

Utilities Department  
 6644 W. Price Blvd.  
 North Port, FL 34291

November 22, 2019

RE: Request for Letter of Interest  
 RLI 2020-02 AWIA Risk Assessment & Emergency Response Plan

To the City of North Port Utilities Department,

As Chief Executive Officer of TKW Consulting Engineers, LLC (TKW), I can attest the contents within this Letter of Interest are true and accurate. Our Project Manager for this assignment will be Doug Eckmann, PE. Doug is currently the Project Manager for the AWIA Risk and Resilience Assessment (RRA) we are performing for the Peace River Manasota Regional Water Supply Authority. Our Team has researched the requirements and is current on the process of certifying the completion of the Assessment following the guidance in AWWA J100-10 Risk Analysis and management for Critical Asset protection (RAMCAP) Standard. For the Authority, we are using the EPA developed vulnerability self-assessment tool VSAT Web Version 2.0 a web-based tool that streamlines the identification of assets, applicable risks, and threat likelihoods. This tool generates an approved report for certification to the EPA that the assessment has been performed as required by Section 2013 of America's Water Infrastructure Act of 2018 (AWIA). Having recently prepared the North Port Water Supply Facilities 10-Year Work Plan Update (April 2017), the TKW Team is already very familiar with North Port's community water system assets. For these reasons we believe that we can perform this assessment and the prepare the companion Emergency Response Plan (ERP) professionally and efficiently for the City of North Port.

Respectfully,  
 TKW Consulting Engineers, LLC



Trudi K. Williams, PE  
 Founder, Chief Executive Officer

**PROJECT PLAN AND REQUIRED DELIVERABLES**

TKW will prepare an AWIA RRA Report using the guidance of ANSI/AWWA J100 -10 using ASME RAMCAP methodology. This will be done in the following steps:

1. Review the 2007 Water Utility Vulnerability Assessment, and other relevant documents, conduct site visits and meetings with staff.
2. Characterize Critical Assets
  - a. Myakkahatchee Creek Surface WTP components including intake, and source protection
  - b. RO WTP components
  - c. MCWTP High Service Pumping Station
  - d. Southwest Booster Pumping Station
  - e. Northeast Booster Pumping Station
  - f. Hillsborough Booster pumping Station
  - g. Finished water storage tanks (five tanks combined 7.5 MG)
  - h. Water System interconnects (PRMRWSA, Sarasota County, Charlotte County) and transmission pipelines
  - i. SCADA computer systems and controls
  - j. Monitoring systems, laboratory resources
  - k. Operations and maintenance facilities, standby power, and chemical storage
3. Threat Characterization
4. Consequence analysis

5. Vulnerability analysis
6. Threat analysis
7. RRA
8. Options for risk/resilience management

TKW will identify Threat Categories including:

1. Terrorism and intentional attack
2. Vandalism and malevolent attack
3. Natural hazards, such as storms or unintentional pollution of source water
4. Cyber security and ransomware
5. Financial system security
6. Operational vulnerabilities, such as chemical spills and system malfunctions, disruption to supply chain for critical chemicals, fuel for standby power
7. Other vulnerabilities as identified

TKW will calculate Threat Likelihood Values for each Threat Category per EPA guidance documents.

In performing the RRA, TKW will incorporate guidance documents such as:

- AWWA J-100-10 (Risk and Resilience Management)
- NIST Guide for Conducting Risk Assessments (information security)
- AWWA Process Control System Security

- ANSI/AWWA G430-14 (Security Practices for Operations)
- Other documents and guidance as will be identified
- American Society of Civil Engineers (ASCE) Guidelines for Physical Security of Water Utilities (56-10)
- AWWA Cybersecurity Risk Guidance
- EPA Baseline for Malevolent Acts for Water Systems (July 2019)
- Water ISAC Cybersecurity Best Practice (2019)

**DELIVERABLES**

The following deliverables will be provided:

