement changes the Policy. Please read it carefully.

It is agreed that:

This endorsement modifies insurance provided under the following:

- x COMMERCIAL GENERAL LIABILITY COVERAGE PART
- x CONTRACTORS POLLUTION LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:

Any person(s) or organization(s) to whom the *Named Insured* agrees, in a written contract, to provide a waiver of subrogation. However, this status exists only for the project specified in that contract.

The Company waives any right of recovery it may have against the person or organization shown in the above Schedule because of payments the Company makes for injury or damage arising out of the *insured's* work done under a contract with that person or organization. The waiver applies only to the person or organization in the above Schedule.

Under no circumstances shall this endorsement act to extend the policy period, change the scope of coverage or increase the Aggregate Limits of Insurance shown in the Declarations.



Authorized Representative

This endorsement does not change any other provision of the Policy. The title and any headings in this endorsement are solely for convenience and do not affect its meaning.

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2018 forms a part of

Policy No. CA3761949 issued to DENALI WATER SOLUTIONS, LLC

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**FLORIDA LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL
TO ENTITIES OTHER THAN THE FIRST NAMED INSURED**

This policy is amended as follows:

In the event that the Insurer cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the First Named Insured is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and has provided to the Insurer, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the Insurer received this information after the First Named Insured receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the Insurer,

the Insurer will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 60 days after the First Named Insured provides such information to the Insurer; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the First Named Insured provides such information to the Insurer.

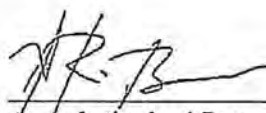
Proof of the Insurer emailing the Advice, using the information provided by the First Named Insured, will serve as proof that the Insurer has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof.

The following Definitions apply to this endorsement:

1. First Named Insured means the Named Insured shown on the Declarations Page of this policy.
2. Insurer means the insurance company shown in the header on the Declarations page of this policy.

All other terms, conditions and exclusions shall remain the same.



Authorized Representative

ENDORSEMENT #

This endorsement, effective 12:01 A.M. 04/01/2018 forms a part of

Policy No. CA3761949 issued to DENALI WATER SOLUTIONS, LLC

By NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL
TO ENTITIES OTHER THAN THE FIRST NAMED INSURED**

This policy is amended as follows:

In the event that the Insurer cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the First Named Insured is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and has provided to the Insurer, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the Insurer received this information after the First Named Insured receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the Insurer,

the Insurer will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 60 days after the First Named Insured provides such information to the Insurer; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the First Named Insured provides such information to the Insurer.

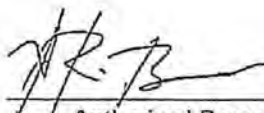
Proof of the Insurer emailing the Advice, using the information provided by the First Named Insured, will serve as proof that the Insurer has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following Definitions apply to this endorsement:

1. First Named Insured means the Named Insured shown on the Declarations Page of this policy.
2. Insurer means the insurance company shown in the header on the Declarations page of this policy.

All other terms, conditions and exclusions shall remain the same.



Authorized Representative

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2018 forms a part of

Policy No. CA3761949 issued to DENALI WATER SOLUTIONS, LLC

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - WHERE REQUIRED UNDER CONTRACT OR AGREEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

SCHEDULE

ADDITIONAL INSURED:

SECTION II - LIABILITY COVERAGE, A. COVERAGE,
1. WHO IS AN INSURED IS AMENDED TO INCLUDE AS AN INSURED
ANY PERSON OR ORGANIZATION WITH WHICH YOU HAVE AGREED IN A
VALID WRITTEN CONTRACT TO PROVIDE INSURANCE AS IS AFFORDED
BY THIS POLICY. THIS PROVISION IS LIMITED TO THE SCOPE OF
THE VALID WRITTEN CONTRACT.
THIS PROVISION DOES NOT APPLY UNLESS THE VALID WRITTEN
CONTRACT HAS BEEN EXECUTED PRIOR TO THE "BODILY INJURY"
OR "PROPERTY DAMAGE".

I. SECTION II - COVERED AUTOS LIABILITY COVERAGE, A. Coverage, 1. - Who Is Insured, is amended to add:

- d. Any person or organization, shown in the schedule above, to whom you become obligated to include as an additional insured under this policy, as a result of any contract or agreement you enter into which requires you to furnish insurance to that person or organization of the type provided by this policy, but only with respect to liability arising out of use of a covered "auto". However, the insurance provided will not exceed the lesser of:

- (1) The coverage and/or limits of this policy, or
- (2) The coverage and/or limits required by said contract or agreement.



AUTHORIZED REPRESENTATIVE

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2018 forms a part of

policy No. CA3761949 issued to DENALI WATER SOLUTIONS, LLC

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - WHERE REQUIRED UNDER CONTRACT OR AGREEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

SCHEDULE

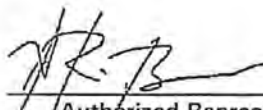
ADDITIONAL INSURED:

SECTION II - LIABILITY COVERAGE, A. COVERAGE,
1. WHO IS AN INSURED IS AMENDED TO INCLUDE AS AN INSURED
ANY PERSON OR ORGANIZATION WITH WHICH YOU HAVE AGREED IN A
VALID WRITTEN CONTRACT TO PROVIDE INSURANCE AS IS AFFORDED
BY THIS POLICY. THIS PROVISION IS LIMITED TO THE SCOPE OF
THE VALID WRITTEN CONTRACT.
THIS PROVISION DOES NOT APPLY UNLESS THE VALID WRITTEN
CONTRACT HAS BEEN EXECUTED PRIOR TO THE "BODILY INJURY"
OR "PROPERTY DAMAGE".

I. SECTION II - LIABILITY COVERAGE, A. Coverage, 1. - Who Is Insured, is amended to add:

d. Any person or organization, shown in the schedule above, to whom you become obligated to include as an additional insured under this policy, as a result of any contract or agreement you enter into which requires you to furnish insurance to that person or organization of the type provided by this policy, but only with respect to liability arising out of use of a covered "auto". However, the insurance provided will not exceed the lesser of:

- (1) The coverage and/or limits of this policy, or
- (2) The coverage and/or limits required by said contract or agreement.



Authorized Representative or
Countersignature (in States Where
Applicable)

ENDORSEMENT

This endorsement, effective 12:01A.M. 04/01/2018 forms a part of

policy No. CA3761949 issued to DENALI WATER SOLUTIONS, LLC

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

INSURANCE PRIMARY AS TO CERTAIN ADDITIONAL INSURED

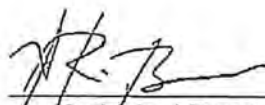
This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

Section IV - Business Auto Conditions, B., General Conditions, 5., Other Insurance, c., is amended by the addition of the following sentence:

The insurance afforded under this policy to an additional insured will apply as primary insurance for such additional insured where so required under an agreement executed prior to the date of accident. We will not ask any insurer that has issued other insurance to such additional insured to contribute to the settlement of loss arising out of such accident.

All other terms and conditions remain unchanged.



Authorized Representative or
Countersignature (in States Where
Applicable)

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2018 forms a part of

policy No. CA3761949 issued to DENALI WATER SOLUTIONS, LLC

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

Section IV - Business Auto Conditions, A. - Loss Conditions, 5. - Transfer of Rights of Recovery Against Others to Us, is amended to add:

However, we will waive any right of recover we have against any person or organization with whom you have entered into a contract or agreement because of payments we make under this Coverage Form arising out of an "accident" or "loss" if:

- (1) The "accident" or "loss" is due to operations undertaken in accordance with the contract existing between you and such person or organization; and
- (2) The contract or agreement was entered into prior to any "accident" or "loss".

No waiver of the right of recovery will directly or indirectly apply to your employees or employees of the person or organization, and we reserve our rights or lien to be reimbursed from any recovery funds obtained by any injured employee.



AUTHORIZED REPRESENTATIVE

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on inception date of the policy unless a different date is indicated below.

This endorsement, effective 12:01 AM 04/01/2018

forms a part of Policy No. WC014220963

Issued to DENALI WATER SOLUTIONS, LLC

By COMMERCE AND INDUSTRY INSURANCE COMPANY

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

Schedule

ANY PERSON OR ORGANIZATION WITH WHOM YOU HAVE ENTERED INTO A CONTRACT, A CONDITION OF WHICH REQUIRES YOU TO OBTAIN THIS WAIVER FROM US. THIS ENDORSEMENT DOES NOT APPLY TO BENEFITS OR DAMAGES PAID OR CLAIMED:

1. PURSUANT TO THE WORKERS' COMPENSATION OR EMPLOYERS' LIABILITY LAWS OF KENTUCKY, NEW HAMPSHIRE, OR NEW JERSEY; OR,
2. BECAUSE OF INJURY OCCURRING BEFORE YOU ENTERED INTO SUCH A CONTRACT.

CONTINUED NEXT PAGE

Any person or organization for which the employer has agreed by written contract, executed prior to loss, may execute a waiver of subrogation. However, for purposes of work performed by the employer in Missouri, this waiver of subrogation does not apply to any construction group of classifications as designated by the waiver of right to recover from others (subrogation) rule in our manual.

This form is not applicable in California, Kentucky, New Hampshire, New Jersey, Texas, or Utah.

WC 00 03 13
(Ed. 04/84)

Countersigned by _____



Authorized Representative

BLANKET WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 04/01/2018 forms a part of Policy No.

Issued to DENALI WATER SOLUTIONS, LLC

By COMMERCE AND INDUSTRY INSURANCE COMPANY

We have a right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against any person or organization with whom you have a written contract that requires you to obtain this agreement from us, as regards any work you perform for such person or organization.

The additional premium for this endorsement shall be 2.00 % of the total estimated workers compensation premium for this policy.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 04/01/2018 forms a part of Policy No. WC014220963

Issued to DENALI WATER SOLUTIONS, LLC

By COMMERCE AND INDUSTRY INSURANCE COMPANY

**LIMITED ADVICE OF CANCELLATION PROVIDED VIA E-MAIL
TO ENTITIES OTHER THAN THE NAMED INSURED
(WORKERS' COMPENSATION ONLY)**

This policy is amended as follows:

In the event that the **Insurer** cancels this policy for any reason other than non-payment of premium, and

1. the cancellation effective date is prior to this policy's expiration date;
2. the **Named Insured** or, if applicable, any other employers named in Item 1 of the Information Page is under an existing contractual obligation to notify a certificate holder when this policy is canceled (hereinafter, the "Certificate Holder(s)") and the **Named Insured** has provided to the **Insurer**, either directly or through its broker of record, the email address of a contact at each such entity; and
3. the **Insurer** received this information after the **Named Insured** receives notice of cancellation of this policy and prior to this policy's cancellation effective date, via an electronic spreadsheet that is acceptable to the **Insurer**,

the **Insurer** will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 60 days after the **Named Insured** provides such information to the **Insurer**; provided, however, that if a specific number of days is not stated above, then the Advice will be provided to such Certificate Holder(s) as soon as reasonably practicable after the **Named Insured** provides such information to the **Insurer**.

Proof of the **Insurer** emailing the Advice, using the information provided by the **First Named Insured**, will serve as proof that the **Insurer** has fully satisfied its obligations under this endorsement.

This endorsement does not affect, in any way, coverage provided under this policy or the cancellation of this policy or the effective date thereof, nor shall this endorsement invest any rights in any entity not insured under this policy.

The following definitions apply to this endorsement:

1. **Named Insured** means the insured first named employer in Item 1 of the Information Page of this policy.
2. **Insurer** means the insurance company shown in the header on the Information Page of this policy.

All other terms, conditions and exclusions shall remain the same.



AUTHORIZED REPRESENTATIVE

TEXAS WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective 12:01 AM 04/01/2018 forms a part of Policy No. WC014220963

Issued to DENALI WATER SOLUTIONS, LLC

By COMMERCE AND INDUSTRY INSURANCE COMPANY

This endorsement applies only to the insurance provided by the policy because Texas is shown in Item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the Schedule where you are required by a written contract to obtain this waiver from us.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

The premium for this endorsement is shown in the Schedule.

Schedule

1. () Specific Waiver

Name of person or organization

(X) Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations: ALL TEXAS OPERATIONS

3. Premium:

The premium charge for this endorsement shall be 2.0 percent of the premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Advance Premium: \$548.00

WC 42 03 04 B
(Ed. 6-14)

Countersigned by



Authorized Representative

EXHIBIT E BONDS

Contractor's Performance Surety Bond

WHEREAS, the City Council of the City of Palo Alto, State of California ("City") and **Denali Water Solutions, LLC**, ("Principal") have entered into an agreement dated _____ and identified as "**Sludge Hauling and Treatment Project**", which is hereby referred to and made a part hereof whereby Principal agrees to install and complete certain designated public improvements; and

WHEREAS, Principal is required under the terms of said agreement to furnish a surety bond for the faithful performance of said agreement.

NOW, THEREFORE, Principal and _____, as Surety, incorporated under the Laws of the State of _____, and duly authorized to transact business as an admitted surety, under the Laws of the State of California, are held and firmly bound unto City in the penal sum of **Seven Hundred Seventeen Thousand Dollars (\$668,000)**, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the Principal, Principal's heirs, executors, administrators, successors, or assigns shall promptly and faithfully keep and perform the covenants, conditions, and provisions of the above-mentioned agreement and any alteration thereof, with or without notice to the Surety, and if Principal shall satisfy all claims and demands incurred under such agreement and shall fully protect, indemnify, defend, and hold harmless City, its officers, agents, and employees from all claims, demands, or liabilities which may arise by reason of Principal's failure to do so, and shall reimburse and repay City all outlay and expenses which City may incur in making good any default, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

As part of the obligations secured hereto, and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees incurred by City in successfully enforcing such obligations, all to be taxed as costs and included in any judgment rendered. Surety shall be liable for any liquidated damages for which the Principal may be liable under its agreement with the City, and such liquidated damages shall be part of the obligations secured hereto, and in addition to the face amount specified therefore.

The Surety hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the agreement or to the work to be performed thereunder or the specifications accompanying the same, shall in any way affect its obligations on this security, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the agreement or to the work or to the specifications. Surety hereby waives the provisions of California Civil Code Section 2845 and 2849. The City is the principal beneficiary of this bond and has all rights of a party hereto,

**EXHIBIT E
BONDS**

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal Surety above named on _____, 20_____.

