



CLEARWATER
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CITY OF CLEARWATER, FLORIDA

WATER RECLAMATION FACILITY

Maintenance & Repair Program

RFQ #05-25

DECEMBER 23, 2024



ARDURRA

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LETTER OF INTEREST



December 23, 2024

City of Clearwater
e-Procurement Portal



Re: RFQ 05-25, Water Reclamation Facility Maintenance and Repair Program

Dear Evaluation Committee Members:

Ardurra Group, Inc. (Ardurra) is excited to present our qualifications to provide consulting services for the Water Reclamation Facility (WRF) Maintenance and Repair Program. Ardurra has been working in the City's WRFs since 2009. We know these facilities and the challenges that the City has faced, and we understand the ultimate goal that the City wants to reach. As one of your trusted consultants for the past 15 years, we want to be part of that vision and hope to be part of the team that helps you achieve your goals. We have therefore assembled a Team that we know will get you there.

Ardurra/Hazen/CHA — a Proven Team. We have assembled a team that includes the winning combination of Ardurra, Hazen, and CHA. This team has been working together on your Wastewater Collection System (WWCS) Program and has already developed a rapport working with each other and with the City. Ardurra and Hazen have collaborated on nine other programs in the last five years. We play well together. As a united front, we offer the City a team of professional and technical experts that have developed synergies and communication protocols for planning, designing, and overseeing construction of similar dynamic programs in the Tampa Bay Area including the Hillsborough County South County Advanced WRF Expansion Design-Build, Hillsborough County's One Water Campus WRF and Balm Super Pump Station Progressive Design-Build, and the Peace River Water Authority's Peace River Facility Expansion Progressive Design-Build.



Proven Program Management Capabilities. Ardurra has supported numerous large programs across the country. We bring to the City of Clearwater many lessons-learned, best practices, and proven programmatic tools from this experience. We have managed more than 50 public infrastructure programs, totaling more than \$30B in managed funds, many of those in Florida. Our philosophy is to operate as an extension of City staff.

We Know your Facilities. Ardurra has completed 17 projects in all three of Clearwater's WRFs in the last 10 years and our proposed key staff are currently completing projects in the Northeast and East WRFs. We know and understand these facilities and the unique challenges they present. This will allow us to evaluate and plan projects holistically, taking into account the overall effects on the entire facility, not just the unit process, while keeping the eventual consolidation program in mind.

Reliable Local Team. We are a locally based team — key personnel live and work in the Tampa Bay area, within an arm's reach of City facilities. This provides the City with quick access to our key resources during all phases of the program, ensuring prompt decisions and rapid responsiveness. This translates to time and money saved for the City and less frustration on your part. The City knows that it can call Chris Kuzler, Loc Truong, or Andre Dieffenthaler to get a quick answer to questions, quick turnaround on project decisions, and immediate assistance if/when emergencies arise.



"I am excited to serve as The City of Clearwater's Program Manager for this WRF Program. I am eager to continue working with respected City leadership and staff, leverage the knowledge that our team has gained through similar programs, and identify best value solutions to meet the immediate and long-term WRF needs of the City. We will continue to demonstrate the Ardurra team's commitment to quality deliverables, schedule, budget, and best in class client service."

*— Loc Truong, PE
Program Manager*

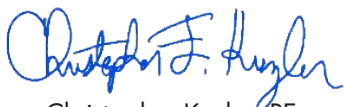
Programmatic Tools Ready to Roll. Our team is already managing the City's WWCS Program, has the tools in place, and knows the City's expectations, preferences, and ways of doing business. We know that many things don't need to be complicated to be effective; sometimes keeping things simple is best. This will save you time and money so that more dollars are available for the work you need to complete.

Leadership with the Right Stuff. Our integrated team of experts is ready to lead the City through this WRF Maintenance and Repair Program. Proposed Program Manager, Loc Truong, PE has 23 years of experience working in wastewater treatment facilities. Deputy Program Manager, Jim Kizer, PE has 33 years of experience and has managed 10 WRF maintenance and repair programs valued at over \$250M. Supporting Loc and Jim are a handpicked group of local wastewater professionals, plant operators, and technical staff who have delivered similar projects and programs together in the Tampa Bay area. They understand how to implement projects in active facilities and the pitfalls to watch for. In the end, you need your facilities to operate reliably, without violating permit conditions. We know how to do that.

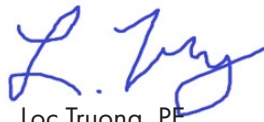
As a locally-based team, we take pride in the work we do for you and care about the success of our local community. We appreciate this opportunity to serve you on this program and look forward to the opportunity to help Clearwater achieve its goals.

We hereby confirm that all information contained in this proposal is complete and accurate. I, Chris Kuzler, will serve as your Principal-in-Charge and hereby certify that sufficient resources in personnel, equipment, and time are available and can be committed to this program. I am available to help you anytime at ckuzler@ardurra.com or 727-992-4883.

Respectfully,



Christopher Kuzler, PE
Principal In Charge



Loc Truong, PE
Program Manager



TECHNICAL APPROACH TO MANAGING A WATER RECLAMATION FACILITY





TECHNICAL APPROACH TO MANAGING A WATER RECLAMATION FACILITY

Introduction and Understanding

Over the past several years, the City of Clearwater has developed several Master Plans and implemented several programs for its public utilities. These Master Plans and Programs are aimed at satisfying the City's Strategic Plan overall priorities of High Performing Government and Environmental Stewardship by ensuring that the utilities systems are economical and efficient with the ability to meet anticipated demands and adapt to future regulatory and climate changes.

The Water Reclamation Facility (WRF) master planning effort has concluded that decommissioning of the Marshall Street and East WRFs and diverting flow from their service areas to an expanded Northeast WRF is the preferred approach when considering maintenance, reliability/resilience, ease of operations, climate and environmental vulnerability, sustainability, and public perception.

Preliminary scheduling anticipates expansion of the Northeast WRF to be completed by 2029, with flow diversion projects and decommissioning of the Marshall Street and East WRFs completed by 2030. In the meantime, all three facilities must

continue to operate smoothly and efficiently, while continuing to meet regulatory requirements, which requires that necessary maintenance and rehabilitation/replacement work be completed in a timely manner.

This Request for Qualifications is aimed at selecting a qualified consultant to serve as Program Manager for implementation of the City's WRF Maintenance and Repair Program. The primary goal of the Program is to improve the efficiency of capital repairs and equipment replacement in all three WRFs, to efficiently bridge the gap between now and completion of the WRF consolidation.

Initial expectations are that the Program Manager will develop point repair contracts and assist with selecting and managing contractors and work assignments; perform condition assessments; determine and prioritize required projects or alternative approaches; and then provide design, permitting and construction oversight services for those projects.

As with the City's other Programs, the Program Manager will need to be flexible and innovative, adapting to changing priorities and needs as the Program develops and the consolidation program is implemented.

PROJECT SPOTLIGHT

\$215M Pump Station Improvement Program Miami-Dade County

Ardurra played a key role on the program management team for the Miami-Dade County Pump Station Improvement Program, which upgraded the County's wastewater collection and transmission system. Ardurra's work included program management, development of a Basis of Design Report, design management, CEI services, scheduling, and pump station analysis for \$103M in upgrades to the system. The program included 153 projects (118 wastewater pump stations and 35 force mains) and an I&I reduction program for 50+ basins. The program included the prioritization of sewer system evaluation surveys (SSES, Infiltration/Inflow), supervisory control and data acquisition validation, pump station, force main, and facilities planning and implementation activities.

PROVEN RESULTS TO SAVE THE COUNTY TIME & MONEY

- Saved the County \$37M out of the \$215M budget while completing 35 additional new projects for a total of 153 projects
- Brought 118 wastewater pump stations into regulatory compliance
- Met all regulatory deadlines USEPA/RER-DEEM deadlines (even under COVID-19 conditions)

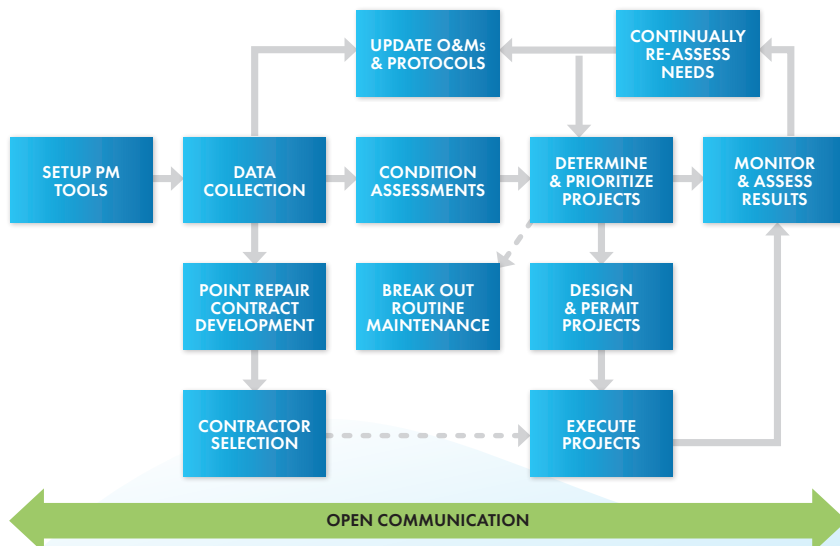


Technical Approach for a Comprehensive Program

The following demonstrates the Ardurra Team's key technical capabilities and tools that have proven successful on similar programs and that will help the City achieve its goals. Our methodology for meeting the needs of the City will be built upon an exceptionally qualified program management team, dedicated design engineers, and seasoned construction inspection teams. **Together with our subconsultants, Hazen and CHA, we offer the City a team with experience working with the City on the Wastewater Collection System (WWCS) and Water and Reclaimed Water Programs; experience working in, and an intimate understanding of, the City's WRFs, and a vast network of qualified professionals in the Tampa Bay area and throughout Florida and the U.S.**

Our approach to the Program is illustrated in the graphic below. Our understanding of the initial projects is described more fully below and in Tab 4 - Work Plan.

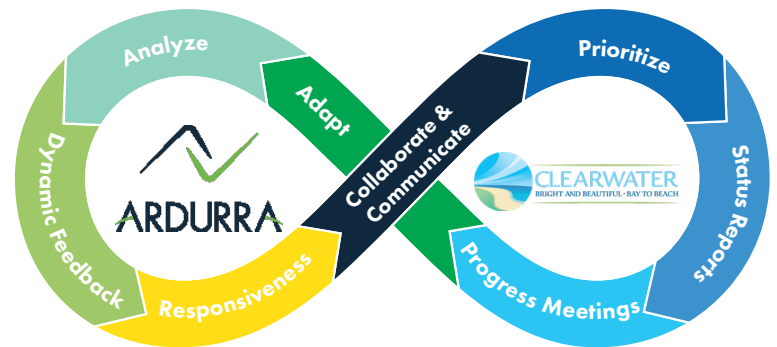
Our approach involves setting up the tools required to manage the Program and then collecting and analyzing available data, efforts required to procure Point Repair Contractor(s), performing condition assessments, determining the work that needs to be completed at each WRF, implementing that work, updating O&M manuals and operating protocols, and monitoring results while continually communicating with the City and re-assessing the needs of the Program. We also anticipate that there could be 'emergency' improvements required at the facilities that will need to bypass the evaluation process and go straight into design and construction, similar to the recent reclaimed water leak at the East WRF that CHA and your Water and RCW point repair contractor is addressing now.



Nimble Team for a Fluid Program

One thing we've learned from all our Program Management experience is that all programs are fluid. The approach that seemed apparent at the start must continually adapt to new conditions and changed priorities. Our team is very much experienced with change management and, unlike many of our larger competitors, we are able to remain nimble and quickly adapt to changes without jeopardizing the overall Program schedule. Key to this is Ardurra's culture of client service and open, honest and responsive communication throughout all phases of the Program.

Our local team, led by Loc Truong, PE and Chris Kuzler, PE has full authority to make decisions and allocate resources, allowing us to address the City's needs quickly.



The Ardurra team's local presence will ensure that someone is always available to be at the City's facilities 24/7

A Team Already Working Together at the City, Mobilized and Ready to Kick Start this Program

By leveraging the local talent of Hazen and CHA, the Ardurra team affords the City rapid and continuous design and implementation of projects. Ardurra will serve as the Program Manager overseeing all aspects of the program and tracking and managing the work using the tools described above. Design and CEI services will be divided between Hazen, Ardurra, and CHA depending on workload or familiarity with the project area. All three firms will use templates, CADD and design standards defined by the City and Ardurra to provide uniformity of the work products.

Overall Management Tools

As a result of our work on the WWCS Program, we have a leg up on developing the required plans and tools essential to manage our activities and to ensure the program goals and objectives are met. These plans, listed to the right, will form the basis of our services and outline the procedures and guidelines to be implemented by the team.

