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TIMEYIN DAFETA
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2714 MEDIA CENTER DRIVE
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July 5, 2018

To: 25 Pre-Qualified On-Call Contract Consultants of LA Sanitation

LA SANITATION ON-CALL CONSULTANT SERVICES CONTRACT ISSUANCE OF TOS SN-102, HWRP ACUTE TOXICITY AND AMMONIA STUDY AND WORKPLAN

LA Sanitation (LASAN) is soliciting responses from 25 Prime Consultants on the On-Call Consultant List. Attached are details of the Task Order Solicitation (TOS) required services. A pre-proposal meeting for this TOS will be held on:

Date and Time: Thursday, July 19, 2018, from 9:00 A.M. to 10:00 A.M.
Location: Hyperion Treatment Plant, Pregerson Technical Support Facility, Room 345
12000 Vista Del Mar, Playa Del Rey, CA 90293
Entrance at Gate C

All questions regarding this TOS must be submitted in writing via e-mail to Mr. Charles Senaya (charles.senaya@lacity.org) before the meeting.

For the security clearance at Hyperion Treatment Plant, please e-mail Mr. Charles Senaya, the names of your representatives and subcontractors, who will be attending the meeting, and the company's name by Wednesday, July 18, 2018, before 12:00 P.M. (Please note that inviting your subcontractors to the meeting is optional.)

The deadline for proposal submittal is Thursday, August 9, 2018, before 2:00 P.M. If your firm is interested in this TOS, please submit proposal via e-mail on the indicated due date to the following LASAN staff:

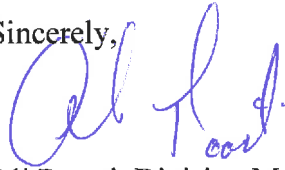
- Charles Senaya, charles.senaya@lacity.org
- Thu-Van Ho, thu-van.ho@lacity.org



Should you decide not to submit a proposal, a negative response is requested with a brief explanation of the reason. Your decision for not to submit a proposal will not affect your eligibility for future work.

Thank you for your interest and we look forward to receiving your response to this TOS.

Sincerely,



Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

TVH/AP:tvh

c: Timeyin Dafeta, HEPM
Hi Sang Kim, HWRP
Ronald Mayuyu, HWRP
Charles Senaya, HWRP
Erik Avila, HWRP
Scott Hare, WESD
Thu-Van Ho, WESD

**City of Los Angeles
Department of Public Works
LA Sanitation**

Pre-qualified Sanitation On-Call Consultant Services Contract

Task Order Solicitation (TOS) SN-102 for the

**HYPERION WATER RECLAMATION PLANT (HWRP) – ACUTE TOXICITY AND
AMMONIA STUDY AND WORKPLAN**

July 2018

1. Introduction

The Los Angeles Regional Water Quality Control Board (LARWQCB) requires that National Pollution Discharge Elimination System (NPDES) dischargers, including the Bureau of Sanitation, City of Los Angeles (LA Sanitation), conduct special studies. The Hyperion Treatment Plant (HTP) NPDES Permit, (Order No. R4-2017-0045, NPDES Permit No. CA0109991)¹, effective 4/1/2017, section VII-C-2 states “In coordination with the West Basin Municipal Water District, the Permittee shall propose a special study that evaluates the projected effects of water conservation and planned recycling on effluent toxicity and ammonia, including a mass balance of nitrogen species through the treatment plant and an assessment of operational alternatives (e.g. treatment optimization, additional treatment, additional dilution credits) to address projected compliance with acute toxicity and ammonia water quality objectives. A Special Study Work Plan, including a proposed schedule, shall be submitted for approval by the Regional Water Board Executive Officer and the USEPA Water Division Director not later than one year from the effective date of this Order. The special study report shall be submitted no later than two years before the permit expires”.

Background

The Hyperion Water Reclamation Plant (HWRP) is part of a joint outfall system commonly known as the Hyperion Treatment System, which consists of the wastewater collection system, the Hyperion Water Reclamation Plant and three upstream water reclamation plants: Donald C. Tillman Water Reclamation Plant (DCTWRP), Los Angeles-Glendale Water Reclamation Plant (LAGWRP), Burbank Water Reclamation Plant (BWRP - owned and operated by a contract city), and their associated outfalls.