SURETY, _____ PHONE NUMBER: _____

BY: _____ Its: _____

Contractor: _____

Principal: _____

**CERTIFICATE OF ACKNOWLEDGMENT
(Civil Code § 1189)**

STATE OF _____)

COUNTY OF _____)

On _____, before me, _____, a notary public in and for said County, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal)

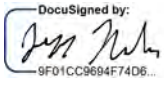
Certificate Of Completion

Envelope Id: DAEBCCFF0A3D1416C9A4A00664E03518E	Status: Completed
Subject: Please DocuSign: Contract C18169607A Denali 5 8 2018 Rev 2.pdf	
Source Envelope:	
Document Pages: 54	Signatures: 2
Certificate Pages: 2	Initials: 0
AutoNav: Enabled	
Envelope Stamping: Enabled	
Time Zone: (UTC-08:00) Pacific Time (US & Canada)	Envelope Originator: Saira Cardoza 250 Hamilton Ave Palo Alto , CA 94301 saira.cardoza@cityofpaloalto.org IP Address: 12.220.157.20

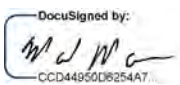
Record Tracking

Status: Original 5/30/2018 12:04:32 PM	Holder: Saira Cardoza saira.cardoza@cityofpaloalto.org	Location: DocuSign
---	---	--------------------

Signer Events

Signer Events	Signature	Timestamp
Jeff Thurber jeff.thurber@denaliwater.com Vice President Security Level: Email, Account Authentication (None)	 <small>DocuSigned by: 9F01C9694F74D6...</small> Using IP Address: 99.203.3.61 Signed using mobile	Sent: 5/30/2018 12:12:24 PM Viewed: 5/30/2018 12:24:04 PM Signed: 6/5/2018 3:16:46 PM

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

Mark Marasco mark.marasco@denaliwater.com CFO Security Level: Email, Account Authentication (None)	 <small>DocuSigned by: CCD44850D8254A7...</small> Using IP Address: 64.134.76.1 Signed using mobile	Sent: 6/5/2018 3:16:47 PM Viewed: 6/5/2018 4:18:30 PM Signed: 6/5/2018 4:19:19 PM
---	--	---

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

In Person Signer Events

In Person Signer Events	Signature	Timestamp
-------------------------	-----------	-----------

Editor Delivery Events

Editor Delivery Events	Status	Timestamp
------------------------	--------	-----------

Agent Delivery Events

Agent Delivery Events	Status	Timestamp
-----------------------	--------	-----------

Intermediary Delivery Events

Intermediary Delivery Events	Status	Timestamp
------------------------------	--------	-----------

Certified Delivery Events

Certified Delivery Events	Status	Timestamp
---------------------------	--------	-----------

Carbon Copy Events

Carbon Copy Events	Status	Timestamp
James Allen james.allen@cityofpaloalto.org Manager Water Quality Control Plant City of Palo Alto Security Level: Email, Account Authentication (None)	<div style="border: 2px solid blue; padding: 5px; text-align: center; font-weight: bold; color: blue;">COPIED</div>	Sent: 6/5/2018 4:19:20 PM

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

Carbon Copy Events	Status	Timestamp
Sangita Dutt Sangita.Dutt@CityofPaloAlto.org Administrative Associate II City of Palo Alto Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign	COPIED	Sent: 6/5/2018 4:19:20 PM Viewed: 6/6/2018 6:05:29 AM
Chris Marks chrisamarks@comcast.net Manager Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign	COPIED	Sent: 6/5/2018 4:19:21 PM Viewed: 6/5/2018 4:37:13 PM
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	6/5/2018 4:19:21 PM
Certified Delivered	Security Checked	6/5/2018 4:19:21 PM
Signing Complete	Security Checked	6/5/2018 4:19:21 PM
Completed	Security Checked	6/5/2018 4:19:21 PM
Payment Events	Status	Timestamps

CITY OF PALO ALTO CONTRACT NO. C18169607B

GENERAL SERVICES AGREEMENT

THIS AGREEMENT made and entered into on the 18th day of June, 2018, by and between the **CITY OF PALO ALTO, a California chartered municipal corporation** ("CITY"), and **LYSTEK INTERNATIONAL LIMITED**, a corporation, located at 1014 Chadbourne Road, Fairfield, CA 94534, Telephone Number 707-419-0084 ("**CONTRACTOR**"). In consideration of their mutual covenants, the parties hereto agree as follows:

1. **SERVICES.** CONTRACTOR shall provide or furnish the services (the "Services") described in the Scope of Services, attached at Exhibit A.

☐ Optional On-Call Provision (This provision only applies if checked and only applies to on-call agreements.)

Services will be authorized by CITY, as needed, with a Task Order assigned and approved by CITY's Project Manager. Each Task Order shall be in substantially the same form as Exhibit A-1. Each Task Order shall designate a CITY Project Manager and shall contain a specific scope of work, a specific schedule of performance and a specific compensation amount. The total price of all Task Orders issued under this Agreement shall not exceed the amount of Compensation set forth in Section 5 of this Agreement. CONTRACTOR shall only be compensated for work performed under an authorized Task Order and CITY may elect, but is not required, to authorize work up to the maximum compensation amount set forth in Section 5.

2. **EXHIBITS.** The following exhibits are attached to and made a part of this Agreement:

- ☒ "A" - Scope of Services
- ☒ "A-1" – Palo Alto Sludge Characteristics
- ☒ "B" - Schedule of Performance
- ☒ "C" – Schedule of Fees
- ☒ "D" - Insurance Requirements

CONTRACT IS NOT COMPLETE UNLESS ALL INDICATED EXHIBITS ARE ATTACHED.

3. TERM.

The term of this Agreement is from September 1, 2018 to March 31, 2024 inclusive, subject to the provisions of Sections R and W of the General Terms and Conditions.

- 4. SCHEDULE OF PERFORMANCE.** CONTRACTOR shall complete the Services within the term of this Agreement in a reasonably prompt and timely manner based upon the circumstances and direction communicated to CONTRACTOR, and if applicable, in accordance with the schedule set forth in the Schedule of Performance, attached at Exhibit B. Time is of the essence in this Agreement.
- 5. COMPENSATION FOR ORIGINAL TERM.** CITY shall pay and CONTRACTOR agrees to accept as not-to-exceed compensation for the full performance of the Services and reimbursable expenses, if any:

- ☐ The total maximum lump sum compensation of dollars (\$);
OR
- ☐ The sum of dollars (\$) per hour, not to exceed a total maximum compensation amount of dollars (\$); **OR**
- ☒ A sum calculated in accordance with the fee schedule set forth at Exhibit C, not to exceed a total maximum compensation amount of Three Million Six Hundred Forty-Nine Thousand Dollars (\$3,649,000).

CONTRACTOR agrees that it can perform the Services for an amount not to exceed the total maximum compensation set forth above. Any hours worked or services performed by CONTRACTOR for which payment would result in a total exceeding the maximum amount of compensation set forth above for performance of the Services shall be at no cost to CITY.

- ☐ CITY has set aside the sum of dollars (\$) for Additional Services. CONTRACTOR shall provide Additional Services only by advanced, written authorization from the City Manager or designee. CONTRACTOR, at the CITY's request, shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort, and CONTRACTOR's proposed maximum compensation, including reimbursable expense, for such services. Compensation shall be based on the hourly rates set forth above or in Exhibit C (whichever is applicable), or if such rates are not applicable, a negotiated lump sum. CITY shall not authorize and CONTRACTOR shall not perform any Additional Services for which payment would exceed the amount set forth above for Additional Services. Payment for Additional Services is subject to all requirements and restrictions in this Agreement.

6. COMPENSATION DURING ADDITIONAL TERMS.

- ☐ CONTRACTOR'S compensation rates for each additional term shall be the same as the original term; **OR**
- ☐ CONTRACTOR's compensation rates shall be adjusted effective on the commencement of each Additional Term. The lump sum compensation amount, hourly rates, or fees, whichever is applicable as set forth in section 5 above, shall be adjusted by a percentage equal to the change in the Consumer Price Index for Urban Wage Earners and Clerical Workers for the San Francisco-Oakland- San Jose area, published by the United States Department of Labor Statistics (CPI) which is published most immediately preceding the commencement of the applicable Additional Term, which shall be compared with the CPI published most immediately preceding the commencement date of the then expiring term. Notwithstanding the foregoing, in no event shall CONTRACTOR's compensation rates be increased by an amount exceeding five percent of the rates effective during the immediately preceding term. Any adjustment to CONTRACTOR's compensation rates shall be reflected in a written amendment to this Agreement.

7. CLAIMS PROCEDURE FOR "9204 PUBLIC WORKS PROJECTS". For purposes of this Section 7, a "9204 Public Works Project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind. Public Contract Code Section 9204 mandates certain claims procedures for Public Works Projects, which are set forth in "Appendix __ Claims for Public Contract Code Section 9204 Public Works Projects".

- ☐ **This project is a 9204 Public Works Project** and is required to comply with the claims procedures set forth in Appendix __, attached hereto and incorporated herein.

OR

- ☒ **This project is not a 9204 Public Works Project.**

8. INVOICING. Send all invoices to CITY, Attention: Project Manager. The Project Manager is: James Allen, 2501 Embarcadero Way, Palo Alto, CA 94303 Dept.: Public Works, Telephone: 650-329-2243, email: James.Allen@cityofpaloalto.org

Invoices shall be submitted in arrears for Services performed. Invoices shall not be submitted more frequently than monthly. Invoices shall provide a detailed statement of Services performed during the invoice period and are subject to verification by CITY. CITY shall pay the undisputed amount of invoices within 30 days of receipt.

Invoice shall include:

- Contract Number
- Item description
- Itemized spreadsheet, auditable at any time for individual load tickets
- Certified net weight of each load times contract price per ton

Invoice shall be electronic pursuant to City administrative standards; a PDF email is acceptable.

GENERAL TERMS AND CONDITIONS

- A. ACCEPTANCE.** CONTRACTOR accepts and agrees to all terms and conditions of this Agreement. This Agreement includes and is limited to the terms and conditions set forth in sections 1 through 8 above, these general terms and conditions and the attached exhibits.
- B. QUALIFICATIONS.** CONTRACTOR represents and warrants that it has the expertise and qualifications to complete the services described in Section 1 of this Agreement, entitled "SERVICES," and that every individual charged with the performance of the services under this Agreement has sufficient skill and experience and is duly licensed or certified, to the extent such licensing or certification is required by law, to perform the Services. CITY expressly relies on CONTRACTOR's representations regarding its skills, knowledge, and certifications. CONTRACTOR shall perform all work in accordance with generally accepted business practices and performance standards of the industry, including all federal, state, and local operation and safety regulations.
- C. INDEPENDENT CONTRACTOR.** It is understood and agreed that in the performance of this Agreement, CONTRACTOR and any person employed by CONTRACTOR shall at all times be considered an independent CONTRACTOR and not an agent or employee of CITY. CONTRACTOR shall be responsible for employing or engaging all persons necessary to complete the work required under this Agreement.
- D. SUBCONTRACTORS.** CONTRACTOR may not use subcontractors to perform any Services under this Agreement unless CONTRACTOR obtains prior written

consent of CITY. CONTRACTOR shall be solely responsible for directing the work of approved subcontractors and for any compensation due to subcontractors.

- E. TAXES AND CHARGES.** CONTRACTOR shall be responsible for payment of all taxes, fees, contributions or charges applicable to the conduct of CONTRACTOR's business.
- F. COMPLIANCE WITH LAWS.** CONTRACTOR shall in the performance of the Services comply with all applicable federal, state and local laws, ordinances, regulations, and orders.
- G. PALO ALTO MINIMUM WAGE ORDINANCE.** CONTRACTOR shall comply with all requirements of the Palo Alto Municipal Code Chapter 4.62 (Citywide Minimum Wage), as it may be amended from time to time. In particular, for any employee otherwise entitled to the State minimum wage, who performs at least two (2) hours of work in a calendar week within the geographic boundaries of the City, CONTRACTOR shall pay such employees no less than the minimum wage set forth in Palo Alto Municipal Code section 4.62.030 for each hour worked within the geographic boundaries of the City of Palo Alto. In addition, CONTRACTOR shall post notices regarding the Palo Alto Minimum Wage Ordinance in accordance with Palo Alto Municipal Code section 4.62.060.
- H. DAMAGE TO PUBLIC OR PRIVATE PROPERTY.** CONTRACTOR shall, at its sole expense, repair in kind, or as the City Manager or designee shall direct, any damage to public or private property that occurs in connection with CONTRACTOR's performance of the Services. CITY may decline to approve and may withhold payment in whole or in part to such extent as may be necessary to protect CITY from loss because of defective work not remedied or other damage to the CITY occurring in connection with CONTRACTOR's performance of the Services. CITY shall submit written documentation in support of such withholding upon CONTRACTOR's request. When the grounds described above are removed, payment shall be made for amounts withheld because of them.
- I. WARRANTIES.** CONTRACTOR expressly warrants that all services provided under this Agreement shall be performed in a professional and workmanlike manner in accordance with generally accepted business practices and performance standards of the industry and the requirements of this Agreement. CONTRACTOR expressly warrants that all materials, goods and equipment provided by CONTRACTOR under this Agreement shall be fit for the particular purpose intended, shall be free from defects, and shall conform to the requirements of this Agreement. CONTRACTOR agrees to promptly replace or correct any material or service not in compliance with these warranties, including incomplete, inaccurate, or defective material or service, at no further

cost to CITY. The warranties set forth in this section shall be in effect for a period of one year from completion of the Services and shall survive the completion of the Services or termination of this Agreement.

- J. MONITORING OF SERVICES.** CITY may monitor the Services performed under this Agreement to determine whether CONTRACTOR's work is completed in a satisfactory manner and complies with the provisions of this Agreement.
- K. CITY'S PROPERTY.** Any reports, information, data or other material (including copyright interests) developed, collected, assembled, prepared, or caused to be prepared under this Agreement will become the property of CITY without restriction or limitation upon their use and will not be made available to any individual or organization by CONTRACTOR or its subcontractors, if any, without the prior written approval of the City Manager.
- L. AUDITS.** CONTRACTOR agrees to permit CITY and its authorized representatives to audit, at any reasonable time during the term of this Agreement and for three (3) years from the date of final payment, CONTRACTOR's records pertaining to matters covered by this Agreement. CONTRACTOR agrees to maintain accurate books and records in accordance with generally accepted accounting principles for at least three (3) following the terms of this Agreement.
- M. NO IMPLIED WAIVER.** No payment, partial payment, acceptance, or partial acceptance by CITY shall operate as a waiver on the part of CITY of any of its rights under this Agreement.
- N. INSURANCE.** CONTRACTOR, at its sole cost, shall purchase and maintain in full force during the term of this Agreement, the insurance coverage described at Exhibit D. Insurance must be provided by companies with a Best's Key Rating of A-:VII or higher and which are otherwise acceptable to CITY's Risk Manager. The Risk Manager must approve deductibles and self-insured retentions. In addition, all policies, endorsements, certificates and/or binders are subject to approval by the Risk Manager as to form and content. CONTRACTOR shall obtain a policy endorsement naming the City of Palo Alto as an additional insured under any general liability or automobile policy. CONTRACTOR shall obtain an endorsement stating that the insurance is primary coverage and will not be canceled or materially reduced in coverage or limits until after providing 30 days prior written notice of the cancellation or modification to the Risk Manager. CONTRACTOR shall provide certificates of such policies or other evidence of coverage satisfactory to the Risk Manager, together with the required endorsements and evidence of payment of premiums, to CITY concurrently with the execution of this Agreement and shall throughout the term of this Agreement provide current certificates evidencing the required insurance

coverages and endorsements to the Risk Manager. CONTRACTOR shall include all subcontractors as insured under its policies or shall obtain and provide to CITY separate certificates and endorsements for each subcontractor that meet all the requirements of this section. The procuring of such required policies of insurance shall not operate to limit CONTRACTOR's liability or obligation to indemnify CITY under this Agreement.

- O. HOLD HARMLESS.** To the fullest extent permitted by law and without limitation by the provisions of section N relating to insurance, CONTRACTOR shall indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents from and against any and all demands, claims, injuries, losses, or liabilities of any nature, including death or injury to any person, property damage or any other loss and including without limitation all damages, penalties, fines and judgments, associated investigation and administrative expenses and defense costs, including, but not limited to reasonable attorney's fees, courts costs and costs of alternative dispute resolution), arising out of, or resulting in any way from or in connection with the performance of this Agreement. CONTRACTOR's obligations under this Section apply regardless of whether or not a liability is caused or contributed to by any negligent (passive or active) act or omission of CITY, except that CONTRACTOR shall not be obligated to indemnify for liability arising from the sole negligence or willful misconduct of CITY. The acceptance of the Services by CITY shall not operate as a waiver of the right of indemnification. The provisions of this Section survive the completion of the Services or termination of this Agreement.
- P. NON-DISCRIMINATION.** As set forth in Palo Alto Municipal Code section 2.30.510, CONTRACTOR certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person because of the race, skin color, gender, age, religion, disability, national origin, ancestry, sexual orientation, housing status, marital status, familial status, weight or height of such person. CONTRACTOR acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements and the penalties for violation thereof, and agrees to meet all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.
- Q. WORKERS' COMPENSATION.** CONTRACTOR, by executing this Agreement, certifies that it is aware of the provisions of the Labor Code of the State of California which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and certifies that it will comply with such provisions, as applicable, before commencing and during the performance of the Services.

