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Mr. Feng Jiang, P.E.
Assistant Director - Engineering
Support Services
City of Hollywood
Department of Public
Utilities
P.O. Box 229045
Hollywood, FL 33022-9045

Subject: Professional Engineering Services related to Water
and Wastewater Projects

Dear Mr. Jiang:

As requested, Brown and Caldwell is pleased to prepare this professional engineering and administrative services work order that provides a mechanism whereby the City of Hollywood Department of Public Utilities (DPU) may engage the services of Brown and Caldwell on an as-needed basis for tasks that cannot be definitively established in advance. These are engineering services required to meet regulatory, compliance, legislative, and contractual water and wastewater needs.

BACKGROUND

Since 2009, Brown and Caldwell has served as one of the City's engineering consultants and is well aware that, as with most utilities of comparable size and complexity, the City faces wide-ranging challenges that need to be addressed appropriately in order to continue to move the City forward. Current Brown and Caldwell staff has a long history (prior to 2009) of successfully supporting the City's needs in a variety of areas across the utility enterprise and we will continue to serve the City via this work order. We are at the forefront of various issues that are facing the City and we stand ready to help the City to navigate through these issues.

This authorization will facilitate technical support in addressing several emerging needs, as well as continued as-needed support in this and other issues that may arise.

GENERAL CONSULTING SERVICES

Brown and Caldwell will provide professional engineering and administrative support as directed by the City of Hollywood Department of Public Utilities' Director, Deputy Director, or Assistant Director. The anticipated scope of support is identified below. Since the full scope of services to be provided cannot be definitively predicted at this time due to the as-needed nature of this work order, allocated resources may be redistributed among the indicated tasks where required to respond to changing needs. Anticipated tasks are summarized below.

WATER

Task 1 – Support of PFAS Regulatory Compliance

Objective: Assess City's compliance posture and develop conceptual plans to achieve compliance with proposed regulations.

Activities:

2.1 Recommend source water monitoring for PFAS to determine relative contribution from among wellfields and individual wells with the goal of assessing the efficacy of source water controls.

2.2 Develop conceptual plan to upgrade treatment systems to meet the anticipated regulatory limits for PFAS compounds. Identify potential unintended impacts from treatment upgrades and identify mitigation options to investigate.

2.3 Develop a preliminary implementation to meet compliance milestones.

2.4 Support City's communication and outreach efforts to engage and respond to inquiries from stakeholders.

Task 2 – Support of Lead and Copper Rule Compliance

Objective: Provide advisory consulting support of City's efforts to comply with the implementation of Lead and Copper Rule Revisions (LCRR) relative to the requirement to develop an updated materials survey.

Activities:

3.1 Provide advisory input regarding alternative approaches that may be employed and key considerations.

3.2 Review and comment on applicable draft deliverables such as the customer tap sampling plan, service line replacement plan, find-and-fix assessment, and school and child-care facility inventory and sampling plan.

3.3 Participate in as-needed meetings to support various elements of the City's program implementation efforts.

Task 3 – Evaluation of Nitrification in the Water Distribution System

Objective: Support the assessment and development of improvements required to reduce the occurrence of nitrification that can result in accelerated decline in disinfectant residuals that occur the water

distribution system

Activities:

4.1 Assess treatment induced causes of nitrification. Potential activities may include the monitoring of process operation and water quality profiles at the WTP to identify potential contributing factors and mitigation measures.

4.2 Review the combined operation of the distributions system storage and transmission infrastructure to identify factors that may contribute to localized areas of nitrifying activity that may be more effectively controlled. Where required, this activity may require water quality monitoring to be conducted by the City.

4.3 Where applicable, develop recommended improvements (in presentation summary format) and participate in meeting with the City to discuss findings and recommendations.

WASTEWATER

Task 4 – Evaluation of Reclaimed Operation at South Regional Wastewater Treatment Plant (SRWWTP)

Objective: Operational optimization of the existing reclaimed water system is required to more effectively utilize the available secondary effluent that is received from the Town of Davie (ToD) and Cooper City (CC).