The Hyperion Treatment System collects, treats, and disposes of sewage from the entire city (except the Wilmington-San Pedro area, the strip north of San Pedro, and Watts) and from a number of cities and agencies under contractual agreements. Approximately 85% of the sewage and commercial/industrial wastewater comes from the City of Los Angeles. The remaining 15% comes from the contract cities and agencies. Sludge from the City’s

two upstream plants (DCTWRP and LAGWRP) and the Burbank WRP is returned to the wastewater collection system and flows to the Hyperion Treatment Plant for treatment.

Approximately 37 MGD of HWRP's secondary effluent is sent to West Basin's Edward C. Little Water Recycling Plant (West Basin Plant) for advanced treatment and reuse. The West Basin Municipal Water District (West Basin) operates the West Basin Plant in El Segundo. The West Basin Plant provides tertiary treatment and/or advanced treatment such as microfiltration and reverse osmosis (RO) to Hyperion secondary effluent to produce Title 22 and high purity recycled water. Title 22 recycled water is used for beneficial irrigation, industrial applications including cooling water and boiler feed water, and other purposes. The RO-treated recycled water is primarily injected into the West Coast Basin Barrier Project to control seawater intrusion. The waste brine from the West Basin Plant is discharged to the ocean through Hyperion's 5-Mile Outfall (Discharge Point 002) via a waste brine line from the West Basin Plant. Although the waste brine is discharged through Hyperion's outfall, it is regulated under separate waste discharge requirements and NPDES permit.

Water conservation efforts and plans to increase water recycling prompted the LARWQCB to require the City of Los Angeles to conduct a special study to evaluate the projected effects of water conservation and planned recycling on effluent toxicity and ammonia water quality objectives at HWRP. The 2017 HTP NPDES permit has an effluent average monthly ammonia limit of 58 mg/L (203,000 lb/day, 6 month median); previously HWRP only had a performance goal of 44.1 mg/L.

2. Scope of Services

HWRP is seeking a qualified consulting firm to provide technical support in performing a study and work plan to evaluate and address compliance of acute toxicity due to ammonia. The scope of services includes, but is not limited to the following:

Task 1: Study on Projected Effects of Water Conservation and Planned Recycling on HWRP Effluent Acute Toxicity and Ammonia as Required by the LARWQCB.

Special Study Objectives:

The objectives of this HWRP special study are:

1. Calculate and evaluate the mass nitrogen loading in the Plant for past, current, and projected flows to assess the effects of water conservation.
2. Evaluate projected compliance with acute toxicity due to ammonia by determining if HWRP's final effluent will continue to meet the acute toxicity Water Quality Objective in the California Ocean Plan².
3. Assess operational alternatives (e.g. treatment optimization, additional treatment, additional dilution credits) to address projected compliance with acute toxicity and ammonia water quality objectives.

The special study will also address the following questions by the LARWQCB:

- a) Where and by how much is nitrogen concentrating during biological treatment processes?
- b) What is the nitrogen load via the 5-mile outfall to the Santa Monica Bay?
- c) Does the HWRP effluent quality meet the Ocean Plan objectives for nitrogen species and acute toxicity?
- d) Is the discharge via the 5-mile outfall acutely toxic?
- e) Are there any operational changes that may reduce nutrients discharged to the Bay?

Note: As part of the study, LA Sanitation will gather a 10-year historical and current data on HWRP's influent and effluent flows, ammonia, acute toxicity, nitrate and organic nitrogen concentrations and make the information available to the Consultant prior to the start of the study. In addition, HWRP will conduct sampling and analysis of ammonia, nitrate and organic nitrogen through its treatment processes to facilitate the execution of this study by the Consultant.

Work Plan Approach:

Year One: October 2018 to March 2019 (Two Quarters)

1. **First quarter (October 2018-December 2018):** Consultant will identify and study projected effects of planned significant projects that may impact the nitrogen loading or nitrogen concentration in Hyperion's final effluent.
 - a) Identify and study projected effects on HWRP's influent and effluent flows, ammonia, acute toxicity, nitrate and organic nitrogen concentrations as a result of the following:
 - (1) Water conservation, drought, and population growth.
 - (2) Changes in future operations of HWRP and other Water Reclamation Plants upstream of HWRP, including Advanced Water Recycling Projects at DCTWRP, LAGWRP, and BWRP.
 - (3) Changes in future operations at the West Basin Plant.
 - (4) New Low-Flow Treatment Facilities (storm water projects) in Ballona Creek, Ballona Estuary and Sepulveda Channel which are designed to meet Municipal Separate Storm Sewer Systems (MS4) Permit bacterial TMDL requirements.
 - (5) Changes in Industrial User discharges.
 - (6) All other planned significant projects that may impact the nitrogen loading or nitrogen concentration in Hyperion's final effluent in the projected effects analysis. In addition to projects regarding additions or modifications to the Hyperion Treatment Plant and upstream treatment plants, significant projects include any projects outside the City of Los Angeles' jurisdiction that may impact the quality of Hyperion's final effluent (e.g. Santa Monica's Sustainable Water Infrastructure Project, etc.).