- **Project Management Plan** - will define members of the Team and involved City staff; the Program Scope of Services, budget and schedule; anticipated deliverables; invoicing requirements as well as other Program details.
- **Asset Management Plan** - will define what and how asset information will be collected, stored, and accessible for all.
- **Document Control Plan** - will define where documents will be stored and how they can be uploaded and retrieved as well as review, approval, distribution, and revision processes.
- **Program Controls Plan** - will define how the Program budget and schedule will be monitored, how performance will be measured, deviations identified, and corrective actions taken throughout the Program.
- **Communications and Stakeholder Management Plan** - will define who the Program stakeholders are, their roles and their contact information. It will also define lines of communication and strategies for keeping stakeholders informed and engaged.
- **Risk Management Plan** - will identify risks to the success of the Program and how they can be addressed to maximize chances of success.
- **Change Management Plan** - will address how changes in scope will be documented and addressed to avoid surprises.
- **Health, Safety and Environment Plan** - will define health and safety measures required to be taken when on the WRF sites and actions to be taken in the event of an accident. The plan will mirror and expand upon the City's Health and Safety plans.
- **Quality Control Plan** - will define QA/QC officers, work product reviews that will be conducted, who will conduct them and when, how review comments will be addressed and how the review process will be documented. More information on our Quality Control Plan is provided in Tab 5.

DOCUMENTS & PLANS FOR SUCCESS

We propose preparing these program management documents and plans (further explained on the left) immediately upon selection and submitting them in draft form at the first program planning workshop.



- ✓ Project Management Plan (PMP)
- ✓ Asset Management Plan (AMP)
- ✓ Document Control Plan (DCP)
- ✓ Program Controls Plan (PCP)
- ✓ Communications and Stakeholder Management Plan (CSMP)
- ✓ Risk Management Plan (RMP)
- ✓ Change Management Plan (CMP)
- ✓ Health, Safety, and Environment Plan (HSE)
- ✓ Quality Control Plan (QCP)

Key Stakeholder Identification

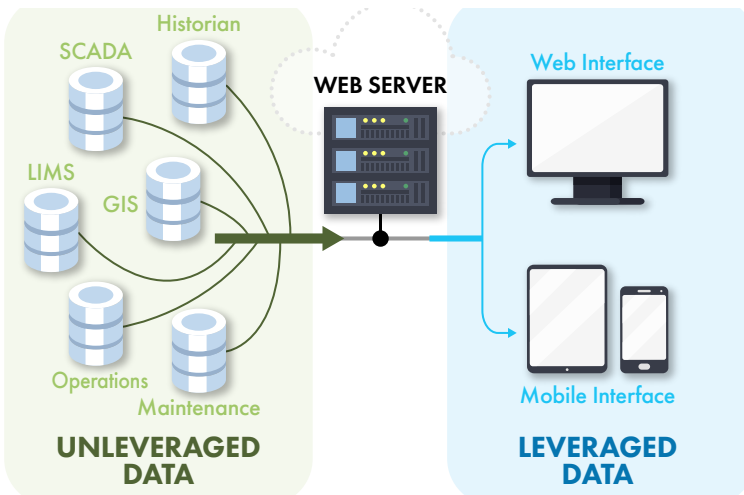
As an operation & maintenance program, it will be very important to identify key stakeholders early in the Program. In addition to Public Utilities management, facility superintendents, operators, mechanics, electricians and instrumentation and control technicians, and others, will have valuable input that needs to be taken into account. Input from the City's Finance and Risk Management personnel may also be needed. All such stakeholders and members of the program management team will be identified in our Communications and Stakeholder Management Plan. Many of these stakeholders already have strong working relationships with our team members through our work on other City Programs.

Data Collection

We will add to our team's large set of data already collected and managed as part of the WWCS Program and will continue to add sets of data that can be converted into actionable information available to the City and team members via a program-specific, web-based GIS and Power BI dashboards where appropriate.

Effective Programmatic Tools Don't Need to be Complex

We understand that some databases and dashboards may be 'over-kill' for what the City expects or needs. **We will keep things simple when they can be, by using spreadsheets and SharePoint sites for sharing information**, similar to what we are doing on the WWCS Program.



Team member, CHA, has assisted the City with the preparation, development, bidding, and selection of several Point Repair contractors including the Annual Water and Reclaimed Water repair contractor; Sewer Repair and Improvements contractor; Acoustic Leak Detection contractor and has used other contracting methods such as piggybacking, sole sourcing, and traditional design-bid-build.

2021 Annual Water and Reclaimed Water Repair & Improvements

CONTRACT DOCUMENTS & SPECIFICATIONS

Prepared for



Issued for Bidding

September/2021

Data Collection and Analysis

We will then move into collecting and analyzing available data including permits, DMRs and other regulatory records, maintenance records, and flow and loading information for each WRF. Robust data collection and management is the cornerstone for success for programs such as this one. The Ardurra Team has a well-developed approach for gathering and managing disparate sets of data that can be converted into actionable and easy to find information available to the City and team members via a program-specific, web-based GIS dashboard.

ESRI Survey 123

We will leverage the data and management tool, ESRI Survey 123, which enables the team to conduct facility inspections and record data electronically using robust data forms that automatically populate an inspection database that is updated in real time, and automatically links photos. This tool will be extremely important for collecting, storing and processing data collected during the condition assessments.

We will focus our data collection plan around the different asset types at each WRF, defining the appropriate means to collect and organize the information from the field in a way that can be easily demonstrated and displayed in the Condition Assessment Reports. **These same tools are already in successful use in the WWCS Program.**

Initial Projects

1. Point Repair Contractor Procurement

To facilitate construction of the renewal and replacement projects at each WRF, the City would like to contract with a Point Repair Contractor that will be on-call and able to construct projects on a Work Order basis – thereby avoiding the need to separately advertise and receive bids on each project. The Program Management team will develop the point repair contract documents and specifications and assist the City with bidding and contract award. We have proven experience doing this successfully for City projects.

PROJECT SPOTLIGHT

Clearwater Water and Reclaimed Water Annual Contractor Selection

CHA completely updated the City's technical specifications and standard details which had not been updated for some time, adding significant detail to ensure the City had quality products installed and reduced potential loopholes that might lend to contractors cutting corners. CHA conducted workshops with the City to understand specific material preferences and included those within the documents such as hydrant connections, service casings, and curb stops. To facilitate quick submittal reviews, CHA created a 'Preferred Product List' which quickly detailed manufacturers and associated model numbers of products that the City regularly allows and accepts.

For each point repair contract, CHA developed extensive bid item lists of 300+ items which detailed mobilization, maintenance of traffic, asphalt, concrete, restoration, specific pipe materials and installation depths, valve types, fittings, and misc. appurtenances. This bid item list was developed in collaboration with the City to understand items that regularly needed to be replaced or those that City field crews were not able to replace without significant effort. When an item is needed but not included in the bid item list, the Contractor is allotted to provide materials at a 10% markup plus labor for installation.

Preparation of point repair contracts is unique in that the work is not yet specifically defined and therefore, the specifications and bid items must cover an extensive amount of potential work that may or may not occur.

For this Program, we will collaborate with the City to create contract documents that fit the needs of the work.

This is further detailed in Tab 4 – Work Plan. We will use strategies similar to those used to develop the previously completed point repair documents and further consider the most efficient options for the type of work necessary.

2. Condition Assessments

Condition assessments have already been completed for the Northeast WRF and for the occupied buildings at the East and Marshall Street WRFs. It's our understanding that, when completed, the WRF Master Plan will define projects at the Northeast WRF. Therefore we anticipate that the majority of the condition assessment effort will occur at the Marshall Street and East WRFs. Ardurra has previously completed condition assessment efforts at both of these facilities for the secondary clarifiers and the rapid sand filters and subsequently provided engineering services for the rehabilitation of all of these systems.

CONDITION ASSESSMENT LEADERSHIP



Elizabeth Keddy, PE, LEED AP, will lead the condition assessment effort. Elizabeth is Hazen's Southeast Region Utility Management Services and Energy Management Services Leader specializing in asset management, condition assessments, data analytics, funding and financing, and sustainable and resilient infrastructure. She has conducted over 20 condition assessments for clients across the country. In 2018, she was awarded the 2018 SUEZ North America Innovation Trophy for the development of a first-of-its-kind, IIOT-connected data analytics platform for managing real-time pump efficiency and condition monitoring of critical assets.

system needs to be rehabilitated" could become "if we lower this weir, we can eliminate this pump station and flow by gravity".

Prioritization of Projects

The projects and alternative approaches will be presented to the City and then prioritized and ranked using a combination of qualitative criteria developed with City input and quantitative scores. It is anticipated that some of the required improvements will be routine maintenance work that can be completed by City staff. Other projects will require design by the Program Management team and construction by a Point Repair Contractor. Working with Point Repair Contractors will provide a great benefit in this process by allowing the design team to work directly with a chosen contractor while developing the design – similar to a CMAR or Design-Build approach. This will reduce the amount of detail required in the design documents and reduce the design cost and schedule.

Permitting

Most rehabilitation and repair projects do not require permitting. For instance, the Clarifier Rehabilitation Program and Filter Rehabilitation projects completed by Ardurra for the City did not require permitting because the process and capacity of the facilities was not being changed. However, if any of the projects significantly modify the plant process or capacity, a minor or major Domestic Wastewater Permit Modification will be required from the Florida Department of Environmental Protection (FDEP).

3. Design Solutions and Alternative Approaches

Findings from discussions with WRF operators and the condition assessments will be used to define maintenance work that needs to be done and interim projects that will maintain proper operations until the Marshall Street and East WRFs are decommissioned and the Northeast WRF is expanded. We will take a holistic approach when evaluating the work that is required, always keeping the eventual decommissioning or expansion of the facilities in mind. At a minimum, projects at the Marshall Street and East WRFs will have a short return-on investment period and just need to 'keep them going' while projects at the Northeast WRF could either be interim work to bridge the gap or work that will eventually be part of the expanded plant. To save the City money, we will also consider the possibility of moving equipment from the Marshall Street and East WRFs, as part of their decommissioning, to the Northeast WRF.

Looking at Each Facility as a Whole

Knowing the work that is required, we will look at each facility as a whole to determine the best means of reaching the end result. In some cases, an alternative approach involving the modification/improvement of more than one unit process could be more cost-effective. For instance, "this pumping

CAREFUL CONSIDERATIONS

- ✓ Accuracy of condition assessments is critical to sound decision making. Ardurra's suite of condition assessment tools improves the accuracy of evaluations and prioritization of projects. Examples include custom apps for Survey 123 and ArcGIS field data collection and analysis.
- ✓ We won't just recommend projects because they appear to be needed. We will look at each project as part of the whole, always considering the limited return-on-investment period at the Marshall Street and East WRFs and the eventual expansion of the Northeast WRF.
- ✓ We will separate out projects that are routine maintenance and projects that require design in order to expedite the implementation of improvements.
- ✓ We recognize that all programs are fluid. We will remain nimble in order to rapidly adjust to changes in the City's needs.



Construction

Construction of the projects will be monitored and inspected by members of our Construction Engineering and Inspection (CEI) team. We will provide partial to full time inspection, maintain daily inspection forms, review and respond to submittals and RFIs, review and approve applications for payment, coordinate with procurement, submit permit clearances as needed, develop record documents, and update the City's GIS for asset management purposes.

Once projects are completed, we will assist with operations and track and monitor results to confirm that they are achieving the desired goals.

FLORIDA LICENSED WASTEWATER OPERATOR BRINGS ADDITIONAL O&M INSIGHT TO THE TEAM



Tim Ware, PE, is our proposed Maintenance Planning and Coordination Lead. Tim is a dual licensed Florida Professional Engineer and Class B Wastewater Operator. He has 20 years of experience evaluating, operating, and managing large water and wastewater treatment plants, collection systems, and pumping stations. He has focused on asset management and in the maintenance and reliability aspects of plant operations in an effort to optimize maintenance activities. Tim served as plant manager for the City of Tampa's Howard F. Curren Advanced WWTP, Tampa Bay Water's Desalination Plant, and Veolia Water East Bank & West Bank Wastewater Treatment Plants New Orleans. He also provided Technical and Ops Oversight for Orange County's Hamlin WRF and for Manatee County's Southeast WRF Cloth Filter Conversion.

Tim will create a Maintenance Log, assist with scheduling and coordinating maintenance projects, and oversee engineering assistance for the maintenance work.

A TEAM TO ADDRESS THE CITY'S NEEDS



This program will involve work in three of the City's most complex wastewater facilities. As such, the City needs a consultant who understands that this program is intertwined with multiple ongoing City initiatives, many of which affect, or are affected by, this WRF program. The City needs:

- ✓ **A TEAM THAT CAN IMPLEMENT THE PROGRAM QUICKLY AND SEAMLESSLY.** Our team is already managing the City's WWCS Program, already has the tools in place, and knows the City's expectations, preferences and ways of doing business. In addition, our Team has a strong local presence with staff skilled in both program management as well as project design and construction services.
- ✓ **A TEAM THAT KNOWS THE CITY'S WRFs.** As described in the following section, our Team has personally designed, permitted, and constructed projects in all three of the City's WRFs and knows each ones' processes and facilities.
- ✓ **A TEAM THAT WILL LISTEN.** We won't make decisions and act in a vacuum. We know that feedback from operators, technicians, maintenance staff, engineering and Public Utilities Management is extremely important to the success of the Program and to making sure that all three facilities remain operational and compliant with permitting requirements.
- ✓ **A TEAM THAT IS RESPONSIVE AND EASY TO WORK WITH.** Ardurra has been working with the City for over 15 years and has built a reputation of being easy to work with and responsive. Loc Truong, Ardurra's Florida Water Director, and Chris Kuzler, Ardurra's Regional Director, have the authority to make decisions and assign resources without being bogged down by corporate red tape, allowing us to react and adapt quickly to the City's needs.
- ✓ **A TEAM THAT IS FINANCIALLY RESPONSIBLE.** We know that money doesn't grow on trees and will work with the City to assure that decisions on the Program are fiscally sound.
- ✓ **A TEAM THAT CARES.** Clearwater has been a key client for years. We value that relationship and will not risk it, take pride in the work we do for you and, as local residents, care about the success of our local community.

