RiverRenew is a program owned and implemented by Alexandria Renew Enterprises, with support from the City of Alexandria.

1800 Limerick Street | Alexandria, VA 22314
Today’s Speakers

Liliana Maldonado
AlexRenew Deputy General Manager

Caitlin Feehan
RiverRenew Program Manager

Jim Ohnigian
RiverRenew Construction Oversight Manager
Presentation Outline

• Introduction to Alexandria Renew Enterprises
• Projects Associated with Wastewater Services RE&I
  • Process Air Compressor Blower Upgrades Project
  • Building J Facilities Relocation and Decommissioning Project (RiverRenew)
  • 108 to 116 MGD Expansion Project (RiverRenew)
  • Other Potential Work
• Wastewater Services RE&I RFP-19-031
  • Team Organization
  • Scope of Services
  • Proposal Contents
  • Evaluation Factors and Schedule
• Next Steps
• Questions and Answers
Introduction to Alexandria Renew Enterprises
Liliana Maldonado
Who We Are and Who We Serve

- Special-purpose entity
- Created in 1952 by Alexandria City Council
- Led by a 5 member citizen board
- Treats an average of 35 MGD of wastewater daily to near drinking water standards
- Serves more than 300,000 customers in Alexandria and Fairfax County
- Located in Alexandria’s southwest quadrant
2040 AlexRenew Vision

By 2040, we have effectively partnered with all watershed stakeholders to:

• Enable local citizens to **embrace the best use of water resources and establish a personal connection with local waterways.**

• Sustainably manage water as a single resource through the entire water cycle.

• **Create a healthy environment and improve our quality of life** through the exceptional reclamation of used water resources.

• Maximize use of multiple financial options to continue our fiscal stability.
**AlexRenew’s Strategic Outcomes**

**Operational Excellence**
Continually enhance water resource and recovery procedures to provide cleaner water more efficiently.

**Public Engagement and Trust**
Engage our community to help them to become informed consumers and supporters of clean water.

**Watershed Stewardship**
Work collaboratively with the people we serve and other organizations in our watershed to manage and improve water resources for future generations.

**Adaptive Culture**
Establish an organization-wide enthusiasm for learning, adapting, and problem solving to achieve clean water.

**Effective Financial Stewardship**
Maintain a financially resilient organization that contributes to the long-term economic health of our local communities.
Projects Associated with Wastewater Services RE&I
Caitlin Feehan
# Projects Associated with Wastewater Services RE&I

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>Schedule</th>
<th>Estimated Construction Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Air Compressor Blower Upgrades</td>
<td>Replacing existing Biological Reactor Basin (BRB) blowers with High Speed Turbos</td>
<td>June 2019 – December 2020</td>
<td>$15M</td>
</tr>
<tr>
<td>Building J Facilities Relocation and Decommissioning (RiverRenew)</td>
<td>Relocation of building uses and building demolition</td>
<td>July 2019 – March 2021</td>
<td>$28M</td>
</tr>
<tr>
<td>108 to 116 MGD Expansion (RiverRenew)</td>
<td>Upgrades to the peak raw influent capacity of the WRRF</td>
<td>August 2019 – September 2020</td>
<td>$3M</td>
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### Other Possible Projects
- Wet Weather Treatment (RiverRenew)
- Programmable Logic Controller Upgrades
- Fiber Optic Backbone Replacement
- Tertiary Treatment Improvements
- Preliminary Treatment Improvements
- Solids Handling Improvements
- Other projects as the needs arise
Process Air Compressor Blower Upgrades Project (PAC)
PAC Summary of Work

• Process Air Compressor (Blower) system provides air to the Biological Reactor Basins (BRBs) for aeration, and to the Secondary Settling Tanks for mixing

• Project involves replacing existing blowers with High Speed Turbos within a new enclosure located on the BRB tanks

• Associated work includes
  • Air piping/valve replacement
  • Diffuser replacement (BRB #2 only)
  • Crane pad
  • Switchgear
  • Fiber optic duct bank relocation for Building J
PAC Switchgear, Fiber-optic Duct Bank, and Crane Pad