Activities:

6.1 Evaluate transient deliveries of effluent supplies and assess opportunities to improve flow equalization to minimize losses that result in discharges to the injection wells or outfall.

6.2 Review performance of water reclamation process with the goal of identifying areas for potential improvement in the efficiency of effluent supply utilization.

6.3 Support City's engagement of TOD and CC to review operational considerations that may support City's optimization objectives.

6.4 Document findings and recommendations in a presentation format and meet with City to review.

Task 5 – Ocean Outfall Legislation (OOL) Compliance Support

Objective: Support ongoing compliance initiatives required to meet the requirements of the OOL.

Activities:

7.1 Evaluate capacity of existing reclaimed water treatment system to manage effluent flows delivered from the Town of Davie and Cooper City

7.2 Support City's continuing efforts to secure adequate effluent flow to meet its actual reclaimed water goal of 4 mgd

7.3 Provide technical review of new proposed Contracted Reuse interlocal agreements

7.4 Review updates to City's plan to expand actual reuse within the

utility's service area.

Task 6 – FDEP Administrative Order Compliance Support

Objective: A Revised Administrative Order (Revised AO) with FDEP was approved effective October 21, 2021 that establishes compliance schedule obligations of the City for its Southern Regional WWTF and OOL compliance program. The purpose of this task is to support the City compliance efforts as defined in the Administrative Order.

Activities:

- 8.1 Prepare and submit annual status update of compliance plan including refinements or changes
- 8.2 Develop recommended methodology of determining apportionment of contract reuse for review by FDEP
- 8.3 Support development of new contracted reuse opportunities to meet the 4.5 mgd requirement
- 8.4 Support any required coordination between the Hollywood and the City of Miramar to facilitate engagement with FDEP regarding justification of proposed basis for monitoring contracted reuse compliance.
- 8.5 Prepare report identifying significant changes to the City's circumstances that impact its ability expand feasible reuse.
- 8.6 Provide advisory support to address other compliance requirements established in the Revised AO.

Task 7 – Large User Agreement Issues

Objective: Support City's engagement and communication of with its Large Users/

Activities:

- 9.1 Assistance with engineering aspects of dispute resolution
- 9.2 Presentations and project status reports

Task 8 – Engineering Services

Objective: The purpose of this task is to provide supplemental support and respond to other needs that arise that extend beyond the scope and/or allocated resources of the aforementioned tasks.

Activities:

- 10.1 Expedited response to emerging needs (water & wastewater)
- 10.2 Evaluation of new technologies.
- 10.3 Periodic reassessment of upgrade and re-rate programs
- 10.4 Financial analysis and support for grant funding.
- 10.5 Preparation of technical letters reports, and presentation materials.

COMPENSATION

Brown and Caldwell will perform the aforementioned services for a total fee of \$200,000 to be billed on an hourly rate basis. The specific level of effort for the noted potential services cannot be predicted given the nature of this work order; however, the anticipated allocation of tasks among the tasks is summarized below. Depending on the specific needs of each task that arise during the performance of the work, budget may be reallocated among the tasks subject to availability of adequate resources.

Task	Description	Estimated Allowance
1	Support of PFAS Regulatory Compliance	\$30,000
2	Support of Lead and Copper Rule Compliance	\$20,000
3	Evaluation of Nitrification in the Water Distribution System	\$25,000
4	Evaluation of Reclaimed Operation at South Regional Wastewater Treatment Plant (SRWWTP)	\$25,000
5	Ocean Outfall Legislation (OOL) Compliance Support	\$25,000
6	FDEP Administrative Order Compliance Support	\$25,000
7	Large User Agreement Issues	\$25,000
8	Engineering Services	\$25,000
	TOTAL	\$200,000

The terms of compensation shall be in conformance with our Professional Services Agreement for General Engineering Consultant Services dated October 19, 2023, between the City of Hollywood and Brown and Caldwell.