EXPERIENCE AND QUALIFICATIONS OF FIRM . . . AND STAFF

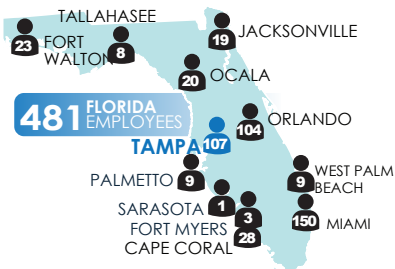


ARDURRA GROUP, INC.

Comprehensive Capabilities and Resources

Ardurra is local ENR Top 500 engineering firm that has been providing multi discipline engineering and construction management services to municipal and government agency clients in Florida since 1977, including the City of Clearwater. Ardurra has 1,750 professional and technical staff in 86 offices nationwide. We offer our clients a one-stop-shop, providing a multitude of services in-house and ensuring that no matter the challenge, we have the talent and skill set to provide responsive solutions. Our in-house capabilities include:

- Water & Wastewater
- Public Works
- Civil
- Structural
- Electrical/I&C
- Environmental
- Transportation & Transit
- Aviation
- Survey
- Emergency Management
- Landscape Architecture
- Funding & Grant Support



Local and Responsive to the City of Clearwater

Ardurra has 480+ professional and technical staff in Florida including 107 in Tampa! Ardurra's proposed key staff live, work, and raise their families

here in the Tampa Bay region. Florida is the home to the largest number of Ardurra staff in any State in the US! We are headquartered in Miami and maintain our commitment to the infrastructure of our home State.

Water Expertise

Ardurra was founded as a **water-first firm**. At our core, we have been, and always will be, a firm that places a priority on water infrastructure improvements. This includes work in water and wastewater treatment plants, pipelines, pump stations, stormwater and drainage, and resiliency. **Ardurra is proud to be nationally ranked as a leader in these service lines, and brings you a perfect combination of nationwide Subject Matter Experts coupled with local, boots on the ground experts.**



Proven Program Management Capabilities

As part of our robust water, wastewater, and emergency management service lines, Ardurra has supported numerous large water programs across the country. We bring to the City of Clearwater many lessons-learned, best practices, and programmatic tools from this experience. Ardurra has managed more than 50 public infrastructure programs, totaling more than \$30B in managed funds, many of those in Florida. Our philosophy is to operate as an extension of City staff. Examples of our program management experience is highlighted on Page 18.

We Know all 3 Clearwater WRF Plants

Key proposed Ardurra staff — Loc Truong, PE, Chris Kuzler, PE, Ben Turnage, PE, Sharmeela Khemlani, PE, and supporting staff — have delivered projects in all three Clearwater WRFs, affording us a head start for condition assessments and coordination with operations personnel.



- Filter Backwash In-Plant Pump Station Rehabilitation
- Chlorine Contact Chamber Chemical Feed Lines Replacement
- Clarifiers Condition Assessment and Rehabilitation Program
- Vacuum Truck Unloading Station
- FDEP Domestic Wastewater Permit Renewal
- Equalization Basin Feasibility Study
- Grit Removal, Salsnes Filter, and Equalization System Improvements

- Rapid Sand Filter System Condition Assessment and Rehabilitation
- Clarifiers Condition Assessment and Rehabilitation Program
- Waste Activated Sludge Thickening Technology Evaluation
- Equalization Basin Feasibility Study
- Rotary Drum Thickener WAS Pump Evaluation and Replacement
- Abandoned Digester Demolition

MARSHALL ST WRF



- Rapid Sand Filter System Condition Assessment and Rehabilitation
- Clarifiers Condition Assessment and Rehabilitation Program
- FDEP Domestic Wastewater Permit Renewal
- Influent Pump Station Rehabilitation

The Ardurra team was crafted to offer the very best in local talent combined with the right experience and knowledge of the City's three WRFs and associated infrastructure. This team aligns perfectly with the City's needs for this program — ready to assess, prioritize, plan, design, and deliver! Team firms and the value they bring to the City of Clearwater include:

ARDURRA

- Local proposed staff that have worked in all three of the City's WRFs — including current work in the Northeast WRF (influent equalization basin, grit removal and Salsnes filters) and the East WRF (rehab of influent pump station)
- Since 2001, we have been assisting the City with related infrastructure challenges including pipelines, septic-to-sewer, lift stations, force mains, and WRF improvement projects; we know the City's standards and preferences
- Deep bench of available local resources who can respond quickly to emergencies and project needs

Hazen

- Local, nationally-recognized environmental engineering firm with an exclusive focus on water and wastewater
- Extensive collaboration with Ardurra on similar wastewater programs - including the current City of Clearwater Wastewater Collection System Program
- Extensive program management experience that brings proven programmatic tools and a fresh set of eyes
- Key proposed staff are located right here in the Tampa Bay area for responsive service

- Hands on working knowledge of the City's wastewater system and experience working alongside City's engineering and operational staff
- Able to leverage experience from the City's Wastewater Collection System and Water and Reclaimed Water System Programs to increase knowledge transfer efficiency and synergy
- Local firm with proven ability to respond quickly with appropriate qualified staff
- Working successfully with Ardurra on similar programs

- Clearwater-based firm with successful working history with the City — has held a continuing services contract successfully since 2008
- Able to leverage experience working in the City's WRFs including clarifier rehabilitations in all three facilities and the Northeast WRF EQ basin
- Unequaled local knowledge and experience of personnel as related to treatment plant facility structure and piping
- Firm that has worked successfully with Ardurra on similar programs

HOWARD & ASSOCIATES

- Local, trusted MBE firm with 30+ years delivering quality services to regional agencies including the City of Clearwater
- Collaborated with Ardurra on multiple local water and wastewater projects - including the City of Oldsmar's WRF Control Building

ARDURRA & HAZEN TEAMED TO BENEFIT THE CITY OF CLEARWATER

Ardurra and Hazen have collaborated on 10 projects in the last five years alone - most notably the City of Clearwater Wastewater Collection System Program. We play well together! We have the programmatic tools and systems in place to kick start this WRF program. Further, as a united front, Ardurra and Hazen offer the City a team of professional and technical experts that have developed synergies and communication protocols from planning, designing, and overseeing construction of similar dynamic programs including:

- ✓ City of Clearwater Wastewater Collection System Program
- ✓ Hillsborough County South County Advanced WRF Expansion Design-Build (in construction)
- ✓ Hillsborough County One Water Campus WRF and Balm Super Pump Station Progressive Design-Build (in design)
- ✓ Peace River Facility 24 MGD Expansion Progressive Design-Build (in design)
- ✓ Miami Dade County Water/WW Master Plan (ongoing)
- ✓ Miami Dade County \$10M Water CMOM (ongoing)
- ✓ Miami Dade County \$260M I&I Reduction Program
- ✓ Miami Dade County \$17M CLIP Program
- ✓ Miami Dade County \$640M WWTP High Level Disinfection Program

THE ARDURRA TEAM IS ORGANIZED TO OFFER THE CITY OF CLEARWATER

- An integrated team that has worked together to deliver similar WRF programs, and
- A local responsive team that knows the City's engineering and plant staff through work in the City's 3 WRFs
- A team that is available to meet the City's needs



* Listed percentages represent each team member's expected level of involvement on the program

TEAM FIRMS

- Ardurra Group
- Hazen and Sawyer
- CHA
- Driggers Engineering
- Howard & Associates

PROGRAM MANAGER

Loc Truong, PE ●50%

DEPUTY PROGRAM MANAGER

Jim Kizer, PE ●30%

PRINCIPAL-IN-CHARGE/ QA-QC
Christopher Kuzler, PE ●20%

PROGRAM MANAGEMENT TEAM

Plan Development

Joey Crews, PE ●20%

Procurement/ Contracts Assistance

Emily Williamson, PE ●40%

Health & Safety Officer

Jared Lewis, CSP ●50%

Program Controls

Richard Shoek, PE, PMP ●35%

Scheduling

Aaron Baird, PE ●35%

Condition Assessments Lead

Elizabeth Keddy, PE, LEED AP ●40%

Reclaimed/Water Program Interface

Weston Haggan, PE, ENV SP,
PMP ●35%

Wastewater Collection System Program Interface

John Pacifici, PE ●25%

Lift Station Program Interface

Vivian Hong, PE ●25%

Permit Coordinator

Kaitlin Jeffords, EI, ENV SP ●20%

Utility Coordinator

Paula Eldon ●40%

O&M Manuals & Protocols

David Weber, PE ●30%

Maintenance Planning & Coordination

Timothy Ware, PE ●40%
Clay Cochran, PE ●30%

ARDURRA DESIGN TEAM

Lead

Ben Turnage, PE, BCEE ●50%

Treatment & Pumping Systems

Sharmeela Khemlani, PE, ENV SP ●50%
David Rasmussen, PE, BCEE ●50%
Manasi Parekh, PE ●50%

Bioslids Management

Ted Hortenstine, PE ●40%

QA/QC

Jim Kizer, PE ●20%

HAZEN DESIGN TEAM

Lead

Jacob Porter, PE, BCEE ●40%

Treatment & Pumping Systems

Andrew Coleman, PE ●35%
Dave Demaree, PE ●35%
Nestor Sotelo, PE, BCEE ●35%

Bioslids Management

Dan Schmidt, PE ●50%

QA/QC

Andre Dieffenthaler, PE, DBIA ●20%

CONSTRUCTION ENGINEERING INSPECTION

Lead

Steve Sharkey ●50%

Construction Management

Scott Hoxworth ●50%
Orlando Serrano, Jr ●40%

Construction Inspection

Kerry Wulff ●25%
Travis Bains, CDHO ●40%
Lee Myers ●60%

SUPPORT DISCIPLINES

Surveying / SUE

Jeff Kohler, PSM ●15%
Chris Crawford ●15%

Electrical

Agata Ristow, PE ●35%

I&C

Keff Kurella ●50%

Structural

Adarsh Shah ●35%

Process Modeling

Christina Leach, PE ●20%

Hydraulic Modeling

Cristina Lacorazza ●20%

Odor Control

Ryan McKenna ●40%

Civil & Stormwater

Lara Bartholomew, PE,
ENV SP ●35%

Architectural

Harry Howard, AIA ●30%

Geotechnical

Jeff Driggers, PE ●10%

THE PERSONNEL INVOLVED IN THE DAY-TO-DAY EXECUTION OF THIS PROJECT ARE PROPERLY LICENSED TO PRACTICE IN FLORIDA

The Ardurra team's key personnel and their specific project-related experience are highlighted below.

22
YEARS



Loc Truong, PE
Program Manager

Education

BS, Chemical Engineering,
Rensselaer Polytechnic
Institute

Registration

PE FL #65709; Drinking
Water Treatment Plant
Operator Class C FL
#0014398

Loc brings 22 years of experience wastewater treatment, collection, and pumping systems planning, design, permitting, and construction. He led the WWTF program for the University of Florida's Biological Nutrient Removal WRF which included a WRF Master Plan, facility condition assessment, recommendations for improvement projects, and the development of a CIP for the required to improvements for facility operations and/or to meet regulatory requirements. To date, he has led \$7.5M worth of improvements at that facility, all of which were constructed without interrupting plant operations.

Loc's other relevant experience includes:

- Project Manager, City of Clearwater Northeast WRF Chemical Feed Line Replacements
- Design Manager, City of Clearwater East WRF Influent Pump Station Rehabilitation
- Project Manager, City of Dunedin AWRF Filter Rehabilitation and RAS/WAS Pump Replacements
- Project Manager, City of Oldsmar AWRF Aeration System Improvements
- Project Manager, City of Venice AWRF Equalization Basin System
- Project Manager, Hillsborough County Valrico AWWTP WAS Metering and Scum Piping
- Senior Project Engineer, Pinellas County South Cross Bayou WRF Sludge Thickening Improvements
- Project Manager, FGUA Lehigh Acres WWTP Headworks and Miscellaneous Plant Modifications

33
YEARS



Jim Kizer, PE
Deputy Program Manager

Education

MS, Civil Engineering,
Auburn University
BS, Civil Engineering,
Auburn University
BS, Biology, Auburn
University

Registration

PE FL #53477

With over 30 years of expertise in wastewater treatment, Jim is Ardurra's national Subject Matter Expert and Technology Lead, advising our engineers on the best technologies to support our clients. He brings the City the experience gained from the management of 10 WWTF rehabilitation and maintenance programs and 50 WWTF projects. Relevant projects:

- Program Manager, St Johns County WWTF Improvements Program
- Program Manager, Okaloosa County WRF Improvements Program
- Senior Process Engineer, Marion County Northwest Regional WWTF Expansion Program
- Project Manager, City of Warner Robbins GA Sandy Run Creek Water Pollution Control Plan Expansion
- Principal In Charge, City of Perry GA Frank Satterfield Water Pollution Control Plant Improvements
- Technical Advisor, Gwinnett County Utility Maintenance and Improvement Program

35
YEARS



Chris Kuzler, PE
Principal In Charge, QA/QC

Education

MS, Business
Administration, Adelphi
University
BS, Mechanical
Engineering,
Polytechnic Institute of NY

Registration

PE FL #45532

Chris has been directly involved in the successful execution of all of Ardurra's City of Clearwater projects since 2001. He is working alongside Hazen and key members of the project team on the City's WWCS Program. He served in key roles for multiple WRF improvement projects at 4 of Pasco County's WRFs, the City of Dunedin's 6 MGD Advanced WRF, and Pinellas County's 33 MGD South Cross Bayou AWRF.