R. TERMINATION.

1. Termination for Default.

- a. Either party may terminate this Agreement in the event of a substantial failure by the other party to perform any of its material obligations under this Agreement; provided, however, that the party alleged to be in default shall be given an opportunity to cure the default as provided herein. Notice of intent to terminate shall be in writing and shall be given as provided in Section S of this Agreement. The notice shall describe the reasons for the intended termination. This Agreement shall not be terminated if the party alleged to be in default gives written notice of its intent to cure the default within five (5) days after service of the notice of intended termination, and, in addition, fully cures the default within thirty (30) days after service of the notice of intended termination; provided that, if the nature of the breach is such that it will reasonably require more than 30 days to cure, the party alleged to be in default shall not be in default so long as it promptly commences the cure and diligently proceeds to completion of the cure within 60 days after notice, and provided that neither notice nor opportunity to cure applies to events described in subsection (b) below.
- b. CITY may immediately terminate this Agreement if prior to CITY meeting its annual maximum, if any, for sludge to be treated by CONTRACTOR, CONTRACTOR ceases to accept sludge from the City for a period of 5 consecutive days (or on a total of 15 days during any calendar year) for any reason within the CONTRACTOR's reasonable control.
- c. CITY's withholding of payment due to an alleged breach shall not constitute a substantial failure to perform its material obligations under subsection (a) above.
- d. In the event of a termination for default, both parties shall have all the rights and remedies provided by law.

2. Termination for Convenience.

The City Manager may terminate this Agreement without cause by giving thirty (30) days' prior written notice thereof to CONTRACTOR. If CITY elects to terminate without cause hereunder, the provisions of Section DD of this Agreement shall apply.

3. General Provisions

Upon receipt of such notice of termination, CONTRACTOR shall immediately discontinue performance. CITY shall pay CONTRACTOR for services satisfactorily performed up to the effective date of termination. If the termination is for cause, CITY may deduct from such payment the amount of actual damage, if any, sustained by CITY due to CONTRACTOR's failure to perform its material obligations under this Agreement. Upon termination, CONTRACTOR shall immediately deliver to the City Manager any and all copies of studies, sketches, drawings, computations, and other material or products, whether or not completed, prepared by CONTRACTOR or given to CONTRACTOR, in connection with this Agreement. Such materials shall become the property of CITY.

- S. ASSIGNMENTS/CHANGES.** This Agreement binds the parties and their successors and assigns to all covenants of this Agreement. This Agreement shall not be assigned or transferred without the prior written consent of CITY. No amendments, changes or variations of any kind are authorized without the written consent of CITY.
- T. CONFLICT OF INTEREST.** In accepting this Agreement, CONTRACTOR covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of this Contract. CONTRACTOR further covenants that, in the performance of this Agreement, it will not employ any person having such an interest. CONTRACTOR certifies that no CITY officer, employee, or authorized representative has any financial interest in the business of CONTRACTOR and that no person associated with CONTRACTOR has any interest, direct or indirect, which could conflict with the faithful performance of this Contract. CONTRACTOR agrees to advise CITY if any conflict arises.
- U. GOVERNING LAW.** This Agreement shall be governed and interpreted by the laws of the State of California.
- V. ENTIRE AGREEMENT.** This Agreement, including all exhibits, represents the entire agreement between the parties with respect to the services that may be the subject of this Agreement. Any variance in the exhibits does not affect the validity of the Agreement and the Agreement itself controls over any conflicting provisions in the exhibits. This Agreement supersedes all prior agreements, representations, statements, negotiations and undertakings whether oral or written.
- W. NON-APPROPRIATION.** This Agreement is subject to the fiscal provisions of the Charter of the City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in the event that funds are not appropriated for the following fiscal year, or (b) at

any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Agreement are no longer available. This Section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Agreement.

X. ENVIRONMENTALLY PREFERRED PURCHASING AND ZERO WASTE REQUIREMENTS. CONTRACTOR shall comply with CITY's Environmentally Preferred Purchasing policies which are available at CITY's Purchasing Division, which are incorporated by reference and may be amended from time to time. CONTRACTOR shall comply with waste reduction, reuse, recycling and disposal requirements of CITY's Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, CONTRACTOR shall comply with the following zero waste requirements:

- All printed materials provided by CONTRACTOR to CITY generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless otherwise approved by CITY's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable based inks.
- Goods purchased by Contractor on behalf of CITY shall be purchased in accordance with CITY's Environmental Purchasing Policy including, but not limited to, Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Division's office.
- Reusable/returnable pallets shall be taken back by CONTRACTOR, at no additional cost to CITY, for reuse or recycling. CONTRACTOR shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

Y. AUTHORITY. The individual(s) executing this Agreement on behalf of the parties represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

Z. PREVAILING WAGES

☒ **This Project is not subject to prevailing wages.** CONTRACTOR is not required to pay prevailing wages in the performance and implementation of the Project in accordance with SB 7, if the contract is not a public works contract, if contract does not include a public works construction project of more than \$25,000, or

the contract does not include a public works alteration, demolition, repair, or maintenance (collectively, 'improvement') project of more than \$15,000.

OR

☐ **Contractor is required to pay general prevailing wages** as defined in Subchapter 3, Title 8 of the California Code of Regulations and Section 16000 et seq. and Section 1773.1 of the California Labor Code. Pursuant to the provisions of Section 1773 of the Labor Code of the State of California, the City Council has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in this locality for each craft, classification, or type of worker needed to execute the contract for this Project from the Director of the Department of Industrial Relations ("DIR"). Copies of these rates may be obtained at the Purchasing Division's office of the City of Palo Alto. Contractor shall provide a copy of prevailing wage rates to any staff or subcontractor hired, and shall pay the adopted prevailing wage rates as a minimum. Contractor shall comply with the provisions of all sections, including, but not limited to, Sections 1775, 1776, 1777.5, 1782, 1810, and 1813, of the Labor Code pertaining to prevailing wages.

AA.DIR REGISTRATION. In regard to any public work construction, alteration, demolition, repair or maintenance work, CITY will not accept a bid proposal from or enter into this Agreement with CONTRACTOR without proof that CONTRACTOR and its listed subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work, subject to limited exceptions. City requires CONTRACTOR and its listed subcontractors to comply with the requirements of SB 854.

CITY provides notice to CONTRACTOR of the requirements of California Labor Code section 1771.1(a), which reads:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

CITY gives notice to CONTRACTOR and its listed subcontractors that CONTRACTOR is required to post all job site notices prescribed by law or

regulation and CONTRACTOR is subject to SB 854-compliance monitoring and enforcement by DIR.

CITY requires CONTRACTOR and its listed subcontractors to comply with the requirements of Labor Code section 1776, including:

Keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by, respectively, CONTRACTOR and its listed subcontractors, in connection with the Project.

The payroll records shall be verified as true and correct and shall be certified and made available for inspection at all reasonable hours at the principal office of CONTRACTOR and its listed subcontractors, respectively.

At the request of CITY, acting by its project manager, CONTRACTOR and its listed subcontractors shall make the certified payroll records available for inspection or furnished upon request to the project manager within ten (10) days of receipt of CITY's request.

☐ [For state- and federally-funded projects] CITY requests CONTRACTOR and its listed subcontractors to submit the certified payroll records to the project manager at the end of each week during the Project.

If the certified payroll records are not produced to the project manager within the 10-day period, then CONTRACTOR and its listed subcontractors shall be subject to a penalty of one hundred dollars (\$100.00) per calendar day, or portion thereof, for each worker, and CITY shall withhold the sum total of penalties from the progress payment(s) then due and payable to CONTRACTOR.

Inform the project manager of the location of CONTRACTOR's and its listed subcontractors' payroll records (street address, city and county) at the commencement of the Project, and also provide notice to the project manager within five (5) business days of any change of location of those payroll records.

BB. CONTRACT TERMS. All unchecked boxes do not apply to this Agreement. In the case of any conflict between the terms of this Agreement and the exhibits hereto or CONTRACTOR's proposal (if any), the Agreement shall control. In the case of any conflict between the exhibits hereto and CONTRACTOR's proposal, the exhibits shall control.

CC. FORCE MAJEURE. Neither Party shall be in default of its obligations under this Agreement in the event, and for so long as, it is impossible or extremely

impracticable for it to perform its obligations due to an “act of God” (including, but not limited to, flood, earthquake, fire or other catastrophic events), civil disturbance, strikes (except any strikes involving a Party's personnel), orders or judgments of any Federal, State or local court, administrative agency or governmental body, or other similar cause affecting the city of Palo Alto, not the fault of, and beyond the reasonable control of, the Party claiming excuse. A party claiming excuse under this Section must (1) have taken reasonable precautions, if possible, to avoid being affected by the cause and (2) notify the other Party in accordance with this Section.

Any suspension of performance by a Party pursuant to this Section shall be only to the extent, and for a period of no longer duration than, required by the nature of the event, and the Party claiming excuse from obligation shall use its best efforts in an expeditious manner to remedy its inability to perform, and mitigate damages that may occur as a result of the event.

The Party claiming excuse shall deliver to the other Party a written notice of intent to claim excuse from performance under this Agreement by reason of an event of Force Majeure. Notice shall be given promptly in light of the circumstances, but in any event not later than 5 days after the occurrence of the event of Force Majeure. Such notice shall describe in detail the event of Force Majeure claimed, the services impacted by the claimed event of Force Majeure, the expected length of time that the Party expects to be prevented from performing, the steps which the Party intends to take to restore its ability to perform, and such other information as the other Party reasonably requests.

The partial or complete interruption or discontinuance of CONTRACTOR's services caused by an event of Force Majeure shall not constitute an event of default under this Agreement. Notwithstanding the foregoing, in the event of non-performance excused by Force Majeure, where the CONTRACTOR's non-performance continues or is noticed to continue for 10 days or more, CITY shall have the right to terminate this Agreement immediately and shall have no obligation to pay for services that have not been performed.

DD. TERMINATION FOR CONVENIENCE.

1. In the event CITY terminates this Agreement without cause under Section R, subsection 2, of this Agreement, CITY shall pay CONTRACTOR as reimbursement for capital and infrastructure costs actually expended by CONTRACTOR for the construction of a new facility necessary for receiving Palo Alto sludge (referred to herein as the “Capital Expenses”) in an amount not to exceed One Million Eight Hundred Thousand Dollars (\$1,800,000). The maximum amount of reimbursable Capital Expenses shall be reduced by 1/60

of that amount for each complete month that has lapsed after the commencement of the term of this Agreement on September 1, 2018 up to the date of the termination notice. For illustration purposes, if the Capital Expenses are \$1,800,000 and the contract is terminated on October 1, 2018, the amount due under this provision would be \$1,770,000 (\$1,800,000 minus \$30,000), and for every complete month thereafter the amount due would be reduced by \$30,000. If the Capital Expenses are \$1,500,000 and the contract is terminated on October 1, 2018, the amount due under this provision would be \$1,475,000 (\$1,500,000 minus \$25,000), and for every complete month thereafter the amount due would be reduced by \$25,000.

2. Within thirty (30) days of receiving the Notice to Proceed from City, the CONTRACTOR shall provide documentation to the City's satisfaction for all Capital Expenses claimed under this Section DD.
3. Capital expenses include the items below:

Item
Project Management/Administration Cost Allowance
Insurance
Temporary Controls during construction (silt, dust)
Shipping and related equipment delivery/offload charges
Geotechnical study for subject areas for design inputs
Structural design, construction drawings
Process, Mechanical, Electrical and Instrumentation and Control design
Construction QA/QC - Compaction, Rebar, Concrete
SWPPP and reporting requirements
Drafting services for predesign and as built drawings
Construction Management
Site cleanup, spill pads, paving allowances
Modify and expand existing product holding tanks
Truck receiving live bottom bin, cross conveyor, vertical conveyor, horizontal/inclined conveyor
Truck receiving live bottom bin assembly pit, equipment pad for cake hopper and cake pump, truck receiving pit containment truck pad, and horizontal/inclined conveyor support pads
Truck receiving pit guardrail and truck access gate
Access ladder for pit access
Undigested cake hopper, stainless steel, 3500 gallon capacity
Cake pump (50 horsepower)
Undigested cake hopper slidegate x 1
Lystemize pump x 1
Lystemize Storage Tank Instruments

Undigested cake storage instruments
Undigested cake pump, flowmeter, and related instruments
Lystemize Storage Tank and related piping appurtenances; installation of truck receiving bunker assembly; installation of cake hopper; installation of cake pump; installation of instrumentation; supply and installation of cake header to reactor; supply and installation of cake header to reactor; supply and installation of truck receiving pad/catch basin; supply and installation of truck receiving pit/utility water service; supply and installation of truck receiving pit/sump and sump pump discharge service
Motor Control Center components (includes Variable Frequency Drives)
Remote Input / Output
Electrical Labor and Miscellaneous Materials, Piping Conductors
Instrumentation and Control Support, Documentation Updates, Programmable Logic Controller (PLC) Program & Human Machine Interface (HMI) Amendment
Capital Finance Interest

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

CITY OF PALO ALTO

City Manager or Designee

Lystek International Limited

Officer 1

DocuSigned by:
By Kurt Meyer
8A256EA7CB5E4B1...
Name Kurt Meyer
Title President

Approved as to form:

City Attorney or Designee

Officer 2 (Required for Corp. or LLC)

DocuSigned by:
By Kevin Cinq-Mars
659F57EBCE4C45C...
Name Kevin Cinq-Mars
Title Director

EXHIBIT A

SCOPE OF SERVICES

1. BACKGROUND AND PURPOSE

The work is for services to regularly treat sludge from the sludge dewatering facility at the Palo Alto Regional Water Quality Control Plant (“RWQCP”). Sludge will be hauled to the CONTRACTOR’s treatment site (the “Treatment Facility”) by the CITY’s hauling contractor (“Hauler”). Where this scope of services refers to the “Treatment Facility”, it also refers and applies to, and means, the CONTRACTOR. Obligations and requirements of the Treatment Facility are those of the CONTRACTOR.

CONTRACTOR will provide alkaline chemical hydrolysis of the CITY’s sludge to produce a USEPA Class A level biosolid, fully dispose of all treated biosolids, and provide CITY with proper records for tracking the services.

2. PLANT ADDRESS

Palo Alto Regional Water Quality Control Plant
Attn: Operations Shift Supervisor or Senior Operator
2501 Embarcadero Way
Palo Alto, CA 94303
650-329-2598 - phone

3. COMMENCEMENT OF SERVICES

- a. Services under this Agreement will commence when the City’s sewage sludge incinerators are fully retired and the new Sludge Dewatering and Truck Loadout Facility is in operation. CITY will issue a Notice to Proceed that specifies the date that regular services will commence, which date will be considered the first day of the contract year (i.e., Year 1). The time frame when CONTRACTOR’s Treatment Facility receives test loads during startup testing of the new Sludge Dewatering and Truck Loadout Facility, prior to regular services commencing, shall not be considered part of the contract year while CITY works out startup issues.
- b. Tonnage and delivery commitments:
 - i. Minimum commitment by CITY is 6,500 wet tons / contract year during term of Agreement starting with the Notice to Proceed
 - ii. No maximum commitment
 - iii. All deliveries subject to the Not-to-Exceed contract amount
 - iv. Estimated delivery is 8,400 wet tons / contract year
 - v. The first year’s tonnage commitment will be pro-rated if, due to construction of capital improvements, receiving and treatment

facilities at Lystek are not available to receive deliveries on the Notice to Proceed date.

- c. The City's Hauler (or their successor) may deliver any day of the year depending on operational requirements of the City of Palo Alto. However, normally, the Treatment Facility should not expect (or be entitled to) a delivery on Thanksgiving, Christmas, and/or New Years' Day.
- d. The city will target daily deliveries.
- e. City's hauler is expected to deliver 21 to 25 tons per truckload.