- b) Evaluate Hyperion's projected influent and effluent flow and ammonia concentration and nitrogen species concentrations and mass balance through the treatment plant. Projected acute toxicity compliance with the Ocean Plan water quality objective shall also be evaluated along with conducting the first West Basin acute toxicity test.

The quarterly report is due in January 2019.

- 2) **Second quarter (January 2019 - March 2019):** Consultant will assess any operational alternatives including treatment optimization, additional treatment, denitrification potential and any dilution credits to assess compliance with effluent acute toxicity and ammonia water quality objectives.

The quarterly report is due in April 2019.

Year Two: April 2019 to March 2020 (Four Quarters)

- 3) **First quarter (Apr 2019-Jun 2019):** Consultant will continue assessment of operational alternatives in item two, above.
The quarterly report is due in July 2019.
- 4) **Second quarter (July-September 2019):** Consultant will continue assessment of operational alternatives.
The quarterly report is due in October 2019.
- 5) **Third Quarter (October 2019-December 2019):** Consultant will start the preparation of the final report.
The quarterly report is due in January 2020.
- 6) **Fourth quarter (January 2020-March 2020):** Consultant will submit the final draft for LA Sanitation's review and approval by January 2020. The final report should include a description of ammonia, nitrate, and organic nitrogen, monitoring locations, and a process flow diagram depicting each location. The final report will be submitted to LARWQCB by March 31, 2020.

Task 1 Deliverables: Quarterly reports to the LARWQCB. Draft and final report of the study ready for submittal to the LARWQCB by March 31, 2020.

Task 2: Study on the Impact of the Introduction of Food Waste Streams, Water Recycling and Water Conservation and Ammonia/Nitrogen Management Strategies for NPDES Compliance at Hyperion Water Reclamation Plant

Task 2.1: Ammonia/Nitrogen Study:

The consultant will identify nitrogen sources and project nitrogen loads/concentrations and secondary effluent nitrogen levels considering water conservation, water recycling and introduction of food waste streams.

Conduct a literature survey to document ammonia and nitrogen limits for other ocean discharge facilities in CA.

Task 2.2: Ammonia Management Strategies for NPDES Compliance:

The consultant will perform cursory evaluation to short list side stream ammonia removal and recovery technologies to treat high ammonia containing centrate streams for NPDES compliance for ammonia.

Define design conditions, develop high level design criteria, identify facility requirements and develop a planning level construction cost estimate.

Determine pilot/demonstration requirements and next steps with the input from the City.

Task 2.3: Operability Assessment

The consultant will identify current and future operability concerns and how these could most effectively be mitigated.

Task 2 Deliverables: Draft and final report of the study which includes ALL findings and recommendations.

Task 3: Other Tasks

Perform any additional tasks that may be required as part of the study as directed by the task manager.

3. Term of Engagement

The term of engagement is 24 months from the issuance of the NTP.

4. Cost Estimate

The cost estimate for this TOS is **\$400,000**.

5. Solicitation Schedule

- Issue Task Order SolicitationDate of Cover Letter.
- Receive Solicitation Responses.....As indicated in Cover Letter.
- Conduct Interviews if necessary.....5 weeks after issuance of TOS.
- Select and Negotiate.....7 weeks after issuance of TOS.
- Issue Task Work Order.....9 weeks after issuance of TOS.

