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April 7, 2023

ELECTRONIC MAIL

To: 24 Pre-Qualified On-Call Contract Consultants of LA Sanitation

**LA SANITATION ON-CALL CONSULTANT SERVICES CONTRACT ISSUANCE OF TOS SN-166 – HYPERION WATER RECLAMATION PLANT (HWRP) – HEADWORKS SYSTEMS AND EQUIPMENT IMPROVEMENT**

LA Sanitation (LASAN) is soliciting responses from 24 Prime Consultants on the Pre-Qualified On-Call List. Attached are details of required services for the Task Order Solicitation (TOS). To be considered responsive, Prime Consultants must attend a **mandatory** virtual pre-proposal meeting to be held on:

| | |
|---|---|
| Date and Time: | Monday, April 17, 2023, from 12:30 P.M. to 1:30 P.M. |
| Location: | Virtual: https://meet.google.com/tgo-xrkv-pme |
| By Phone: | (US) +1 609-479-1485 PIN: 217 026 523# |
| **RAMP ID:** | **See RAMP Opportunity ID: 207131** |

Please note that inviting your subcontractors to the meeting is optional.

**All questions,** before or after, the meeting regarding this TOS **must be submitted in writing via e-mail to the staff listed below**.

The **deadline for proposal submission** is **Tuesday, May 23, 2023, before 2:00 P.M.** If your firm is interested in this TOS, please submit a proposal via e-mail by the indicated due date to the following LASAN staff:

- Mr. Stephen Opot, stephen.opot@lacity.org
- Ms. Wanda Epps, san.oncall@lacity.org

Thank you for your interest and we look forward to receiving your response to this TOS. Should you decide not to submit a proposal, a **negative response is requested** with a brief explanation of the reason. Your decision to not submit a proposal will not affect your eligibility for future work.

Sincerely,

Nancy Lantin, Sr. Management Analyst II
On-Call Contracts Representative
Administration Division
LA Sanitation and Environment

NL:wae

Attachment: Scope of Services

c: Master Files
On-Call Consultants List
Timeyin Dafeta, LASAN
Stephen Opot, LASAN
CCU Staff

**City of Los Angeles**
**LA Sanitation and Environment (LASAN)**

**On-Call Consultant Services Contract**

**Task Order Solicitation (TOS) SN-166 for**

# Hyperion Water Reclamation Plant (HWRP) – Headworks Systems and Equipment Improvement

**April 2023**

## 1. Introduction

The Hyperion Water Reclamation Plant (HWRP) is the main water reclamation facility serving the City of Los Angeles and 28 other contract cities and agencies. It receives sewage from 4 million people living in its 600 square mile service area. HWRP is situated on 144 acres of prime beachfront property just south of Los Angeles International Airport. It was designed to accommodate both dry and wet weather days with a maximum wastewater flow of 450 million gallons per day (MGD) and a peak wet weather flow of 850 MGD. The average dry weather flow is 260 MGD.

Operations at HWRP involve wastewater treatment, water reclamation, solids processing and energy generation. Wastewater treatment include preliminary, primary and secondary processes. The treatment processes consist of preliminary screening, enhanced primary treatment, and pure oxygen secondary activated sludge treatment. Solids process include treatment of solid fractions recovered from the wastewater treatment processes through anaerobic digestion and dewatering. The solids are treated using egg-shaped digesters for anaerobic digestion and bowl centrifuges for thickening and dewatering. The resulting biosolids are beneficially reused in offsite land application and composting facilities. Advanced foul air handling and treatment system is integrated in all the processes to meet air quality standards.

The preliminary process includes the Headworks treatment facility (Headworks) that screens, filters and removes large solid materials and grit from the raw wastewater. Headworks is one of the three critical hydraulic areas at HWRP that is prone to flooding. However, the equipment and systems in the Headworks facility e.g., screening handling and weighing, are near the end of their service life and need to be renewed.