**Switchgear**
- Pile supported switchgear pad and switchgear
- Conduit runs along BRB wall
- Transformers

**Fiber Optic Duct Bank Relocation**
- Relocation of existing duct bank (not anticipated to be on piles)

**Crane Pad**
- Crane pad for lifting blowers to top of BRBs
Building J Facilities Relocation and Decommissioning Project
Building J Requires Demolition for Construction Associated with the Tunnel System Project

- Built in 2000
- 2-story brick building with basement
- 42,000 square feet
- Connected to Building G-2
- Houses several critical WRRF functions:
  - Laboratory
  - Chiller plant
  - Main break/training room
- Functions need to be relocated prior to demolition
- Demolition to piles (piles left in place)
### Overview of Building J Facilities Relocation and Decommissioning Project

<table>
<thead>
<tr>
<th>Building J</th>
<th>Building G-1</th>
<th>Building G-2</th>
<th>Misc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Facilities relocation</td>
<td>• New training/break room on</td>
<td>• New permanent laboratory on</td>
<td>• Renovation of operator laboratories in Buildings L and 69</td>
</tr>
<tr>
<td>• Building demolition</td>
<td>1st Fl.</td>
<td>1st Fl.</td>
<td>• Installation of a new back up generator</td>
</tr>
<tr>
<td></td>
<td>• Relocated control room on</td>
<td>• Locker rooms on 1st Fl.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1st Fl.</td>
<td>• New egress stairs from Building G-2</td>
<td></td>
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<tr>
<td></td>
<td>• Upgrades to SCADA server room,</td>
<td>• Relocation of chiller plant to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>electrical room, and fire suppression</td>
<td>the basement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>on 2nd Fl.</td>
<td>• New egress room in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• New hallway or walkway connecting</td>
<td>basement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>spaces between G-1 and G-2</td>
<td>• Replacement of Building G-2 roof</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Renovation of existing restrooms</td>
<td>• Architectural repair of the north wall</td>
<td></td>
</tr>
</tbody>
</table>

![Building J Facilities Relocation and Decommissioning Project Diagram](image-url)
Room Upgrades in Building G-1

- New Server Room (440 sq ft)
- Fire Protection Room (50 sq ft)
- New Electrical Room (195 sq ft)
- Workstation Room (170 sq ft)

Building G-1, Second Floor
Layout of Laboratory and Locker Room in Building G-2

- Laboratory and Sample Receiving, 4,000 sq ft
- New Egress Stairwell
- Locker Rooms, 3,250 sq ft
- Laboratory Offices and Storage, 2,000 sq ft

Exit to New Walkway to G-1
Layout of Chiller Plant in Building G-2 Basement

- Consolidates all plant chillers in a single location
- Two new electric chillers and one new absorption chiller will be provided
- Total chiller capacity = 1,000 tons
Potential Laboratory Finishes in Building G-2

- Rubber Flooring
- Vinyl Tile Flooring
- Ceiling Tile
- Black Epoxy Counter
- Laminate Casework

Existing WRRF main laboratory in Building J
108 to 116 MGD Expansion Project Purpose

- Increase WRRF peak primary capacity from 108 to 116 mgd:
  - Remove the six (6) existing Primary Effluent Pump pull-out assemblies and replace with larger impellers
  - Firm Capacity increases from 120 mgd to 127 mgd (116 mgd plus internal recycles)
  - Provide an additional alternative route for the filter backwash wastewater during peak events

Existing Primary Effluent Pumps
108 to 116 MGD Expansion Summary of Work

Primary Effluent Pumps

- Re-used equipment: suction elbow, casing, motors, adjustable frequency drives
- Replacement of the pull-out assemblies (POAs)
  - New impeller
  - Shaft and sleeve
  - Bearings and housing
  - Seals and chamber
  - Coupling
- Misc. programming of SCADA and painting
- One casing for testing each POA in the factory

