

Ms. Wilhelmina Montero, PE  
Senior Project Manager, Public Utilities/Engineering  
City of Hollywood – Department of Public Utilities  
1621 North 14th Avenue  
Hollywood, FL 33022-9045

Arcadis U.S., Inc.  
150 S Pine Island Road  
Suite 300  
Plantation, FL 33324  
United States  
Phone: 954 761 3460  
[www.arcadis.com](http://www.arcadis.com)

Date: February 26, 2024

Please update

Our Ref: 30206892

Subject: 2025 AWIA Risk and Resilience Assessment and Emergency  
Response Plan Review and Update

FL Engineering License #7917  
FL Geology License #GB564  
FL Surveying License #LB7062

Dear Ms. Montero,

Arcadis U.S., Inc. (Arcadis) is pleased to present the City of Hollywood (City) with this Work Order proposal to support the City in completing the America's Water Infrastructure Act (AWIA) required 5-year review, update and re-certification.

This work order 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. 1324A (Agreement) executed on October 31, 2023, by and between the City and Arcadis.

## BACKGROUND

The City desires Arcadis to provide professional engineering services related to the review and update of their current Risk and Resilience Assessment (RRA) and Emergency Response Plan (ERP) in compliance with requirements of the America's Water Infrastructure Act of 2018 (AWIA) (Safe Drinking Water Act [SDWA] Section 1433) 5-year recertification. The City must review and update, as needed, its RRA and recertify compliance with SDWA Section 1433 by March 31, 2025, and its ERP by September 30, 2025, to the U.S. Environmental Protection Agency (USEPA).

Per the regulations, an all-hazards approach will continue to be followed, and this update will build upon and expand the work conducted with the City for the inaugural cycle of AWIA in 2019-2020. For this cycle of compliance, Arcadis will not only update the existing data but will use our deep insights into the utility as well as our knowledge of current regulatory interpretations and enforcements to facilitate discussions and build a stronger enterprise risk program. This will include a deeper consideration of resilience and mitigation measures in areas such as water system pipes and infrastructure, monitoring and cybersecurity, financial infrastructure, use and handling of chemicals, operation and maintenance, hydrologic changes, organizational capital and finance elements, and relevant hazards and threats. The City must also update its ERP to address current relevant risks, hazards and threats, mitigation measures, and cybersecurity.

As part of each update, Arcadis will follow revised and new versions of USEPA and American Water Works Association (AWWA) guidance including the J100 standard and associated operational guide and its cybersecurity tool and guidance. EPA is in the process of updating AWIA guidance for malevolent acts and its ERP template and content. In recent months, the EPA has made enforcement of all aspects of a compliant RRA and ERP a priority, including onsite inspections of documents and mitigation measure progress and tracking. As

part of this project, Arcadis will ensure the City's RRA and ERP incorporate new and existing elements in detail as part of a robust program that assures EPA compliance and inspection success.

## **SCOPE OF WORK**

### **Task 1 – Kickoff Meeting and Review Workshop**

A one-hour kick-off meeting will be scheduled with the City via Microsoft Teams within two (2) weeks from authorization to proceed (ATP) to review the project scope, schedule, budget, and other key coordination requirements with the City. A baseline schedule will be developed and presented during this meeting. A preliminary list of needs to complete the review and update (including new elements, hazard types, and mitigation measures based on updated methodology and guidelines) of the RRA and ERP will be provided to the City prior to the kickoff meeting.

