

Mr. Ryan Manalo, PE
Project Manager
City of Hollywood – Department of Public Utilities
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Date: October 24, 2024

Our Ref: 30237332

Subject: Integrated Department of Public Utilities Emergency Response Plan

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

Dear Mr. Manalo,

Arcadis U.S., Inc. (Arcadis) is pleased to present the City of Hollywood (City) Department of Public Utilities, (DPU) with this Work Order (WO) proposal to support the City in developing an Integrated DPU Emergency Response Plan (ERP) that includes the Southern Regional Wastewater Treatment Plant (SRWWTP), the City's collection system, and the City's reuse system, integrated into the Water System ERP. This WO will 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 to develop an Integrated DPUERP. The Arcadis team, including our subconsultant *Launch! Consulting*, will integrate the Wastewater System (including the treatment, reuse, and collection systems) into the DPU Water System ERP, as part of the City's efforts to enhance its wastewater system emergency preparedness program. Currently, as part of a separate WO, Arcadis is updating the DPU Water System ERP in accordance with the America's Water Infrastructure Act (AWIA) of 2018, and this plan will serve as the basis for integrating wastewater treatment, collection, and reuse system information into a single water and wastewater integrated DPU ERP (hereinafter called the integrated DPU ERP).

The team will assist the DPU with structuring the Integrated DPU ERP in alignment with guidelines of the National Incident Management System (NIMS); the Incident Command System (ICS); Federal Emergency Management Agency (FEMA), the Department of Homeland Security (DHS), and the National Response Framework (NRF). In addition, the Integrated DPU ERP will be in alignment with other existing DPU response procedures and plans and the Broward County Emergency Management Division's Comprehensive Emergency Management Plan (CEMP). Much of this information will be developed under our current AWIA RRA and ERP update project.

The Arcadis team shall follow and incorporate wastewater industry emergency response standards and guidance, including, but not limited to:

- U.S. Environmental Protection Agency (USEPA) Office of Water, Wastewater Utility Emergency Response Plan, Template and Instructions (2021)
- American Water Works Association (AWWA) G440 Emergency Preparedness Practices (for Water, Wastewater, and Reclaimed Water Utilities)
- AWWA M19 Emergency Planning for Water and Wastewater Utilities (5th edition)
- FEMA Comprehensive Preparedness Guide 101 (CPG-101)

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- Association of Metropolitan Sewerage Agencies (AMSA), Asset Based Vulnerability Checklist for Wastewater Utilities (2002)
- Water Environment Research Foundation (WERF)/Water Environment Federation (WEF) Emergency Response Plan Guidance for Wastewater Systems (2004)

SCOPE OF WORK

Task 1 – Kick-off Meeting

Arcadis team shall conduct a kickoff meeting to introduce the team, discuss project scope, schedule, site visit, overview of the Integrated DPU ERP, and proposed draft integrated DPU ERP outline. It is anticipated that the kickoff meeting will be a virtual, 1.5-hour meeting with key DPU staff. The kickoff meeting will be conducted within two (2) weeks from receipt of authorization to proceed (ATP). Agenda, presentation, draft outline, baseline schedule, and data and information needs will be submitted prior to the kickoff meeting.

Deliverable(s):

1. Kickoff meeting agenda and PowerPoint presentation
2. Baseline schedule for the project
3. List of data and information needs
4. Draft Integrated DPU ERP (addressing water, wastewater, and reuse systems) outline

Task 2 – Site Visit

The Arcadis team shall conduct on-site data collection in the form of a workshop and interviews to obtain information for development of wastewater and reuse system components for the integrated DPU ERP in collaboration with DPU staff and Broward County Emergency Management Division (BCEMD). The workshop and interviews will be conducted in person over the course of one week by local Arcadis staff and an Arcadis team Subject Matter Expert (SME). Information and data to be discussed and collected are outlined below. Workshop and interview agendas, topics, and questions will be submitted prior to the site visit.

