THE CITY OF LAKE ELMO

STAFF REPORT

DATE: February 16, 2021
CONSENT

AGENDA ITEM: Authorize Engineering Services to Prepare the City's Water System Risk and Resilience Assessment & Emergency Response Plan

SUBMITTED BY: Jack Griffin, City Engineer
REVIEWED BY: Kristina Handt, City Administrator
Marty Powers, Public Works Director
Chad Isakson, Assistant City Engineer

ISSUE BEFORE COUNCIL: Should the City Council authorize engineering services to prepare the City's Water System Risk and Resilience Assessment & Emergency Response Plan?

BACKGROUND: Section 2013 of America's Water Infrastructure Act of 2018 (AWIA) requires community water systems that serve more than 3,300 people to complete a risk and resilience assessment and develop an emergency response plan. The risk and resilience assessment must be submitted no later than June 30, 2021 and the emergency response plan must be submitted no later than December 30, 2021.

The risk and resilience assessment will assess the risk and the resilience of the water system to malevolent acts and natural hazards. The "Risk" to the City's water system infrastructure is a function of threat likelihood, vulnerability and consequence. The "Resilience" is the capability of a water system to maintain operations or recover when a malevolent act or a natural hazard occurs.

An emergency response plan is required to incorporate the findings of the water system's risk and resilience assessment and to describe strategies and resources to improve resilience, including physical security and cybersecurity; plans and procedures for responding to a natural hazard or malevolent act that threatens safe drinking water; actions and equipment to lessen the impact of a malevolent act or natural hazard, including alternative water sources; and strategies to detect malevolent acts or natural hazards that threaten the system.

PROPOSAL DETAILS/ANALYSIS: Proposals were requested from two Engineering firms, including SEH, Inc. and WSB to complete the work scope and services defined by the EPA requirements. The City Engineer and Public Works Director are recommending that SEH, Inc. be retained to complete the City's Water System Risk and Resilience Assessment & Emergency Response Plan in the not to exceed amount of $15,000. WSB's proposed fee is $19,510. In addition, the proposed SEH, Inc. team is currently working on the City's water system modeling and preliminary design work for Water Tower #3, and therefore, have a familiar understanding of the Lake Elmo water system.

FISCAL IMPACT: $15,000 to complete both the AWIA Risk and Resilience Assessment and Emergency Response Plans, with services to be charged against the Water Enterprise Fund.

RECOMMENDATION: Staff is recommending that the City Council authorize, *as part of the consent agenda*, engineering services by SEH, Inc. for the preparation of the Water System's AWIA Risk and Resilience Assessment and Emergency Response Plan as outlined in Task Order No. 13. If removed from the consent agenda, the recommended motion for this action is as follows:

"Move to approve engineering services by SEH, Inc. for the preparation of the Water System's AWIA Risk and Resilience Assessment and Emergency Response Plan as outlined in Task Order No. 13."

ATTACHMENTS:

1. Task Order No. 13 – AWIA Risk and Resilience Assessment and Emergency Response Plan.
2. EPA Risk and Resilience Assessment and Emergency Response Plan Fact Sheet.

In accordance with ARTICLE 1 of the Master AGREEMENT between the City of Lake Elmo ("CITY") and ***Short Elliott Hendrickson, Inc. (SEH)*** ("ENGINEER"), dated **AUGUST 13, 2014** ("AGREEMENT"), the ENGINEER agrees to provide Professional Engineering Support Services as follows:

AWIA RISK AND RESILIENCE ASSESSMENT AND EMERGENCY RESPONSE PLAN

PROJECT OVERVIEW: The City of Lake Elmo requires professional engineering services for the preparation and submittal of the City's Risk and Resilience Assessment (RRA), and Emergency Response Plan (ERP) in accordance with the requirements of America's Water Infrastructure Act of 2018 (AWIA). The risk and resilience assessment must be submitted no later than June 30, 2021 and the emergency response plan must be submitted no later than December 30, 2021.

SEH shall perform a risk and resilience analysis of the City's drinking water system. Following this work, SEH will work with the City to evaluate the risks identified and develop mitigation strategies for risks deemed unacceptable to the City. After the RRA work has been completed and certified, SEH will develop a new ERP using the following:

- Results of the RRA efforts including risk mitigation strategies developed with City staff;
- Knowledge from the existing sources such as the City's Wellhead Protection Plan, sanitary surveys, and Comprehensive Plan; and
- Information and direction received through interviews with City Staff.

SERVICES TO BE PROVIDED BY ENGINEER: SEH, Inc. shall provide the following Professional Engineering Services, including project management for all tasks:

Task 1 – Project Initialization and Data Collection.

1. Meeting No. 1 – Kick-off meeting with City staff.
   - Confirm and establish scope and goals of the project.
   - Identify infrastructure to be assessed during the RRA.
   - Identify information and/or materials that are needed or will be useful to conduct the RRA.
2. Meeting No. 2 – Tour City's existing facilities and interview utility services staff.
   - Inventory and review of the City's critical water assets.
   - Inventory and review of the City's existing protection measures for their critical assets.
   - Gather input from City utility services staff on any perceived or real threats to utility's assets.
   - Review the City's standard operating procedures, daily operations, and monitoring procedures, including sampling schedules and inspection procedures.

Task 2 – Risk and Resilience Assessment.