Four Arcadis team staff will also attend and facilitate an in-person/remote hybrid, three-hour RRA and ERP Review Workshop in collaboration with City staff and select stakeholders. The Review Workshop will be designed to accomplish the following:

- Provide an overview of the revised RRA J100 methodology and operational guide, other related industry standard guidance, and updated EPA requirements and guidance for the RRA.
- Review the previous (2020) RRA assumptions, details, and results for water system mission critical assets, threats, and hazards with associated likelihood, consequence analysis, vulnerability analysis, risk analysis, and mitigation measures identified.
- Identify, verify, and obtain information regarding assessment components that require updating, addition, and/or enhancement, including consideration of updated standards and guidance discussed in the RRA overview.
- Provide an overview of updated industry standards, guidelines, and EPA requirements and guidance for the ERP.
- Review the previous (2020) ERP contents and Appendices, assumptions, and integration of RRA mitigation measures in accordance with EPA requirements.
- Identify, verify, and obtain information regarding components that require updating, additional details, and/or enhancements, including consideration of updated standards and guidance discussed in the ERP overview.
- Facilitate consensus regarding RRA and ERP update elements, enhancements, approach to meeting new standards and guidelines, and refinement of the kickoff list of needs from the City and stakeholders to complete both the RRA and ERP updates and enhancements.

### **Deliverable(s):**

1. Kickoff Meeting Agenda, meeting PowerPoint slides, and Summary Notes
2. Baseline Schedule
3. Preliminary and refined list of needs
4. Review Workshop PowerPoint slides, materials, and facilitation (onsite/remote hybrid)
5. Review Workshop summary of key highlights and decisions

## **Task 2 – Site Visits**

Three Arcadis Team staff will conduct a five-day onsite visit of selected critical assets, updated physical and cyber related security measures, assess new and emerging hazards, and conduct staff and leadership interviews in coordination with the City, as needed and identified in Task 1. Site visit field notes and observations will be recorded in addition to any updates to the physical, operational, and cyber vulnerabilities associated with critical assets in the RRA report appendix. The five-day onsite visit is included in this project for budgeting purposes in the event all five days are necessary to complete the updated RRA.

### **Deliverable(s):**

1. One, five-day onsite visit by three Arcadis team staff
2. Site visit notes and observations, including critical asset updates

## **Task 3 – RRA Review and Update**

The Arcadis team will update and enhance the existing 2020 RRA following new J100 methodology and operational guidance based on required updates, elements, and overall approach identified in the Review Workshop in Task 1. A maximum of three, two-hour virtual meetings will be conducted with applicable City staff and stakeholders to review specific data and information necessary to update the RRA, including the cybersecurity assessment portion of the RRA using the AWWA updated tool and guidance. Arcadis team staff will provide subject matter expertise for updating the RRA and approach implementation, including internal and external stakeholder input by staff and leadership during the Review Workshop in Task 1 and remote meetings discussed above.

An additional two-hour meeting will be conducted to review results of the updated and enhanced RRA with the City and select stakeholders (facilitated by Arcadis). This meeting will include addressing comments, soliciting additional input and recommended mitigation measures, and adjustment of assumptions, as needed. Recommended mitigation measures will be prioritized based on estimated cost, benefit, funding mechanism, and schedule as part of an implementation and tracking strategy to ensure EPA compliance and inspection expectations are met.

The RRA report will include updates to the 2020 assumptions in addition to new assumptions, uncertainties, and details associated with each step of the J100 RRA methodology. An updated cybersecurity analysis will be included in detail in addition to results using the new AWWA Cybersecurity Tool and guidance. Updated and enhanced consequence scenarios for current, emerging, and new threats and hazards will be included with impact estimates for each of the new, modified, and enhanced threat-asset pairs included in the RRA.

As noted above, the RRA update will include mitigation measures, projects completed and ongoing, and, in addition, updated estimates for consequence and vulnerability that account for mitigation measure benefits to track and demonstrate mitigation progress as expected by USEPA. Current and ongoing mitigation measures completed by the City following the submittal of the draft RRA will not be included as complete in the RRA for purposes of revising risk re-assessment, implementation, and mitigation tracking work efforts.

Arcadis will provide the updated and enhanced draft RRA, based on the 2020 RRA document, for submittal to the City for a three-week review and comment period. A final, updated, and enhanced RRA report addressing City comments will be submitted for approval by the City. The City will be responsible for recertification of completion of the updated RRA to USEPA.