- Kick-off Meeting agenda and minutes
- Documents request list
- Conduct site visits and interview staff
- Develop and review inventory of assets
- Develop a draft RRA and review in a workshop, finalize. To include:
  - AWIA RRA Report
  - Bibliography of relevant documents
  - List of relevant references identified in the process of preparing the Report
  - Appendix containing meeting minutes and interim deliverables
  - Draft AWIA certification letter for Utility Director review and signature
- Develop a draft ERP and review in a workshop, finalize. To include:
  - NIMS and ICS responsibilities
  - Response to specific hazardous events (line breaks, chemical spills, power outages, hurricane response)
  - Communications protocol
- Certify completion of the RRA and ERP to EPA

**TASK 1 - PROJECT MANAGEMENT AND COORDINATION**

Doug Eckmann, PE will serve as the Project Manager. In preparing North Port's RRA and ERP we will balance North Port's staff commitments for day-to-operations with the value of their input. Our delivery approach will include effective collaboration with your staff through facilitated workshops with City utility leadership and department teams at project milestones. Our staff will work to keep an effective line of communication open to capture operations staff's critical institutional knowledge.

**TASK 2 – RISK AND RESILIENCE ASSESSMENT**

TKW will conduct site visits to examine the Critical Assets of NPU water system operations and administrative functions including meeting with appropriate staff on cyber security, and financial security. We will review physical security of facilities and source water. Relevant natural hazards will include windstorms, lightning, fire, and flooding. Relevant malevolent threats will include insider and outsider theft, vandalism, assailants, data destruction, hacking, ransomware, intentional contamination. Dependency threats will include chemical suppliers, power, hauling, staff access during hurricanes, key employees. Threat likelihoods will be established using published guidance and threat consequences will be based on primarily on financial impacts primarily. Risk analysis is the combination of likelihood and severity of consequence.

**CYBER SECURITY**

TKW will review available cybersecurity documentation provided by North Port and determine the need for additional qualified expertise in cybersecurity to supplement the overall assessment.

**FINANCIAL RISKS**

TKW will review available documentation related to business/financial threats and determine the need for additional qualified expertise in financial security to supplement the overall assessment.

**TASK 3 – EMERGENCY RESPONSE PLAN**

The ERP associated with the RRA will include:

1. Strategies and resources to improve resilience and security
2. Plans and procedures that can be implemented, and identification of equipment and resources that can be utilized in the event of a malevolent act or natural hazard that threatens to ability of the system to provide safe drinking water
3. Procedures to lessen the impacts of a malevolent act or natural hazard, including recommendations for alternative sources
4. Strategies that can be used to aid the detection of a malevolent act or natural hazard or contamination of the system.

North Port may not be a member of FlaWARN (Florida's Water/Wastewater Agency Response Network). This is a formalized system of "utilities helping utilities" to address mutual aid during emergency situations. The infrastructure consists of a secure web-based data bank of available resources and a practical mutual aid agreement designed to reduce bureaucratic red tape in times of emergency. The goal of FlaWARN is to provide immediate relief for member utilities during times of emergencies. If it has not already done so, North Port should consider participating in this program.

**RELEVANT EXPERTISE/QUALIFICATIONS OF THE PERSONNEL TO BE USED IN PERFORMING THE SERVICE**

Key team members for this project to include:

Doug Eckmann, PE, BCEE, D.WRE, F.ASCE – Project Manager

- Project Manager for AWIA R&R Assessment for the PRMRWSA, scheduled completion December 2019.
- Project Manager for preparation of: Vulnerability Assessment for the PRMRWSA (March 2003) mandated for large water utilities by the Bioterrorism Act of 2002.
- Certified in AwwaRF Sandia RAM-W risk assessment methodology for Public Water Systems.
- Project Manager for current North Port Water Supply Facilities 10-Year Work Plan (April 2017).
- Board Certified Environmental Engineer (BCEE) in Water
- Board Certified Water Resource Engineer (D.WRE)

Bryan Veith, PE, FASCE – Project Engineer

- Currently leading the asset and threat assessment for the City of Winter Haven One Water Master Plan that includes evaluating and assessing threats/weaknesses, risks, processes, and systems.
- Provided engineering and asset management services to Tampa Bay Water from 2010 to 2018 that included risk assessments (criticality and vulnerability), criticality framework development, conditions assessment protocol, and sensory

condition assessments for Tampa Bay assets, information technology assessment and configuration.