He served as Principal In Charge for:

Marshall Street WRF

- Rapid Sand Filter System Condition Assessment & Rehab
- Clarifiers Condition Assessment and Rehab
- Waste Activated Sludge Thickening Technology Eval
- Equalization Basin Feasibility Study
- Rotary Drum Thickener WAS Pump Eval and Replacement
- Abandoned Digester Demolition

East WRF

- Rapid Sand Filter System Assessment and Rehab
- Clarifiers Assessment and Rehab Program
- FDEP Domestic Wastewater Permit Renewal
- Influent Pump Station Rehab

Northeast WRF

- Filter Backwash In-Plant Pump Station Rehab
- Chlorine Contact Chamber Chemical Feed Lines
- Clarifiers Assessment and Rehab
- Vacuum Truck Unloading Station
- FDEP Domestic WW Permit Renewal
- Equalization Basin Feasibility Study
- Grit Removal and Salsnes Filter, and Equalization System

32
YEARS

Joey Crews, PE
Plan Development

Joey has 32 years of experience working with municipalities and utilities to overcome their water and wastewater challenges. He has extensive knowledge in municipal operations, including rate analysis, budgeting, and program development for utility CIPs. He has served in lead roles for similar programs including Okaloosa County WWTF program and St Johns County WRF program. Relevant projects:

- Program Manager, Okaloosa County New Shoal River Ranch WRF, Phase I
- Project Manager, Okaloosa County Bob Sikes WRF Expansion
- Project Manager, Okaloosa County Arbennie Pritchett WRF 10 MGD Expansion
- Project Manager, Okaloosa County Garniers Wastewater 25 MGD Repumping Project
- Design Engineer, Okaloosa County East County Wastewater Transmission System Improvements Program
- Construction Manager, City of Perry GA, Frank Satterfield WWTP Aeration Basin Rehabilitation

Education

BS, Civil Engineering,
Florida State University

Registration

PE FL #56853

23
YEARS

Ben Turnage, PE, BCEE
Design Lead Ardurra

Ben has 23 years of experience in assessment, design, permitting and construction of wastewater facility improvement projects in the Tampa Bay region. He served as project manager for the City of Sarasota's WWTF Headworks Improvements and Filter Replacement project. He also served as project manager for the Hillsborough County's River Oaks AWWRF Diversion project which included a new 24 MGD wet pit-dry pit wastewater pump station and decommissioning of the River Oaks WWTP. Relevant projects:

- Lead Design Engineer, Pinellas County South Cross Bayou WRF Headworks and Grit Removal, Sludge Thickening, and Odor Control Improvements
- Project Manager, Tarpon Springs WTF Clarifier Refurbishment, Chlorine Conversion, and FDEP Permit Renewal,
- Project Manager, Pasco County Land O'Lakes WWTP Expansion Progressive Design-Build
- Ardurra Project Manager, Hillsborough County 18 MGD One Water AWWRF (Sub to Hazen)
- Senior Engineer, Pasco County Shady Hills 14 MGD WWTP Expansion

Education

BS, Biological
Engineering, University of
Georgia, Athens
BS, Physics, Furman
University

Registration

PE FL #77561

23
YEARS

Jacob Porter, PE, BCEE
Design Lead Hazen

Jacob has 27 years experience in environmental engineering with a focus on water and wastewater systems. He served as project manager for several major treatment plant improvement projects, which gives him deep insights into how to coordinate and combine individual projects for maximum impact and efficiency. He also has extensive experience in WRF and pump station condition assessments, modeling, design, and construction. Relevant projects:

- Project Manager, City of Tampa Howard F. Curren AWWTP Master Plan Improvements
- Project Manager, City of St Petersburg NWWRF Influent Pump Station and Screening Replacement
- Project Manager, City of Tampa San Carlos Pump Station Rehabilitation
- Lead Engineer, City of Largo WWRF Influent Pump Station (Peak flow 43 mgd)

Education: MS,
Environmental

Engineering, Clemson
University
BS, Biosystems
Engineering, Clemson
University

Registration

PE FL #65453

35
YEARS

Rich Schoek, PE
Program Controls

Rich has 35 years of experience in project and program management for public water and wastewater utilities. He served as Division Director for Gwinnett County GA from 2013- 2019, managing project delivery for 100+ annual contracts, 200 sole source contracts, and 60 competitive procurements for a utility with an annual budget of \$300M. Relevant projects:

- Senior Project Manager, Gwinnett County GA, managed 5 projects valued at \$246M including \$130M water/WW infrastructure installation to serve a 2000-acre research development site
- Senior Project Manager, Cobb County GA, managed day to day activities of capital and operating corrective action projects serving the County's WRFs
- Engineering & Construction Division Director, Gwinnett County GA, managed all utility projects (\$125M annual CIP)
- Engineering & Construction Division Chief Engineer, Gwinnett County GA

Education

BS, Civil Engineering,
University of Missouri

Registration

PE GA #026629



Education MS, Civil Engineering, University of Central Florida
BS, Civil Engineering, University of Central Florida

Registration: PE FL #77777;
Envision Sustainability Professional

Weston Haggen, PE, ENV SP, PMP, DBIA
Reclaimed Water Program Interface

Weston has 15 years of experience focused on water, wastewater, and reclaimed water projects in the Tampa Bay area. He has worked alongside City of Clearwater staff through his assistance with bidding and contractor selection for point repair contracts, annual water and reclaimed water contractor, sewer repair and improvements contractor, and acoustic leak detection contractor. He is currently working with Ardurra and Hazen on the City's Wastewater Collection System Program. His knowledge of the City's contracting and procurement methods and his previous collaborations with key team members will further lend to a coordinated project delivery. Relevant projects:

- Project Manager, City of Clearwater, FL, Water and Reclaimed Water Program Management
- Project Manager, City of Clearwater, FL, Reclaimed Water Master Plan
- CHA's Project Manager, City of Clearwater, FL, Wastewater Collection System Program Management
- CEI Project Manager, Pinellas County, FL, South Cross Bayou Advanced WRF Dewatering Enhancements and Denitrification Filters Rehabilitation



Education ;BS, Environmental Engineering, University of Florida

Registration: PE FL #70650

Andrew Coleman, PE
Treatment & Pumping Systems

Andrew has 20 years of experience in water and wastewater facility design, permitting and construction. His wastewater experience includes dewatering systems and associated chemical feed system design, filtration system design, RAS, WAS, and scum systems, headworks and screening design, screenings conveyance and compaction design, odor control system design, lift stations, hydraulic modeling assessments, force main routing studies, design of lift stations and associated piping and valves. Relevant projects:

- Project Engineer, City of Tampa Howard F. Curren AWTP Master Plan Improvements
- Technical Advisor, City of St. Petersburg Northwest WRF Influent Pumping and Screening
- Design Engineer, City of Largo Influent Pump Station and Headworks Improvements
- Project Engineer, Jacksonville Electric Authority Nassau Regional WRF
- Project Engineer, Lee County Fiesta Village WRF Sludge Dewatering System and Hypochlorite Storage Tank Improvements
- Project Engineer, Lee County Fort Myers Beach WRF Belt Filter Press Replacement
- Project Engineer, Lee County Fiesta Village and Fort Myers Beach WWTPs Headworks Improvements



Education MS, Environmental Engineering, University of South Florida
BS, Civil Engineering, University of South Florida
Registration: PE FL #71716;
Wastewater Operator B FL #19104

Tim Ware, PE
Maintenance Planning & Coordination

Tim is a dual licensed professional engineer and Florida Wastewater Treatment Plant Operator.. Prior to his consulting career, he worked within municipalities and in contract operations evaluating, operating, and managing large water and wastewater treatment plants, collection systems and pumping stations. He has focused on asset management and in the maintenance and reliability aspects of plant operations and continues to work with facilities throughout the U.S. optimizing maintenance activities. Relevant projects:

- Plant Manager, City of Tampa Howard F. Curren Advanced Wastewater Treatment Plant, Tampa Bay Water Desalination Plant, and Veolia Water East Bank & West Bank Wastewater Treatment Plants New Orleans
- Technical and Operations Oversight, Orange County Hamlin Water Reclamation Facility
- Technical Lead, Manatee County Cloth Filter Conversion at SE Water Reclamation Facility
- Technical and Operations Oversight, City of Monroe, LA Digester and Process Improvements



University of Florida Wastewater Treatment Facility Program, Gainesville, FL

Since 2017 Ardurra has served as the program consultant for the planning, design, permitting, and construction of improvements at the UF's 3.0 MGD Biological Nutrient Removal Water Reclamation Facility. As part of this program, in 2021, Ardurra completed a WRF Master Plan that included a facility condition assessment, recommendations for improvement projects, and the development of a CIP for the required improvements for facility operations and/or to meet regulatory requirements. To date, Ardurra has designed, permitted and provided engineering services during construction for the following \$7.5M worth of improvements, all of which were constructed without interrupting plant operations:

- **Headworks Mechanical Screen** and screenings compactor replacement
- **SCADA System Upgrade** which was completed using one of the UF's CMAR contractors
- **Reclaimed Water Transfer and High Services Pump System** upgrades, including addition of VFDs to control the discharge pressure; also completed using one of UF's CMAR contractors
- **Filter System** condition assessment followed by a complete system replacement using 6.75 MGD Aqua Aerobics AquaDisk cloth disk filters and eliminating the existing sand filters
- **Sodium Hypochlorite Storage and Feed System** replacement
- **Effluent Deep Injection Well** improvements
- **Clarifier** condition assessment
- **BNR Basin Improvements** including floating aerator rotor replacements and the addition of Dissolved Oxygen (DO) probes, Total Suspended Solids (TSS) probes, and analyzers and SCADA improvements to provide DO and TSS feedback and optimize the BNR process

While completing the above referenced projects, Ardurra assisted UF with the renewal of the WRF's FDEP Domestic Wastewater Permit and negotiating facility improvements to satisfy the requirements of a Consent Decree.

PROVEN RESULTS FOR UF

- ✓ Met budgets and schedules for required improvements
- ✓ State-of-the-art SCADA system and improved process controls
- ✓ Increased plant and systems reliability
- ✓ Simplified operations and reduced maintenance
- ✓ Reduced power and chemical consumption
- ✓ Improved reclaimed water quality
- ✓ Stable reuse system pressure control
- ✓ Reduced Consent Decree terms

Key Leadership



Loc Truong, PE Chris Kuzler, PE Sharmeela Khemlani, PE

Similar Scope

- ✓ WRF maintenance program
- ✓ Facility evaluation and condition assessments
- ✓ Improvement program development
- ✓ Project prioritization
- ✓ Alternatives analysis
- ✓ Design, bidding
- ✓ Construction oversight

Similar Scale

Delivery of 8 projects, valued at \$7.5M over 8 years

Similar Complexity

Concurrent delivery of multiple projects ranging from \$390,000 to \$1.8M

Key Personnel Involved

Loc Truong, PE; Chris Kuzler, PE;
David Weber, PE;
Sharmeela Khemlani, PE

Dates 2017-Ongoing

Client Reference

Jennifer Meisenholder, PE
Associate Director of Construction
(t) 352.816.2085
(e) jmeisenholder@ufl.edu



St Johns County Wastewater Treatment Facility Program, St Augustine, FL

Since 2014, Ardurra has been working for the County providing comprehensive planning and engineering services for improvements to its wastewater treatment facilities. The program included a comprehensive evaluation of the Anastasia Island WWTF and each major unit process as well as the development of a long term improvement plan and operation and maintenance plan. As part of the evaluation, Ardurra developed hydraulic and BioWin models of the plant and alternatives for effluent disposal and trihalomethane compliance. An assessment of needs was developed for the facility's mechanical, hydraulic, and process equipment and systems. Ardurra delivered more than 50 projects under this program. For each project, Ardurra prepared a work plan, facility assessment, evaluation of alternatives, cost estimates at each milestone, bidding, and construction phase services. Our work has included:

Planning, Studies, Reports, Other

- County Utilities Strategic Plan
- State Revolving Fund Planning
- County Bond Report
- Hazard Mitigation Grant Program Installation of 3 Diesel Generators
- SR 16 Utility Adjustment Survey and Subsurface Utility Engineering

Anastasia Island Wastewater Treatment Facility (4.95 MGD)

- Overall Facility Evaluation and Plan for Improvements
- Headworks Improvements
- Reuse System Improvements
- Biosolids Management Plan and Stabilization
- UV Disinfection System Replacement
- Blowers Improvements
- Solids Handling Improvements

State Road 16 Wastewater Treatment Facility

- Stormwater Improvements
- Wetlands Removal & Evaluation
- Biosolids Stabilization
- Blowers Improvements