Further descriptions of the preliminary treatment (Headworks) process, equipment, required services, estimated cost and solicitation requirements are provided in the following sections.

### Preliminary Treatment

Raw sewage (wastewater) flows by gravity from the Hyperion service area via five main sewer lines into HWRP. HWRP influent sewers range in size from 48 inches to 144 inches in diameter. Flow through each of the influent sewer lines is measured by a venturi meter before combining into a common channel at Headworks. The common channel feeds the Headworks bar screen channels.

Large size solid materials are removed from the influent raw wastewater by eight multi-rake bar screens. Each bar screen is rated for 133 MGD of flow. Operationally, four bar screens are required to be in service while the remaining four are placed on standby during dry weather flows. Eight bar screens are required to be in service during wet weather events. The collected screenings (approximately 19,000 pounds per day) are removed by the rake into a sluiceway and conveyed to the screenings handling equipment for maceration and dewatering. The screenings handling equipment consists of two separate trains. One train is a grinder and spiral lift system, the other train consist of chopper pumps that feed drum screens and presses. Each bar screen is equipped with an isolation sluice gate on its upstream and downstream side for preventive maintenance.

The screened wastewater enters the aerated grit basin (AGB) located downstream of Headworks to allow for grit material to settle out. There are six rectangular-shaped aerated grit basins. Typically, five or six basins are in service and approximately 35,000 pounds of grit settles out per day. The settled out grit is pumped to the third floor of Headworks for washing and dewatering by the grit classifier and cyclone system in preparation for storage and landfill disposal.

The pre-treated flow is then distributed by hydraulic gates and metered to the four primary sedimentation batteries that are located downstream of the AGBs.

## 2. Scope of Services

HWRP is seeking a qualified consulting firm to provide technical support to re-envision, re-make and renew the Headworks facility's operation including equipment and systems modification i.e., assessment and evaluation of the Headworks equipment, screening system and weighing and operational practices. The proposed improvements should be cost-effective and reliable.

The consultant will evaluate and assess the existing equipment at the Headworks facility with the main objective of re-envisioning the current operations of the Headworks facility including and not limited to the following:

- Propose and develop a conceptual design report
- Assess and evaluate the effectiveness of the current operations and equipment at the Headworks facility and propose possible alternatives
- Assess and evaluate the effectiveness of the Headworks equipment

- Evaluate adequacy of screen motors and power and recommend adjustments or overhaul.
- Evaluate the Headworks screenings system for reliability and performance
- Evaluate the screenings recycle system
- Evaluate the benefits and risk of incorporating screenings recycle. The removal of screenings from the sluiceway to the trucks should be more robust with the goal of substantially reducing or eliminating recycling of screenings.
- Evaluate the Headworks grit handling system for reliability and performance
- Assess and evaluate Headworks weighing practices for reliability and record keeping
- Assess the viability to install a scale at the Headworks facility to record the weight of incoming debris on a daily basis and integrate the data into the distributed control system (DCS).
- Assess the viability to install and utilize on-board truck scales to record the weight of incoming debris on a daily basis and integrate the data into the DCS.
- Assess how the weight data can be used in efforts to improve operating practices
- Determine the needs for additional monitoring at Headworks to improve the readiness and resiliency of the Headworks facility

The tasks are provided below.

**Task 1:** Project Management

The Consultant will maintain proactive management across all project activities and facilitate project success by meeting the schedule, objectives, and LASAN's expectations for project results, and provide an avenue for communication between the consultant team, LASAN and all stakeholders. Project management sub-tasks include:

- Project direction and management: To manage the project, staffing, budget, schedule, quality assurance, and review deliverables.
- Project initiation and kickoff meeting: To discuss related topic items, health and safety, work breakdown structure, quality management, near-term deliverables, and communication protocols.
- Project meetings: Coordinating meetings and conference calls with LASAN to discuss project status, progress, and resolution of any potential project issues. Consultant shall prepare draft agendas in advance of project meetings for review by LASAN and also prepare meeting minutes within 48 hours of meetings completion and distribute to the team.