Workshop or Interview Topic	Discussion Topics	DPU Personnel and Stakeholders
1. Workshop: Response Organization Structure (approximately two hours)	<p>Overview of National Incident Management System/Incident Command System (NIMS/CS)</p> <p>Overview of DPU organizational structure and Incident Management Team (IMT)</p> <p>Title, roles, and responsibilities of IMT members</p> <p>Verification of DPU Emergency Action Levels (EALs), initial response actions, and sustained operations</p> <p>Discussion of response training and exercises to meet the demands of the EALs</p> <p>Discussion of lessons learned from exercises and real emergency events</p> <p>Emergency Operation Centers (EOCs) (DPU and County)</p>	<p>Director</p> <p>Project Manager</p> <p>Assistant Director</p> <p>Emergency Manager</p> <p>SRWWTP Superintendent(s) / Operator(s), Collection System, and Reuse System Operators</p> <p>Key DPU Personnel (as determined by the City)</p>
2. Interview: Communication (Internal and External) Protocol and Procedures Interview (approximately one hour)	<p>Emergency contact list</p> <p>Warning, notification, and reporting protocols (including Sanitary Sewer Overflows [SSOs] requirements)</p> <p>Public information protocols and forms</p>	<p>Public Information Officer (PIO)</p> <p>Public Affairs Staff</p>
3. Interview: Emergency Procurement and Recovery Interview (approximately 45 minutes)	<p>Procurement protocols during an emergency</p> <p>Federal Emergency Management Agency (FEMA) public assistance (recovery finances, information forms, and tracking)</p> <p>Discuss and obtain forms for emergency expenditures and budgets</p>	<p>Finance and Procurement Staff</p>
4. Interview: Operational Emergency Preparedness and Response (approximately two hours)	<p>Emergency Discharge Management Plan</p> <p>Wastewater system monitoring and controls, emergency operations, and related procedures</p> <p>Equipment, supply, spare parts, and resources lists</p> <p>Generator list and evaluation of power provisions (review Power Resilience Plan)</p>	<p>Wastewater Treatment Plant Operations Manager(s)</p> <p>Superintendent(s) / Operator(s) of Collection System and Reuse System Maintenance Supervisor(s)</p> <p>Instrumentation, Controls, and Electrical (ICE) Manager</p>

Workshop or Interview Topic	Discussion Topics	DPU Personnel and Stakeholders
5. Interview: Broward County Emergency Management Division (approximately one hour)	Coordination of emergency response activities and EALs Coordination of public warning, notification, and information Resources available for emergency response, recovery (debris management and damage assessment), and logistics EOC Activation	Broward County Emergency Management Division
6. Other Interviews as determined (approximately 30 minutes each)	Discuss how alerts/alarms are received Procedures for disseminating information to the IMT and first responders City EOC and DPU Emergency Operations and Dispatch	City Emergency Management Staff Dispatch or Control Center Points of Contact
7. Close-out Meeting (approximately one hour)	Present a summary of findings	Key DPU Personnel

Deliverable(s):

1. Workshop agenda, materials, and summary
2. Interview agendas, materials, and summaries

Task 3 – Integrated DPU ERP

Arcadis shall use the AWIA Water System ERP (currently being developed as part of a separate WO) as the base plan and incorporate wastewater and reuse information, as well as finalizing the entire Integrated DPU ERP collectively with water, wastewater and reuse information.

The draft Integrated DPU ERP will be developed based on the draft plan outline approved in Task 1 and information collected in Task 2. The base plan is the cornerstone for planning and training that defines DPU’s overall approach to emergencies, including “concept of operations” that establishes functions, roles, and responsibilities of staff during emergencies and what should happen when at whose command. The Integrated DPU ERP will also include appendices of contacts, resources, facility maps, and response actions in the form of Incident Specific Response Procedures (ISRPs) for rapid response by managers and operators.

Arcadis shall build upon current wastewater and reuse system emergency response documents such as existing procedures, protocols, and DPU’s Wastewater Master Plan, as available. The Integrated DPU ERP will incorporate informational elements for the wastewater treatment plant, collection system, and reuse system key components, monitoring, cybersecurity, emergency purchasing, equipment and resources, use and handling of chemicals, operation and maintenance, resilience and mitigation measures, and relevant hazards and threats.

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The Integrated DPU ERP will also incorporate and update information from DPU's Emergency Discharge Management Plan (2011).