- Recently completed phase I of Sarasota County's Capacity, Management, Operation, and Maintenance Program (CMOM) which is a regulatory driven project. Completing CMOM Phase II which includes development and implementation of Emergency Preparedness and Response Plan, business process mapping, and risk assessment framework.

Victor L. Cook, EI, ENV SP – Project Engineer

- Water quality and related infrastructure professional experienced in design and construction of water treatment, distribution, and management of water infrastructure projects.
- Key member of ASCE Environmental and Water Resources Institute's Water Infrastructure Security Enhancements Committee.
- Key member of EWRI's Cyber Physical Security of Water Distribution Systems Committee. Certified in Keys 1; Water Infrastructure Vulnerability Assessment, Sandia National Labs, and OSTI.

Brian McBride, (PE TX and AZ, Florida PE pending) – Project Engineer / Quality Assurance

- 27 years' experience in senior level engineering and program management, of public water treatment plants, pumping and transmission systems, and reservoirs.

Richard Brittenham – IT Specialist for cyber security details

- Information technology specialist

#### **AVAILABILITY OF STAFF AND ABILITY TO MEET PROJECT SCHEDULE**

The listed key professionals assigned to North Port are very well qualified and are immediately available to perform the professional engineering services to conduct an AWIA RAA and prepare an ERP based on the RAA.

#### **PROPOSED COST SAVING MEASURES FOR THE PROJECT**

TKW proposes to utilize the EPA-developed vulnerability self-assessment tool VSAT Version 2.0, a web-based tool to streamline the identification of assets, applicable risks and threat likelihoods. This tool will generate an approved report for certification to the EPA that the assessment has been performed as required by Section 2013 of AWIA.

We will update and incorporate existing documents, such as the 2007 Water Utility Vulnerability Assessment, and work closely with staff in developing the ERP, using existing documents where possible.

An approved AWIA RRA does not need to address systemic risks such as sea level rise, climate change, general economic downturn, or inability of wholesale customers to meet financial obligations.

#### **PROVIDE A SCHEDULE THAT WILL MEET THE TIMELINE REQUIREMENTS OF THIS PROJECT**

For the size system (50,000 to 100,000 population served) North Port must certify to the EPA that the RAA has been completed by December 31, 2020 and the ERP by June 30, 2021 (six months

following) at the latest. This allows plenty of time for completion of these documents.

Assuming a Kick-off Meeting the week of January 6, 2020, the draft RRA document will be completed the week of May 4, 2020.

We propose a schedule that has the RAA completed by June 30, 2020, and the ERP by December 31, 2020 (6 months earlier than required by the AWIA for the North Port size community water system).

#### **REFERENCES FOR SIMILAR OR RELATED PROJECTS**

The following individuals are familiar with TKW's capabilities for similar work performed over the past eight (8) years:

#### **Project Name: PRMRWSA Risk and Resilience Assessment**

Owner Client: Peace River Manasota Regional Water Supply Authority

Contact Name: Richard Anderson

Title: System Operations Manager

Email: [RAnderson@regionalwater.org](mailto:RAnderson@regionalwater.org)

Phone: 863-993-4565

#### **Project Name: North Port Water Supply Facilities 10-Year Work Plan Update**

Owner Client: City of North Port

Contact Name: Jennifer Desrosiers, CGFO

Title: Utilities Business Manager

Email: [jdesrosiers@cityofnorthport.com](mailto:jdesrosiers@cityofnorthport.com)

Phone: 941-240-8006

#### **Project Name: Sarasota County CMOM**

Owner Client: Sarasota County

Contact Name: Dave Cash

Title: Assistant Director of Public Utilities

Email: [dcash@scgov.net](mailto:dcash@scgov.net)

Phone: 941-861-0520

#### **SUB-CONSULTANTS:**

Special expertise, if required, will be provided by sub-consultant, Veith Engineering & Business Solutions, LLC of Sarasota. Their roles will include:

- Attendance at meetings and workshops to support TKW and the City
- Assistance with site observation visits
- Review and evaluation of capital and operational needs, asset management
- Assistance with threat characterization of critical assets
- Evaluation of financial risks for the RRA
- Preparing the Communication and Coordination Plan for the ERP

TKW will be responsible for the work and performance of our sub-consultant team for this assignment.