**Deliverable(s):**

1. Three, two-hour virtual meetings to review specific RRA update data and information with select City staff and stakeholders
2. One, two-hour meeting with the City and select stakeholders to review results of the updated and enhanced RRA analysis and recommended mitigation measures
3. Draft updated RRA report
4. Final updated RRA report

**Task 4 – ERP Review and Update**

The Arcadis team will update and enhance the 2020 ERP following current and revised industry standards and EPA guidance, including updates, including critical customers and associated needs, and other elements identified in the Review Workshop in Task 1. The plan update will include lessons learned from the last five years, synchronize updated changes based on the Power Outage Plan and Hurricane Appendix, and ensure the ERP is robust, detailed, and meets USEPA compliance and expectations in the event of a USEPA inspection.

A maximum of three, two-hour virtual meetings will be conducted with appropriate City staff and select stakeholders to provide input, review specific data and information updates, and align the ERP with stakeholder expectations, plans, and requirements. Updates to incident-specific response plans and integration of new RRA mitigation measures from Task 3 will be of particular focus in the updated ERP.

An additional two-hour meeting will be conducted to review key elements of the updated and enhanced ERP with the City and select stakeholders. This meeting will include addressing comments, soliciting input, and adjustment of information, as needed. The Arcadis team will submit the revised and updated draft ERP to the City for a three-week review and comment period. A final, updated, and enhanced ERP addressing City comments will be submitted for approval by the City. The City will be responsible for recertification of completion of the updated ERP to EPA.

**Deliverable(s):**

1. Three, two-hour virtual meetings to review specific ERP update data and information with select City staff and stakeholders
2. One, two-hour meeting with the City and select stakeholders to review the results of the updated ERP
3. Draft updated ERP
4. Final updated ERP

**Task 5 – Project Management**

Project management effort includes Arcadis team staffing, subconsultant coordination and oversight, Health & Safety Plan, Project Management Plan, invoicing, progress reports, budget control, and schedule management. The Arcadis team will schedule and facilitate a total of eight virtual project status meetings with the City over the duration of the project. The Arcadis team will issue monthly invoices with progress and schedule reports in accordance with the terms of the Agreement for the duration of the project. Assuming an Authorization to Proceed (ATP) is issued no later than May 31, 2024, the project will be completed on or before July 31, 2025, prior to the ERP regulatory deadline for a project duration of approximately 14 months.

*Deliverable(s):*

1. Eight virtual project status meetings
2. Monthly Invoices
3. Monthly Progress and Schedule Reports

**Task 6 – Standard Operating Procedures Allowance**

Arcadis will develop and assist the City with writing Standard Operating Procedures (SOPs), as requested. This task will be fulfilled for SOP requested support for a cost of up to \$25,000. Further refinement and cost breakdown for this task will be coordinated with the City based on requested SOP support. Should the City request SOP assistance that may require additional fees, Arcadis will collaborate with the City to prioritize requested SOP support within budget and/or negotiate additional scope and cost to ensure support needs are met.

*Deliverable(s):*

1. SOP development and writing support, as requested by the City.

**Additional Services (Optional)**

This task includes optional added services to support the City. If requested and authorized in writing by the City, Arcadis shall furnish or obtain Additional Services of the types listed below.

- Integrated Preparedness Plan (5-year planning, training, and exercise plan)
- Incident Management Team Training (desktop and classroom)
- Incident Management Team Exercises (Drill, Tabletop, Functional, Full-Scale)
- Resilience Implementation Plan
- Hurricane Preparedness Annex update
- Power Resilience Plan update

***Note that a drill and tabletop exercise completed prior to finalization of the updated ERP is recommended as a best practice to incorporate lessons learned from After-Action Reports (AARs) in the final, updated ERP.***

The fee will be developed upon request and work will not proceed until Arcadis has received written authorization from the City.

## SCHEDULE

Arcadis shall commence upon receipt of ATP. Submittals will be made in accordance with the project schedule provided below. Arcadis estimates that the overall project through closeout will be completed on or before July 31, 2025, with ATP issued no later than May 31, 2024.