4. PALO ALTO SLUDGE CHARACTERISTICS

- a. The material covered under this Agreement is a mix of raw, dewatered wastewater sludge and scum (hereafter, just referred to as sludge) that has not yet been stabilized.
- b. The wastewater sludge is collected as waste sludge from activated sludge tanks (about 29% of total content) and primary sludge settling tanks (about 71% of total content). This blend is then thickened in gravity thickeners to 3% to 4% solids. The sludge blend is processed through grinders before being sent to a blend tank. The sludge is kept blended with mix pumps and aerated by a blower in a 100,000 gallon mix tank, is pumped to a belt filter press, is treated for odors in-line with a sodium hypochlorite solution, and is then dewatered using a high molecular weight cationic polymer solution on a belt filter press. Upstream preliminary treatment processes include grit removal and mechanically raked barscreens using $\frac{3}{4}$ " spacing at the headworks.
- c. Primary tank scum is pumped through a grinder, sent to a scum concentrator, and thickened to about 50% solids. This scum will be added to the 20% plus sludge cake screw conveyors that feed into sludge cake bins.
- d. Solids content of filter press cake will have a solid content of not less than 20%.
- e. Except as stated herein, the City cannot guarantee condition or quality of the material. Therefore, notice is hereby given that the content and nature of the sludge and scum may change depending on RWQCP process control changes, treatment plant changes, influent characteristics, or treatment plant effectiveness.

- f. The City will certify that the wastewater sludge and scum pollutant concentrations are at or below the metal concentration limits established in 40 CFR 501.13, Table 1 and Table 3.
- g. Per USEPA 40 CFR 503 sludge regulations, sludge will be sampled monthly for metals including: arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc concentrations. The values will be shared with Treatment Facility for their use.
- h. Treatment Facility should be aware that wastewater sludge contains pathogenic microorganisms and does not meet all 40 CFR 503 regulations. The city declares that:
 - i. The sludge does not meet the pathogen reduction requirements of 40 CFR 503.32(B)(3) ["PRSP"].
 - ii. The sludge does not meet the vector attraction reduction requirements of 40 CFR 503.33(b)(1).
- i. Furthermore, sludge and scum quality data is included as Exhibit A-1 to this Exhibit for the Treatment Facility's reference. Treatment Facility shall verify, by analyzing the data provided and making inquiries, as needed, as to the characteristics of the wastewater sludge/scum mix and their ability process the wastewater sludge at the treatment/disposal site(s).
- j. Palo Alto will provide new sludge testing results to Lystek on a periodic basis, and as required by regulation. Palo Alto will provide Lystek with unacceptable characteristics.
- k. At no time during the term of this Agreement shall the City make available to the Treatment Facility, nor shall the Treatment Facility be obligated to handle, any wastewater sludge which is designated a hazardous waste under any applicable law, rule, or regulation, and nothing herein shall relieve the City of any liability or responsibility with respect to any sludge generated at its facilities which is a hazardous waste.

5. SLUDGE PRODUCTION ESTIMATES

- a. CITY produces wastewater sludge twenty-four (24) hours per day, seven (7) days per week resulting in approximately 25,000 wet tons annually. A breakdown is included in the table below for sludge sent to the current incinerators. Note that the data below involves a weekly shutdown for about 12 hours; the shutdown will not be occurring in the new sludge dewatering and loadout operation. This change will smooth out the sludge

production data included below, lessening peak catch-up days and reducing the occurrence of days with minimal production.

Palo Alto RWQCP Incinerator Sludge Feed Amounts							
2015, 2016, Jan-2017 (assumes 28% sludge cake for wet ton calculations)							
	MG per day	DT / day	WT / day	WT / 2-days	WT / week	WT / 30-days	WT / year
minimum	0.00	0	0	34	315	1616	
25th percentile	0.12	16	58	114	430	1912	
50th percentile/median	0.14	20	72	137	484	2093	
average	0.14	19	69	137	480	2061	25013
75th percentile	0.16	23	82	159	525	2197	
maximum	0.21	35	124	245	701	2533	
standard deviation	0.04	6	21	32	64	212	
Notes: MG = million gallons; DT = dry tons; WT = wet tons							

- b. Production rates may be varied or stopped to match RWQCP operational needs. Operation may also be interrupted occasionally for maintenance or repair. Advance notice of temporary interruption will be given to the CONTRACTOR whenever possible.
- c. The amount of biosolids to be treated is an estimate only. Therefore, notice is hereby given that the quantity, content, and nature of the material may change depending on the speed of startup of the new sludge dewatering and truck loadout facility, RWQCP process control changes, process upsets, plant upgrades, repairs, maintenance, operational improvements, belt press dewatering schedule, day of week, holidays, seasonal changes, storm-induced increases in produced solids, changes in community population, treatment plant changes, and so forth.

6. GENERAL RESPONSIBILITIES

- a. The Treatment Facility shall know, follow, comply with, and stay updated on all federal, state, and local laws, regulations, statutes, ordinances, orders, decrees, and permits that affect this work. This includes treatment site operation and maintenance, monitoring and reporting, processing and disposal of sludge, environmental and pollution regulations, noise control, and inspections by authorized representatives as required by such requirements. Documentation of specific permits, orders, decrees, registrations, and so forth shall be provided upon request. Except for those costs justified by Lystek and approved by the City as relates to a significant change in law, all costs associated with obtaining such permits and licenses shall be considered as included in the unit price. Federal Regulations, including 40 CFR Parts 257, 258, 403 and 503, provide specific requirements for biosolids disposal and must be complied with.

- b. The Treatment Facility agrees to furnish all information as required by the City in order to fulfill the responsibilities of the City for reporting on compliance with wastewater sludge rules and regulations as well as for accurate payment.
- c. The Treatment Facility will be required to furnish and update, as necessary, a list of telephone numbers and names of responsible parties to be called on a 24-hour, 7 days per week basis in the event of an emergency or unusual operating conditions. The Treatment Facility's designated representative must be available to respond to City staff within a mutually acceptable time span (within three to four hours). It will be mandatory to have dedicated business cell phones and email for supplementary communications. The Treatment Facility shall coordinate and cooperate with staff at the RWQCP and its contracted Hauler (in consultation with the City) to fulfill respective requirements.
- d. Raw sludge contains micro-organisms from the wastewater treatment process that include pathogens. Precautions are required, such as adequate training, wearing proper PPE (e.g., latex or nitrile gloves, boots, etc.), washing hands with soap, and access to potable drinking water and OSHA approved first aid kits. The Treatment Facility is to follow an Exposure Control Plan for Blood Borne Pathogens pursuant to CalOSHA rules and California Code of Regulations, Title 8, Section 5193. The Exposure Control Plan is to be on file for review, if requested.
- e. During the Agreement term, the Contractor is to attend periodic meetings, as needed, to discuss items such as: operational requirements at RWQCP and treatment site(s), performance reviews, safety/spill response planning, and strategies for common benefit. Input and constructive feedback to improve all aspects of this Agreement is expected during the Agreement term. Meetings will be one-hour periodic meetings held at RWQCP, treatment sites, a mutually agreeable location, or by telecon.

7. DELIVERY SCHEDULE

- a. The City's Hauler will receive and haul wastewater sludge daily. A delivery schedule will be developed by the City in consultation with the Hauler and coordinated with the Treatment Facility at the start of operations. The City reserves the right to make modifications in this schedule to meet the needs of the City.
- b. The intention of this agreement is that the City deliver one truck per day to Lystek. The City will make a good faith effort to make consistent deliveries for the treatment facility.
- c. Treatment may be required on both a daily scheduled and as-required

basis, according to the requirements of the City. For purposes of this Agreement, sludge receiving hours are as shown in Section 8 (UNLOADING REQUIREMENTS AT TREATMENT FACILITY) of this Exhibit A (Scope of Services).

8. UNLOADING REQUIREMENTS AT TREATMENT FACILITY

- a. Sludge will be delivered by the City's Hauler to the Treatment Facility site below in quantities to be determined by City consistent with the tonnage commitments listed in Section 3 (COMMENCEMENT OF SERVICES) of this Exhibit A (Scope of Services):
 - i. Lystek International Limited Organic Material Recovery Center on the site of Fairfield-Suisun Sewer District (FSSD) 1010 Chadbourne Rd, Fairfield, CA 94534
 - 1. Operating Hours 0400 – 2000, 7 days per week
 - 2. Receiving Hours 24 / 7 with established advanced notice
- b. Treatment Facility must share and coordinate any site procedures and rules established by the Treatment Facility with City's Hauler. At the start of contracted services, Treatment Facility shall have an approved permit and/or agreement in place with the City's Hauler (or their successor) during the term of the Agreement.

9. TREATMENT REQUIREMENTS

- a. If the Treatment Facility has an operating permit violation, CONTRACTOR will notify CITY's Project Manager in writing within 30 days of receipt of written notice. All fines will be paid by CONTRACTOR or the Treatment Facility and not billed to CITY.
- b. CONTRACTOR shall provide adequate space at the Treatment Facility to accommodate the ingress and egress of the trucks and trailers of the CITY's sludge hauling contractor. The Treatment Facility will provide water for vehicle clean-up, suitable lighting for nighttime operation, and any additional facilities (portable toilets, handwashing facilities) that may be required.
- c. CONTRACTOR shall provide an annual summary to the CITY of all monitoring and analytical data as required to complete the CITY's Annual Biosolids Generator's Report for the USEPA due February 19th of each year. This annual summary shall be posted by January 31st each year and shall be sent to the Project Manager.
- d. CONTRACTOR shall provide the name of a 24-hour emergency contact person and phone number. CONTRACTOR will train the Treatment

Facility's onsite staff and comply with Palo Alto Emergency and Spill Response Plan, as necessary.

- e. CITY will have right to inspect the Treatment Facility's site at any time and without prior notification. The Treatment Facility shall maintain and provide copies to the CITY of all records, documents, and papers documenting the disposition of biosolids handled by the Treatment Facility for inspection by authorized local, state, and federal representatives as required by law.
- f. Neither party shall use the name, marks, or logo of the other party in any planned advertisement, promotional material, press release, or other planned publicity or marking materials, in any form or media, with regard to the subject matter of the agreement without the prior written approval of the other party.
- g. Annual reports shall be provided to the RWQCP each year detailing tonnage treated and final disposal disposition.

10. PAYMENT AND PRICING CONDITIONS

- a. See Contract, Section 8, Invoicing.
- b. Payment for work is to be made on a wet tonnage basis as determined by weight tickets at the CONTRACTOR'S Treatment Facility. CONTRACTOR will generate a legible, licensed weigh-master's certificate showing gross weight, tare weight, and net weight of each truckload of material; ticket shall be kept on file for review by City as needed. Weight will be based on a certified scale owned, operated, and maintained by the Treatment Facility. The scale certificate shall be kept on file for audit review. . The weight tickets shall also be provided to the CITY's Hauler.

11. DOCUMENTATION AND PERMITS

- a. CONTRACTOR shall maintain any and all required permits during the term of this Agreement.
- b. CONTRACTOR shall, at all times during the treatment, storage, and disposal of sludge to be managed under this Agreement, know the location, condition and status of each item being managed.

END OF SECTION

Exhibit A-1 Palo Alto Sludge Characteristics

2016, 2017 Average Annual Wastewater Sludge Quality Data: 40CFR503 Sludge Regulation Trace Metal Analysis on Sludge					
Trace Metals	Dry-Weight Units	501.13 Ceiling Concentration Table 1	501.13 Pollutant Concentration Table 3	Average Annual Result	Single Results
Arsenic (As)	mg/kg	75	41	<2.70	--
Antimony (Sb)	mg/kg	--	--	--	ND<19 ^b
Barium (Ba)	mg/kg	--	--	--	50.2 ^b
Beryllium (Be)	mg/kg	--	--	--	ND ^{a, b}
Cadmium (Cd)	mg/kg	85	39	<1.61	--
Chromium (Cr)	mg/kg	--	--	13.0	--
Cobalt (Co)	mg/kg	--	--	--	ND<2 ^b
Copper (Cu)	mg/kg	4300	1500	291	--
Iron (Fe)	mg/kg	--	--	--	2650 ^b
Lead (Pb)	mg/kg	840	300	16.6	--
Mercury (Hg)	mg/kg	57	17	0.517	--
Molybdenum (Mo)	mg/kg	75	n/a	--	4.4 ^a ; ND<4 ^b
Nickel (Ni)	mg/kg	420	420	13.7	--
Selenium (Se)	mg/kg	100	100	--	6.3 ^a ; ND<17 ^b
Silver (Ag)	mg/kg	--	--	--	ND<4 ^b
Thallium (Tl)	mg/kg	--	--	--	ND<13 ^b
Vanadium (V)	mg/kg	--	--	--	5.97 ^b
Zinc (Zn)	mg/kg	7500	2800	--	520 ^a ; 166 ^b
Total Solids	%	--	--	27.0	--

^a Sampled 2/7/17 on 25% sludge cake; ^b Sampled 2/9/17 on 27% sludge cake

February 17, 2017 Scum Quality Data: 40CFR503 Sludge Regulation Trace Metal Analysis on Scum				
Trace Metals	Dry-Weight Units	501.13 Ceiling Concentration Table 1	501.13 Pollutant Concentration Table 3	Result
Arsenic (As)	mg/kg	75	41	ND
Beryllium (Be)	mg/kg	--	--	ND
Cadmium (Cd)	mg/kg	85	39	0.14
Chromium (Cr)	mg/kg	--	--	3.1
Copper (Cu)	mg/kg	4300	1500	30
Lead (Pb)	mg/kg	840	300	1.28
Mercury (Hg)	mg/kg	57	17	<0.0397
Molybdenum (Mo)	mg/kg	75	n/a	1.7
Nickel (Ni)	mg/kg	420	420	1.9
Selenium (Se)	mg/kg	100	100	<0.83
Zinc (Zn)	mg/kg	7500	2800	100
Total Solids	%	--	--	30.0

General Raw Sludge Characterization			
Trace Metals	Dry-Weight Units	Result	Sample date, comment
Total Kjeldahl Nitrogen (TKN)	mg/kg	44,000; 10,000	2/7/17 (25% cake); 2/9/17
Organic Nitrogen (25% sludge cake)	mg/kg	38,000	2/7/17
Ammonia-Nitrogen (25% sludge cake)	mg/kg	5,600	2/7/17
Grit Analysis: total residual solids in 30% sludge cake	%	0.52%	2/9/17 (dried at 103-105C)
Primary sludge volatile solids concentration	%	89%	2/7/13
Waste activated sludge (WAS) volatile solids concentration	%	80%	Typical value
Ratio Primary / Total Sludge	%	71 – 78%	2013 value
Ratio WAS / Total Sludge	%	22 – 29%	2013 value
Primary Sludge BTU Content – Dry	BTU/lb	8000	8/21/12 ASTM D5865-07a
WAS BTU Content – Dry	BTU/lb	7400	8/21/12 ASTM D5865-07a

EXHIBIT B
SCHEDULE OF PERFORMANCE

CONTRACTOR shall perform the sludge treatment and disposal services in Exhibit A (Scope of Services) in accordance with Section 7 of Exhibit A.

EXHIBIT C SCHEDULE OF FEES

CITY shall pay CONTRACTOR according to the following rate schedule. The maximum amount of compensation to be paid to CONTRACTOR, including both payment for services and reimbursable expenses, shall not exceed the amounts set forth in Sections 5 and 6 of the Agreement. Any services provided or hours worked for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to CITY.

Treatment Facility Unit Prices US \$/wet ton		
	Year 1	Year 2 to Year 5 Increases on Contract Year Anniversary Date
Lystek International Limited, 15001+ TPY	\$68.00	3.0%
Lystek International Limited, 6501 – 15000 TPY	\$71.00	3.0%
Lystek International Limited, 6500 TPY/50 TPD/1400 TPM	\$85.00	3.0%

Pricing:

- a. Unit prices will be in US dollars and are price per wet ton. The unit price per wet ton includes all fees, taxes, and surcharges.
- b. Except as directed otherwise in these specifications, full compensation for completing Agreement work is considered to be included in the unit prices paid for the various items of work and no separate payment will be made therefore.
- c. In case of price increase due to new regulatory fees, CONTRACTOR must notify the City of Palo Alto in writing before any additional fees will be allowed. No additional fees will charged to CITY unless approved by an amendment of this Agreement.