State Road 207 Wastewater Treatment Facility

- Master Pump Station
- Filter Improvements

Lift Stations (LS) & Pump Stations (PS)

- St. Andrews LS Improvements
- Pine Lakes LS Improvements
- Hastings LS Improvements
- Fish Island Rd, Bartram Oaks & Bermuda Run LS Improvements
- TPC 5, Fairfield & Sawgrass #1 LS Improvements
- River Side LS Odor Control
- Moultrie Crossing LS Conversion
- Six Mile Master LS Improvements
- Quail Hollow, Summerhouse & Spy Glass LS Improvements
- Holiday Isle LS Improvements
- Group 3A LS Improvements
- Group 3B LS Improvements
- Innlet Beach Master Pump Station

Key Leadership



Jim Kizer, PE



Joey Crews, PE



Manasi Parekh, PE

Similar Scope

- ✓ WRF maintenance program
- ✓ Facility evaluation and condition assessments
- ✓ Improvement program development
- ✓ Project prioritization
- ✓ Alternatives analysis
- ✓ Design, bidding
- ✓ Construction oversight

Similar Scale

Delivery of 50+ projects valued in excess of \$100M

Similar Complexity

Concurrent delivery of multiple projects ranging from \$20k to \$3M in construction

Key Personnel Involved

Jim Kizer, PE; Joey Crews, PE; Ted Hortenstine, PE; Dave Rasmussen, PE; Manasi Parekh, PE

Dates 2014-Ongoing

Client Reference

Neal Shinkre, Director of Utilities
(t) 904.669.7494
(e) nshinkre@sjcfl.us



Okaloosa County Water Reclamation Facility Program, Okaloosa County, FL

Ardurra served as Program Manager to plan and implement multiple improvement projects at the County's water reclamation facilities. Projects have included:

Arbennie Pritchett Water Reclamation Facility (\$65M). Design and construction of a new 10 MGD - Arbennie Pritchett WRF - to replace the aging 6.5 MGD Garniers WWTP. The \$65M program included a new 25 MGD repumping station to convey flow from the existing WWTP, a new 200-acre rapid infiltration basin effluent disposal system, 10 miles of new 8" to 36" diameter raw sewage and effluent piping, and the decommissioning and demolition of Garniers WWTP. Provisions for future expansion to 15 MGD and 37.5 MGD respectively were included in the design.

Arbennie Pritchett WRF Septage, Fats Oils, Grease Receiving Facility (\$1.5M).

Design and construction of a new 700 GPM septage receiving and FOG station facility at the Arbennie Pritchett WRF, including a new off loading access roadway, separate grit and grease disposal/loading units, polyethylene storage tanks, lighted structural canopy cover, pumping station and miscellaneous piping modifications.

Bob Sikes WRF Expansion Project. Design of an expansion from 0.3 MGD to 1.0 MGD with a peak flow of 3.5 MGD and convert the existing steel package plant treatment basins into new MBR treatment units. The design included state of the art Membrane Bioreactor Technology to meet stringent federal and state regulations for public access reuse water irrigation.

Arbennie Pritchett WRF Expansion Phases I and II (\$8M). Phase I - design and construction for an additional 4.0 MGD, a new chlorine contact basin, gaseous chlorine feed system and building, reclaimed pump station with two 125 hp and two 50 hp vertical pumps, 16" and 20" piping new motor control center, and SCADA controls. Phase II - design and construction of a new 20" reclaimed water transmission main from Arbennie Pritchett WRF to the City of Niceville's existing reclaimed water holding pond on the Eglin Air Force Base Golf Course.

Arbennie Pritchett WRF Solids Handling Expansion (\$8.7M). Design and construction for improvements and modifications to install a new aerobic digester that would address the WAS thickening, digester air supply, civil/site, structural, electrical, and mechanical system improvements.

Garniers Repump Station Controls Upgrades. Design for upgrades to replace the original control equipment including a new control back panel, all control hardware and circuitry, new redundant controller configuration with a single HMI designed to provide continuous uninterrupted operation and reliability.

New Shoal River Ranch WRF (\$2.3M). Master plan, design, permitting, bidding and construction for Phase I of this new plant to treat 1.25 MGD with planned future expansion through 10 MGD through 4 Phases.



This project received the DBIA Water/WW National Merit Award

Key Leadership



Jim Kizer, PE



Joey Crews, PE



Manasi Parekh, PE

Similar Scope

- ✓ WRF maintenance program
- ✓ Facility evaluation and condition assessments
- ✓ Improvement program development
- ✓ Project prioritization
- ✓ Alternatives analysis
- ✓ Design, bidding
- ✓ Construction oversight

Similar Scale

Delivery of 12 projects, valued at \$100M+ over 17 years

Similar Complexity

Concurrent delivery of multiple projects ranging from \$500k to \$65M in construction

Key Personnel Involved

Jim Kizer, PE; Joey Crews, PE;
Dave Rasmussen, PE;
Manasi Parekh, PE

Dates 2008-Ongoing

Client Reference

Mark Wise, PE, Deputy Director
Okaloosa County Water & Sewer
(t) 850.651.7502
(e) mwise@myokaloosa.com

The Ardurra team brings to the City of Clearwater the lessons learned, programmatic tools, and expertise from serving as program manager for more than \$30B in public infrastructure construction in the last 10 years. Relevant programs:



City of Houston TX Upper Brays Wastewater System Consolidation \$300M

Ardurra led this program to evaluate the consolidation of wastewater service for the west service area to the existing Upper Brays 18 MGD WWTF. The program includes condition assessment of the WWTF; alternatives analysis, consolidation program development, project prioritization and phasing as well as design and construction management for the decommissioning of two WWTF, Upper Brays WWTF expansion to 26 MGD with future expansion to 68 MGD, new force mains and tunnels to convey regional flows.



City of Clearwater Wastewater Collection System Program

Hazen, as Prime Consultant, along with Ardurra and CHA, are working together to assist the City to efficiently allocate repair and rehabilitation funds where they would be most effective for their system which consists of 8,300 manholes, 370 miles of gravity sewer, 73 lift stations, and 38 miles of force main. The work includes the management of four on-call contractors as well as evaluating and prioritizing rehabilitation activities, preparing design documents for improvements, and coordinating with other City utility programs.



Gwinnett County GA Utilities Maintenance & Improvement Program \$65M

Since 2017, Ardurra has provided program management services for this utility maintenance and repair program, and has successfully delivered 300+ projects valued from \$10k to \$5M in construction. Ardurra has assisted the County with the development of standard forms and design templates that the County and other consultants can use to gain efficiencies in the project delivery process. Work includes facility assessments at multiple plants, program development and prioritization of projects, design, and construction management.



City of Tallahassee T.P. Smith WRF Improvements \$180M

Hazen provided design, permitting, and construction phase services for this program to upgrade a 26.5 MGD WRF. The program included new headworks, new primary treatment, secondary treatment upgrades, new high level disinfection facilities, and solids processing facilities. Hazen's work included field investigations, program development and prioritization of projects, regulatory compliance, bidding, and construction management and inspection.



Aiken County SC Horse Creek WWTP Expansion Program \$66M

Ardurra served as program manager/Owner's representative for this WWTF program which expanded the existing plant from 20 MGD to 26 MGD along with several plant improvements. Ardurra's work included WWTF condition assessments, modeling, development of the design criteria package, design review and improvements to the process design and technologies, development of the CMAR RFP, and construction oversight.

WORK PLAN AND SCHEDULE





WORK PLAN AND SCHEDULE

The Ardurra team brings a wealth of knowledge and experience from the work we've completed in all three of the City's WRFs, our ongoing work on the City's Wastewater Collection System Program, as well as similar programs completed both locally and nationally.

Our knowledge of the City's WRFs, combined with our ability to leverage the tools and processes already in use for the Wastewater Collection System (WWCS) Program, will result in an enhanced approach that harnesses the gains realized in our work for the WWCS Program, to benefit the City's WRF Maintenance and Repair Program.

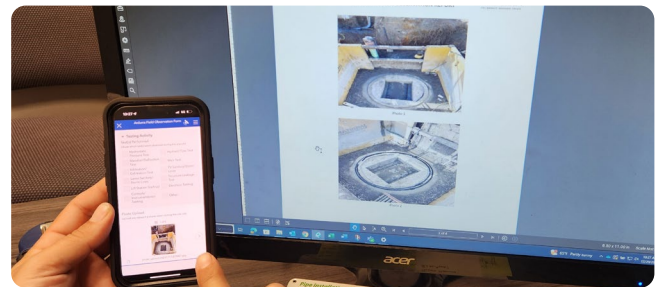
Our team leverages key personnel who are familiar with the City's system combined with national experts in program management, who have successfully implemented large-scale wastewater programs similar to the City's WRF program. Our approach will be flexible and nimble and will **capitalize on the insights gained in the WWCS Program to enhance and facilitate the execution of the WRF program.**

Established Processes

Our team regularly works with the City's on-call contractors and processes work authorizations, estimate requests, and estimate approvals for the WWCS Program. The same processes and relationships will be immediately ready to facilitate projects for this Program. The Ardurra team will work with City staff to quickly develop Point Repair Contract Bid Documents and to complete the condition assessments so that the required work can be quickly identified, prioritized and executed.

We have already developed and are currently using effective programmatic tools for the City's WWCS Program, including the Project Dashboard shown below. We will leverage these same tools for the City's WRF Program.

FIELD TO DESKTOP TECHNOLOGY

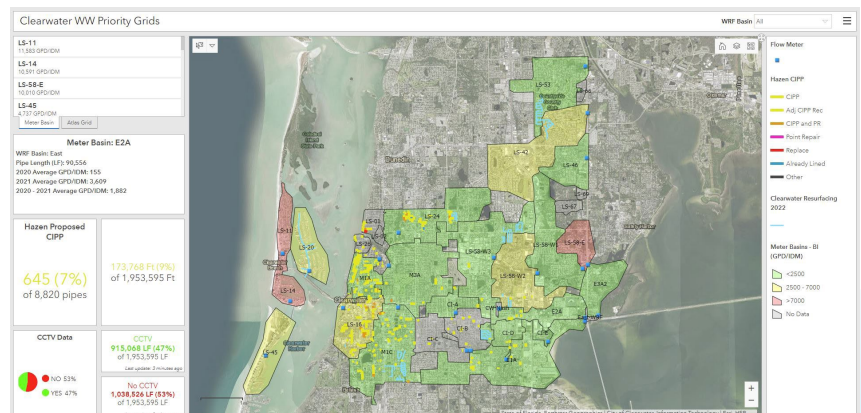


Ardurra uses Survey 123 to automatically transmit field data to desktop applications.

PROJECT DASHBOARDS

Project Dashboards: Developed and Ready for Close Coordination with the City

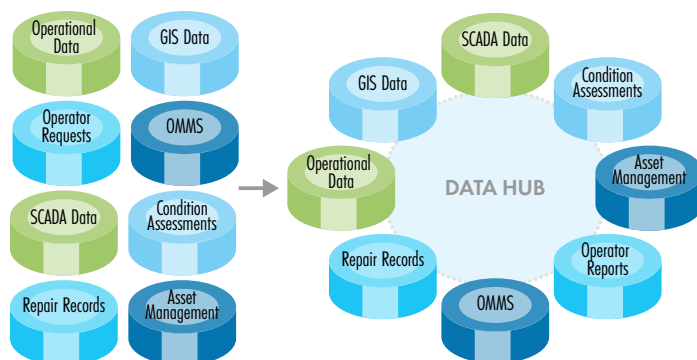
We realize the importance of being able to monitor the progress and success of the work being completed under the Program and the City's need to report that progress to the City's upper management and Council and to the public. As part of the Program's tools and web-based dashboard, we will develop a standard progress report that will list each project, its implementation schedule and budgeted cost. The progress report will be seamlessly merged with the already developed Wastewater Collection System Program portal, allowing the City to compare the planned budget and schedule with the actual expenditures and progress for all the City's projects under one system rather than multiple systems. This also helps with scheduling contractors and the City's resources. In addition, it leverages existing tools for adding information, which ultimately benefits both programs.



As part of its existing efforts on the larger WWCS Program, our Team has developed a Power BI dashboard (GIS, CMMS, CCTV, etc.) to summarize and develop geocoding mapping to develop correlations that will improve program focus and prioritization.

Supplemental Data Collection and Management

Our Team will ensure that data collection and field investigations are efficient and properly focused. Reviews of maintenance records and interviews of superintendents and operators will provide even more understanding of past and ongoing problems at the facilities.



Point Repair Contractor Procurement

Development of point repair contract documents is completely independent of other tasks and can begin immediately upon Notice to Proceed. We have a jump start on this effort, having developed point repair contracts for the City's Water, Reclaimed Water, and Wastewater Collection System Programs. We are completely familiar with the City's procurement processes. The point repair contractor procurement process will include:

Selection of Contractor Bidding Method

Selection of a high-quality contractor is key to a successful program. We have identified three potential options (below) for contractor bidding. The options can be further reviewed with the City to finalize a preferred method.

Option 1 - Detailed Bid List

Creating an extensive and fully inclusive bid list of possible repairs is a flexible strategy to price the work and begin as soon as possible. However, this process, while sufficient for straightforward point repairs, may be too cumbersome for the variety of work expected under this program since the key tasks vary significantly across the entire treatment process. This option would necessitate the development of an extensive bid list with detailed specifications for every possible item, and an associated measurement and payment section to specifically define the work included in each bid item.