Project Task	Duration from ATP
Task 1 – Kickoff Meeting and Review Workshop	2 weeks (Kickoff meeting); 6 weeks (Review Workshop)
Task 2 – Site Visits	Within 3 weeks
Task 3 – RRA Review and Update <sup>32</sup>	36 weeks (Draft no later than February 7, 2025, and Final no later than March 1, 2025, with ATP issued no later than <del>May 31, 2024</del> July 1, 2024)
Task 4 – ERP Review and Update	52 weeks (Draft no later than April 11, 2025, and Final no later than May 31, 2025)
Task 5 – Project Management	Duration of project (14 months)
Task 6 – Standard Operating Procedures Allowance	As requested by the City within the duration of the project

## BUDGET AND INVOICING

Arcadis shall perform the services for a total fee (Time and Material Not-to-Exceed) of \$224,870.00 based on the approved hourly rate schedule. The terms of compensation shall be in conformance with the Professional Services Agreement for Water Treatment Plant and Wastewater Treatment Plant Projects executed by and between the City and Arcadis on October 31, 2023. **Attachment A** includes anticipated budget allocations for the tasks discussed herein.

Project Task	Fee
Task 1 – Kickoff Meeting and Review Workshop	\$32,915
Task 2 – Site Visits	\$22,800
Task 3 – RRA Review and Update	\$44,815
Task 4 – ERP Review and Update	\$37,080
Task 5 – Project Management	\$18,100
Task 6 – Standard Operating Procedures Allowance	\$25,000
Travel Expenses	\$4,500
Subconsultants	\$39,660
<b>Total</b>	<b>\$224,870</b>

Ms. Wilhelmina Montero, PE – Senior Project Manager  
City of Hollywood – Department of Public Utilities  
February 26, 2024



Arcadis is excited about this opportunity to assist the City with this very important project. Should you have any questions regarding this work order proposal, please do not hesitate to contact Leah Richter, PE via email ([Leah.Richter@arcadis.com](mailto:Leah.Richter@arcadis.com)) or telephone (954.599.7368).

Sincerely,  
Arcadis U.S., Inc.

A handwritten signature in black ink that reads 'Leah K. Richter'.

Leah Richter, PE  
Vice President  
Email: [Leah.Richter@arcadis.com](mailto:Leah.Richter@arcadis.com)  
Mobile: 954.599.7368

Enclosures:

Attachment A: Fee Breakdown  
Attachment B: Launch! Consulting Proposal

*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 proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to Arcadis as a result of — or in connection with — 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.*

EXHIBIT A  
Work Break Down Fee Schedule  
Project: Hollywood America's Water Infrastructure Act (AWIA)

TASK		CATEGORIES											
Task No.	Description	Principal in Charge	Project Manager	Senior Engineer II	Senior Engineer I	Project Engineer III	Engineer I	Administrative	Total Hours	Labor Fee	Other Direct Costs	Subconsultants - Launch!	ARCADIS Total Labor + Other Service Fees
1	Kickoff and Review Workshop	4	39	6	38	12	75		174	\$32,915			\$32,915.00
2	Site Visits				48		96		144	\$22,800			\$22,800.00
3	RRA Update	4	20	14	45	22	162		267	\$44,815			\$44,815.00
4	ERP Update	4	50	4	48	6	82		194	\$37,080			\$37,080.00
5	Project Management		52				4	48	104	\$18,100			\$18,100.00
6	SOP Allowance												\$25,000.00
	Travel Expenses										\$4,500		\$4,500.00
	Subconsultants											\$39,660	\$39,660.00
Totals		12	161	24	179	40	419	48	883	\$155,710	\$4,500	\$39,660	\$224,870.00
Approved Billing Rates - 2023 MSA (\$/hr)		\$295	\$255	\$235	\$215	\$205	\$130	\$90					
SUBTOTAL 1													\$224,870
TOTAL AUTHORIZED NOT-TO-EXCEED FEE													\$224,870





Launch! Consulting, Inc.