EXHIBIT D INSURANCE REQUIREMENTS

CONTRACTORS TO THE CITY OF PALO ALTO (CITY), AT THEIR SOLE EXPENSE, SHALL FOR THE TERM OF THE CONTRACT OBTAIN AND MAINTAIN INSURANCE IN THE AMOUNTS FOR THE COVERAGE SPECIFIED BELOW, **AFFORDED BY COMPANIES WITH AM BEST'S KEY RATING OF A-VII, OR HIGHER, LICENSED OR AUTHORIZED TO TRANSACT INSURANCE BUSINESS IN THE STATE OF CALIFORNIA.**

AWARD IS CONTINGENT ON COMPLIANCE WITH CITY'S INSURANCE REQUIREMENTS, AS SPECIFIED, BELOW:

REQUIRED	TYPE OF COVERAGE	REQUIREMENT	MINIMUM LIMITS	
			EACH OCCURRENCE	AGGREGATE
YES YES	WORKER'S COMPENSATION EMPLOYER'S LIABILITY	STATUTORY STATUTORY		
YES	GENERAL LIABILITY, INCLUDING PERSONAL INJURY, BROAD FORM PROPERTY DAMAGE BLANKET CONTRACTUAL, AND FIRE LEGAL LIABILITY	BODILY INJURY	\$2,000,000	\$4,000,000
		PROPERTY DAMAGE	\$2,000,000	\$4,000,000
NO	AUTOMOBILE LIABILITY, INCLUDING ALL OWNED, HIRED, NON-OWNED	BODILY INJURY	\$1,000,000	\$1,000,000
		- EACH PERSON	\$1,000,000	\$1,000,000
		- EACH OCCURRENCE	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY AND PROPERTY DAMAGE, COMBINED	\$1,000,000	\$1,000,000
YES	POLLUTION LIABILITY	ALL DAMAGES	\$1,000,000	\$2,000,000
NO	PROFESSIONAL LIABILITY, INCLUDING, ERRORS AND OMISSIONS, MALPRACTICE (WHEN APPLICABLE), AND NEGLIGENT PERFORMANCE		\$1,000,000	
		ALL DAMAGES		
YES	THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED: CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONSULTANTS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS' COMPENSATION, EMPLOYER'S LIABILITY AND PROFESSIONAL INSURANCE, NAMING AS ADDITIONAL INSURED CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES.			

- I. INSURANCE COVERAGE MUST INCLUDE:
ENDORSEMENT PROVISIONS, WITH RESPECT TO THE INSURANCE AFFORDED TO "ADDITIONAL INSURED"

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSURED.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS

INSUREDS UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSUREDS, SHALL NOT INCREASE THE TOTAL LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.
2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

Vendors are required to file their evidence of insurance and any other related notices with the City of Palo Alto at the following URL:

<https://www.planetbids.com/portal/portal.cfm?CompanyID=25569>

OR

http://www.cityofpaloalto.org/gov/depts/asd/planet_bids_how_to.asp



CERTIFICATE OF LIABILITY INSURANCE

This certificate does not amend, extend or alter the coverage afforded by the policies below.

1. CERTIFICATE HOLDER - NAME AND MAILING ADDRESS	2. INSURED'S FULL NAME AND MAILING ADDRESS
City of Palo Alto 250 Hamilton Avenue Palo Alto, California 94301	Lystek International Ltd 1010 Chadbourne Road Fairfield, California 94534-9700 United States of America

3. DESCRIPTION OF OPERATIONS/LOCATIONS/AUTOMOBILES/SPECIAL ITEMS TO WHICH THIS CERTIFICATE APPLIES (but only with respect to the operations of the Named Insured)

ALL OPERATIONS OF THE NAMED INSURED

- (1) Additional Insureds: City of Palo Alto, its Council Members, Officers, Agents, and Employees
 (2) Liability insurance is Primary and applies Separately to each insured, except with respect to limits of liability.
 (3) Additional Insured Endorsement is attached

4. COVERAGES

This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated notwithstanding any requirements, terms or conditions of any contract or other document with respect to which this certificate may be issued or may pertain. The insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

TYPE OF INSURANCE	INSURANCE COMPANY AND POLICY NUMBER	EFFECTIVE DATE YYYY/MM/DD	EXPIRY DATE YYYY/MM/DD	LIMITS OF LIABILITY (Canadian dollars unless indicated otherwise)		
				COVERAGE	DED.	AMOUNT OF INSURANCE
COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> Claims Made OR <input checked="" type="checkbox"/> Occurrence <input checked="" type="checkbox"/> Products and/or completed operations <input checked="" type="checkbox"/> Employer's Liability <input checked="" type="checkbox"/> Cross Liability <input checked="" type="checkbox"/> Primary / Non-Contributory <input checked="" type="checkbox"/> Tenants Legal Liability <input checked="" type="checkbox"/> Fire Legal Liability <input checked="" type="checkbox"/> Blanket Contractual Endorsement <input checked="" type="checkbox"/> POLLUTION LIABILITY	XL Specialty Insurance Company GL1331570 XL Specialty Insurance CPC742008203	2018/ 5/31	2019/ 5/31	Commercial General Liability Bodily Injury and Property Damage Liability - - General Aggregate - Each Occurrence		2,000,000
				Products and Completed Operations Aggregate		2,000,000
				<input type="checkbox"/> Personal Injury Liability <input checked="" type="checkbox"/> Personal and Advertising Injury Liability		2,000,000
				Medical Payments		10,000
				Tenants Legal Liability		1,000,000
				Pollution Liability - Aggregate		2,000,000
<input checked="" type="checkbox"/> Non-Owned Automobiles	XL Specialty - GL1331570	2018/ 5/31	2019/ 5/31	Non-Owned Automobile		2,000,000
<input checked="" type="checkbox"/> Hired Automobiles				Hired Automobiles		
AUTOMOBILE LIABILITY <input type="checkbox"/> Described Automobiles <input checked="" type="checkbox"/> All Owned Automobiles <input checked="" type="checkbox"/> Leased Automobiles ** ** All Automobiles leased in excess of 30 days where the insured is required to provide Insurance	Aviva Insurance 6741167206	2018/ 5/31	2019/ 5/31	Bodily Injury and Property Damage Combined		2,000,000
				Bodily Injury (Per Person)		
				Bodily Injury (Per Accident)		
				Property Damage		
EXCESS LIABILITY <input type="checkbox"/> UMBRELLA Form <input type="checkbox"/>				Each Occurrence		
				Aggregate		
OTHER LIABILITY (SPECIFY) <input checked="" type="checkbox"/> WORKERS COMPENSATION WOS Endt attached	Liberty Mutual WCC-B71-171161-016	2017/ 7/ 06	2018 / 7 /06	Each accident		1,000,000
				Policy Limit		1,000,000
				Each Employee		1,000,000

5. CANCELLATION

Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 30 days written notice to the certificate holder named above, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.

6. BROKERAGE/AGENCY FULL NAME AND MAILING ADDRESS

BRADLEY'S COMMERCIAL INSURANCE LIMITED
1456 STITTSVILLE MAIN STREET, P.O. BOX 1234
STITTSVILLE, ON K2S 1B3

BROKER CLIENT ID: TOMLCO

7. ADDITIONAL INSURED NAME AND MAILING ADDRESS

(Commercial general Liability - but only with respect to the operations of the Named Insured)

City of Palo Alto, its Council Members, Officers, Agents and
Employees are additional insureds as required by written contract
or agreement

8. CERTIFICATE AUTHORIZATION

Issuer	BRADLEY'S COMMERCIAL INSURANCE	Contact Number(s)	
Authorized Representative	CONNIE LEVESQUE CAIB	Type PHONE	No (613) 836-2473 Type No
		Type FAX	No (613) 831-1672 Type No () -
Signature of Authorized Representative		Date	EEmail Address
		2018 05 10	clevesque@bradleysinsurance.com



ENDORSEMENT

Number 20
Policy Number GL1331570

ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:
COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of person or organizations

ANY PERSON OR ENTITY WITH WHOM YOU HAVE AGREED IN A WRITTEN CONTRACT, EXECUTED PRIOR TO LOSS TO NAME AS AN ADDITIONAL INSURED, BUT ONLY FOR THE LIMITS AGREED TO IN SUCH CONTRACT OR THE LIMITS OF INSURANCE OF THIS POLICY, WHICHEVER IS LESS.

WHO IS AN INSURED (Section II) is amended to include as an Insured the person or organization shown in the Schedule as an insured but only with respect to liability arising out of your acts or omissions.

**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT -
CALIFORNIA**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be 2% of the California workers' compensation premium otherwise due on such remuneration.

Schedule

Additional premium is a percent of the California Manual Workers Compensation premium. Subject to a minimum premium charge of \$ 250 per policy

<u>Person or Organization</u>	<u>Job Description</u>
Where required by contract or written agreement prior to loss and allowed by law.	Any

Issued by Employers Insurance Company of Wausau 15555

For attachment to Policy No. WCC-B71-171161-016 Effective Date Premium \$

Issued to RW Tomlinson Inc.

CITY OF PALO ALTO CONTRACT NO. C18169607C

GENERAL SERVICES AGREEMENT

THIS AGREEMENT made and entered into on the 18th day of June, 2018, by and between the **CITY OF PALO ALTO, a California chartered municipal corporation ("CITY")**, and **SYNAGRO-WWT, INC. (SYNAGRO)**, a Maryland corporation, located at 435 Williams Court, Suite 100, Baltimore, MD 21220, Telephone Number 443-489-9042 ("**CONTRACTOR**"). In consideration of their mutual covenants, the parties hereto agree as follows:

- 1. SERVICES.** CONTRACTOR shall provide or furnish the services (the "Services") described in the Scope of Services, attached at Exhibit A.

☐ Optional On-Call Provision (This provision only applies if checked and only applies to on-call agreements.)

Services will be authorized by CITY, as needed, with a Task Order assigned and approved by CITY's Project Manager. Each Task Order shall be in substantially the same form as Exhibit A-1. Each Task Order shall designate a CITY Project Manager and shall contain a specific scope of work, a specific schedule of performance and a specific compensation amount. The total price of all Task Orders issued under this Agreement shall not exceed the amount of Compensation set forth in Section 5 of this Agreement. CONTRACTOR shall only be compensated for work performed under an authorized Task Order and CITY may elect, but is not required, to authorize work up to the maximum compensation amount set forth in Section 5.

- 2. EXHIBITS.** The following exhibits are attached to and made a part of this Agreement:

- ☒ "A" - Scope of Services
- ☒ "A-1" – Palo Alto Sludge Characteristics
- ☒ "B" - Schedule of Performance
- ☒ "C" – Schedule of Fees
- ☒ "D" - Insurance Requirements

CONTRACT IS NOT COMPLETE UNLESS ALL INDICATED EXHIBITS ARE ATTACHED.

3. TERM.

The term of this Agreement is from September 1, 2018 to March 31, 2024 inclusive, subject to the provisions of Sections R and W of the General Terms and Conditions.

4. SCHEDULE OF PERFORMANCE. CONTRACTOR shall complete the Services within the term of this Agreement in a reasonably prompt and timely manner based upon the circumstances and direction communicated to CONTRACTOR, and if applicable, in accordance with the schedule set forth in the Schedule of Performance, attached at Exhibit B. Time is of the essence in this Agreement.

5. COMPENSATION FOR ORIGINAL TERM. CITY shall pay and CONTRACTOR agrees to accept as not-to-exceed compensation for the full performance of the Services and reimbursable expenses, if any:

- ☐ The total maximum lump sum compensation of _____ dollars (\$ _____);
OR
- ☐ The sum of _____ dollars (\$ _____) per hour, not to exceed a total maximum compensation amount of _____ dollars (\$ _____); **OR**
- ☒ A sum calculated in accordance with the fee schedule set forth at Exhibit C, not to exceed a total maximum compensation amount of three million twenty-four thousand dollars (\$3,415,000).

CONTRACTOR agrees that it can perform the Services for an amount not to exceed the total maximum compensation set forth above. Any hours worked or services performed by CONTRACTOR for which payment would result in a total exceeding the maximum amount of compensation set forth above for performance of the Services shall be at no cost to CITY.

- ☐ CITY has set aside the sum of _____ dollars (\$ _____) for Additional Services. CONTRACTOR shall provide Additional Services only by advanced, written authorization from the City Manager or designee. CONTRACTOR, at the CITY's request, shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort, and CONTRACTOR's proposed maximum compensation, including reimbursable expense, for such services. Compensation shall be based on the hourly rates set forth above or in Exhibit C (whichever is applicable), or if such rates are not applicable, a negotiated lump sum. CITY shall not authorize and CONTRACTOR shall not perform any Additional Services for which payment would exceed the amount set forth above for Additional Services. Payment for Additional Services is

subject to all requirements and restrictions in this Agreement.

6. COMPENSATION DURING ADDITIONAL TERMS.

- ☐ CONTRACTOR'S compensation rates for each additional term shall be the same as the original term; **OR**
- ☐ CONTRACTOR's compensation rates shall be adjusted effective on the commencement of each Additional Term. The lump sum compensation amount, hourly rates, or fees, whichever is applicable as set forth in section 5 above, shall be adjusted by a percentage equal to the change in the Consumer Price Index for Urban Wage Earners and Clerical Workers for the San Francisco-Oakland- San Jose area, published by the United States Department of Labor Statistics (CPI) which is published most immediately preceding the commencement of the applicable Additional Term, which shall be compared with the CPI published most immediately preceding the commencement date of the then expiring term. Notwithstanding the foregoing, in no event shall CONTRACTOR's compensation rates be increased by an amount exceeding five percent of the rates effective during the immediately preceding term. Any adjustment to CONTRACTOR's compensation rates shall be reflected in a written amendment to this Agreement.

7. CLAIMS PROCEDURE FOR "9204 PUBLIC WORKS PROJECTS". For purposes of this Section 7, a "9204 Public Works Project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind. Public Contract Code Section 9204 mandates certain claims procedures for Public Works Projects, which are set forth in "Appendix __ Claims for Public Contract Code Section 9204 Public Works Projects".

- ☐ **This project is a 9204 Public Works Project** and is required to comply with the claims procedures set forth in Appendix __, attached hereto and incorporated herein.

OR

- ☒ **This project is not a 9204 Public Works Project.**

8. INVOICING. Send all invoices to CITY, Attention: Project Manager. The Project Manager is: James Allen, 2501 Embarcadero Way, Palo Alto, CA 94303 Dept.: Public Works, Telephone: 650-329-2243, email: James.Allen@cityofpaloalto.org

Invoices shall be submitted in arrears for Services performed. Invoices shall not be submitted more frequently than monthly. Invoices shall provide a detailed statement of Services performed during the invoice period and are subject to verification by CITY. CITY shall pay the undisputed amount of invoices within 30 days of receipt.

Invoice shall include:

- Contract Number
- Item description
- Itemized spreadsheet, auditable at any time for individual load tickets
- Certified net weight of each load times contract price per ton

Invoice shall be electronic pursuant to City administrative standards; a PDF email is acceptable.