Filter Backwash

- Process Piping Modifications
  - Install 20-inch valve on the existing filter backwash waste
  - Install 12-inch branches off of the 20-inch with motorized valves
  - Connect 12-inch branches to riser boxes
- Connect actuators to power supply and existing Programmable Logic Controller
Team Organization

AlexRenew Deputy General Manager
Liliana Maldonado

Executive Assistant
Phillis Ruiz

Project Manager
Felicia Glapion

Project Manager
Dorian Hemming

RiverRenew Program Manager
Caitlin Feehan

Process Air Compressor Blower Upgrades

108-116 MGD Expansion (RiverRenew)
Building J Facilities Relocation and Decommissioning (RiverRenew)

Construction Management Oversight

Project Controls

Wastewater Services Resident Engineer

AlexRenew
Owner's Advisor
Wastewater RE&I
Tunnel RE&I (Future Contract)
Scope of Work
## Roles and Responsibilities

<table>
<thead>
<tr>
<th>AlexRenew</th>
<th>Owner's Advisor</th>
<th>Wastewater Services Resident Engineer</th>
</tr>
</thead>
</table>
| • Overall decision maker  
• Final determination of acceptance  
• Approve and execute change orders  
• Formally respond to claims  
• Coordination of permits/ work on existing WRRF facilities  
• Site security  
• Community engagement | • Community engagement  
• Primary interface with AlexRenew  
• Develop Program SOPs and plans  
• Provide Program-wide coordination  
• Provide master scheduling  
• Back-office support of the RE&I Team  
• Develop and provide training for CMIS platform  
• Provide CPM scheduling analysis  
• Provide cost estimating support  
• Dispute resolution | • Develop plans for RE&I Team  
• Manage day-to-day construction administration  
  ○ Safety, QC, regulatory oversight, management, reporting, documentation  
  ○ Project administration  
  ○ Resident Engineering  
  ○ Coordination between projects  
  ○ Startup, testing and commissioning  
  ○ Change Management: analysis, recommendation, negotiation support  
  ○ Claim Management: analysis and recommendation  
• Provide input to CM reports  
• Support with community engagement |
RE&I Scope of Work Summary

**TASK 1. PROJECT MANAGEMENT SERVICES**
- CMIS Administration, Monthly Progress Report, RE&I Invoicing, REI SOPs/Audits, Kickoff Meeting

**TASK 2. DESIGN PHASE SERVICES**
- 60% and 90% Design Workshops, Constructability/Biddability

**TASK 3. CONSTRUCTION PROCUREMENT PHASE SERVICES**
- Pre-Bid Conference, Bid Evaluation, Submittal Log, Permit Management

**TASK 4. CONSTRUCTION PHASE SERVICES**
- Quality Assurance of RE&I, Construction Administration, Resident Engineer – Inspection/Testing, Day to Day mgt./doc., EHS Oversight, Cost/Schedule Management, Startup/Testing/Training/Turnover

**TASK 5. CONSTRUCTION CLOSE-OUT PHASE TASK**
- Closeout Administration (manage final deliverables, punchlist, as-builds, records closeout/turnover, closeout)
Outline of Proposal Contents

Section A. Executed Cover Sheet
Section B. Table of Contents
Section C. Introductory Letter
Section D. Respondent’s Response to RFP
  • Project Team
  • Related Project Experience
  • Project Understanding and Approach
Section E. Resident Engineer Commitment Letter
Section F. RFP 19-031 Checklist
Section G. VA State Corporation Commission (SCC) Form
Section H. Resumes
# Project Team/Key Personnel and Qualifications

<table>
<thead>
<tr>
<th>Key Personnel</th>
<th>Resident Engineer</th>
<th>Safety Manager</th>
<th>Startup &amp; Commissioning Manager</th>
<th>Inspectors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Structural/Civil</td>
</tr>
<tr>
<td>Qualifications*</td>
<td>Three (3) wastewater treatment projects in the role of Resident Engineer, Construction Manager, or Resident Project Representative</td>
<td>Construction safety experience within active wastewater treatment facilities</td>
<td>Management of the testing, startup, and commissioning similar wastewater treatment facilities</td>
<td>Structural and site civil inspections experience in active wastewater treatment facilities</td>
</tr>
<tr>
<td>Minimum Experience (years)</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Certifications</td>
<td>PE or CCM</td>
<td>Certified Health and Safety Technician, or equivalent</td>
<td>- -</td>
<td>ACI Field Testing Technician, ICC S1 and S2, NACE Coatings Inspector Level I</td>
</tr>
</tbody>
</table>