914 East Jefferson Street, Suite G4  
Charlottesville, VA 22902  
Phone: 434.422.2670  
[www.launch-consulting.com](http://www.launch-consulting.com)  
[Linda@launch-consulting.com](mailto:Linda@launch-consulting.com)

# Scope of Work for City of Hollywood: RRA and ERP Assistance January 31, 2024

## Project Background

Arcadis has contracted with Launch! Consulting, Inc. (Launch) as a subconsultant to assist with updating the City of Hollywood's Water System Risk and Resilience Assessment (RRA) and Emergency Response Plan (ERP) as required by America's Water Infrastructure Act (AWIA) of 2018. Launch is happy to assist in any aspects of the project. Below is a scope of services outlining anticipated Launch staff activities.

## Scope of Services

The objective of this project is to update the City of Hollywood's Water RRA and ERP as required by AWIA. Launch will assist Arcadis with this project by developing a creative project approach for the RRA and ERP updates. Launch will provide Arcadis with input on workshop design and presentation. During the RRA process, Launch will provide input and review of mitigation measures to be incorporated into the overall implementation plan. For the ERP, Launch will provide support services.

## Task 1: Kickoff Meeting and Review Workshop

### Task 1.1 – Development of Project Approach



Launch will assist Arcadis in developing a creative approach for executing the RRA process and attend a one-hour remote kickoff meeting with Utilities staff. This can entail designing a layout for the Review Workshop, setting project objectives, and determining participants, etc.

#### **Task 1.2 – Developing Workshop Presentation and Design**

Launch will assist with developing materials for facilitating meetings with the City of Hollywood. This may include but not limited to PowerPoint presentations, meeting handouts and agendas. Launch will provide a minimum of one subject matter expert (SME) and one RRA/ERP specialist for attendance throughout the Review Workshop (onsite) and two remote meetings with Utilities staff.

### **Task 2: Risk and Resilience Plan (RRA) Update**

Launch will review and provide input on RRA mitigation measures to Arcadis. The listed mitigation measures will be evaluated for prioritization and implementation planning, as needed.

### **Task 3: Emergency Response Plan (ERP) Update**

#### **Task 3.1 – Development of Project Approach**

Launch will assist Arcadis in developing a creative approach for executing the ERP process. This may entail attending two onsite meetings with Utilities staff, setting ERP update objectives, and assisting with plan appendices.

#### **Task 3.2 – ERP and QC**

Launch will conduct a review and mark up of the ERP and appendices developed by Arcadis for submission to the City of Hollywood.

### **Project Assumptions**

The Launch team will:

1. Provide deliverables electronically through secure file-sharing.

### **Project Budget**

Compensation to Launch! Consulting, Inc. will be a time and materials budget according to tasks listed in the table below. If additional tasks are requested by Arcadis, they will be performed and charged at the hourly rates annotated in the table.



914 E Jefferson Street, Suite G4  
 Charlottesville, VA 22902  
 Phone: 434.422.2670  
[www.Launch-Consulting.com](http://www.Launch-Consulting.com)  
[Linda@Launch-Consulting.com](mailto:Linda@Launch-Consulting.com)

Team Member	Technical Expert	Principal Engineer I/ PM	Total Hours	Total Cost
Rate	\$285.00	\$255.00		
Task 1 - Kickoff Meeting and Review Workshop	8	16	24	\$6,360.00
Task 2 - RRA Update	40	12	52	\$14,460.00
Task 3 - ERP Update	32	24	56	\$15,240.00
<b>LABOR TOTALS</b>	<b>80</b>	<b>52</b>	<b>132</b>	<b>\$36,060.00</b>
ODCs for attending 1 workshop and 2 meetings onsite				\$3,600.00
<b>TOTAL COST</b>				<b>\$39,660.00</b>

Authorized by:

Linda P. Warren, P.E.  
 CEO, Launch! Consulting, Inc.

Date: January 31, 2024