Option 2 - Time and Material Contract

This strategy avoids extensive bid lists and allows for work to proceed as repairs are identified and recommended. Under the current point repair contracts, miscellaneous items not included in the bid form are paid for based on material price, labor hours, plus a 10% markup. This option would still have detailed labor and equipment hourly rates, with anticipated general piping and restoration bid items and as well as a 10% markup on required specialty equipment.

PROCUREMENT PACKAGE EXPERTISE



CHA's City of Clearwater procurement package experience includes:

- ✓ Annual Water and Reclaimed Water Repair and Improvements
- ✓ 2023 Sewer Point Repair and Improvements
- ✓ Concrete/Asphalt
- ✓ Sole Source Pressure Pipe Assessment
- ✓ Acoustic Leak Detection
- ✓ Trenchless Pipeline Installation
- ✓ Piggyback Contracting

Option 3 - Specific Work Order Packages

This option allows the design team to identify repairs and prepare bidding documents specific to a subset of proposed work or repairs for advertisement, and to select a contractor in a traditional low-bid selection. This option requires planning for preparation of documents (2-3 months) and subsequent bidding/contracting (3-6 months). While requiring more time, this option allows for specific bid documents for the proposed work.

Based on our previous experience, we view Options 2 and 3 as the most feasible. Option 1 requires a significant effort to develop a bid list, recognizing that the current point repair documents have 300+ items. However, a hybrid of Options 1 and 2 is possible, combining unit prices for standard work items and allowing for T&M pricing for more unique portions of the work. For more complex work, Option 3 allows for refinement of the scope of work definition for the contractor in a more traditional design-bid-build procurement.

Supplemental Technical Specifications

Technical specifications are critical to the successful completion of work or repairs. We are very familiar with the City's bid document format including its General Conditions and standard technical specifications. We will review the existing standard technical specifications and prepare necessary supplemental technical specifications for any product or repair work proposed. The supplemental technical specifications will clearly detail the proposed work, define product specification requirements, installation requirements etc.

Coordination with City Procurement

We know the City's procurement processes very well and the City's procurement team has advertised contracts similar to the proposed options. As such, we will facilitate the fast tracking of bidding documents based upon the selected method and will support any activities during bidding, questions, and selection of the contractor.

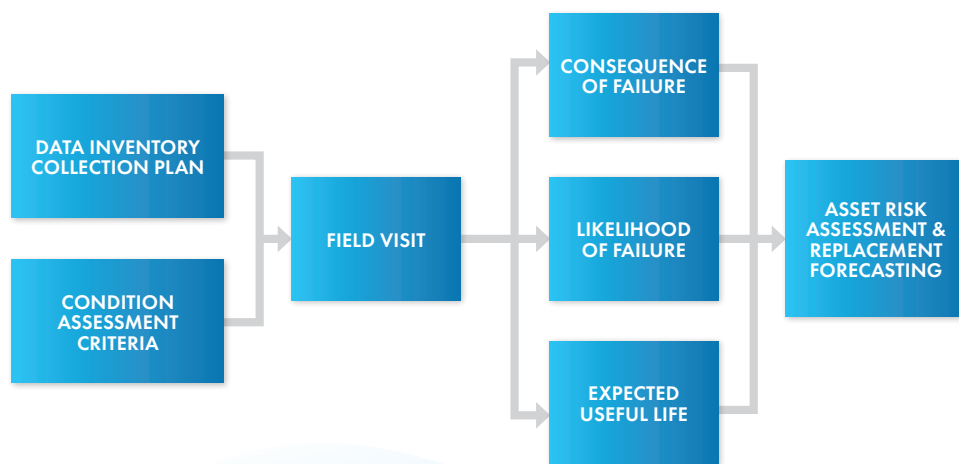
Condition Assessment, Criticality, and Risk Analysis

The Ardurra team will conduct a strategic planning workshop with key City management and staff to define the framework for condition assessments and asset management. It's our understanding that condition assessments have already been completed for the Northeast WRF and for the occupied buildings at the East and Marshall Street WRFs. It's also our understanding that, when completed, the WRF Master Plan will define projects at the Northeast WRF. Therefore we anticipate that the majority of the condition assessment effort will occur at the Marshall Street and East WRFs.

Physical Condition Assessment

Before individual project improvements can be developed and prioritized, a baseline examination of the existing facility assets must be established. Commonly referred to as a 'physical condition assessment', or simply 'condition assessment', this effort provides information related to the general level of asset deterioration that naturally occurs during (and sometimes beyond) the service life of plant equipment and facilities. The assessment effort assigns physical condition scores to each asset, for subsequent use as one component in developing overall risk scores for plant assets, asset groups, or whole systems. Steps include:

- **Development of a Health and Safety Plan** for the site visits including a Pre-Planning Checklist, a Hazard Analysis, PPE Requirements and an Emergency Action Plan
- **Development of a Data Inventory Collection Plan** including:
 - Asset hierarchy and asset registry
 - Break assets into civil, structural, mechanical, electrical and instrumentation
 - Asset data to be verified
 - Defining condition and performance scoring criteria
 - Field and office quality control plans
 - A condition assessment guide (what to do in the field)
- **Conducting field visits** and collecting data using the Survey123 mobile app.
- **Scoring each asset** based on physical condition and performance (reliability, operability, capacity, and parts availability/obsolescence)
- **Performing a Risk Analysis**



Data Collection Plan

The Ardurra team will use the information obtained in a condition assessment workshop to develop a Data Collection Plan, which will define the specific data to be collected, establish procedures for how to assess condition, and develop asset groupings and hierarchy. Depending on the situation, asset grouping may be made based on asset type (civil, mechanical, structural, electrical, or instrumentation) or plant process (preliminary treatment, secondary treatment, disinfection, effluent storage and pumping, solids handling, etc.). Once the plan has been approved, it will be documented in a Technical Memorandum for reference throughout the process.

PROJECT TRACKING SHEET

A Project Tracking Sheet will be established as soon as a project is identified and selected. As the project is developed and implemented this tracking sheet is the primary management tool to see through planning, engineering, procurement, construction and commissioning. This sheet will be updated monthly and will include:



- ✓ Project needs, purpose and priority
- ✓ Quantitative project definition
- ✓ Budget cost and schedule
- ✓ Delivery and procurement process
- ✓ Permitting and utility coordination
- ✓ Risks and issues for resolution
- ✓ Stakeholders
- ✓ Project status

PROJECT SCORING SHEET EXAMPLE

PROJECT SCORING SHEET

PROJECT NUMBER: 8

PROJECT NAME: WAS Pump Station Discharge Piping Replacement

	Scoring Criteria	Scoring Guidelines	Score	Weight	Weighted Score
1	Risk Score	From Risk Analysis	16	40%	6.4
2	Impacts to Treatment	5= High Impact 1=Low Impact	1	30%	0.3
3	Disruption to Operations	5= Not Disruptive 1= Disruptive	2	15%	0.3
4	Ease of Construction	5= Easy 1= Difficult	4	10%	0.4
5	Long Lead Time Materials	5= Long Lead Time 1= Short Lead Time	1	5%	0.05
TOTAL SCORE					7.45

Design Solutions and Alternative Approaches

Parallel to completing the condition assessments, the Ardurra team will complete other evaluations of each WRF so that once the condition assessments are completed, required projects can be determined in a holistic manner. We will evaluate:

- Flow and loading information, including Discharge Monitoring Reports (DMRs) and Capacity Analysis Reports (CARs)
- Permits and Operation & Maintenance Performance Reports (OMPRs).
- O&M Manuals and Operating Protocols.
- Facility hydraulic profiles and hydraulics between unit processes.
- Electrical loads and system capacities.
- SCADA system architecture.

Findings and Interim Projects

Findings from discussions with WRF operators and the condition assessments will be used to define work that needs to be done and interim projects that will maintain proper operations until the Marshall Street and East WRFs are decommissioned and the Northeast WRF is expanded.

Work will be divided between routine maintenance and projects that need an engineered design.

We also anticipate that the City may have 'emergency' projects that need to be designed and implemented immediately, separate from the condition assessment and alternatives evaluation process.

Alternative Solutions

It's anticipated that replacing or rehabilitating existing systems may not always be the best solution. Where possible, several alternatives for achieving the goals of the required improvements will be developed, along with capital and operating cost estimates. Pros and cons of each alternative will be presented to the City at a workshop and then a list of the projects, and how they will be accomplished, will be developed.

The Ardurra team will work with the City to establish scoring criteria and weighting factors that will be used to score and rank each project (see example scoring sheet above) and develop a prioritized list of projects.

Master Project Schedule

We will then create a Master Project Schedule, showing the anticipated design and construction period for each project. The schedule will guide how work on the Program progresses and will assist the City with defining cash flow requirements. To avoid regulatory delays, the schedule will need to take into account permitting requirements, if any, for the projects.

Project Implementation

The above describes our Work Plan for the first three tasks described in the City's RFQ. Once the work to be done is defined, implementation of the projects will begin in accordance with the Master Project Schedule. Our Team will develop Work Orders and proposed fees for project design, permitting and CEI services for review by the City. Once the Work Order is approved, we will begin supplemental data collection, preliminary field investigations, and the development of a conceptual design, which will be an iterative process conducted with the City's input.

Maintenance Work

As described above, we anticipate that a portion of the identified required work will be routine maintenance not requiring design documents. This work will be completed by a combination of City staff and hired service companies (i.e., plumbers, painters) or, if necessary, using the Point Repair Contractor.

Our Team will have a dedicated local Maintenance Planning & Coordinator, Tim Ware, PE, who is also a Class B Florida Licensed Wastewater Operator. Tim will create a Maintenance Log, assist with scheduling and coordinating maintenance projects, and oversee engineering assistance for the maintenance work.

Tim is the former Lead Operator at the City of Tampa's Howard F. Curren WWTP and is highly skilled with managing maintenance and maintenance staff in an operating WRF.

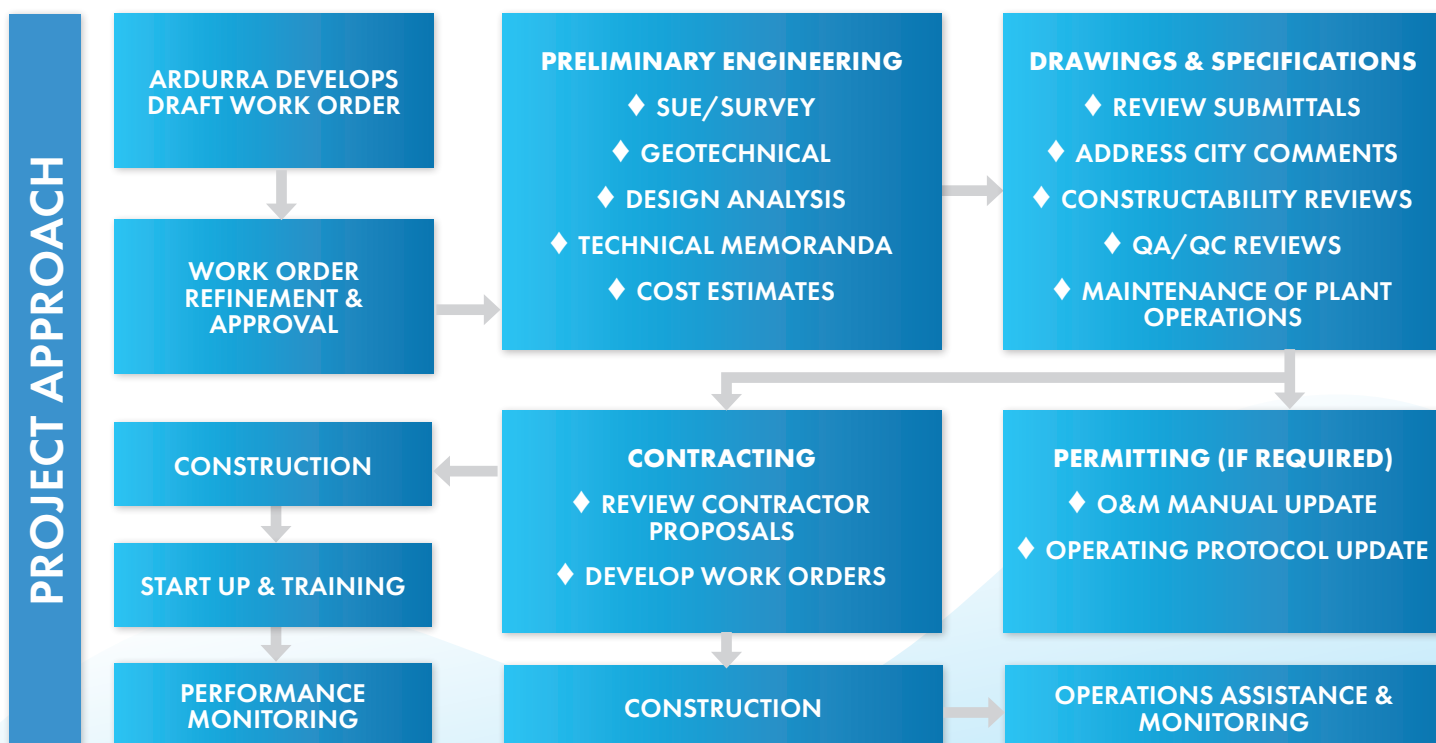
Design Work

Our Team has dedicated Ardurra and Hazen design teams to ensure that adequate resources with the necessary treatment facility design experience are available to design and permit (if necessary) projects and to provide engineering services during construction. Once assigned, a typical design project will follow the process shown below. At the start of design, Ardurra's in-house SUE crews will use ground penetrating radar, electronic detection and vacuum excavation methods to confirm yard piping and other buried facilities in the work area. If necessary, our survey crews will also obtain topographic surveys of the work area. Driggers Engineering will also conduct geotechnical testing when required.