Specifically, the draft Integrated DPU ERP will incorporate the following:

- Overview of the wastewater and reuse systems, facility information, and maps (including key information from the Emergency Discharge Management Plan)
- Emergency contact list (internal and external), including key contacts required for the Emergency Discharge Management Plan
- Command and Control, organization structure, and response protocols
- Incident Management Team (IMT), ICS roles and responsibilities, concept of operations
- Emergency action levels (EALs), ERP activation, initial response actions, and continuing operations
- Emergency Operating Centers (EOCs) and expectations of DPU in a major disaster
- Lessons learned from staff experience in emergency event occurrences to enhance response and recovery
- Communication procedures (internal and external), notification, and reporting protocol
- Emergency procurement
- Equipment, spare parts, supply, and resources lists (including generator list and review of power provisions)
- Recovery operations
- Information regarding FEMA federal disaster assistance and cost data tracking
- Detection strategies and detection methods
- Mitigation measures
- Training and exercises
- Procedures and forms
- References and resources

Appendices will include key information for response such as an internal and external contact list, system maps, (including maps from the Emergency Discharge Management Plan), evacuation and assembly point diagrams, equipment and resources list, ISRPs, ICS Forms, and a list of references and resources.

Task 3.1 Draft and Final Incident-Specific Response Procedures

Draft and final ISRPs will be developed to provide hazard-specific response actions for the wastewater treatment, collection, and reuse systems. A draft list of ISRPs will be finalized in collaboration with DPU staff for applicable hazard scenarios, such as:

- Emergency Discharge Management
- Hurricane
- Flood
- Tornado
- Power Outage

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- Cyberattack
- Alternate Emergency Wastewater Services
- Pandemic
- Extreme Heat
- Unauthorized Entry
- Physical Malevolent Acts (Vandalism, Armed Shooter)
- Wastewater Contamination

The ISRPs can be used to train and guide staff in rapid response for specific emergency scenarios. Three, two-hour virtual workshops will be facilitated with appropriate DPU staff for input on development of up to twelve (12) ISRPs. The ISRPs will detail initial and ongoing hazard-based scenario response actions. In addition, one, two-hour virtual draft ISRP review comments meeting will be conducted to review and address DPU comments for development and submittal of the final ISRPs.

Deliverable(s):

1. Workshop materials and summaries
2. Electronic draft ISRPs
3. Review meeting summary
4. Electronic final ISRPs

Task 3.2 Draft and Final Integrated DPU ERP

A draft Integrated DPU ERP will be submitted to DPU within 8 weeks of Task 2 completion. The DPU will have a three-week review and comment period. A virtual, two-hour draft Integrated DPU ERP review meeting will be conducted (within 3 weeks of draft submittal) to review and address DPU comments for submittal of a final Integrated DPU ERP. The Water System ERP is driven by the AWIA regulatory deadline of September 30, 2025. The Wastewater ERP can be completed concurrently, prior to, or after the Water System ERP deadline, depending on DPU's availability for data collection. Arcadis team is available to complete the integrated ERP (Water and Wastewater) based on DPU's desired schedule for completion.

Deliverable(s):

1. Electronic draft Integrated DPU ERP
2. Review meeting summary
3. Final Integrated DPU ERP in electronic format (Adobe PDF format and native files such as Microsoft Word) and five hard copies (if requested) (within 3 weeks of review meeting)

Task 4 - Sanitary Sewer Overflow Response Plan Update

A draft and final updated Sanitary Sewer Overflow (SSO) Response Plan (SSORP) and updated Wastewater Treatment Plant Emergency Response Procedure will be completed in compliance with SSO rules and regulatory requirements. The updated SSORP will include the following elements:

- SSO notification procedures

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- SSO response procedure(s)
- Notification plan for the public
- Public access advisory plan
- Agency notification and reporting
- Impact mitigation plan
- Updated appendices (forms; City, DPU, County, and Agency contact information; new releases; notification checklists and forms; and spill volume estimation methods and procedures).

Data and information collection will be conducted through a workshop and interviews with key staff to complete the updated SSORP and WWTP Emergency Response Procedure. It is anticipated that one workshop of approximately 2 hours will be conducted initially with DPU wastewater treatment, collections system staff, water quality, and underground utilities. In addition, two individual interviews of less than 1 hour each will be conducted with the appropriate staff representing Public Affairs and Marketing and Regulatory Compliance.

