

Mr. Clece Aurelus, PE
Engineering Manager ECSD
City of Hollywood – Department of Public Utilities
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Hollywood, FL 33022

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Subject:

Task Order Proposal
City of Hollywood Water System – Emergency Response Plan for the 2018
America's Water Infrastructure Act, Section 2013
City Project Number: 19-3071A

WATER

Date:
April 22, 2020

Contact:
Joan Fernandez

Phone:
954.525.6174

Email:
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Our ref:
TBD

Florida License Numbers

Engineering
7917

Geology
GB564

Surveying
LB7062

Dear Mr. Aurelus:

Arcadis U.S. Inc. (Arcadis) is pleased to present our qualifications and proposed approach to assist the City of Hollywood (City) in the development and update of its Emergency Response Plan (ERP), reflecting the findings of the Risk and Resilience Assessment (RRA) performed to comply with the America's Water Infrastructure Act of 2018 (AWIA), Section 2013. As part of this effort, Arcadis shall work in close collaboration with the City's staff to assure that the requirements and objectives of the project are met. This Task Order (TO) proposal includes a detailed description of the Scope of Work (SOW) to be performed by Arcadis, as well as the proposed lump sum fee to be paid to Arcadis by the City for the services described herein.

The TO shall be executed per the terms and conditions of the Professional Services Agreement for General Engineering Consultant Services: Water Treatment Plant and Wastewater Treatment Plant Projects No. 17-1324 (Agreement) executed on November 7, 2017, by and between the City and Arcadis. The proposed methodology is included in Attachment A and the breakdown of the lump sum fee is included in Attachment B (developed using the Rate Schedule included as Exhibit B of the Agreement).

BACKGROUND

Since 9/11, the United States Federal Government, the American Water Works Association (AWWA), and water utilities across the United States have worked together to protect the approximately 153,000 public drinking water systems in the United States. In 2002, under the Public Health Security and Bioterrorism Preparedness and Response Act, Title IV Drinking Water Security and Safety amends the Safe Drinking Water Act to require community water systems serving a population of more than 3,300 to conduct an assessment of the vulnerability of its system to a terrorist attack, to certify and submit a written copy of the assessment, and to prepare an emergency response plan. However, since then, the water sector's approach to addressing risks has evolved significantly to address other risks and threats including natural hazards and cyberattacks.

AWIA mandates that water systems serving over 3,300 people conduct an assessment of the risks to, and resilience of, its water system. Utilities are now required to take an all-hazards approach and consider the resilience to include pipes and infrastructure, monitoring, financial infrastructure, use and handling of chemicals, operation and maintenance, and capital and operational needs. The City and Arcadis are currently working on the RRA under City Project Number 19-3071 as required by AWIA.

Utilities are also required to update or develop an ERP which incorporates the results of the completed RRA and certify that the ERP has been completed within six months of submitting the RRA self-certification to the United States Environmental Protection Agency (U.S. EPA).

As the City and Arcadis had prepared ERPs previously in accordance with past Federal mandates and requirements Arcadis shall utilize information and materials previously developed and enhance the ERP to include other required information, as described below and follow the new USEPA Office of Water template *Community Water System Emergency Response Plan*, 2019:

- New AWIA requirements including:
 - The findings of the RRA such as the natural hazards and malevolent threats identified and corresponding procedures to improve response and resilience.
 - Strategies and resources to improve resilience including physical security and cybersecurity.
 - Actions, procedures, and equipment that can lessen the impact of malevolent acts or natural hazards. This may include the development of alternate source water options, relocation of water intakes, and construction of flood barriers.
 - Strategies that can be used in the aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.
- Include updated Chain of Command Section per the National Incident Management System and Incident Command System (NIMS/ICS):
 - Updated Incident Management Team (IMT) Organizational Chart and Roles and Responsibilities.
 - Updated Emergency Action Levels (EALs).
 - Command and Control of Initial Response and Sustained Response.

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- Incident Specific Response Procedures (ISRP) per the new USEPA Guidelines that capture the specific threats to the City of Hollywood Water System.
 - Emergency Operations Centers for the Utility.
- Internal and External Communications and Reporting, including response partnerships.
- Emergency resources and mutual aid.
- Emergency Procurement.
- Recovery protocols and damage assessments.
- Detection strategies for water contamination, unauthorized entry, hazardous material release, natural hazards, cyber intrusion, and power outages.
- Mitigation Actions including alternate source water, relocation of water intakes, interconnections, flood protection barriers, power resilience, structural protection, and drought planning.
- Training and Exercise Section.