GENERAL TERMS AND CONDITIONS

- A. ACCEPTANCE.** CONTRACTOR accepts and agrees to all terms and conditions of this Agreement. This Agreement includes and is limited to the terms and conditions set forth in sections 1 through 8 above, these general terms and conditions and the attached exhibits.
- B. QUALIFICATIONS.** CONTRACTOR represents and warrants that it has the expertise and qualifications to complete the services described in Section 1 of this Agreement, entitled "SERVICES," and that every individual charged with the performance of the services under this Agreement has sufficient skill and experience and is duly licensed or certified, to the extent such licensing or certification is required by law, to perform the Services. CITY expressly relies on CONTRACTOR's representations regarding its skills, knowledge, and certifications. CONTRACTOR shall perform all work in accordance with generally accepted business practices and performance standards of the industry, including all federal, state, and local operation and safety regulations.
- C. INDEPENDENT CONTRACTOR.** It is understood and agreed that in the performance of this Agreement, CONTRACTOR and any person employed by CONTRACTOR shall at all times be considered an independent CONTRACTOR and not an agent or employee of CITY. CONTRACTOR shall be responsible for employing or engaging all persons necessary to complete the work required under this Agreement.
- D. SUBCONTRACTORS.** CONTRACTOR may not use subcontractors to perform any Services under this Agreement unless CONTRACTOR obtains prior written

consent of CITY. CONTRACTOR shall be solely responsible for directing the work of approved subcontractors and for any compensation due to subcontractors.

- E. TAXES AND CHARGES.** CONTRACTOR shall be responsible for payment of all taxes, fees, contributions or charges applicable to the conduct of CONTRACTOR's business.
- F. COMPLIANCE WITH LAWS.** CONTRACTOR shall in the performance of the Services comply with all applicable federal, state and local laws, ordinances, regulations, and orders.
- G. PALO ALTO MINIMUM WAGE ORDINANCE.** CONTRACTOR shall comply with all requirements of the Palo Alto Municipal Code Chapter 4.62 (Citywide Minimum Wage), as it may be amended from time to time. In particular, for any employee otherwise entitled to the State minimum wage, who performs at least two (2) hours of work in a calendar week within the geographic boundaries of the City, CONTRACTOR shall pay such employees no less than the minimum wage set forth in Palo Alto Municipal Code section 4.62.030 for each hour worked within the geographic boundaries of the City of Palo Alto. In addition, CONTRACTOR shall post notices regarding the Palo Alto Minimum Wage Ordinance in accordance with Palo Alto Municipal Code section 4.62.060.
- H. DAMAGE TO PUBLIC OR PRIVATE PROPERTY.** CONTRACTOR shall, at its sole expense, repair in kind, or as the City Manager or designee shall direct, any damage to public or private property that occurs in connection with CONTRACTOR's performance of the Services. CITY may decline to approve and may withhold payment in whole or in part to such extent as may be necessary to protect CITY from loss because of defective work not remedied or other damage to the CITY occurring in connection with CONTRACTOR's performance of the Services. CITY shall submit written documentation in support of such withholding upon CONTRACTOR's request. When the grounds described above are removed, payment shall be made for amounts withheld because of them.
- I. WARRANTIES.** CONTRACTOR expressly warrants that all services provided under this Agreement shall be performed in a professional and workmanlike manner in accordance with generally accepted business practices and performance standards of the industry and the requirements of this Agreement. CONTRACTOR expressly warrants that all materials, goods and equipment provided by CONTRACTOR under this Agreement shall be fit for the particular purpose intended, shall be free from defects, and shall conform to the requirements of this Agreement. CONTRACTOR agrees to promptly replace or correct any material or service not in compliance with these warranties, including incomplete, inaccurate, or defective material or service, at no further

cost to CITY. The warranties set forth in this section shall be in effect for a period of one year from completion of the Services and shall survive the completion of the Services or termination of this Agreement.

- J. MONITORING OF SERVICES.** CITY may monitor the Services performed under this Agreement to determine whether CONTRACTOR's work is completed in a satisfactory manner and complies with the provisions of this Agreement.
- K. CITY'S PROPERTY.** Any reports, information, data or other material (including copyright interests) developed, collected, assembled, prepared, or caused to be prepared under this Agreement will become the property of CITY without restriction or limitation upon their use and will not be made available to any individual or organization by CONTRACTOR or its subcontractors, if any, without the prior written approval of the City Manager.
- L. AUDITS.** CONTRACTOR agrees to permit CITY and its authorized representatives to audit, at any reasonable time during the term of this Agreement and for three (3) years from the date of final payment, CONTRACTOR's records pertaining to matters covered by this Agreement. CONTRACTOR agrees to maintain accurate books and records in accordance with generally accepted accounting principles for at least three (3) following the terms of this Agreement.
- M. NO IMPLIED WAIVER.** No payment, partial payment, acceptance, or partial acceptance by CITY shall operate as a waiver on the part of CITY of any of its rights under this Agreement.
- N. INSURANCE.** CONTRACTOR, at its sole cost, shall purchase and maintain in full force during the term of this Agreement, the insurance coverage described at Exhibit D. Insurance must be provided by companies with a Best's Key Rating of A-:VII or higher and which are otherwise acceptable to CITY's Risk Manager. The Risk Manager must approve deductibles and self-insured retentions. In addition, all policies, endorsements, certificates and/or binders are subject to approval by the Risk Manager as to form and content. CONTRACTOR shall obtain a policy endorsement naming the City of Palo Alto as an additional insured under any general liability or automobile policy. CONTRACTOR shall obtain an endorsement stating that the insurance is primary coverage and will not be canceled or materially reduced in coverage or limits until after providing 30 days prior written notice of the cancellation or modification to the Risk Manager. CONTRACTOR shall provide certificates of such policies or other evidence of coverage satisfactory to the Risk Manager, together with the required endorsements and evidence of payment of premiums, to CITY concurrently with the execution of this Agreement and shall throughout the term of this Agreement provide current certificates evidencing the required insurance

coverages and endorsements to the Risk Manager. CONTRACTOR shall include all subcontractors as insured under its policies or shall obtain and provide to CITY separate certificates and endorsements for each subcontractor that meet all the requirements of this section. The procuring of such required policies of insurance shall not operate to limit CONTRACTOR's liability or obligation to indemnify CITY under this Agreement.

- O. HOLD HARMLESS.** To the fullest extent permitted by law and without limitation by the provisions of section N relating to insurance, CONTRACTOR shall indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents from and against any and all demands, claims, injuries, losses, or liabilities of any nature, including death or injury to any person, property damage or any other loss and including without limitation all damages, penalties, fines and judgments, associated investigation and administrative expenses and defense costs, including, but not limited to reasonable attorney's fees, courts costs and costs of alternative dispute resolution), arising out of, or resulting in any way from or in connection with the performance of this Agreement. CONTRACTOR's obligations under this Section apply regardless of whether or not a liability is caused or contributed to by any negligent (passive or active) act or omission of CITY, except that CONTRACTOR shall not be obligated to indemnify for liability arising from the sole negligence or willful misconduct of CITY. The acceptance of the Services by CITY shall not operate as a waiver of the right of indemnification. The provisions of this Section survive the completion of the Services or termination of this Agreement.
- P. NON-DISCRIMINATION.** As set forth in Palo Alto Municipal Code section 2.30.510, CONTRACTOR certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person because of the race, skin color, gender, age, religion, disability, national origin, ancestry, sexual orientation, housing status, marital status, familial status, weight or height of such person. CONTRACTOR acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements and the penalties for violation thereof, and agrees to meet all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.
- Q. WORKERS' COMPENSATION.** CONTRACTOR, by executing this Agreement, certifies that it is aware of the provisions of the Labor Code of the State of California which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and certifies that it will comply with such provisions, as applicable, before commencing and during the performance of the Services.

- R. TERMINATION.** The City Manager may terminate this Agreement without cause by giving ten (10) days' prior written notice thereof to CONTRACTOR. If CONTRACTOR fails to perform any of its material obligations under this Agreement, in addition to all other remedies provided by law, the City Manager may terminate this Agreement immediately upon written notice of termination. Upon receipt of such notice of termination, CONTRACTOR shall immediately discontinue performance. CITY shall pay CONTRACTOR for services satisfactorily performed up to the effective date of termination. If the termination is for cause, CITY may deduct from such payment the amount of actual damage, if any, sustained by CITY due to CONTRACTOR's failure to perform its material obligations under this Agreement. Upon termination, CONTRACTOR shall immediately deliver to the City Manager any and all copies of studies, sketches, drawings, computations, and other material or products, whether or not completed, prepared by CONTRACTOR or given to CONTRACTOR, in connection with this Agreement. Such materials shall become the property of CITY.
- S. ASSIGNMENTS/CHANGES.** This Agreement binds the parties and their successors and assigns to all covenants of this Agreement. This Agreement shall not be assigned or transferred without the prior written consent of CITY. No amendments, changes or variations of any kind are authorized without the written consent of CITY.
- T. CONFLICT OF INTEREST.** In accepting this Agreement, CONTRACTOR covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of this Contract. CONTRACTOR further covenants that, in the performance of this Agreement, it will not employ any person having such an interest. CONTRACTOR certifies that no CITY officer, employee, or authorized representative has any financial interest in the business of CONTRACTOR and that no person associated with CONTRACTOR has any interest, direct or indirect, which could conflict with the faithful performance of this Contract. CONTRACTOR agrees to advise CITY if any conflict arises.
- U. GOVERNING LAW.** This Agreement shall be governed and interpreted by the laws of the State of California.
- V. ENTIRE AGREEMENT.** This Agreement, including all exhibits, represents the entire agreement between the parties with respect to the services that may be the subject of this Agreement. Any variance in the exhibits does not affect the validity of the Agreement and the Agreement itself controls over any conflicting provisions in the exhibits. This Agreement supersedes all prior agreements, representations, statements, negotiations and undertakings whether oral or written.

W. NON-APPROPRIATION. This Agreement is subject to the fiscal provisions of the Charter of the City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in the event that funds are not appropriated for the following fiscal year, or (b) at any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Agreement are no longer available. This Section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Agreement.

X. ENVIRONMENTALLY PREFERRED PURCHASING AND ZERO WASTE REQUIREMENTS. CONTRACTOR shall comply with CITY's Environmentally Preferred Purchasing policies which are available at CITY's Purchasing Division, which are incorporated by reference and may be amended from time to time. CONTRACTOR shall comply with waste reduction, reuse, recycling and disposal requirements of CITY's Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, CONTRACTOR shall comply with the following zero waste requirements:

- All printed materials provided by CONTRACTOR to CITY generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless otherwise approved by CITY's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable based inks.
- Goods purchased by Contractor on behalf of CITY shall be purchased in accordance with CITY's Environmental Purchasing Policy including, but not limited to, Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Division's office.
- Reusable/returnable pallets shall be taken back by CONTRACTOR, at no additional cost to CITY, for reuse or recycling. CONTRACTOR shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

Y. AUTHORITY. The individual(s) executing this Agreement on behalf of the parties represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

Z. PREVAILING WAGES

- ☒ **This Project is not subject to prevailing wages.** CONTRACTOR is not required to pay prevailing wages in the performance and implementation of the Project in accordance with SB 7, if the contract is not a public works contract, if contract does not include a public works construction project of more than \$25,000, or the contract does not include a public works alteration, demolition, repair, or maintenance (collectively, 'improvement') project of more than \$15,000.

OR

- ☐ **Contractor is required to pay general prevailing wages** as defined in Subchapter 3, Title 8 of the California Code of Regulations and Section 16000 et seq. and Section 1773.1 of the California Labor Code. Pursuant to the provisions of Section 1773 of the Labor Code of the State of California, the City Council has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in this locality for each craft, classification, or type of worker needed to execute the contract for this Project from the Director of the Department of Industrial Relations ("DIR"). Copies of these rates may be obtained at the Purchasing Division's office of the City of Palo Alto. Contractor shall provide a copy of prevailing wage rates to any staff or subcontractor hired, and shall pay the adopted prevailing wage rates as a minimum. Contractor shall comply with the provisions of all sections, including, but not limited to, Sections 1775, 1776, 1777.5, 1782, 1810, and 1813, of the Labor Code pertaining to prevailing wages.

AA.DIR REGISTRATION. In regard to any public work construction, alteration, demolition, repair or maintenance work, CITY will not accept a bid proposal from or enter into this Agreement with CONTRACTOR without proof that CONTRACTOR and its listed subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work, subject to limited exceptions. City requires CONTRACTOR and its listed subcontractors to comply with the requirements of SB 854.

CITY provides notice to CONTRACTOR of the requirements of California Labor Code section 1771.1(a), which reads:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or Section 10164 or 20103.5 of the Public

Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.”

CITY gives notice to CONTRACTOR and its listed subcontractors that CONTRACTOR is required to post all job site notices prescribed by law or regulation and CONTRACTOR is subject to SB 854-compliance monitoring and enforcement by DIR.

CITY requires CONTRACTOR and its listed subcontractors to comply with the requirements of Labor Code section 1776, including:

Keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by, respectively, CONTRACTOR and its listed subcontractors, in connection with the Project.

The payroll records shall be verified as true and correct and shall be certified and made available for inspection at all reasonable hours at the principal office of CONTRACTOR and its listed subcontractors, respectively.

At the request of CITY, acting by its project manager, CONTRACTOR and its listed subcontractors shall make the certified payroll records available for inspection or furnished upon request to the project manager within ten (10) days of receipt of CITY’s request.

☐ [For state- and federally-funded projects] CITY requests CONTRACTOR and its listed subcontractors to submit the certified payroll records to the project manager at the end of each week during the Project.

If the certified payroll records are not produced to the project manager within the 10-day period, then CONTRACTOR and its listed subcontractors shall be subject to a penalty of one hundred dollars (\$100.00) per calendar day, or portion thereof, for each worker, and CITY shall withhold the sum total of penalties from the progress payment(s) then due and payable to CONTRACTOR.

Inform the project manager of the location of CONTRACTOR’s and its listed subcontractors’ payroll records (street address, city and county) at the commencement of the Project, and also provide notice to the project manager within five (5) business days of any change of location of those payroll records.

BB. CONTRACT TERMS. All unchecked boxes do not apply to this Agreement. In the case of any conflict between the terms of this Agreement and the exhibits hereto or CONTRACTOR’s proposal (if any), the Agreement shall control. In the case of

any conflict between the exhibits hereto and CONTRACTOR's proposal, the exhibits shall control.

CC. FORCE MAJEURE. Neither Party shall be in default of its obligations under this Agreement in the event, and for so long as, it is impossible or extremely impracticable for it to perform its obligations due to an "act of God" (including, but not limited to, flood, earthquake, fire or other catastrophic events), civil disturbance, strikes (except any strikes involving a Party's personnel), orders or judgments of any Federal, State or local court, administrative agency or governmental body, or other similar cause affecting the city of Palo Alto, not the fault of, and beyond the reasonable control of, the Party claiming excuse. A party claiming excuse under this Section must (1) have taken reasonable precautions, if possible, to avoid being affected by the cause and (2) notify the other Party in accordance with this Section.

Any suspension of performance by a Party pursuant to this Section shall be only to the extent, and for a period of no longer duration than, required by the nature of the event, and the Party claiming excuse from obligation shall use its best efforts in an expeditious manner to remedy its inability to perform, and mitigate damages that may occur as a result of the event.

The Party claiming excuse shall deliver to the other Party a written notice of intent to claim excuse from performance under this Agreement by reason of an event of Force Majeure. Notice shall be given promptly in light of the circumstances, but in any event not later than 5 days after the occurrence of the event of Force Majeure. Such notice shall describe in detail the event of Force Majeure claimed, the services impacted by the claimed event of Force Majeure, the expected length of time that the Party expects to be prevented from performing, the steps which the Party intends to take to restore its ability to perform, and such other information as the other Party reasonably requests.

The partial or complete interruption or discontinuance of CONTRACTOR's services caused by an event of Force Majeure shall not constitute an event of default under this Agreement. Notwithstanding the foregoing, in the event of non-performance excused by Force Majeure, where the CONTRACTOR's non-performance continues or is noticed to continue for 10 days or more, CITY shall have the right to terminate this Agreement immediately and shall have no obligation to pay for services that have not been performed.

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

CITY OF PALO ALTO

SYNAGRO-WWT, INC.