**Task 2:** Propose a Conceptual Design for a Re-envisioned, Remade, or Renewed Headworks facility

a. Assess and evaluate the effectiveness of the current operations and related equipment at the Headworks facility
b. Propose best possible and cost-effective alternatives based on the evaluation of current operations and equipment at the Headworks facility.

*Task 2 Deliverables*: Prepare and submit a draft conceptual design report for the re-envisioned Headworks facility.

**Task 3:** Assessment of Existing Headworks systems and equipment

Headworks equipment include Bar screens, Bulkheads, Emergency Bypass sluice gate, up/down stream Sluice gates, Sluiceway, HPE pump for Sluiceway, Chopper Pumps, Spiral Lifts, Drum Screens and Screen compactors, grit classifier and cyclone. The specific tasks related to equipment improvement include:

- Evaluate the existing HPE flow meters and instrumentation and their integration into DCS.
- Assess the need for additional instrumentation and DCS integration to improve reliability and process control.
- Evaluate the bar screens motor size and torque rating for adequacy.
- Assess the conditions of the equipment including all the Bar screens, Sluiceway pump, Sluiceway trough, Spiral lifts, Chopper pumps, Drum Screens, Screen compactors, grit pumps, grit cyclone and classifiers and any other associated equipment.
- Recommend improvements focusing on the operational efficiency and safety at the Plant. Notably, some of the equipment were refurbished under CIP 2409.
- Propose recommended preventive maintenances and service life for all the new equipment
- Evaluating the existing Screenings and Grit handling systems equipment to determine the following:
    - Assess the structural integrity of the supporting structures and the extent of corrosion to the assemblies.
    - Identify any deficiencies and the need for rehabilitation to bring the equipment into compliance with changing regulatory requirements and, maintenance and design restrictions.

The following are brief description of the systems at the Headworks facility.

**Screenings System**

Wastewater flows through the main east and west sewers into the Headworks Facility common channel, bar screen channels and through the barscreens. Each barscreen is a 10’ wide set of parallel bars spaced 3/4” or 3/8” apart situated in the channel. Screenings caught on the barscreens are collected by mechanical rakes and scraped into the sluiceway trough. The sluiceway trough conveys the screenings to either the chopper pumps or the spiral lift screening systems depending on the operator preference. The chopper pumps operate by shredding the screenings and pumping them to the rotary drum screens located on the third floor of Headworks. In the drum screens, the screenings are separated from the carrying water and discharged to the hydraulic presses, which dewater them to 50% dryness. The screenings fall into a 40,000-pound capacity truck trailer until the trailer is full.

**Weighing System**

The truck is then weighed at the weighing scales along 'D' street and the screenings are taken to the grit barn for storage before final landfill disposal. Most of the time, the screenings go through the spiral lifts, which has a similar process to the chopper pump-drum screen train.

**Grit Handling System**

The screened wastewater flow enters aerated grit basins where abrasive, non-degradable solids (grit) are allowed to settle out. Grit chambers are typically designed to remove grit particles with specific gravity of 2.65 and larger than 100 meshes. Settled grit is pumped to the Grit Classifier and cyclone, located on the second floor of the Headworks, where it is washed, dewatered and like the screenings, stored in its own truck trailer located on the ground floor of the materials handling building. Under design operating conditions, about 35,000 pounds of grit are transported to a sanitary landfill daily.