A Draft SSORP and WWTP Emergency Response Procedure will be submitted and comments will be requested from DPU. A comment review meeting (approximately 1.5 hours) will be conducted to address DPU comments and, upon incorporation, Arcadis shall submit a Final SSORP and WWTP Emergency Response Procedure.

Deliverable(s):

1. Workshop and interview materials and summaries
2. Electronic draft SSORP and WWTP Emergency Response Procedure
3. Comment review meeting summary of draft SSORP and WWTP Emergency Response Procedure
4. Electronic and hard copy final SSORP and WWTP Emergency Response Procedure

Task 5 – Project Management

Project management includes Arcadis team staffing, subconsultant coordination and oversight, health and safety plan, project management plan, monthly invoicing and progress reports, budget control, and schedule management. The Arcadis project manager shall schedule and facilitate a total of 6 virtual project status meetings with the DPU project manager over the duration of the project. Arcadis shall submit monthly invoices with progress and schedule reports in accordance with the terms of the Agreement for the duration of the project. It is anticipated that the project will require six months to complete.

Deliverable(s):

1. Six virtual project status meeting summaries
2. Monthly Invoices and Progress and Schedule Reports

Assumptions

1. Execution of this WO constitutes the City's written approval of Reimbursable Transportation expenses in accordance with Section 2.03 a) of the Agreement to provide for the Arcadis team SMEs travel to the Project site to conduct the site visits and inspections identified in this WO.

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Arcadis reserves the right to move budget between tasks, if necessary, as long as it stays within the Not-to-Exceed Fee.

Task 6 – Owner’s Allowance

An Owner’s Allowance is included for providing support to the City in conducting Optional Services as identified below. This task is optional and will be only used if requested and authorized in writing by the City up to the authorized allowance amount, depending upon the Optional Services requested by the City.

Optional Services

The following is a list of optional services that Arcadis can provide as support to the City (as requested). The fee will be developed upon request and work will not proceed until Arcadis has received written authorization from the City.

- Optional Service 1 - DPU Training: ERP Awareness Training and IMT Training
- Optional Service 2 - DPU Exercises
- Optional Service 3 - DPU Integrated Preparedness Plan
- Optional Service 4 - Consolidation of Hurricane Plans
- Optional Service 5 - Consent Order Compliance Support

Optional Service 1 – DPU ERP Training

ERP Awareness Training for all levels of staff roles and responsibilities:

As an additional service, the following is a description for DPU Integrated (water, wastewater and reuse) ERP awareness or familiarization training for all levels of staff roles and responsibilities. Training will be interactive, using a variety of learning techniques to foster information retention. Training will focus on familiarizing staff with the newly revised and Integrated DPU ERP document as a key response resource including when to use it, how best to use it, where it’s kept, and vital contents to begin building preparedness capability. Content includes an introduction to basic ICS concepts, how all levels of staff support emergency response and recovery based on their specific roles (e.g., front-line field staff, leadership team, Incident Management Team (IMT), Emergency Action Levels (EALs), liaising with outside agencies, etc.), resources, internal and external communication, and other key components of the Integrated DPU ERP. Training can be conducted over a series of days to include all staff while not impacting their ability to conduct normal operations. Up to two training sessions in-person 4 hours each.

Incident Management team Training

Incident Management Team (IMT) training specifically tailored to those who perform incident management roles during emergencies will be provided. Training will focus on detailed Incident Command System (ICS) content including event timelines, unified command, in-depth IMT roles and responsibilities, coordination between internal and external operations centers, etc. This training empowers IMT leaders in their emergency responsibilities while building on training obtained during the ERP Familiarization or Awareness Training. Training can be conducted over a series of days to include applicable staff while not impacting their ability to conduct normal operations. Up to two training sessions, in-person, 4 hours each.

A detailed scope, cost estimate, and schedule will be provided upon request.

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Optional Service 2 – DPU Exercises

The following is a description for DPU ERP exercises that include a discussion-based tabletop exercise for internal staff and an additional tabletop exercise in conjunction with external stakeholders (two exercises total). One internal staff and one internal and external stakeholder tabletop exercise will be developed and facilitated in 4-hour, in-person sessions for water, wastewater, and reuse system staff. These exercises will further enhance staff preparedness capability by continuing to build upon training previously delivered and testing the effectiveness of resources, such as the Integrated DPU ERP.