OUR EXPERIENCE

Arcadis is currently supporting over 30 utilities across the nation to meet AWIA requirements. Arcadis has also prepared numerous ERPs (complying with a variety of environmental and health and safety regulations) for municipalities and industries for water, wastewater, and electric utilities over the last 18 years, including the City, and is a leading global authority on risk and resilience. Through this experience, we have developed an effective format based on the principle that information in the ERP must be both readily located as well as easily understood by people of all experience levels.

The ERP itself must be accessible and usable, and information within the plan must be able to be pulled quickly from the plan. Our approach uses Visio Charts in the ISRPs to simplify the presentation and speed access to critical information required during an emergency. We have a team of national subject matter experts (SMEs) with proven capability to perform the necessary steps, utilizing a streamlined process, with a high level of detail and quality.

SCOPE OF WORK

Arcadis will support the City during the development and update of the ERP based on current water sector guidance documents and procedures.

The ERP development includes several phases of work including a kick-off meeting, review of existing materials, workshops, interviews, draft development, and ERP finalization. Arcadis will conduct two planning workshops and one mid-planning teleconference with the City to gather and verify the information. These meetings include 1) Kickoff and Initial Planning Workshop (in-person facilitation); 2) Mid-Planning Teleconference; and 3) Final Planning Team Workshop (in-person facilitation). Additional interviews will be conducted to collect data in person and via teleconference.

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Arcadis will work with the City's project manager to form a planning team, consisting of key staff, as identified and approved by the City's project manager and leadership. Team members will be identified based on their role and understanding of operations, who will serve as information providers and reviewers throughout the emergency planning process. The detailed scope and methodology proposed for this project are outlined in Attachment A.

SCHEDULE

As previously mentioned, the City must self-certify to U.S. EPA that the ERP has been completed within six months of submitting the RRA self-certification. The RRA self-certification was submitted on March 21, 2020, and as such, the ERP shall be completed no later than September 21, 2020. The preliminary project schedule is presented below.



BUDGET

The proposed lump sum fee for conducting the Scope of Work described herein and detailed in Attachment A is \$84,040. This fee covers Arcadis labor and expenses. The task breakdown for the lump sum fee is as follows:

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Task	Fee
1.1 Kick-off Meeting and Initial ERP Workshop	\$13,460
1.2 Staff Interviews	\$4,240
1.3 Development and Draft ERP Base Plan	\$17,120
1.4 Mid-Planning Teleconference	\$4,240
1.5 Update of Draft ERP	\$18,680
1.6 Final ERP Planning Workshop	\$12,980
1.7 Plan Finalization and Review	\$13,320
Total	\$84,040

Thank you for considering Arcadis. Should you have any questions or require additional information from us, please do not hesitate to contact me. We look forward to supporting the City in this very important endeavor.

Sincerely,

Arcadis U.S., Inc.



Joan Fernandez, PE
Project Manager

Copies:

Wilhelmina Montero (City)
Leah Richter, PE (Arcadis)
Sarah Moore, CEM (Arcadis)
Melissa Pomales, PE (Arcadis)
File

This proposal and its contents shall not be duplicated, used or disclosed — in whole or in part — for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this

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proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to Arcadis as a result of the submission of this proposal, Arcadis and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use or disclose the data contained in this proposal only to the extent provided in the resulting contract.

Enclosures:

Attachment A: Development and Implementation of Emergency Response Plan Scope and Methodology

Attachment B: Rate schedule

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ATTACHMENT A

Task 1 – ERP Development and Implementation

Task 1.1 – Kick-off Meeting and Initial ERP Planning Workshop

Arcadis will conduct an ERP kick-off meeting to review the ERP strategy, purpose and scope of the plan, project deadlines, and decide on the procedures for controlling sensitive information.

Arcadis will prepare for and facilitate a 6-hour workshop to focus on the establishment of the planning team and define roles, and responsibilities. The workshop will also outline the elements of the proposed ERP format and focus on the data and information required to update the ERP. This workshop will further identify the list of ISRPs for development based on the threats and hazards identified in the RRA. Points of contact for additional interviews will be identified in the workshop for follow-up data collection.

The kick-off meeting and planning workshop will occur simultaneously within two to three weeks from NTP based on City staff availability.

Deliverables:

- Lead and attend kick-off meeting and initial planning workshop.
- Prepare summary notes for the meeting and workshop and submit to the City electronically.

Task 1.2 – Staff Interviews

Arcadis will prepare for and facilitate interviews with various staff to discuss additional information based on the Initial ERP Planning Workshop (Task 1.1) findings.

Task 1.3 – Development and Draft ERP Base Plan

Arcadis will coordinate with City stakeholders to draft the ERP Base Plan. The Draft ERP Base Plan will address the following components and follow the new USEPA Office of Water template *Community Water System Emergency Response Plan*, 2019:

- New AWIA requirements including:
 - The findings of the RRA such as the natural hazards and malevolent threats identified and corresponding procedures to improve response and resilience.
 - Strategies and resources to improve resilience including physical security and cybersecurity.
 - Actions, procedures, and equipment that can lessen the impact of malevolent acts or natural hazards. This may include the development of alternate source water options, relocation of water intakes, and construction of flood barriers.
 - Strategies that can be used in the aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.