The following are specific tasks relating to re-envision and renew the Headworks systems:

- Assess the screenings and grit collection systems and make recommendations for improvements based on new technologies to increase operational efficiency, safety and performance.
- Assess the screenings and grit operational practices for improvements in screening and grit capture.
- Provide the pros and cons of the existing screenings collection operation system and recommend new screenings collection systems, if any.
- Project the impacts that improved material handling will have on the plant treatment process, solids management and climate impact related to landfilling.
- The Consultant will make recommendations for the modification or otherwise of the system to improve efficiency and safety.
- Assessment impact on treatment and operations from improved materials handling

*Task 3 Deliverables*: Describe the changes required to achieve long term reliability, operational efficiency and address the challenges hampering the smooth and safety operation of the equipment and systems. The proposed changes should be included in the draft conceptual design report mentioned in Task 2

**Task 4:** Identify and Evaluate Remedial Measures for addressing the Deficiencies in the Headworks Systems and Appurtenances. The following are the specific tasks:

a. Identify and evaluate new technologies for addressing the problems identified under Task 3.

b. Discuss any mitigation measures for improving the reliability of the Screenings and Grit collection, conveyance and storage system. The new technology should have the capability to address the Screenings and Grit handling systems.
c. Identify and evaluate new technologies for HWRP. This may include performing the following:

- Operation of Bar screens
- Conduct pilot studies if feasible
- Request and compare quotes from vendors
- Evaluate the feasibility of installing new system and identify any physical modifications required to the Screenings collection, conveyance and storage systems prior to installation

*Task 4 Deliverables*: Include the findings of Task 4 in the conceptual design report mentioned in Tasks 2 and 3. Prepare the draft conceptual design report including the estimated price quotation of the recommended systems.

**Task 5:** Propose Best Technologies for HWRP Headworks systems and equipment, and Action Plan for Implementation

The consultant will propose new technologies for HWRP regarding Tasks 2, 3 and 4. The final proposed technology will be evaluated and compared to other technologies.

*Task 5 Deliverables*: Prepare and submit final conceptual design report showing details of Alternative Proposals and recommend the most cost-effective alternative for implementation.

**Task 6:** As-Needed Tasks

Perform any additional as-needed tasks that may be required to accomplish Tasks 2, 3, 4 and 5 as directed by the LASAN project manager.

## 3. COVID VACCINATION REQUIREMENT FOR CONSULTANTS/CONTRACTORS

For the purposes of this section the terms contractor and consultant are interchangeable and deemed to have the same meaning; and the terms subcontractor and subconsultant are interchangeable and deemed to have the same meaning.

Employees of Contractor and/or persons working on its behalf, including, but not limited to, subcontractors (collectively, “Contractor Personnel”), while performing services under this Agreement and prior to interacting in person with City employees, contractors, volunteers, or members of the public (collectively, “In-Person Services”) must be fully vaccinated against the novel coronavirus 2019 (“COVID-19”). “Fully vaccinated” means that 14 or more days have passed since Contractor Personnel have received the final dose of a two-dose COVID-19 vaccine series (Moderna or Pfizer-BioNTech) or a single dose of a one-dose COVID-19 vaccine (Johnson & Johnson/Janssen) and all booster doses recommended by the Centers for Disease Control and Prevention. Prior to assigning Contractor Personnel to perform In-Person Services, Contractor shall obtain

proof that such Contractor Personnel have been fully vaccinated. Contractor shall retain such proof for the document retention period set forth in this Agreement. Contractor shall grant medical or religious exemptions ("Exemptions") to Contractor Personnel as required by law. If Contractor wishes to assign Contractor Personnel with Exemptions to perform In-Person Services, Contractor shall require such Contractor Personnel to undergo weekly COVID-19 testing, with the full cost of testing to be borne by Contractor. If Contractor Personnel test positive, they shall not be assigned to perform In-Person Services or, to the extent they have already been performing In-Person Services, shall be immediately removed from those assignments. Furthermore, Contractor shall immediately notify City if Contractor Personnel performing In-Person Services (1) have tested positive for or have been diagnosed with COVID-19, (2) have been informed by a medical professional that they are likely to have COVID-19, or (3) meet the criteria for isolation under applicable government orders.

## 4. Term of Engagement and Cost Estimate

The term of engagement is from the issuance date of the Notice to Proceed (NTP) through July 22, 2024. It is estimated that the cost ceiling for this TOS is $762,199.