The tabletop exercises will be developed and facilitated based on exercise scenarios involving one or more high risk threats/hazards identified in the Risk and Resilience Assessment (RRA). These scenarios will incorporate use of the Integrated DPU ERP and Incident Specific Response Procedures (ISRPs) through tailored injects and other geographic and system specific details. This creates a realistic experience with simulations built-in to prepare and respond to impacts to operations and external partners. These exercises will be compliant with Homeland Security Exercise and Evaluation Program (HSEEP) guidelines.

Exercise planning includes meeting with the DPU's Exercise Planning Team for three, 2-hour virtual meetings to develop exercise objectives, scenario, injects, and other planning details for each exercise. The team will ensure the scenarios are specific to DPU and the City to adequately simulate internal processes, procedures, and resources. Each exercise will involve developing an Exercise Plan that includes evaluator guides, scenario synopsis, participant feedback forms, and other elements required for HSEEP compliance and used to guide each exercise facilitation.

These exercises will be conducted in-person with a team lead facilitator and three additional staff for observation and evaluation. The facilitator will lead debriefs at the conclusion of each exercise. The debriefs will identify best practices and lessons learned for inclusion in after-action reports (AARs) for DPU review. A two-hour, virtual AAR review meeting will be facilitated for each exercise prior to finalizing exercise AAR documents and delivering to the DPU in PDF format for each exercise. Participants will be provided participant feedback forms that will be included in each exercise AAR.

A detailed scope, cost estimate, and schedule will be provided upon request.

Optional Service 3 - DPU Integrated Preparedness Plan

The following is a description of development of an Integrated Preparedness Plan (IPP), (also known as a 5-Year Multi Training and Exercise Plan), that provides regular training and exercises, training and exercise materials, and a 5-year implementation schedule for water and wastewater treatment, water distribution, and wastewater collection systems. The 5-year training and exercise schedule will be designed to build on preparedness efforts and enhance resilience of staff and operations. The schedule will also include no-cost FEMA training, County- and State-led training opportunities, and discussion- and operations-based exercises. Arcadis will collaborate with DPU to develop an IPP tailored to specific objectives and needs for the staff and the organization. Workshops will be conducted to gather stakeholder input, requirements, and leadership buy-in. These will include:

- Two, in person/virtual IPP workshops, up to two hours each
- Identification of ICS training level needs
- Identification of additional training needs
- Assistance with scheduling participation in locally based BCEMD and FEMA training

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- Determination of a training and exercise schedule
- Integration regulatory required training and exercises, as applicable
- Integration with other training and exercise programs such as safety and security

Workshops are proposed to be conducted (in person/virtual) and summaries will be provided. A draft and final IPP will also be provided.

A detailed scope, cost estimate, and schedule will be provided upon request.

Optional Service 4 – Consolidation of Hurricane Plans

A review of the DPU-specific and water system-specific Hurricane Plans will be conducted to determine best path forward for consolidation and effective document implementation. Two, three-hour workshops are proposed to collaborate with key DPU staff and stakeholders regarding Hurricane Plan contents, update, and consolidation. A draft Hurricane Plan outline will be provided prior to the first workshop. Once consensus is reached on plan approach, a consolidated, updated DPU Hurricane Plan will be developed in prior to submittal of a draft plan. A 2-hour draft plan review meeting with key DPU staff will be conducted to address draft plan comments following submittal. A final plan will be submitted to DPU for final review and approval.

A detailed scope, cost estimate, and schedule will be provided upon request.

Optional Service 5 - Phased Consent Order Compliance Support

Arcadis can support DPU by providing a compliance framework to address the Consent Order requirements (*Consent Order: Daft, September 2024, State of Florida Department of Environmental Protection vs. City of Hollywood, OGC File No. 21-0392*). Arcadis can present a phased approach to DPU in an initial collaborative discussion to identify City and DPU support needs and associated schedule to meet the Consent Oder.