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- Include updated Chain of Command Section per the National Incident Management System and Incident Command System (NIMS/ICS):
 - Updated Incident Management Team (IMT) Organizational Chart and Roles and Responsibilities.
 - Updated Emergency Action Levels (EALs).
 - Command and Control of Initial Response and Sustained Response.
 - Emergency Operations Centers for the Utility.
- Internal and External Communications and Reporting, including response partnerships.
- Emergency resources and mutual aid.
- Emergency Procurement.
- Recovery protocols and damage assessments.
- Detection strategies for water contamination, unauthorized entry, hazardous material release, natural hazards, cyber intrusion, and power outages.
- Mitigation Actions including alternate source water, relocation of water intakes, interconnections, flood protection barriers, power resilience, structural protection, and drought planning.
- Training and Exercise Section.

Deliverables:

- Draft ERP Base Plan submitted to the City electronically.

Task 1.4 – Mid-Planning Teleconference

Arcadis will prepare for and facilitate a teleconference meeting to review the current Draft ERP Base Plan prepared under Task 1.3. This teleconference will focus on open questions, requests for information, and facilitate the collection of additional information needed to finalize the Draft ERP.

Deliverables:

- Prepare summary notes from the Teleconference.

Task 1.5 – Update of Draft ERP

The Draft ERP will be updated in coordination with City staff based on the information collected during the Mid-Planning Teleconference (Task 1.4) and sent out for planning team review and comment. The Draft ERP appendices and annexes will be developed and the Draft ERP will be updated to include new plan elements. Appendices are customized with water utility information that is used during emergency response and recovery. Appendices may include, but are not limited to, facilities (lists of asset/facility locations, maps, engineering data), emergency contacts (within the utility and community), resources (lists of equipment, vehicles, resources, contractors, suppliers, alternate water supplies), emergency forms (used for reporting, documentation, ICS forms), ISRPs per the USEPA Guidelines, and ICS position checklists.

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Deliverables:

- Updated Draft ERP including appendices and incorporating comments from the planning team. The updated Draft ERP will be submitted to the City electronically.

Task 1.6 – Final ERP Planning Workshop

Arcadis will prepare for and facilitate a half-day meeting to review the Draft ERP and discuss comments received from the planning team. In order to facilitate discussions, Arcadis will request that all comments on the Updated Draft ERP be received prior to the Final ERP Planning Workshop. It is assumed that all comments will be received within two weeks from issuance of the Updated Draft ERP. Outstanding information will be collected and comments/questions from the planning team will be discussed and validated.

Deliverables:

- Lead and attend the Final ERP planning workshop.
- Prepare summary notes for the workshop and submit to the City electronically.

Task 1.7 – Plan Finalization & Review

A Final ERP will be distributed to select staff and leadership to provide review comments. After revisions are made to the Final Draft, the City will receive a tracked changes version of the Final ERP so they can review any changes and ensure concurrence. All questions and comments received from the City will be answered and available for review. If significant changes were made to the Final ERP, an additional review period can be provided for concurrence before publishing.

An electronic version of the Final ERP and all source documents will be delivered to the City to allow for self-certification to EPA by September 21, 2020.

Deliverables:

- Final Draft ERP with tracked changes submitted to the City electronically.
- Final ERP electronic delivery with all source files (Microsoft Word, Microsoft Excel, Visio, Adobe pdf).