Throughout the design process, we will consult with the Point Repair Contractor to obtain constructability and other cost-saving advice, similar to the approach taken under CMAR contracts. In this way, questions and changes during construction will be minimized.

Permitting

With the design approach known, revisions to Operation & Maintenance Manuals and Operating Protocols can be completed. Our Team proposes to evaluate permitting requirements as soon as the required projects are known and then submitting an application to modify the facility's FDEP Domestic Wastewater Permit including all of the proposed projects, using the documents developed for the Alternatives Analysis and revised Operating Protocols. This will eliminate the need to permit each project individually and will avoid permitting delays during the design process.

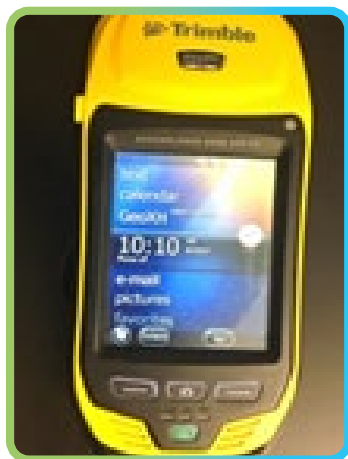


Construction Engineering and Inspection (CEI)

The Ardurra team's standard approach is to utilize the same design team individuals for construction administration services to maintain continuity on the project and ensure that the intent of the design is always understood. These individuals will be supported by experienced construction managers, degreed construction coordinators and trained field representatives to provide in-office construction management and field construction observation services as required to ensure the successful completion, startup and certification of each project.

Documenting Construction Projects

We've worked with the City enough to know that documenting construction projects is one of your top priorities. For each project, we will develop and maintain an electronic Project Catalog containing correspondence, as-builts, record drawings, meeting sign-in sheets and minutes, contract documents, change orders, field orders, RFIs, work change directives, shop drawings, regulatory correspondence, O&M manuals and warranties and other relevant information.



Our inspectors will also use hand-held GPS and data collection units to continually enter project progress into our GIS tracking software and to assist with confirming the contractor's As-Built data for accurate Record Drawing development.

Commissioning and Operating Assistance

Our services on a project will not end when the contractor says it's finished. We will develop detailed Startup and Testing Plans and attend and moderate startups and operator training, and our licensed operators and engineers will assist with trouble shooting and fine tuning system performance. After as system is commissioned we will work with the City to monitor its performance and confirm that the design intent is being met.



Key proposed design team staff Sharmeela Khemlani, PE and Ben Turnage, PE confirming PLC programming at Startup

Schedule for Initial Projects

Our anticipated schedule for the start of the Program and the three initial tasks is provided on the following page and is based on our experience with City processes. As shown, we will begin adapting our program tools already established under the WWCS Program upon contract execution so that they will be ready for a kickoff workshop to be conducted immediately after we receive Notice to Proceed.

Data Collection, Work Order Development, Point Repairs

Following the kickoff workshop, we will immediately dive into data collection and processing and development of a Work Order for producing bid documents for the Point Repair Contract. Development of those bid documents is anticipated to only take three months given our resources and files already available from development of the City's other Point Repair Contracts. The documents will then be turned over to the City's Procurement staff for advertising and receipt of bids. We will answer contractors' questions during the bidding process, assist the City with review of the bids and then pro-vide the City with a Recommendation of Award so that the contracts can be prepared and brought to the City Council for approval. The overall process from start to award of the contracts is anticipated to take 7 months, but this time could vary depending on how long the City's procurement process takes.

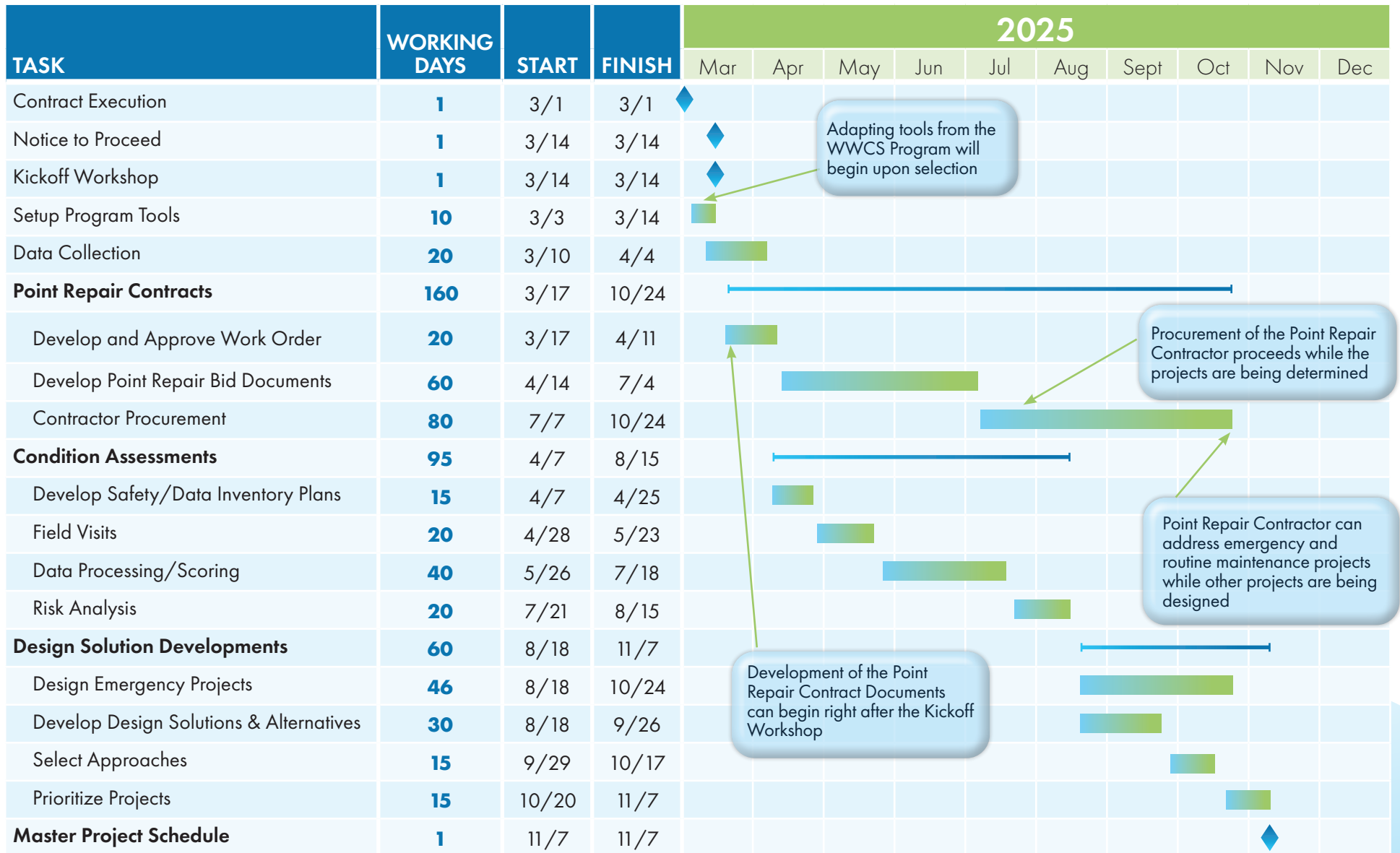
Condition Assessment, Identify and Prioritize Projects, Master Project Schedule

The condition assessment work will begin toward the end of data collection and is anticipated to take roughly four months to complete after which design solutions and alternatives will be developed, selected and then prioritized. During that time, any emergency projects required by the City or discovered necessary by the condition assessment team can be designed and ready for the Point Repair Contractor to implement once they are on-board.

The final result will be the Master Project Schedule, which will then serve as the roadmap for completion of the WRF improvements. All in all, the schedule shows roughly eight months from Notice to Proceed to completion of the first three tasks.

This schedule is preliminary in nature based on our understanding of how the City would like to execute the Program. Upon selection, we will immediately begin discussions with the City to further refine our approach with the goal of saving the City time and money.

The Ardurra team's experience working on the WWCS Program combined with our current and previous experience working with City engineering and operations staff in the City's three WRFs allows us to gain efficiencies in the program delivery schedule.



QUALITY MANAGEMENT APPROACH





QUALITY MANAGEMENT PLAN

One of the most important aspects of Ardurra's management approach is our Project Quality Assurance/

Quality Control (QA/QC) Plan.

Ardurra has a corporate QA/QC Plan that is implemented on all projects. Unlike our competitors, this plan not only involves reviews at various project design milestones, it also includes review of construction documentation. After all, a thorough design's real value lies in its proper implementation, and documenting that proper implementation is useful when it comes to addressing post-construction questions. We commit that all program management and design deliverables, and other important project correspondence, from planning through design and construction, will not be transmitted to the City prior to review by our designated QA/QC officers Chris Kuzler, PE, Jim Kizer, PE and Andre Dieffenthaler, PE.

Because this is a Program Management contract, the QA/QC Plan will include similar reviews for planning and tracking documents. All of the tools described in this proposal will also be subject to our typical QA/QC reviews to check for accuracy and thoroughness. Since many of these tools will be living documents (i.e., progress reports), reviews will take place continually as the tools are updated.

Ardurra subscribes to a strong project management approach with all lines of communication running through the Program Manager, thus making one person answerable to the City at all times. To this end, our Program Manager will be your key point of contact and the person responsible for ensuring that our QA/QC Plan is strictly enforced.

Further, Ardurra's QA/QC policy requires each subconsultant conform to our quality control requirements. We will also review our subconsultants' work and deliverables as if it were our own. Key aspects of our QA/QC Plan for design and implementation of Capital Improvement Plan (CIP) Tasks will include:

1. A **conceptual review** to take advantage of our senior staff's vast expertise, our national experience, and our team's knowledge of the City, to identify the best way to accomplish project goals.
2. A **preliminary review** checking schedules, budgets, calculations, inter-discipline coordination, and regulatory compliance.
3. In addition to reviews by QA/QC officers, **reviews of data, calculations, specifications, and drawings will be performed throughout the project design and prior to milestone submittals by our Technical Advisors** to ensure that the approach to the project and design assumptions are reasonable.
4. A **permitting review** will be performed to ensure that applicable regulatory requirements and permit conditions are addressed.
5. A **constructability review** will be provided by an individual familiar with the construction aspects of similar projects to avoid complications during construction.

Every project is required to have a QC Plan and execution and adherence is strictly enforced

QUALITY CONTROL APPROACH

Develop QC Plan



- Establish QC reviewers
- Identify QC review milestones
- Set review schedule & budget



Perform QC Reviews



- Receive and document comments



Update Documents to Incorporate Comments



- Meet with QC reviewers to discuss/ resolve comments
- Inform QC reviewers how comments were addressed



Submit to Client



6. A **standards review** will be conducted by a Production Manager to confirm that the proper AutoCAD and City standards are being used in survey and drawing development.
7. **Draft and final copies of reports and permit application packages will be reviewed** by the Program Manager and the QA/QC Officer prior to submittal to the City or to agencies.
8. We will submit the respective deliverables to the City's Project Manager for distribution to City-wide stakeholders. The stakeholders then provide their review comments on the City's standard comment sheet, which is then returned by the City's Project Manager.
9. The design team, including subconsultants, will review how to address each comment and will enter the response into the comment sheet for return to the City.
10. Advancing the design to the next completion level begins by incorporating the City's comments.
11. **Final review** of the overall project and of all deliverables is provided by the Program Manager, Principal-In-Charge, and the Quality Control Officer.
12. **Proof of each stage of review** is evidenced in a project specific quality control checklist, which is dated and signed off by the Program Manager.

Given the nature of this program, our QA/QC Plan will extend beyond the typical design QA/QC procedures. On repair projects, our approach to issuing jobs to the Point Repair Contractor will include:

- A review of supporting documentation, and any other information developed to describe the required work, including a field visit to confirm accuracy of information and identify job specific requirements.
- A confirmation of funding codes, and review and approval of the contractor's Job Cost Estimates for accuracy and completeness, all of which will be documented in QA/QC checklists.

Once in construction, specific items to be reviewed for completeness and accuracy include submittal reviews, RFI responses, Test reports and Inspection Field Reports and As-Built Surveys. Our focus will be on documenting before and after conditions and that the work was completed in accordance with the Contract Documents with the goal of providing enough information to adequately address post-construction questions.

PROJECT SPOTLIGHT

17 years of working alongside Okaloosa County to assist them with their WWTF program is a prime example of how Ardurra worked in coordination and transparently with the County, consultants, contractors, and field inspectors to continuously improve the end product through quality control, and encouraging greater ownership resulting in minimal change orders and an extremely smooth and integrated design and construction process.