## 5. Solicitation Schedule (Tentative)

- Issue Task Order Solicitation ……..Date 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……12 weeks after issuance of TOS.

- **Estimated Project Start Date: July 21, 2023**

## 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:

- Stephen Opot, stephen.opot@lacity.org
- Wanda Epps, san.oncall@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 below**.).
- MBE/WBE/SBE/EBE/DVBE/OBE subcontractors utilized and the percent utilization. (**See Attachment A below**.)
  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) for a pledged amount
  - 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.
- **If a subconsultant needs to be added to Schedule A, use Mini Outreach Subconsultant Phone Log template uploaded to RAMP (Regional Alliance Marketplace for Procurement) for this TOS.**
- Statement pertaining to the candidate's availability.

## 7. Selection Criteria

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

A. Consultant Qualifications, Experience, and Expertise
   - Proven capability in conducting scientific studies and analysis supporting water, wastewater, and stormwater facilities planning.
   - Capability, and experience in providing the Scope of Services as demonstrated by the proposal.
   - Expert knowledge and work experience associated with understanding of the issues, options, and approaches related to the water Integrated Resources Plan.
   - Knowledge and understanding of the LASAN's strategies and goals in integrated water facilities planning and related activities.
   - Expert knowledge and experience in facilities planning issues in relation to stormwater, wastewater, recycled water, as well as City operations and practices.

B. Personnel Qualifications, Experience, and Expertise
   - Expert knowledge and work experience associated with understanding of the issues, options, and approaches related to the water Integrated Resources Plan.

- Expert knowledge and experience in facilities planning issues in relation to stormwater, wastewater, recycled water, as well as City operations and practices.

C. Technical Approach
   - Familiarity and understanding of IRP activities, studies, and projects.
   - Familiarity and understanding of IRP goals, mission, and objectives.

D. Project Management Approach
   - Ability to effectively and rapidly meet on going needs for the related stakeholder activities.
   - Experience and proven track record with local stakeholders.

E. Competitive Fees and Costs
   - The value offered to the City considering cost in comparison to capabilities and experience of the candidates.
   - Direct and indirect costs, markups, expenses, overhead rates and profit will be considered.

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

The City has set anticipated participation levels (APLs) for sub-consultants as follows: 18% MBE, 4% WBE, 25% SBE, 8% EBE, and 3% DVBE. Minority, women, small, emerging, disabled veteran owned and controlled businesses must be considered along with other business enterprises whenever possible as sources of subconsulting services.

**Note: Sub-consultants that are not listed on Consultant's current Schedule A - LIST OF POTENTIAL MBE/WBE/SBE/EBE/DVBE/OBE SUBCONSULTANTS (which includes any previously approved mini outreach) cannot be included in a proposal and/or utilized without the performance of a mini outreach and approval of said outreach by LASAN. A Request to Add Sub(s) should be made at least 10 business days prior to proposal due date. If a consultant needs to add a sub to their Schedule A, please see the *Mini Outreach Phone Log and Instructions to Add Sub* document associated with this TOS and available for download within the Regional Alliance Marketplace for Procurement (RAMP). When a CONSULTANT receives from LASAN an approved Request to Add Sub(s), approved sub(s) then may be included in the proposal.**

**Exception: If Request to Add Sub(s) is in the process of being approved by LASAN, CONSULTANT may submit a proposal that includes the yet to be approved sub. The Request to Add Sub(s) must have been submitted prior to the proposal due date deadline.**

## 9. Task Order Manager

LASAN On-Call Contracts Representative: Nancy Lantin, Sr. Management Analyst II, On-Call Contracts Representative, Administration Division, (213) 440-8237, nancy.lantin@lacity.org.

The Project Manager for this designated TOS is: Stephen Opot, Environmental Engineer, Hyperion Water Reclamation Plant (HWRP), (310) 648-5323, stephen.opot@lacity.org.

## 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.

**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% Administractive 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** | $ | $ | $ | $ | $ | $ |