ATTACHMENT B

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Contract Labor Category	Hours	Billing Rate (\$ / hr)	Cost	Fee / Task	Total Fee
					\$ 84,040.00
Arcadis Labor					\$ 81,940.00
Subconsultant Costs					\$ -
Other Direct Expenses					\$ 2,100.00
1.1 Kick-off Meeting and Initial ERP Workshop					
Labor Subtotal					\$ 12,460.00
Leah Richter, P.E.	Company Officer	4	\$ 240.00	\$ 960.00	
Sarah Moore, CEM	Lead Engineer/Technical Expert	12	\$ 220.00	\$ 2,640.00	
Joan Fernandez, P.E.	Lead Engineer/Project Manager	8	\$ 220.00	\$ 1,760.00	
Susan Wyatt	Senior Scientist 6	20	\$ 160.00	\$ 3,200.00	
Lia Dombroski, EIT	Project Engineer 2	30	\$ 130.00	\$ 3,900.00	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ 1,000.00
Travel	(airfare, hotel, etc.)		\$ 1,000.00	\$ 1,000.00	
Miscellaneous Expenses	(reproduction)		\$ -	\$ -	
1.2 Staff Interviews					\$ 4,240.00
Labor Subtotal					\$ 4,240.00
Joan Fernandez, P.E.	Lead Engineer/Project Manager	4	\$ 220.00	\$ 880.00	
Susan Wyatt	Senior Scientist 6	8	\$ 160.00	\$ 1,280.00	
Lia Dombroski, EIT	Project Engineer 2	16	\$ 130.00	\$ 2,080.00	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ -
Travel	(airfare, hotel, etc.)		\$ -	\$ -	
Miscellaneous Expenses	(reproduction)		\$ -	\$ -	
1.3 Development and Draft ERP Base Plan					\$ 17,120.00
Labor Subtotal					\$ 17,120.00
Sarah Moore, CEM	Lead Engineer/Technical Expert	16	\$ 220.00	\$ 3,520.00	
Joan Fernandez, P.E.	Lead Engineer/Project Manager	8	\$ 220.00	\$ 1,760.00	
Susan Wyatt	Senior Scientist 6	28	\$ 160.00	\$ 4,480.00	
Lia Dombroski, EIT	Project Engineer 2	52	\$ 130.00	\$ 6,760.00	
Judy Ford	Chief Technician/Project Assistance	4	\$ 150.00	\$ 600.00	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ -
Travel	(airfare, hotel, etc.)		\$ -	\$ -	
Miscellaneous Expenses	(reproduction)		\$ -	\$ -	
1.4 Mid-ERP Planning Teleconference					\$ 4,240.00
Labor Subtotal					\$ 4,240.00
Joan Fernandez, P.E.	Lead Engineer/Project Manager	4	\$ 220.00	\$ 880.00	
Susan Wyatt	Senior Scientist 6	8	\$ 160.00	\$ 1,280.00	
Lia Dombroski, EIT	Project Engineer 2	16	\$ 130.00	\$ 2,080.00	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ -
Travel	(airfare, hotel, etc.)		\$ -	\$ -	
Miscellaneous Expenses	(reproduction)		\$ -	\$ -	
1.5 Update of Draft ERP					\$ 18,680.00
Labor Subtotal					\$ 18,680.00
Sarah Moore, CEM	Lead Engineer/Technical Expert	14	\$ 220.00	\$ 3,080.00	
Joan Fernandez, P.E.	Lead Engineer/Project Manager	6	\$ 220.00	\$ 1,320.00	
Susan Wyatt	Senior Scientist 6	34	\$ 160.00	\$ 5,440.00	
Lia Dombroski, EIT	Project Engineer 2	68	\$ 130.00	\$ 8,840.00	
Judy Ford	Chief Technician		\$ 150.00	\$ -	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ -
Travel	(airfare, hotel, etc.)		\$ -	\$ -	
Miscellaneous Expenses	(reproduction)		\$ -	\$ -	
1.6 Final ERP Planning Workshop					\$ 12,980.00
Labor Subtotal					\$ 11,980.00
Leah Richter, P.E.	Company Officer	2	\$ 240.00	\$ 480.00	
Sarah Moore, CEM	Lead Engineer/Technical Expert	12	\$ 220.00	\$ 2,640.00	
Joan Fernandez, P.E.	Lead Engineer/Project Manager	8	\$ 220.00	\$ 1,760.00	
Susan Wyatt	Senior Scientist 6	20	\$ 160.00	\$ 3,200.00	
Lia Dombroski, EIT	Project Engineer 2	30	\$ 130.00	\$ 3,900.00	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ 1,000.00
Travel	(airfare, hotel, etc.)		\$ 1,000.00	\$ 1,000.00	
Miscellaneous Expenses	(reproduction)		\$ -	\$ -	
1.7 Plan Finalization and Review					\$ 13,320.00
Labor Subtotal					\$ 13,220.00
Patrick Flannelly, P.E.	Chief Engineer/Technical Expert	4	\$ 260.00	\$ 1,040.00	
Sarah Moore, CEM	Lead Engineer/Technical Expert	14	\$ 220.00	\$ 3,080.00	
Joan Fernandez, P.E.	Lead Engineer/Project Manager	4	\$ 220.00	\$ 880.00	
Susan Wyatt	Senior Scientist 6	16	\$ 160.00	\$ 2,560.00	
Lia Dombroski, EIT	Project Engineer 2	32	\$ 130.00	\$ 4,160.00	
Judy Ford	Chief Technician	10	\$ 150.00	\$ 1,500.00	
Subcontractor Labor Subtotal					\$ -
None					\$ -
Other Direct Expenses					\$ 100.00
Travel	(mileage)		\$ 100.00	\$ 100.00	
Miscellaneous Expenses	(reproduction, mail)		\$ -	\$ -	

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