The Result - consistent contractor bids (within 2% of each other) for every project and low amount of change orders (less than 1%), well below industry average.



Proposed Deputy Program Manager, Jim Kizer, PE, has worked on this program since 2008, and served in key roles for this program, including Program Manager and Process Lead.



LITIGATION



6 LITIGATION

- A.** Ardurra does not have any convictions or fines incurred by the firm or any of its principals for violations of any state or federal law within the past three years. None of the firm's executives have current claims or have participated in litigation against the City of Clearwater while with another firm.
- B.** The following table identifies litigation brought against Ardurra within the last three years. Please note that none of the listed cases will affect the performance of services to be rendered.
- Bowen and Kron Enterprises Inc. and Vapor Industries, LLC vs. Ardurra Group, Inc. 2022 matter in Texas involving construction costs. Matter was closed.
 - Marissa Velasquez v. Hunter Industries, Ltd., Hogan Murray, Inc. d/b/a Murray Construction, Bryan J. Spina, LNV, LLC, and LNV, Inc. 2022 motor vehicle accident in Texas. Matter is ongoing. Ardurra denies any allegation of fault.
 - David Ierulli vs. Progressive Express Insurance, Sacyr Construction, SA Inc, Pevida Highway Designers, LLC, MSB Services, LLC and Core Engineering Group, LLC. 2022 motor vehicle accident in Florida. Matter is ongoing. Ardurra denies any allegation of fault.
 - City of San Diego vs. The 5125 Company, 2GS, LLC d/b/a Earthworks Enterprise, Ardurra Group, Inc. d/b/a LNV and f/k/a LNV, LLC and f/ka/ LV, Inc., and Robert Viera, P.E. 2022 matter brought by municipality in Texas regarding construction of a drainage improvement project. Matter is ongoing. Ardurra denies any allegation of fault.
 - Christopher Hernandez v. City of Doral, A.U.M. Construction, Inc., & 300 Engineering Group, P.A. 2023 motor vehicle accident in Florida. Matter is ongoing. Ardurra denies any allegation of fault.
 - AFR LLC v. Atlantic Subsea, Inc. & Sea Gate Association and Atlantic Subsea, Inc. vs. CG 3PL Engineering Design Professional Corporation and Rogers Surveying, PLLC. 2024 matter arising from construction of bulkhead in New York. Matter is ongoing. Ardurra denies any allegation of fault.
 - Isvany Ponce vs. City of Doral, A.U.M Construction & 300 Engineering Group, P.A. 2024 motor vehicle accident in FL. Matter is ongoing. Ardurra denies any allegation of fault.
- C.** Ardurra does not have any administrative proceedings involving a construction project or contract, whether currently pending or concluded, within the past three years, in which Ardurra was a named party.
- D.** Ardurra does not have any arbitrations involving a construction project or contract, whether pending or concluded, in the past three years, in which Ardurra was named.



OTHER FORMS



SCRUTINIZED COMPANIES FORMS

SCRUTINIZED COMPANIES AND BUSINESS OPERATIONS WITH CUBA AND SYRIA CERTIFICATION FORM

IF YOUR BID/PROPOSAL IS \$1,000,000 OR MORE, THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID/PROPOSAL. FAILURE TO SUBMIT THIS FORM AS REQUIRED MAY DEEM YOUR SUBMITTAL NONRESPONSIVE.

The affiant, by virtue of the signature below, certifies that:

1. The vendor, company, individual, principal, subsidiary, affiliate, or owner is aware of the requirements of section 287.135, Florida Statutes, regarding companies on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaging in business operations in Cuba and Syria; and
2. The vendor, company, individual, principal, subsidiary, affiliate, or owner is eligible to participate in this solicitation and is not listed on either the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Sector List, or engaged in business operations in Cuba and Syria; and
3. Business Operations means, for purposes specifically related to Cuba or Syria, engaging in commerce in any form in Cuba or Syria, including, but not limited to, acquiring, developing, maintaining, owning, selling, possessing, leasing or operating equipment, facilities, personnel, products, services, personal property, real property, military equipment, or any other apparatus of business or commerce; and
4. If awarded the Contract (or Agreement), the vendor, company, individual, principal, subsidiary, affiliate, or owner will immediately notify the City of Clearwater in writing, no later than five (5) calendar days after any of its principals are placed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Sector List, or engaged in business operations in Cuba and Syria.

Authorized Signature

Christopher Kuzler, PE

Printed Name

Managing Principal, Director

Title

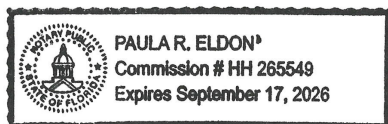
Ardurra Group, Inc.

Name of Entity/Corporation

STATE OF Florida

COUNTY OF Hillsborough

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on, this 14th day of December, 2021, by Christopher F. Kuzler (name of person whose signature is being notarized) as the SE Operations Director (title) of Ardurra Group, Inc. (name of corporation/entity), personally known ☒, or produced N/A (type of identification) as identification, and who did/did not take an oath.



Notary Public

Printed Name

My Commission Expires: 9-17-26
NOTARY SEAL ABOVE

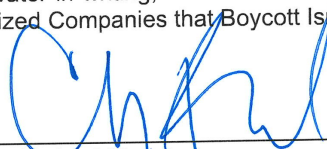
SCRUTINIZED COMPANIES FORMS

SCRUTINIZED COMPANIES THAT BOYCOTT ISRAEL LIST CERTIFICATION FORM

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID/PROPOSAL.
FAILURE TO SUBMIT THIS FORM AS REQUIRED MAY DEEM YOUR SUBMITTAL
NONRESPONSIVE.**

The affiant, by virtue of the signature below, certifies that:

1. The vendor, company, individual, principal, subsidiary, affiliate, or owner is aware of the requirements of section 287.135, Florida Statutes, regarding companies on the Scrutinized Companies that Boycott Israel List, or engaged in a boycott of Israel; and
2. The vendor, company, individual, principal, subsidiary, affiliate, or owner is eligible to participate in this solicitation and is not listed on the Scrutinized Companies that Boycott Israel List, or engaged in a boycott of Israel; and
3. "Boycott Israel" or "boycott of Israel" means refusing to deal, terminating business activities, or taking other actions to limit commercial relations with Israel, or persons or entities doing business in Israel or in Israeli-controlled territories, in a discriminatory manner. A statement by a company that it is participating in a boycott of Israel, or that it has initiated a boycott in response to a request for a boycott of Israel or in compliance with, or in furtherance of, calls for a boycott of Israel, may be considered as evidence that a company is participating in a boycott of Israel; and
4. If awarded the Contract (or Agreement), the vendor, company, individual, principal, subsidiary, affiliate, or owner will immediately notify the City of Clearwater in writing, no later than five (5) calendar days after any of its principals are placed on the Scrutinized Companies that Boycott Israel List, or engaged in a boycott of Israel.



 Authorized Signature
 Christopher Kuzler, PE

 Printed Name
 Managing Principal, Director

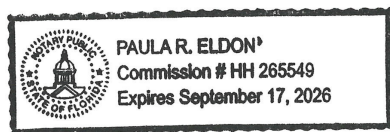
 Title
 Ardurra Group, Inc.

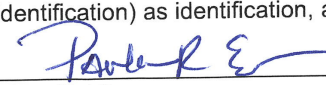
 Name of Entity/Corporation

STATE OF Florida

COUNTY OF Hillsborough

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on, this 19th day of December, 2024, by Christopher E. Kuzler (name of person whose signature is being notarized) as the SE Operations Director (title) of Ardurra Group, Inc. (name of corporation/entity), personally known ✓, or produced N/A (type of identification) as identification, and who did/did not take an oath.





 Notary Public
Paula R. Eldon

 Printed Name

My Commission Expires: 9-17-26
 NOTARY SEAL ABOVE

Truth-In-Negotiation Form

TRUTH-IN-NEGOTIATION CERTIFICATE

In compliance with the Consultants' Competitive Negotiation Act, Section 287.055,
Florida Statutes, and The Truth in Negotiations Act (TINA),

Ardurra Group, Inc. hereby certifies
Contractor

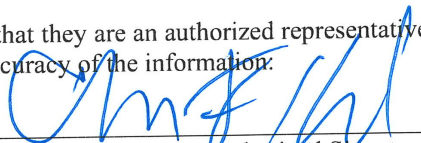
that wage rates, fringe rates and other factual unit costs supporting the compensation

for the professional services of Ardurra Group, Inc.

to be provided under this Agreement, concerning WRF Maintenance and Repair Program

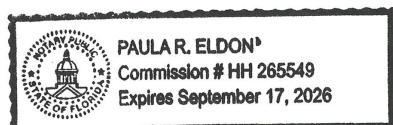
are accurate, complete and current as of the time of contracting.

The hereby undersigned representative submits this certification that they are an authorized representative of the proposer who may legally bind the proposer attest to the accuracy of the information:


 Authorized Signature
 Christopher Kuzler, PE
 Printed Name
 Managing Principal, Director
 Title
 Ardurra Group, Inc.
 Name of Entity/Corporation

STATE OF Florida
 COUNTY OF Hillsborough

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on, this 19th day of December, 2024, by Christopher F. Kuzler (name of person whose signature is being notarized) as the SE Operations Director (title) of Ardurra Group, Inc. (name of corporation/entity), personally known ✓, or produced N/A (type of identification) as identification, and who did/did not take an oath.



My Commission Expires: 9-17-26
 NOTARY SEAL ABOVE


 Notary Public
Paula R Eldon
 Printed Name

Compliance with Anti-Human Trafficking Laws

Pursuant to Section 787.06 (13), Florida Statutes, this form must be completed by an officer or representative of a non-governmental entity when a contract is executed, renewed, or extended between the non-governmental entity and the City of Clearwater.

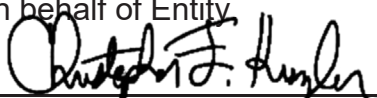
The undersigned, on behalf of the entity listed below ("Entity"), hereby attests under penalty of perjury that:

Entity does not use coercion for labor or services as defined in Section 787.06, Florida Statutes.

The undersigned is authorized to execute this form on behalf of Entity

Date: Dec 19, 20 24

Entity: Ardurra Group, Inc.

Signed: 

Name: Christopher Kuzler, PE

Title: Managing Principal, Director


[HOME](#) [CONTACT US](#) [MY ACCOUNT](#)

ONLINE SERVICES

LICENSEE DETAILS

2:22:36 PM 12/20/2024

Apply for a License

Verify a Licensee

[View Food & Lodging Inspections](#)[File a Complaint](#)[Continuing Education Course Search](#)[View Application Status](#)[Find Exam Information](#)[Unlicensed Activity Search](#)[AB&T Delinquent Invoice & Activity List Search](#)

Licensee Information

Name: ARDURRA GROUP, INC. (Primary Name)
 Main Address: 4921 MEMORIAL HIGHWAY
 SUITE 300
 TAMPA Florida 33634
 County: HILLSBOROUGH

License Information

License Type: Engineering Business Registry
 Rank: Registry
 License Number: 2610
 Status: Current
 Licensure Date: 01/20/1978
 Expires:

Special Qualifications

Qualification Effective

Alternate Names

[View Related License Information](#)[View License Complaint](#)

State of Florida

Board of Professional Engineers

Ardurra Group Inc.

Has satisfied the requirements of Section 471.023, Florida Statutes. In recognition thereof, the Board of Professional Engineers hereby authorizes this firm to offer engineering services in the State of Florida in accordance with Chapter 471, Florida Statutes, and the rules of the Board.



CA Lic. No. 2610

*Witness the Seal of the Board and the Signature
 of the Board's duly authorized Chair
 this 20th day of January, 1978.*

Kenneth S. Todd, Jr.
 Kenneth S. Todd, Jr., Chair



State of Florida

Department of State

I certify from the records of this office that ARDURRA GROUP, INC. is a corporation organized under the laws of the State of Florida, filed on December 19, 1977.

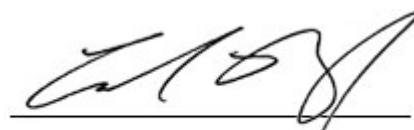
The document number of this corporation is 555540.

I further certify that said corporation has paid all fees due this office through December 31, 2024, that its most recent annual report/uniform business report was filed on January 22, 2024, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Twenty-second day of January,
2024*




Secretary of State

Tracking Number: 4016529779CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

Request for Taxpayer Identification Number and Certification

Go to www.irs.gov/FormW9 for instructions and the latest information.

Give form to the
requester. Do not
send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See Specific Instructions on page 3.	1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)	
	Ardurra Group, Inc.	
	2 Business name/disregarded entity name, if different from above.	
	3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only one of the following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
	☐ Individual/sole proprietor ☒ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate ☐ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) _____ Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner. ☐ Other (see instructions) _____	Exempt payee code (if any) _____ Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any) _____ (Applies to accounts maintained outside the United States.)
3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions ☐		
5 Address (number, street, and apt. or suite no.). See instructions.		
1000 N.W. 57th Court, Suite 800		
6 City, state, and ZIP code		
Miami, Florida 33126		
7 List account number(s) here (optional)		
Requester's name and address (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number												
				-				-				
or												
Employer identification number												
5	9	-	1	7	8	2	9	0	0			

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here

Signature of
U.S. person

Date 05/14/2024

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