Arcadis has provided model program management support to municipal clients across the country in Consent Order/Decree negotiations and compliance oversight. A phased approach will outline tasks to address each component of the Consent Order, including:

- **Implementation Plan** – Assistance with initiating a Consent Order Implementation Plan, (RACI - Responsible, Accountable, Consulted, Informed), stakeholder integration, and development of templates for reporting. Arcadis has past experience and templates that we can present to assist the City and DPU efficiently and effectively in compliance with the Consent Order.
- **Dashboarding for Management** – Arcadis has developed and can implement a Dashboard to track compliance for presentation to leadership and stakeholder engagement, to demonstrate full visibility of requirements progress, milestone achievements, risks, and performance.
- **Program Management Workshop** – Arcadis can conduct a 3-hour workshop to discuss a programmatic approach to implementation and oversight of the Consent Order. This will ultimately provide the City assurance that deadlines will be met, that benefits and value of the requirements are extracted, and that the City positions itself to meeting the intent of the Consent Order, but also to extract as much value and obtain benefits through the requirements of the Consent Order.

Arcadis will provide its expert advice and subject matter experts to the City and DPU in meeting the needs of the Consent Order on schedule and in budget. Arcadis can offer our support in each individual

project and can assist in evaluating and prioritizing each Consent Order Corrective Action, including the following:

- Approach to evaluate and prioritize rehabilitation and replacement of collection system assets.
- Evaluation of the Southern Regional Wastewater Treatment Plant (SRWWTP), effluent disposal system, and associated collection system (including operations and maintenance improvements, mechanical replacement, and effluent compliance). Development of a Corrective Action Plan and Schedule to meet the findings of the evaluation.
- Evaluation of condition and corrective action plan for repair and rehabilitation of the effluent disposal pipes.
- Development of a report regarding SRWWTP design modifications to improve performance.
- Assistance with permit application to construct any needed modifications.
- Development of a Capacity, Management, Operations, and Maintenance (CMOM)/Asset Management Program and Implementation schedule.
- Development of an Infiltration and inflow (I&I) plan and implementation schedule.
- Conduct a capacity evaluation of the collection system, including force mains, gravity mains, and pump stations. Develop a report summarizing the results and system needs.
- Assistance with Status and Progress reports.
- Assistance with identifying and implementing a Pollution Prevention (P2) Project to offset penalties. And assistance in offsetting the civil penalty by implementing an in-kind penalty project.
- Establish Key Performance Indicators (KPIs) to measure results and improvements over the course of the Consent Order program.

SCHEDULE

Arcadis shall commence project work upon receipt of ATP. Submittals will be made in accordance with the project schedule below, and it is assumed that the City will provide comments on all draft deliverables within three weeks from submittal. Arcadis estimates that the overall project through closeout will be completed within six months from ATP.

As discussed above, the Integrated DPU ERP can be developed prior to, concurrently, or after the AWIA Water System ERP deadline of September 30, 2025. The proposed dates below can be updated based on DPU’s desired schedule for completion and coordination with the AWIA Water System ERP.

Arcadis proposes the best approach would be initiate development of the Integrated DPU ERP in 2024 (or early 2025), while updating the Water System ERP data concurrently, and complete the combined integrated plan ahead of the AWIA deadline.

Project Task	Duration from ATP
Task 1 – Kickoff Meeting	2 weeks
Task 2 – Site Visit	Within 3 weeks of Task 1 Completion
Task 3 – Integrated DPU ERP	ISRP Workshops start within 3 weeks of Task 1 completion. Draft Wastewater System ISRPs within 6 weeks of workshops. Comments shall be received within 3 weeks of draft ISRP submittal and a review meeting will be conducted. Final ISRPs within 3 weeks of review meeting and included in the Final Integrated DPU ERP. Draft Integrated DPU ERP submittal within 8 weeks of Task 2 completion. Comments shall be received within 3 weeks of draft Integrated ERP submittal. Review meeting will be conducted. Final Integrated DPU ERP submittal within 3 weeks of review meeting.
Task 4 – SSORP and WWTP Procedures	Data collection (workshop and Interviews) completed within 2 weeks of Task 1 completion. Draft SSORP and WWTP Procedure within 4 weeks of data collection completion. Comments received within 2 weeks of draft submittal and comment review meeting following within 2 weeks. Final SSORP and WWTP Procedure within 2 weeks of comment review meeting.
Task 5 – Project Management	Duration of project (6 months)
Task 6 – Owner’s Allowance	Dependent upon detailed Scope and Schedule developed and approved by the City at the time such services are requested.