Officer 1

City Manager or Designee

DocuSigned by:
By Michael Schwartz
05F2677C7BAC46F...
Name Michael Schwartz
Title VICE PRESIDENT

Approved as to form:

Officer 2 (Required for Corp. or LLC)

City Attorney or Designee

DocuSigned by:
By Michelle Hamann
C1F8B6653DC481
Name Michelle Hamann
Title Assistant Secretary

EXHIBIT A

SCOPE OF SERVICES

1. BACKGROUND AND PURPOSE

The work is for services to regularly treat sludge from the sludge dewatering facility at the Palo Alto Regional Water Quality Control Plant ("RWQCP"). Sludge will be hauled to the CONTRACTOR's treatment site (the "Treatment Facility") by the CITY's hauling contractor ("Hauler"). Where this scope of services refers to the "Treatment Facility", it also refers and applies to, and means, the CONTRACTOR. Obligations and requirements of the Treatment Facility are those of the CONTRACTOR.

CONTRACTOR will provide composting of the CITY's sludge to produce a USEPA Class A compost, fully dispose of all treated biosolids, and provide CITY with proper records for tracking the services.

2. PLANT ADDRESS

Palo Alto Regional Water Quality Control Plant
Attn: Operations Shift Supervisor or Senior Operator
2501 Embarcadero Way
Palo Alto, CA 94303
650-329-2598 - phone

3. COMMENCEMENT OF SERVICES

- a. Services under this Agreement will commence when the City's sewage sludge incinerators are fully retired and the new Sludge Dewatering and Truck Loadout Facility is in operation. CITY will issue a Notice to Proceed that specifies the date that regular services will commence, which date will be considered the first day of the contract year (i.e., Year 1). The time frame when CONTRACTOR's Treatment Facility receives test loads during startup testing of the new Sludge Dewatering and Truck Loadout Facility, prior to regular services commencing, shall not be considered part of the contract year while CITY works out startup issues.
- b. Tonnage and delivery commitments:
 - i. Minimum commitment by City is 10,000 wet tons / contract year during term of Agreement starting with the Notice to Proceed
 - ii. No maximum commitment
 - iii. All deliveries subject to the Not-to-Exceed contract amount
 - iv. Estimated delivery is 16,600 wet tons / contract year

- c. The City's Hauler (or their successor) may deliver any day of the year depending on operational requirements of the City of Palo Alto. However, normally, the Treatment Facility should not expect (or be entitled to) a delivery on Thanksgiving, Christmas, and/or New Years' Day.
- d. City's hauler is expected to deliver 21 to 25 tons per truckload.

4. PALO ALTO SLUDGE CHARACTERISTICS

- a. The material covered under this Agreement is a mix of raw, dewatered wastewater sludge and scum (hereafter, just referred to as sludge) that has not yet been stabilized.
- b. The wastewater sludge is collected as waste sludge from activated sludge tanks (about 29% of total content) and primary sludge settling tanks (about 71% of total content). This blend is then thickened in gravity thickeners to 3% to 4% solids. The sludge blend is processed through grinders before being sent to a blend tank. The sludge is kept blended with mix pumps and aerated by a blower in a 100,000 gallon mix tank, is pumped to a belt filter press, is treated for odors in-line with a sodium hypochlorite solution, and is then dewatered using a high molecular weight cationic polymer solution on a belt filter press. Upstream preliminary treatment processes include grit removal and mechanically raked barscreens using $\frac{3}{4}$ " spacing at the headworks.
- c. Primary tank scum is pumped through a grinder, sent to a scum concentrator, and thickened to about 50% solids. This scum will be added to the 20% plus sludge cake screw conveyors that feed into sludge cake bins.
- d. Solids content of filter press cake will have a solid content of not less than 20%.
- e. Except as stated herein, the City cannot guarantee condition or quality of the material. Therefore, notice is hereby given that the content and nature of the sludge and scum may change depending on RWQCP process control changes, treatment plant changes, influent characteristics, or treatment plant effectiveness.
- f. The City will certify that the wastewater sludge and scum pollutant concentrations are at or below the metal concentration limits established in 40 CFR 501.13, Table 1 and Table 3.
- g. Per USEPA 40 CFR 503 sludge regulations, sludge will be sampled monthly for metals including: arsenic, cadmium, copper, lead, mercury,

molybdenum, nickel, selenium, and zinc concentrations. The values will be shared with Treatment Facility for their use.

- h. Treatment Facility should be aware that wastewater sludge contains pathogenic microorganisms and does not meet all 40 CFR 503 regulations. The city declares that:
 - i. The sludge does not meet the pathogen reduction requirements of 40 CFR 503.32(B)(3) ["PRSP"].
 - ii. The sludge does not meet the vector attraction reduction requirements of 40 CFR 503.33(b)(1).
- i. Furthermore, sludge and scum quality data is included as Exhibit A-1 to this Exhibit for the Treatment Facility's reference. Treatment Facility shall verify, by analyzing the data provided and making inquiries, as needed, as to the characteristics of the wastewater sludge/scum mix and their ability process the wastewater sludge at the treatment/disposal site(s).
- j. Palo Alto will provide new sludge testing results to Synagro on a periodic basis, and as required by regulation. Palo Alto will provide Synagro with unacceptable characteristics.
- k. At no time during the term of this Agreement shall the City make available to the Treatment Facility, nor shall the Treatment Facility be obligated to handle, any wastewater sludge which is designated a hazardous waste under any applicable law, rule, or regulation, and nothing herein shall relieve the City of any liability or responsibility with respect to any sludge generated at its facilities which is a hazardous waste.

5. SLUDGE PRODUCTION ESTIMATES

- a. CITY produces wastewater sludge twenty-four (24) hours per day, seven (7) days per week resulting in approximately 25,000 wet tons annually. A breakdown is included in the table below for sludge sent to the current incinerators. Note that the data below involves a weekly shutdown for about 12 hours; the shutdown will not be occurring in the new sludge dewatering and loadout operation. This change will smooth out the sludge production data included below, lessening peak catch-up days and reducing the occurrence of days with minimal production.

Palo Alto RWQCP Incinerator Sludge Feed Amounts							
2015, 2016, Jan-2017 (assumes 28% sludge cake for wet ton calculations)							
	MG per day	DT / day	WT / day	WT / 2-days	WT / week	WT / 30-days	WT / year
minimum	0.00	0	0	34	315	1616	
25th percentile	0.12	16	58	114	430	1912	

50th percentile/median	0.14	20	72	137	484	2093	
average	0.14	19	69	137	480	2061	25013
75th percentile	0.16	23	82	159	525	2197	
maximum	0.21	35	124	245	701	2533	
standard deviation	0.04	6	21	32	64	212	
Notes: MG = million gallons; DT = dry tons; WT = wet tons							

- b. Production rates may be varied or stopped to match RWQCP operational needs. Operation may also be interrupted occasionally for maintenance or repair. Advance notice of temporary interruption will be given to the CONTRACTOR whenever possible.
- c. The amount of biosolids to be treated is an estimate only. Therefore, notice is hereby given that the quantity, content, and nature of the material may change depending on the speed of startup of the new sludge dewatering and truck loadout facility, RWQCP process control changes, process upsets, plant upgrades, repairs, maintenance, operational improvements, belt press dewatering schedule, day of week, holidays, seasonal changes, storm-induced increases in produced solids, changes in community population, treatment plant changes, and so forth.

6. GENERAL RESPONSIBILITIES

- a. The Treatment Facility shall know, follow, comply with, and stay updated on all federal, state, and local laws, regulations, statutes, ordinances, orders, decrees, and permits that affect this work. This includes treatment site operation and maintenance, monitoring and reporting, processing and disposal of sludge, environmental and pollution regulations, noise control, and inspections by authorized representatives as required by such requirements. Documentation of specific permits, orders, decrees, registrations, and so forth shall be provided upon request. Except for those costs justified by Synagro and approved by the City as relates to a significant change in law, all costs associated with obtaining such permits and licenses shall be considered as included in the unit price. Federal Regulations, including 40 CFR Parts 257, 258, 403 and 503, provide specific requirements for biosolids disposal and must be complied with.
- b. The Treatment Facility agrees to furnish all information as required by the City in order to fulfill the responsibilities of the City for reporting on compliance with wastewater sludge rules and regulations as well as for accurate payment.
- c. The Treatment Facility will be required to furnish and update, as necessary, a list of telephone numbers and names of responsible parties to be called on a 24-hour, 7 days per week basis in the event of an emergency

or unusual operating conditions. The Treatment Facility's designated representative must be available to respond to City staff within a mutually acceptable time span (within three to four hours). It will be mandatory to have dedicated business cell phones and email for supplementary communications. The Treatment Facility shall coordinate and cooperate with staff at the RWQCP and its contracted Hauler (in consultation with the City) to fulfill respective requirements.

- d. Raw sludge contains micro-organisms from the wastewater treatment process that include pathogens. Precautions are required, such as adequate training, wearing proper PPE (e.g., latex or nitrile gloves, boots, etc.), washing hands with soap, and access to potable drinking water and OSHA approved first aid kits. The Treatment Facility is to follow an Exposure Control Plan for Blood Borne Pathogens pursuant to CalOSHA rules and California Code of Regulations, Title 8, Section 5193. The Exposure Control Plan is to be on file for review, if requested.
- e. During the Agreement term, the Contractor is to attend periodic meetings, as needed, to discuss items such as: operational requirements at RWQCP and treatment site(s), performance reviews, safety/spill response planning, and strategies for common benefit. Input and constructive feedback to improve all aspects of this Agreement is expected during the Agreement term. Meetings will be one-hour periodic meetings held at RWQCP, treatment sites, a mutually agreeable location, or by telecon.

7. DELIVERY SCHEDULE

- a. The City's Hauler will receive and haul wastewater sludge daily. A delivery schedule will be developed by the City in consultation with the Hauler and coordinated with the Treatment Facility at the start of operations. The City reserves the right to make modifications in this schedule to meet the needs of the City.
- b. Treatment may be required on both a daily scheduled and as-required basis, according to the requirements of the City. For purposes of this Agreement, sludge receiving hours are as shown in Section 8 (UNLOADING REQUIREMENTS AT TREATMENT FACILITY) of this Exhibit A (Scope of Services).

8. UNLOADING REQUIREMENTS AT TREATMENT FACILITY

- a. Sludge will be delivered by the City's Hauler to the Treatment Facility site below in quantities to be determined by City consistent with the tonnage commitments listed in Section 3 (COMMENCEMENT OF SERVICES) of this Exhibit A (Scope of Services):

- i. Synagro Central Valley Compost Facility (CVC) 13757 Harmon Rd,
Dos Palos, CA 93620
 1. Receiving and operating hours 0600 – 1700, 7 days per week
- b. Treatment Facility must share and coordinate any site procedures and rules established by the Treatment Facility with City's Hauler. At the start of contracted services, Treatment Facility shall have an approved permit and/or agreement in place with the City's Hauler (or their successor) during the term of the Agreement.

9. TREATMENT REQUIREMENTS

- a. If the Treatment Facility has an operating permit violation, CONTRACTOR will notify CITY's Project Manager in writing within 30 days of receipt of written notice. All fines will be paid by CONTRACTOR or the Treatment Facility and not billed to CITY.
- b. CONTRACTOR shall provide adequate space at the Treatment Facility to accommodate the ingress and egress of the trucks and trailers of the CITY's sludge hauling contractor. The Treatment Facility will provide water for vehicle clean-up, suitable lighting for nighttime operation, and any additional facilities (portable toilets, handwashing facilities) that may be required.
- c. CONTRACTOR shall provide an annual summary to the CITY of all monitoring and analytical data as required to complete the CITY's Annual Biosolids Generator's Report for the USEPA due February 19th of each year. This annual summary shall be posted by January 31st each year and shall be sent to the Project Manager.
- d. CONTRACTOR shall provide the name of a 24-hour emergency contact person and phone number. CONTRACTOR will train the Treatment Facility's onsite staff and comply with Palo Alto Emergency and Spill Response Plan, as necessary.
- e. CITY will have right to inspect the Treatment Facility's site at any time and without prior notification. The Treatment Facility shall maintain and provide copies to the CITY of all records, documents, and papers documenting the disposition of biosolids handled by the Treatment Facility for inspection by authorized local, state, and federal representatives as required by law.
- f. Neither party shall use the name, marks, or logo of the other party in any planned advertisement, promotional material, press release, or other planned publicity or marking materials, in any form or media, with regard

to the subject matter of the agreement without the prior written approval of the other party.

- g. Annual reports shall be provided to the RWQCP each year detailing tonnage treated and final disposal disposition.

10. PAYMENT AND PRICING CONDITIONS

- a. See Contract, Section 8, Invoicing.
- b. Payment for work is to be made on a wet tonnage basis as determined by weight tickets at the CONTRACTOR'S Treatment Facility. CONTRACTOR will generate a legible, licensed weigh-master's certificate showing gross weight, tare weight, and net weight of each truckload of material; ticket shall be kept on file for review by City as needed. Weight will be based on a certified scale owned, operated, and maintained by the Treatment Facility. The scale certificate shall be kept on file for audit review. . The weight tickets shall also be provided to the CITY's Hauler.

11. DOCUMENTATION AND PERMITS

- a. CONTRACTOR shall maintain any and all required permits during the term of this Agreement.
- b. CONTRACTOR shall, at all times during the treatment, storage, and disposal of sludge to be managed under this Agreement, know the location, condition and status of each item being managed.

END OF SECTION

Exhibit A-1 Palo Alto Sludge Characteristics

2016, 2017 Average Annual Wastewater Sludge Quality Data: 40CFR503 Sludge Regulation Trace Metal Analysis on Sludge					
Trace Metals	Dry-Weight Units	501.13 Ceiling Concentration Table 1	501.13 Pollutant Concentration Table 3	Average Annual Result	Single Results
Arsenic (As)	mg/kg	75	41	<2.70	--
Antimony (Sb)	mg/kg	--	--	--	ND<19 ^b
Barium (Ba)	mg/kg	--	--	--	50.2 ^b
Beryllium (Be)	mg/kg	--	--	--	ND ^{a, b}
Cadmium (Cd)	mg/kg	85	39	<1.61	--
Chromium (Cr)	mg/kg	--	--	13.0	--
Cobalt (Co)	mg/kg	--	--	--	ND<2 ^b
Copper (Cu)	mg/kg	4300	1500	291	--
Iron (Fe)	mg/kg	--	--	--	2650 ^b
Lead (Pb)	mg/kg	840	300	16.6	--
Mercury (Hg)	mg/kg	57	17	0.517	--
Molybdenum (Mo)	mg/kg	75	n/a	--	4.4 ^a ; ND<4 ^b
Nickel (Ni)	mg/kg	420	420	13.7	--
Selenium (Se)	mg/kg	100	100	--	6.3 ^a ; ND<17 ^b
Silver (Ag)	mg/kg	--	--	--	ND<4 ^b
Thallium (Tl)	mg/kg	--	--	--	ND<13 ^b
Vanadium (V)	mg/kg	--	--	--	5.97 ^b
Zinc (Zn)	mg/kg	7500	2800	--	520 ^a ; 166 ^b
Total Solids	%	--	--	27.0	--

^a Sampled 2/7/17 on 25% sludge cake; ^b Sampled 2/9/17 on 27% sludge cake

February 17, 2017 Scum Quality Data: 40CFR503 Sludge Regulation Trace Metal Analysis on Scum				
Trace Metals	Dry-Weight Units	501.13 Ceiling Concentration Table 1	501.13 Pollutant Concentration Table 3	Result
Arsenic (As)	mg/kg	75	41	ND
Beryllium (Be)	mg/kg	--	--	ND
Cadmium (Cd)	mg/kg	85	39	0.14
Chromium (Cr)	mg/kg	--	--	3.1
Copper (Cu)	mg/kg	4300	1500	30
Lead (Pb)	mg/kg	840	300	1.28
Mercury (Hg)	mg/kg	57	17	<0.0397
Molybdenum (Mo)	mg/kg	75	n/a	1.7
Nickel (Ni)	mg/kg	420	420	1.9
Selenium (Se)	mg/kg	100	100	<0.83
Zinc (Zn)	mg/kg	7500	2800	100
Total Solids	%	--	--	30.0

General Raw Sludge Characterization			
Trace Metals	Dry-Weight Units	Result	Sample date, comment
Total Kjeldahl Nitrogen (TKN)	mg/kg	44,000; 10,000	2/7/17 (25% cake); 2/9/17
Organic Nitrogen (25% sludge cake)	mg/kg	38,000	2/7/17
Ammonia-Nitrogen (25% sludge cake)	mg/kg	5,600	2/7/17
Grit Analysis: total residual solids in 30% sludge cake	%	0.52%	2/9/17 (dried at 103-105C)
Primary sludge volatile solids concentration	%	89%	2/7/13
Waste activated sludge (WAS) volatile solids concentration	%	80%	Typical value
Ratio Primary / Total Sludge	%	71 – 78%	2013 value
Ratio WAS / Total Sludge	%	22 – 29%	2013 value
Primary Sludge BTU Content – Dry	BTU/lb	8000	8/21/12 ASTM D5865-07a
WAS BTU Content – Dry	BTU/lb	7400	8/21/12 ASTM D5865-07a

EXHIBIT B
SCHEDULE OF PERFORMANCE

CONTRACTOR shall perform the sludge treatment and disposal services in Exhibit A (Scope of Services) in accordance with Section 7 of Exhibit A.

