

September 21, 2021

Jeff Jiang, P.E.

**CITY OF HOLLYWOOD**

Department of Public Utilities  
Engineering and Construction Services Division  
Post Office Box 229045  
Hollywood, Florida 33022

Hollywood Southern Regional WWTP  
Facility Permit Renewal  
Injection Well Permit Renewal  
Injection Well Nos. 1 & 2 MIT  
City Project No. 22-9735

Dear Mr. Jiang:

As requested, Hazen and Sawyer, P.C. (H&S) is pleased to offer engineering services to facilitate permit renewals for the Hollywood Southern Regional Wastewater Treatment Plant (SRWWTP) and the deep injection wells, and mechanical integrity testing of deep injection well numbers 1 and 2.

**BACKGROUND**

The City of Hollywood currently operates the Southern Regional Wastewater Treatment Plant (WWTP) under the existing Florida Department of Environmental Protection (FDEP) Domestic Wastewater Facility Permit number FL0026255-025 effective August 30, 2017. This permit will expire on August 29, 2022. In order to allow for continued licensed operation of the WWTP, the permit must be renewed prior to the expiration date. The following scope of services provides for completion and submittal of the State of Florida Wastewater Permit Application Form 2A for Domestic Wastewater Facilities. Due to the dynamic nature of regulatory policies regarding domestic wastewater treatment and disposal, the permitting process is anticipated to involve an uncertain number of meetings with FDEP and responses to their requests for information. Based upon discussions with FDEP regarding the number and complexity of policy changes and related permitting issues, and the fact that related efforts cannot be quantified in advance, it is likely that additional services beyond those included herein may be necessary.

Additionally, operation of the injection wells is regulated by permit from FDEP. The existing operating permit 156419-006-007-UO/1M will expire February 15, 2023. The City has requested assistance in obtaining an operating permit from FDEP for the injection well. A condition of the operating permit from the Florida Department of Environmental Protection (FDEP) requires mechanical integrity testing (MIT) to be performed on a regular basis. Dates for mechanical integrity testing are established based on the date of the casing pressure test and must be performed once every five years. Casing pressure testing was last performed for Injection Well No. 1 (IW-1) on August 21, 2017 and for Injection Well No. 2 (IW-2) on August 31, 2017. Services included in this task order consist of preparation of a MIT plan, permitting, preparation of contract documents, testing oversight, and preparation of a report summarizing the results of the MIT, certified by an engineer registered in the state of Florida. Based on the date of the pressure test,

testing of IW-1 will have to be performed by August 20, 2022 and IW-2 will have to be performed by August 30, 2022.

## **SCOPE OF SERVICES**

### **Task 1 – Facility Permit Application Preparation**

Hazen shall prepare the *State of Florida Wastewater Permit Application Form 2A for Domestic Wastewater Facilities* for renewal of Southern Regional Wastewater Treatment Plant permit and submit to City for review. Input and documentation from City, particularly Operations, Maintenance and Pretreatment staff, is anticipated. Hazen shall confer with FDEP personnel as necessary to prepare and submit the permit application. No meetings with the City or FDEP are anticipated. Meetings and responses with FDEP regulatory staff subsequent to application submittal will be as outlined in Task 2. Information required from the City to prepare or submit with the permit application may include:

- Documentation of all known Facility Permit excursions/violations since 8/30/2017
- All Orders, Notices of Violation, Consent Orders, etc. received from FDEP since 8/30/2017
- Laboratory effluent, reuse and biosolids test data as needed
- Industrial pretreatment program data as required
- Agricultural Use Plan
- Whole effluent toxicity test results
- Agreements and documentation of controls on reclaimed water users
- Agreements and documentation of contracted reuse by other utilities for meeting ocean outfall legislation requirements
- Documentation of compliance with antidegradation requirements
- Mechanical Integrity Testing results
- Scheduled Improvements and Implementation Schedule
- Other documents required for permit renewals as listed in the Key Assumptions

### **Task 2 – Facility Permit Regulatory Agency Meetings & Responses**

After submittal of the facility permit application, Hazen shall meet with FDEP personnel and respond to requests for information as necessary to assist with better defining any outstanding issues and related future efforts. Due to the dynamic nature of regulatory policies regarding domestic wastewater treatment and disposal, this effort cannot be quantified in advance. Therefore, this task provides an allowance of \$9,955 for initial efforts which will be authorized as required at the City's request. This task will be amended as necessary should additional efforts be required.