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Integrated DPU ERP Proposed Schedule - 6 months	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Task 1 – Kickoff Meeting	X					
Task 2 – Site Visit (Workshop/Interviews)		X	X			
Task 3 – Integrated DPUERP		X	X	X	X	X
Task 4 – SSORP and WWTP Procedure		X	X	X		
Task 5 – Project Management	X	X	X	X	X	X

BUDGET AND INVOICING

Arcadis shall perform these services for a total fee for Task 1- 6 including Subconsultant (Time and Material Not-to-Exceed) of \$_____ based on the approved contract 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 – Kick-off Meeting	\$14,470.00
Task 2 – Site Visit	\$19,570.00
Task 3 – Integrated DPU ERP	\$58,665.00
Task 4 – SSORP and WWTP Procedure	\$66,845.00
Task 5 – Project Management	\$18,405.00
Reimbursables for traveling – (Per Section 2.03 of the Agreement)	\$1,400.00
Sub-Consultant	\$44,520.00
Subtotal	\$223,875.00
Task 6 – Owner’s Allowance	To be determined
TOTAL	\$ To be determined

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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 Diego Barrios, PE via email (Diego.Barrios@arcadis.com) or telephone (954.414.9017).

Sincerely,
Arcadis U.S., Inc.



Diego Barrios, PE
Project Manager
Email: Diego.Barrios@arcadis.com
Mobile: 954.414.9017

cc:
Kassandra Myers, Assistant Director, Public Utilities/Operations
Leah Richter, Arcadis SE Area Manager

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.

ATTACHMENT A

Work Break Down Fee Schedule

TASK		CATEGORIES										ARCADIS
Task No.	Description	Principal in Charge	Project Manager	Technical Expert	Principal Engineer	Senior Engineer II	Administrative	Total Hours	Labor Fee	Other Direct Costs	Subconsultants - Launch!	Total Labor + Other Service Fees
1	Task 1 Kick-off	2	15	1	22	28	0	68	\$14,470	\$0	\$0	\$14,470.00
2	Task 2 Site Visits	0	34	0	8	51	0	93	\$19,570	\$0	\$0	\$19,570.00
3	Task 3 Integrated DPU ERP	0	22	18	77	159	25	301	\$58,665	\$0	\$0	\$58,665.00
4	Task 4 Sanitary Sewer Overflow Response Plan Update	2	31	0	126	170	6	335	\$66,845	\$0	\$0	\$66,845.00
5	Task 5 Project Management	5	50	0	0	0	38	93	\$18,405	\$0	\$0	\$18,405.00
	Reimbursables for traveling – (Per Section 2.03 of the Agreement)	0	0	0	0	0	0	0	\$0	\$1,400	\$0	\$1,400.00
	Subconsultants	0	0	0	0	0	0	0	\$0		\$44,520	\$44,520.00
Totals		9	152	19	233	408	69	890	\$177,955	\$1,400	\$44,520	\$223,875.00
Approved Billing Rates - 2023 MSA (\$/hr)		\$ 295.00	\$ 255.00	\$ 285.00	\$ 215.00	\$ 180.00	\$ 110.00					
SUBTOTAL 1											\$223,875.00	

SCOPE OF WORK

Hollywood Wastewater ERP & ISRP Update
October 18, 2024



Project Background

The City of Hollywood’s Wastewater Utility has requested Arcadis with Launch! Consulting (Launch) complete several tasks to improve resilience and emergency preparedness. The proposed work includes updating the Utility’s Wastewater Emergency Response Plan (ERP) to include Incident-Specific Response Procedures (ISRP).

Launch is well-prepared to support Arcadis to assist the City to achieve their resilience goals. Launch’s portion of the project scope and time and materials (T&M) fee proposal is provided below.

Scope of Services

The objective of this project is to update the City of Hollywood’s Water ERP to include wastewater and reuse systems to enhance awareness and preparedness between the different Department of Public Utilities (DPU) divisions. Launch will assist Arcadis by developing a newly designed ERP outline, drafting the combined water, wastewater, and reuse ERP, and development of up to 12 ISRPs.

Launch will support Arcadis throughout the duration of the project with a focus on the ISRPs under Task 3, with the scope of services below.