#### **REQUIRED FORMS**

On the following pages you will find the Required Forms:

- Conflict of Interest Form
- Disclosure Form for Consultant/Engineer/Architect

**CONFLICT OF INTEREST FORM**

*Agreement No. 2016-23, RLI 2020-02  
 City of North Port America's Water Infrastructure Act (AWIA) - Risk and Resilience Assessment and Emergency  
 Response Plan*

**CONFLICT OF INTEREST FORM**

F.S. §112.313 places limitations on public officers (including advisory board members) and employees' ability to contract with the City either directly or indirectly. Therefore, please indicate if the following applies:

**PART I.**

- I am an employee, public officer or advisory board member of the City  
 \_\_\_\_\_ (List Position or Board)
- I am the spouse or child of an employee, public officer or advisory board member of the City  
 Name: \_\_\_\_\_
- An employee, public officer or advisory board member of the City, or their spouse or child, is an officer, partner, director, or proprietor of Respondent or has a material interest in Respondent. "Material interest" means direct or indirect ownership of more than 5 percent of the total assets or capital stock of any business entity. For the purposes of [§112.313], indirect ownership does not include ownership by a spouse or minor child.  
 Name: \_\_\_\_\_
- Respondent employs or contracts with an employee, public officer or advisory board member of the City  
 Name: \_\_\_\_\_
- None of The Above

**PART II:**

Are you going to request an advisory board member waiver?

- I will request an advisory board member waiver under §112.313(12)
- I will NOT request an advisory board member waiver under §112.313(12)
- N/A

The City shall review any relationships which may be prohibited under the Florida Ethics Code and will disqualify any vendors whose conflicts are not waived or exempt.

COMPANY: TKW Consulting Engineers, LLC

SIGNATURE:  Trudi K. Williams, P.E.  
*Founder & CEO*

**THIS PAGE MUST BE SUBMITTED WITH LETTER OF INTEREST**

**DISCLOSURE FORM FOR CONSULTANT/ENGINEER/ARCHITECT**

Agreement No. 2016-23, RLI 2020-02  
City of North Port America's Water Infrastructure Act (AWIA) - Risk and Resilience Assessment and Emergency  
Response Plan

**DISCLOSURE FORM  
FOR  
CONSULTANT/ENGINEER/ARCHITECT**

Please select (only) one of the following three options:

Our firm has no actual, potential, or reasonably perceived, **financial\*** or **other interest\*\*** in the outcome of the project.

Our firm has a potential or reasonably perceived **financial\*** or **other interest\*\*** in the outcome of the project as described here: \_\_\_\_\_.

Our firm proposes to mitigate the potential or perceived conflict according to the following plan:  
\_\_\_\_\_.

Our firm has an actual **financial\*** or **other interest\*\*** in the outcome of the project as described here: \_\_\_\_\_.

**\*What does "financial interest" mean?**

If your firm, or employee of your firm working on the project (or a member of the employee's household), will/may be perceived to receive or lose private income depending on the government business choices based on your firm's findings and recommendations, this must be listed as a financial interest. An example would be ownership in physical assets affected by the government business choices related to this project. The possibility of contracting for further consulting services is not included in this definition and is not prohibited.

**\*\*What does "other interest" mean?**

If your firm, or employee of your firm working on the project (or a member of the employee's household), will/may be perceived to have political, legal or any other interests that will affect what goes into your firm's findings and recommendations, or will be/may be perceived to be affected by the government business choices related to this project, this must be listed as another interest.

BUSINESS NAME: TKW Consulting Engineers, LLC

NAME (PERSON AUTHORIZED TO BIND THE COMPANY): Trudi K. Williams, P.E.  
Founder & CEO

SIGNATURE:  DATE: 11/22/19

**THIS PAGE MUST BE SUBMITTED WITH LETTER OF INTEREST**