### **Task 3 – Deep Injection Well Permit Renewal**

Hazen shall provide engineering services to apply for an operating permit renewal for deep injection wells IW-1 and IW-2 at the SRWWTP. Hazen shall prepare an operating permit renewal application and supporting documentation for submittal to FDEP Underground Injection Control (UIC) division including the following as appropriate:

1. Area of Review: Hazen shall calculate the size of the Area of Review (AoR) based on previous and projected flows. Hazen shall identify wells from appropriate electronically available databases within the existing AoR or the expanded AoR. Hazen shall update the AoR maps and tables.

2. Maps and Cross Sections: Hazen shall review/provide maps and cross sections showing the local and regional geology and hydrogeology.
3. Operating Data: Hazen shall review injection operational data, flow and pressure, since the last permit and present data in tabular and graphical format.
4. Injectivity Testing: Hazen shall review injectivity testing since the last permit and present the results in graphical format.
5. Water Quality Analysis: Hazen shall review monitor well and wastestream monthly water quality results since the last permit and present data in tabular and graphical format. Hazen shall review the annual wastestream analysis provided by the City.
6. Monitor Well Data: Hazen shall review monitor well level data since the last permit and present the data in tabular and graphical format.
7. Plugging and Abandonment Plan: Hazen shall update the Plugging and Abandonment Plan, prepare appropriate drawings associated with the plugging of the injection and dual zone monitor wells and prepare a cost estimate for the plugging of the wells.
8. Financial Responsibility: Hazen shall prepare a Local Government Guarantee, including a certificate of financial responsibility for City execution.

Hazen services include response of up to one (1) timely request for additional information (RAI) from FDEP UIC. Hazen will review and provide comments to the City, and to FDEP as requested, on the FDEP UIC Draft Permit and Notice of Intent to Issue.

#### **Task 4 – Mechanical Integrity Testing (MIT) Plan Development**

Hazen shall prepare a plan for the required mechanical integrity testing in accordance with FDEP regulations. Hazen shall submit the Plan to FDEP and respond as necessary to inquiries regarding the proposed MIT.

#### **Task 5 – Preparation of MIT Contract Documents**

Hazen shall prepare a set of Contract Documents for the MIT to be performed by a well driller licensed in the state of Florida. The Contract Documents shall be issued in electronic format and include technical specifications, drawings (8.5 x 11-inch figures) and City prepared front-end documents.

#### **Task 6 – MIT Bid Phase Services**

Hazen shall provide assistance to the City during the bidding phase for the project. Activities to be performed are as follows: attend a pre-bid conference, reply to bidders' questions, draft up to one addenda to the technical specifications and drawings for City distribution, review the Bid Proposal form, prepare a Bid Tabulation, check contractor references of the lowest responsive bidder, and issue a recommendation of award. Contract document packages will be issued and distributed to bidders by the City.

#### **KEY ASSUMPTIONS**

- The City will pay all required application and permit fees
- No public meetings are anticipated for the injection well permit renewal
- The City will publish the draft permit and notice of intent to issue notices and will provide the notarized proofs of publication
- This scope of work does not include operational permitting or responding to issues pertaining to the new injection wells IW-3 and IW-4.