6. Solicitation Response Requirements

Solicitation Responses shall not exceed twenty (20) pages, exclusive of cover, dividers and resumes. Solicitation Responses shall be submitted to the following LA Sanitation staff via e-mail, no later than 2:00 pm of proposal due date indicated in cover letter:

- Task Manager: Charles Senaya, Charles.senaya@lacity.org
- Thu-Van Ho, Thu-van.ho@lacity.org

Solicitation Responses shall include:

- Resume demonstrating that the candidate is capable of meeting the requirements of the Scope of Work. Resume shall include work experience history with dates, and references from past employers, owners, and/or organizations.
- Provide a proposed individual cost breakdown by tasks.
- Provide a breakdown of estimated time for completion of task.
- Proposed Billing Salary Rate Summary for the proposed candidate with all respective direct and indirect costs, markups, expenses, overhead rates and profit. (See Attachment A).
- MBE/WBE/SBE/EBE/DVBE/OBE subcontractors utilized and the percent utilization. (See Attachment A)

Note: Department of Public Works only recognizes:

- MBE/WBE certifications certified by City of LA – Bureau of Contract Administration (LABCA), LA County Metropolitan Transportation Authority (MTA), CalTrans, The Southern California Minority Supplier Development Council (SCMSDC), or Women's Business Enterprise National Council (WBENC)-WEST; and any member of California Unified Certification Program (CUCP); and
- SBE/EBE/DVBE certifications certified by LABCA or State of California – Department of General Services (CA-DGS)
- A firm can only be a MBE or WBE (not both)
- A firm with multiple certifications is acceptable (i.e. a MBE/SBE/EBE/DVBE firm will fulfill 4 of 6 required categories)
- Provide a copy of valid MBE/WBE/SBE/EBE/DVBE Certifications of MBE/WBE/SBE/EBE/DVBE subcontractors utilized.
- Statement pertaining to the candidate's availability.

7. Selection Criteria

The selection team will evaluate the proposals with the following criteria:

- Capability, and experience in providing the Scope of Services as shown in the proposal.
- Expert knowledge and work experience associated with understanding of the issues, options, and approaches related to treating wastewater

- The value offered to the City considering cost in comparison to capabilities and experience of the candidates.

8. Suggested MBE/WBE/SBE/EBE/DVBE/OBE Participation Levels

The City had set anticipated participation levels (APLs) for sub-consultants as follows: 18% MBE, 4% WBE, 25% SBE, 8% EBE, and 3% DVBE.

Note: Sub-consultants that are not listed on Schedule A in your contract cannot be added and/or utilized without the performance of the outreach and approval of the LASAN.

9. Task Order Manager

The City's On-Call Contract Manager is: Ali Poosti, Division Manager, Wastewater Engineering Services Division, (323) 342-6228.

The Task Manager for this designated TOS is: Charles Senaya, Environmental Engineer, Hyperion Water Reclamation Plant (HWRP), (323) 648-5327.

10. Disclaimer

The City may or may not decide to award any or part of this task order based on its sole convenience and shall not be responsible for any solicitation response costs.

ATTACHMENT A

COST REIMBURSEMENT - BILLING SALARY RATE BASIS										
Firm Name	Status	Last Name	First Name	Position	Raw Rate (\$/hr)	Approved Overhead Rate	Profit	Billing Rate (\$/hr)	Effective Date	Note
Prime Firm	Prime									
Prime Firm	Prime									
Prime Firm	Prime									
Subcontracting Firm Name 1	MBE/SBE/EBE									
Subcontracting Firm Name 2	WBE/SBE/EBE									
Subcontracting Firm Name 3	MBE/SBE									
Subcontracting Firm Name 4	WBE/SBE									
Subcontracting Firm Name 4	SBE/EBE/DVBE									
Subcontracting Firm Name 5	SBE/EBE									
Subcontracting Firm Name 6	OBE									
SUMMARY										
Firm Name	Status	Fee	%Fee							
Prime										
Subcontracting Firm Name 1	MBE/SBE/EBE									
Subcontracting Firm Name 2	WBE/SBE/EBE									
Subcontracting Firm Name 3	MBE/SBE									
Subcontracting Firm Name 4	WBE/SBE									
Subcontracting Firm Name 4	SBE/EBE/DVBE									
Subcontracting Firm Name 5	SBE/EBE									
Subcontracting Firm Name 6	OBE									
Total Direct Labor Cost of the Prime										
Total Subcontract Expenses										
5% Administrative Fee (markup)										
Other Direct Costs (with no markup)										
Total Task Order Amount										
Total Subconsultant Participation										
Pledged	MBE	WBE	SBE	EBE	DVBE	OBE				
% of Total Task Order	%	%	%	%	%	%				
\$ Amount	\$	\$	\$	\$	\$	\$				