EXHIBIT C SCHEDULE OF FEES

CITY shall pay CONTRACTOR according to the following rate schedule. The maximum amount of compensation to be paid to CONTRACTOR, including both payment for services and reimbursable expenses, shall not exceed the amounts set forth in Sections 5 and 6 of the Agreement. Any services provided or hours worked for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to CITY.

Treatment Facility Unit Prices US \$/wet ton		
	Year 1	Year 2 to Year 5 Increases on Contract Year Anniversary Date
Synagro-WWT, Inc., 12,501 TPY – 25,000+ TPY	\$35.00	2.0%
Synagro-WWT, Inc., 10,000 TPY – 12,500 TPY	\$37.00	2.0%

Pricing:

- a. Unit prices will be in US dollars and are price per wet ton. The unit price per wet ton includes all fees, taxes, and surcharges.
- b. Except as directed otherwise in these specifications, full compensation for completing Agreement work is considered to be included in the unit prices paid for the various items of work and no separate payment will be made therefore.
- c. In case of price increase due to new regulatory fees, CONTRACTOR must notify the City of Palo Alto in writing before any additional fees will be allowed. No additional fees will charged to CITY unless approved by an amendment of this Agreement.

EXHIBIT D INSURANCE REQUIREMENTS

CONTRACTORS TO THE CITY OF PALO ALTO (CITY), AT THEIR SOLE EXPENSE, SHALL FOR THE TERM OF THE CONTRACT OBTAIN AND MAINTAIN INSURANCE IN THE AMOUNTS FOR THE COVERAGE SPECIFIED BELOW, **AFFORDED BY COMPANIES WITH AM BEST'S KEY RATING OF A-VII, OR HIGHER, LICENSED OR AUTHORIZED TO TRANSACT INSURANCE BUSINESS IN THE STATE OF CALIFORNIA.**

AWARD IS CONTINGENT ON COMPLIANCE WITH CITY'S INSURANCE REQUIREMENTS, AS SPECIFIED, BELOW:

REQUIRED	TYPE OF COVERAGE	REQUIREMENT	MINIMUM LIMITS	
			EACH OCCURRENCE	AGGREGATE
YES YES	WORKER'S COMPENSATION EMPLOYER'S LIABILITY	STATUTORY STATUTORY		
YES	GENERAL LIABILITY, INCLUDING PERSONAL INJURY, BROAD FORM PROPERTY DAMAGE BLANKET CONTRACTUAL, AND FIRE LEGAL LIABILITY	BODILY INJURY	\$2,000,000	\$4,000,000
		PROPERTY DAMAGE	\$2,000,000	\$4,000,000
		BODILY INJURY & PROPERTY DAMAGE COMBINED.		
NO	AUTOMOBILE LIABILITY, INCLUDING ALL OWNED, HIRED, NON-OWNED	BODILY INJURY	\$1,000,000	\$1,000,000
		- EACH PERSON	\$1,000,000	\$1,000,000
		- EACH OCCURRENCE	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY AND PROPERTY DAMAGE, COMBINED	\$1,000,000	\$1,000,000
YES	POLLUTION LIABILITY	ALL DAMAGES	\$1,000,000	\$2,000,000
NO	PROFESSIONAL LIABILITY, INCLUDING, ERRORS AND OMISSIONS, MALPRACTICE (WHEN APPLICABLE), AND NEGLIGENT PERFORMANCE		\$1,000,000	
		ALL DAMAGES		
YES	THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED: CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONSULTANTS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS' COMPENSATION, EMPLOYER'S LIABILITY AND PROFESSIONAL INSURANCE, NAMING AS ADDITIONAL INSURED CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES.			

- I. INSURANCE COVERAGE MUST INCLUDE:
ENDORSEMENT PROVISIONS, WITH RESPECT TO THE INSURANCE AFFORDED TO "ADDITIONAL INSURED"

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSURED.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS INSURED UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE

INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSUREDS, SHALL NOT INCREASE THE TOTAL LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.
2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

Vendors are required to file their evidence of insurance and any other related notices with the City of Palo Alto at the following URL:

<https://www.planetbids.com/portal/portal.cfm?CompanyID=25569>

OR

http://www.cityofpaloalto.org/gov/depts/asd/planet_bids_how_to.asp



CERTIFICATE OF LIABILITY INSURANCE

 DATE (MM/DD/YYYY)
05/21/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Marsh USA, Inc.
1166 Avenue of the Americas
New York, NY 10036

CONTACT

NAME:

PHONE

(A/C, No, Ext):

 FAX
(A/C, No):

E-MAIL

ADDRESS:

INSURER(S) AFFORDING COVERAGE
NAIC #

INSURER A : Steadfast Insurance Company

26387

INSURER B : Zurich American Insurance Company

16535

INSURER C : American Zurich Insurance Company

40142

INSURER D :

INSURER E :

INSURER F :

CN102105905-STND-GAWUL-17-18

INSURED
Synagro Technologies, Inc.
435 Williams Court, Suite 100
Baltimore, MD 21220

COVERAGES
CERTIFICATE NUMBER:

NYC-010280101-01

REVISION NUMBER: 5

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVO	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		GPL 0134653-03	08/01/2017	08/01/2018	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 6,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 Professional Liability \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY		BAP 9243960 05	08/01/2017	08/01/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED \$ RETENTION \$		SXS 0222710-01	08/01/2017	08/01/2018	EACH OCCURRENCE \$ 25,000,000 AGGREGATE \$ 25,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N N/A	WC 9243961 06 (AOS)	08/01/2017	08/01/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER
B			WC 9243962 06 (ME, WI)	08/01/2017	08/01/2018	E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Contractors Pollution Liab.		GPL 0134653-03	08/01/2017	08/01/2018	Limit: 25,000,000
A	Pollution Legal Liab.		EPC 0120174-01	08/01/2017	08/01/2020	Limit: 25,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

THE CITY OF PALO ALTO, TS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES ARE INCLUDED AS ADDITIONAL INSURED WHERE REQUIRED BY WRITTEN CONTRACT WITH RESPECT TO GENERAL LIABILITY AND AUTO LIABILITY. THIS INSURANCE IS PRIMARY AND NON-CONTRIBUTORY OVER ANY EXISTING INSURANCE AND LIMITED TO LIABILITY ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED SUBJECT TO POLICY TERMS AND CONDITIONS. THE GENERAL LIABILITY DOES NOT INCLUDE AN EXCLUSION FOR CROSS SUITS/CROSS LIABILITY.

CERTIFICATE HOLDER

City of Palo Alto
2501 Embarcadero Way
Palo Alto, CA 94303

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
of Marsh USA Inc.

Nadia Smith

© 1988-2016 ACORD CORPORATION. All rights reserved.



Blanket Notification to Others of Cancellation

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
GPL 0134653-03	08/01/2017	08/01/2018	08/01/2017	18232000	-----	-----

Named Insured and Mailing Address:

SYNAGRO TECHNOLOGIES, INCORPORATED
435 WILLIAMS COURT
SUITE 100
BALTIMORE, MD 21014

Producer:

MARSH USA INC
1166 AVENUE OF AMERICAS
NEW YORK, NY 10036-2708

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Agribusiness Pollution Liability Insurance Policy - Claims Made and Reported Coverage

Commercial Umbrella Liability Policy

Commercial Umbrella Liability Policy – Claims Made and Reported Coverage

Contractor's Pollution Liability Insurance Policy

Contractor's Pollution Liability Insurance Policy - Claims Made and Reported Coverage

Environmental Cleanup and Liability Insurance Policy - Claims Made and Reported Coverage

Environmental Impairment Liability Insurance Policy - Claims Made and Reported Coverage

Environmental Services Package Policy

Excess Environmental Insurance Policy - Claims Made and Reported Coverage

Follow Form Excess Liability Policy

Follow Form Excess Liability Policy – Claims Made and Reported Coverage

Healthcare Pollution Liability Insurance Policy - Claims Made and Reported Coverage

Lender Environmental Collateral Protection and Liability Insurance Outstanding Loan Balance - Claims Made and Reported Coverage

Lender Environmental Collateral Protection and Liability Insurance Policy – Claims Made and Reported Coverage

Professional Consultant's Liability Insurance Policy - Claims Made and Reported Coverage

Professional Environmental Consultant's Liability Insurance Policy

Professional Environmental Consultant's Liability Insurance Policy - Claims Made and Reported Coverage

Public Entity Pollution Liability - Claims Made and Reported Coverage

Real Estate Environmental Liability Insurance Policy - Claims Made and Reported Coverage

Remediation Stop Loss

Z Choice Pollution Liability

Z Choice® Real Estate Environmental Liability - Claims Made and Reported Coverage

Z Choice™ Pollution Liability - Claims Made and Reported Coverage

Z Link® Commercial General and Pollution Liability

- A. If we cancel this policy by written notice to the first Named Insured for any reason other than nonpayment of premium, we will deliver electronic notification that such policy has been cancelled to each person or organization shown in a Schedule provided to us by the First Named Insured. Such Schedule:

1. Must be initially provided to us within 15 days:
 - a. After the beginning of the policy period shown in the Declarations; or
 - b. After this endorsement has been added to policy;
2. Must contain the names and e-mail addresses of only the persons or organizations requiring notification that such Coverage Part has been cancelled;
3. Must be in an electronic format that is acceptable to us; and
4. Must be accurate.

Such Schedule may be updated and provided to us by the First Named Insured during the policy period. Such updated Schedule must comply with Paragraphs 2, 3, and 4, above.

- B. Our delivery of the electronic notification as described in Paragraph A. of this endorsement will be based on the most recent Schedule in our records as of the date the notice of cancellation is mailed or delivered to the first Named Insured. Delivery of the notification as described in Paragraph A. of this endorsement will be completed as soon as practicable after the effective date of cancellation to the first Named Insured.
- C. Proof of emailing the electronic notification will be sufficient proof that we have complied with Paragraphs A. and B. of this endorsement.
- D. Our delivery of electronic notification described in Paragraphs A. and B. of this endorsement is intended as a courtesy only. Our failure to provide such delivery of electronic notification will not:
 1. Extend the Coverage Part cancellation date;
 2. Negate the cancellation; or
 3. Provide any additional insurance that would not have been provided in the absence of this endorsement.
- E. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the Schedule provided to us as described in Paragraphs A. and B. of this endorsement.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

Attachment D

List of Key Terms

Alternative daily cover (ADC): ADC means cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging. Federal regulations require landfill operators to use six inches of earth material as daily cover unless other materials are allowed as alternatives. CalRecycle has approved 11 ADC material types. Generally, these materials must be processed so that they do not allow gaps in the exposed landfill face.

Anaerobic digestion: Anaerobic digestion is a collection of processes by which microorganisms break down biodegradable material in the absence of oxygen.

Beneficial use: Use of a product with a defined benefit, such as biosolids used as soil amendment. Disposal, such as landfilling or incineration, is not beneficial use.

Biogas: A mixture of different gases produced by the breakdown of organic matter in the absence of oxygen to produce a renewable energy source when combusted.

Biosolids: Organic fertilizer or soil amendments produced by the treatment of domestic wastewater. Biosolids consist primarily of dead microbes and other organic matter. Untreated sludge or sludge that does not conform to regulated pollutants and pathogen treatment requirements are not considered biosolids. Biosolids are regulated through the Environmental Protection Agency Title 40 Code of Federal Regulations Part 503 Rule (often referred to as the “503 Biosolids Rule”).

Biosolids land-application facility: A facility where biosolids are spread onto the land at agronomic rates for production of food or fiber. The facility includes any structures necessary to store the biosolids until the soil, weather, and crop conditions are favorable for land application.

Class A biosolids: Material that has met the Class A pathogen reduction requirements or equivalent treatment by a process to further reduce pathogens (PFRP) in accordance with 40 CFR 503. Processes include composting, heat drying,

heat treatment, thermophilic aerobic digestion, beta or gamma ray irradiation, and pasteurization.

Class B biosolids: Material that has met the Class B pathogen reduction requirements or equivalent treatment by a process to significantly reduce pathogens (PSRP) in accordance with 40 CFR 503. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization, and air drying.

Dewatering; dewatered biosolids: A process used to remove water from biosolids producing dewatered biosolids that contain equal to or greater than 20 percent dry solids.

Dry weight basis: Calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100 percent solids).

40 CFR 503: Regulations for setting "Standards for the use or disposal of sewage sludge," Title 40 Code of Federal Regulations Part 503.

Gasification: Thermal process to convert carbon-based material into a synthesis gas. Gasification is different from incineration, which uses large amounts of air for combustion to make carbon dioxide and heat. Gasification is in a typical temperature range of 900°F to 3000°F with a limited supply of air or oxygen, only a fraction of what is used in incineration. The synthesis gas can be used as a fuel to make electricity. There are no known sewage sludge gasification systems operating in the US solely on sewage sludge.

Land application: The beneficial use of biosolids applied to land based upon crop needs and the composition of biosolids.

Pathogen: An organism capable of causing a susceptible host to develop a disease or infection.

Pyrolysis: Thermal process to convert carbon-based material into a synthesis gas. Pyrolysis is different from incineration, which uses large amounts of air for combustion to make carbon dioxide and heat. Pyrolysis uses an indirect source of heat to thermally decompose organic materials, in a typical temperature range of 400°F to 1400°F, and in the absence of air or oxygen. The unreacted fixed carbon

component of the material, along with any inorganic materials, forms a char/ash mixture that remains as a residual. The synthesis gas can be used as a fuel to make electricity and/or as heat used in a biodryer (as in the patented BioForceTech system) to offset external fuel sources for drying the sludge.

Sludge: The solid, semi-solid, or liquid residue removed during the treatment of wastewater.

Thermal hydrolysis process (THP) (Lystek Technology): Lystek's THP is a low temperature and pressure process that disintegrates microbial cell walls and hydrolyzes complex macromolecules into simpler components. It uses digested or undigested sludge as a feedstock, breaks the feedstock down in a reactor using high speed shearing, uses alkali treatment to increase pH, and is completed with injection of low temperature and low pressure steam. Lystek's THP differs from the CAMBI process evaluated in the Biosolids Facilities Plan; the CAMBI THP operated at a higher temperature and pressure, utilized pretreatment screening and pre-thickening, and did not use alkali treatment.

Thermophilic digester: A type of anaerobic digester that operates at temperatures above 50°C and produces biogas.

Vectors: Rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.