- The City will provide a current digital (PDF) copy of the Operation and Maintenance (O&M) manual, including any updates.
- Typically, permit renewal efforts require or prompt specific documents. These documents as listed below may currently be on file with FDEP, may have been prepared by the City, or may be addressed separately at a later date and therefore are not included in this work order:
  - Reuse Feasibility Study
  - Preliminary Design Reports
  - Operation and Maintenance Performance Reports
  - Effluent Analysis Report
  - Reclaimed Water Effluent Analysis Report
  - Technical Evaluation of Need to Revise Local Pretreatment Limits
- City shall provide access to plans, both public and private, that City has record of and provide copies of requested information/documents
- The City will competitively bid the MIT project and enter into an agreement with an outside Contractor to complete the work. No prequalification of Contractors will be performed.
- Field services associated with the MIT are not included and will be addressed under a separate work order.
- No local minority business enterprise or local small business enterprise participation is envisioned
- The City will provide front end documents applicable to the project
- The development of conformed contract documents will be performed by others
- Identification of confinement at the injection wells is limited to review of the previously identified confinement onsite and delineating intervals on drawings or sketches. Evaluation of the geological and hydrogeological properties of the formations to justify confinement, or to interpret confinement, is not anticipated to be necessary and is not included.
- City will provide operational data of the injection wells in Excel format, including injection well flows, injection well pressures, injectivity test results, monitor well levels, and monitor well chemical analysis for the past ten years
- It is assumed that FDEP will issue up to one timely (within forty-five days from the submittal of the application) request for additional information (RAI) for this project. It is recognized by City that neither City nor Hazen can control the number of RAIs produced by the FDEP or the time that it takes for them to prepare RAIs. If additional RAIs are issued or FDEP takes additional time to prepare a RAI, City and Hazen will negotiate additional services as needed.

## **COMPENSATION**

The engineering services for this project will be performed on a Not-to-Exceed basis in the amount of \$95,148. A fee breakdown is attached.

## **SCHEDULE**

We anticipate completion and submittal of the Facility Permit renewal application 90 days after Notice to Proceed. We are prepared to proceed with these services immediately. Note that the

Florida Administrative Code requires the permit renewal application to be submitted at least 180 days prior to the expiration date of the existing permit.

We anticipate completion and submittal of the Injection Well Operation permit renewal application 90 days after Notice to Proceed. We are prepared to proceed with these services immediately. Note that the Florida Administrative Code requires the permit renewal application to be submitted at least 60 days prior to the expiration date of the existing permit.

We anticipate completion and submittal of the MIT Plan within 60 days after Notice to Proceed. Note that FDEP requires the MIT plan to be submitted 60 days prior to the required testing date.

Engineering services for the project will be performed as part of our Professional Services Agreement for General Engineering Hazen Services (Agreement) dated October 2017. Services provided by Hazen and Sawyer, D.P.C. shall be limited to those services specifically identified in this work order.

We look forward to your reply. In the meantime, should you have any questions, please contact us.

Very truly yours,

**Hazen AND SAWYER, P.C.**



J. Philip Cooke, P.E.  
Associate Vice President

c: File No. 4321-016/1.0

M. Durand

G. Bulman

*Attachment*

**CITY OF HOLLYWOOD  
SOUTHERN REGIONAL WASTEWATER TREATMENT PLANT  
SRWWTP-IW-MIT RENEWALS  
Fee Breakdown**

**Labor Hours**

<b><u>Tasks</u></b>	<b><u>Senior Officer</u></b>	<b><u>Senior Associate</u></b>	<b><u>Principal Engineer</u></b>	<b><u>Engineer</u></b>	<b><u>Designer</u></b>	<b><u>Secretarial</u></b>	<b><u>Subtotal</u></b>	<b><u>Fee</u></b>
LABOR								
Task 1 - Facility Permit Application Preparation	2	24	120	0	0	24	170	\$ 28,564
Task 2 - Regulatory Meetings and Responses	4	20	20	0	0	4	48	\$ 9,955
Task 3 - Deep Injection Well Permit Renewal	2	24	80	100	16	24	246	\$ 36,597
Task 4 - MIT Plan Development	1	12	16	0	4	2	35	\$ 6,816
Task 5 - Preparation of MIT Contract Documents	1	6	30	0	4	2	43	\$ 7,574
Task 6 - MIT Bid Phase Services	1	10	14	0	0	3	28	\$ 5,442
Subtotal (Not-to-Exceed)	9	78	234	100	16	55	492	\$ <b>94,948</b>
DIRECT EXPENSES								
Out-of-pocket								\$ 200
Subtotal								\$ <b>200</b>
<b>Total</b>								\$ <b>95,148</b>
Maximum Hourly Labor Rate	274.12	261.80	166.32	123.20	147.84	73.92		