Task 1: Kickoff and Project Support

ERP Kickoff Meeting – Arcadis will facilitate a virtual project meeting with support from Launch for the City to confirm scope and schedule of the wastewater ERP, identify any remaining documents needed for the document review, and collect other pertinent information for project success.

Document Review – Arcadis and Launch will review provided information for inclusion into the updated ERP and identify any additional information needed to be collected electronically, through workshops, and/or meetings with DPU staff. Launch will focus on utilizing content from the City to inform development of both the ERP outline and the ISRPs.

Draft ERP Outline – Launch will assist Arcadis in developing a new ERP outline that includes water, wastewater, and reuse system components to support the whole of DPU, ensuring compliance with America’s Water Infrastructure Act of 2018 (AWIA).

Activities in this task include project planning, management, phone meetings with the City, and invoicing. Hours allotted in this task are for a 6-month project.

Task 2: Site Visits

Assist with Data Collection – Launch will assist Arcadis in conducting on-site data collection in the form of workshops and interviews to obtain information for developing the wastewater and reuse components of the combined Utility ERP. This will include interviews with DPU and Broward County Emergency Management Division (BCEMD) staff. Workshop and interview agendas, topics, and questions will be submitted prior to site visits in accordance with the workshop and interview schedule set by Arcadis.

Task 3: Wastewater System Integration into the ERP

The newly designed ERP will include critical information regarding the water, wastewater, and reuse system to ensure full planning efforts are designed to support each component during an emergency. The draft DPU ERP will be developed based on the plan outline approved in Task 1 and information collected in Task 2.

ERP Development and Quality Control – Launch will assist in the development of the ERP and conduct a review and mark up of the plan for submission to the City of Hollywood.

Draft ISRPs: Launch will assist in developing up to 12 procedures based on hazard scenarios as determined by the City. Each procedure will be structured in a “rip and run” format for ease of access in an emergency. Optional incident scenarios are listed below; specific checklists may differ from this list and will be chosen during the project kickoff meeting:

1. Emergency Discharge Management
2. Hurricane
3. Flood
4. Tornado
5. Power Outage
6. Cyberattack
7. Alternate Emergency Wastewater Services
8. Pandemic
9. Extreme Heat
10. Unauthorized Entry
11. Physical Malevolent Acts (Vandalism, Armed Shooter)
12. Wastewater Contamination

ISRP Workshops – Launch will facilitate three 2-hour virtual workshops with appropriate DPU staff for input on development of up to 12 ISRPs. Each ISRP will include guidance on how to prepare for, respond to, and recover from each of the scenarios chosen by the City with sufficient detail to guide utility efforts before, during, and after an emergency. Each procedure will also remain flexible enough that they may be tailored to each incident, as no emergency is the same.

ISRP Finalization – Launch will finalize the ISRPs following conclusion of the workshops to ensure procedures are accurate, consistent, and do not conflict with each other nor existing



City processes and procedures. A final 2-hour virtual workshop will be facilitated to review and address DPU comments for development prior to submittal of the final ISRPs.

Deliverables from Launch:

1. Draft ERP markup to Arcadis in Microsoft Word format
2. First Draft ISRPs for review by the City and use during the workshops
3. Final ISRPs in Microsoft Word and PDF format for inclusion in the ERP

Project Assumptions

The Launch team will:

1. Attend site visits in person and additional workshops and meetings virtually, as described, with up to 2 staff to facilitate and take notes
2. Provide deliverables electronically through secure file-sharing.
3. Launch will provide only two versions of the ISRPs—one draft and one final.

Project Budget

Compensation to Launch! Consulting, Inc. will be on a time and materials basis 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.

Team Member	Technical Expert	Principal Engineer I/ PM	Administrative	Total Hours	Total Cost
Rate	\$285.00	\$255.00	\$90.00		
Task 1: Kickoff and Project Support	10	6	5	21	\$4,830.00
Task 2: Site Visits	25	5	0	30	\$8,400.00
Task 3: Wastewater Integration	74	40	0	114	\$31,290.00
LABOR TOTALS	109	51	5	165	\$44,520.00

Authorized by:

Linda P. Warren, P.E.
CEO, Launch! Consulting, Inc.
Date: October 18, 2024