*Experience on projects with similar scope and size

Where appropriate, Key Personnel may be combined into a single position or divided into additional positions to meet project needs.
## Related Project Experience

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Owner</th>
<th>Construction Dates</th>
<th>Key Personnel</th>
<th>Reference</th>
</tr>
</thead>
</table>
| 1.           | Identify project owner | MM/DD/YYYY – MM/DD/YYYY | Name  
Title/Role on Project Responsibilities |            |

- Projects within the last five (5) years
- Minimum of two (2) projects with significant involvement from proposed personnel
Understanding and Approach

- Tasks, duties, and staffing needs
- Specific experience of Key Personnel
- Staffing plan to meet increases and decreases in workload
- Technical and management approach:
  - Schedule
  - QA/QC
  - Safety
  - Plant operations
  - Construction staging coordination
  - Coordination between entities
  - Change/claim avoidance

Note: Highlighted sections on aerial are staging areas
## Technical Qualifications

<table>
<thead>
<tr>
<th>Construction Administration</th>
<th>Constructability and Biddability Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Safety Monitoring</td>
<td>Critical Path Method Scheduling</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>Cost Control</td>
</tr>
<tr>
<td>Independent Acceptance Inspection</td>
<td>Startup and Commissioning Coordination</td>
</tr>
<tr>
<td>Risk Management</td>
<td>Change/Claim Management</td>
</tr>
<tr>
<td>Document Management</td>
<td>Asset Management Data Collection</td>
</tr>
<tr>
<td>Spare Parts Turnover</td>
<td>Training and Warranty Support</td>
</tr>
</tbody>
</table>

### Types of Work:

- Wastewater influent pumping stations
- Fans, blowers, compressors, odor control
- Wastewater plant laboratories
- Active utility relocations
- Pre-fabricated metal buildings
- Demolition
- Interior construction
- Architectural finishes
- Process instrumentation and controls
- Low and high voltage electrical work
- Wastewater systems commissioning
Evaluation Factors and Schedule
## Evaluation Factors and Weighting

<table>
<thead>
<tr>
<th>Factor</th>
<th>Weighting (percentage)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Team</td>
<td>40</td>
<td>• Emphasis on the Resident Engineer’s qualifications and ability to effectively communicate</td>
</tr>
<tr>
<td>Related Project Experience</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Understanding and Approach</td>
<td>30</td>
<td>• Adaptability and flexibility to increase and decrease staffing levels to accommodate workload demands</td>
</tr>
</tbody>
</table>
Procurement Schedule

- **Feb 12, 2019**: Issue RFP
- **March 4, 2019**: Pre-Proposal Meeting
- **March 4, 2019**: Last day for Questions
- **March 19, 2019**: Proposals Due
- **May 2019**: Interviews
- **June 2019**: Selection
- **July 2019**: Notice to Proceed
Next Steps
Liliana Maldonado
Next Steps

**Process Air Compressor Blower Upgrades**
- March 2019. Procurement
- June 2019. Construction Notice to Proceed

**108-116 MGD Expansion**
- May 2019. Procurement
- August 2019. Construction Notice to Proceed

**Building J Facilities Relocation and Decommissioning**
- March 2019. Procurement
- July 2019. Construction Notice to Proceed

**Wastewater Services Resident Engineering & Inspection Contract**
- March 19, 2019. Proposals Due
- May 2019. Interviews
- July 2019. Notice to Proceed
Download the Pre-Proposal Meeting Presentation and Sign-in Sheet Here:

riverrenew.com/rei-presentation

Password: mallard
Questions and Answers

Liliana Maldonado
Thank You