1. Submit cybersecurity evaluation questions to City staff and the City's SCADA integrator. Review and discuss information as needed.
2. Review identified existing water system information and materials, including sampling results, sanitary surveys, Water Supply Plan, and Wellhead Protection Plan.
3. Conduct Risk and Resilience Assessment using the U.S. Environmental Protection Agency's (EPA) Vulnerability Self-Assessment Tool (VSAT) Web Version 2.0 which shall assess:
   - Water system's critical assets.
   - Threats to critical assets.
   - Vulnerabilities of critical assets.
   - Consequences of threats impacting critical assets.
4. Meeting No. 3 – RRA Analysis & Risk Mitigation Development.
   - SEH will present the results of the RRA and work with the City to assess identified risks and potential mitigation measures for the risks deemed unacceptable, as well as assess costs associated with the risks and potential mitigation measures.
   - Submit draft RRA Results & Report to the City's staff.
   - Incorporate City's comments into the report and deliver hard copies.
   - Assist the City in the EPA's certification process of the RRA.

Task 3 – Emergency Response Plan.

1. Identify and collect additional information and materials that are needed or will be useful to the ERP and discuss with City staff as needed.
2. Develop an ERP which shall include:
   - Existing information such as relevant mitigation measures, contact information, inventory, and relevant information from the City's Wellhead Protection Plan, sanitary surveys, and Comprehensive Plan.
   - New strategies, resources, plans, and procedures deemed necessary during the Risk and Resilience Assessment to reduce the City's identified existing risks.
3. Meeting No. 4 – Present draft ERP to City staff.
4. Incorporate City's comments into the ERP and deliver hard copies.
5. Assist the City in the EPA's certification process of the ERP.

DELIVERABLES: Project deliverables shall include the following:

1. Electronic and three (3) hard copies of the final RRA Report summarizing the work completed for Task No. 2, Risk and Resilience Assessment. Reimbursement for printing is included in the proposed pricing.
2. Electronic and three (3) hard copies of the final ERP developed in Task No. 3, Emergency Response Plan. Reimbursement for printing is included in the proposed pricing.

TIMES FOR RENDERING SERVICES: ENGINEER shall perform its services and provide deliverables in accordance with the following project schedule:

1. February 16, 2021 Council approves Task Order to authorize work.
2. May 14, 2021 Draft Risk and Resilience Assessment submitted for City review.
3. June 30, 2021 SEH, Inc. submits Final Risk and Resilience Assessment
4. September 22, 2021 Draft Emergency Response Plan submitted for City review.
5. December 30, 2021 SEH, Inc. submits Final Emergency Response Plan

CITY'S REPRESENTATIVE AND CONTRACT ADMINISTRATION: The CITY's representative with respect to services rendered by ENGINEER under this TASK ORDER shall be the City Engineer. Project correspondence must be addressed to:

Jack Griffin, P.E., City Engineer
City of Lake Elmo
3800 Laverne Avenue North
Lake Elmo, MN 55042
651.300.4264
Email: Jack.griffin@focusengineeringinc.com

COMPENSATION: Compensation to ENGINEER shall be based on the hourly billing rates for each staff as assigned and provided in the ENGINEER's Proposal for the work. Invoices shall be submitted once each month and should be sent to the attention of the City Engineer. Compensation to ENGINEER for Preliminary Design Services shall be on an hourly rate basis in a not to exceed amount of **$15,000.**

Task No. 1 – Project Initialization & Data Collection Fees:	$3,000.
Task No. 2 – Risk and Resilience Assessment Fees:	$7,400.
Task No. 3 – Emergency Response Plan Fees:	$4,600.

ADDITIONAL SERVICES: If authorized by the City, ENGINEER shall furnish or obtain from others Additional Services which are not considered under this Task Order. Such services shall be compensated for on an Hourly Rate basis in an amount approved by the City prior to any services being started or as otherwise mutually agreed. The City is not obligated to compensate ENGINEER for services completed outside the approved scope of work which are completed prior to ENGINEER submitting a written request to the City, and receiving written approval of the City.

ATTACHMENTS: This agreement supersedes and replaces all previous understandings, agreements or contracts, written or verbal, between ENGINEER and City, regarding the Water System Model Development and Evaluation. The following documents are attached for reference:

1. ENGINEER's Proposal to the CITY dated January 21, 2021.

APPROVAL AND ACCEPTANCE: Approval and Acceptance of this Task Order, including the attachment(s) listed above, shall incorporate this document as part of the AGREEMENT. ENGINEER is authorized to begin performance of services upon receipt of a copy of this Task Order signed by CITY.

The Effective Date of this Task Order is **February 16, 2021**.

SHORT ELLIOT HENDRICKSON, INC.	CITY OF LAKE ELMO, MINNESOTA
By _____	By _____
(Authorized Principal of the Firm)	City Administrator

RISK AND RESILIENCE ASSESSMENTS AND EMERGENCY RESPONSE PLANS:

NEW REQUIREMENTS FOR DRINKING WATER UTILITIES

Section 2013 of America's Water Infrastructure Act of 2018 (AWIA) requires community water systems[1] that serve more than 3,300 people to complete a risk and resilience assessment and develop an emergency response plan.

RISK AND RESILIENCE ASSESSMENT

Your utility must conduct a risk and resilience assessment and submit certification of its completion to the U.S. EPA by the following dates:

EMERGENCY RESPONSE PLAN

Your utility must develop or update an emergency response plan and certify completion to the U.S. EPA **no later than six months** after risk and resilience assessment certification. Each utility deadline is unique; however, the dates below are the due dates for utilities who submit a risk and resilience assessment certification by the final due date according to the population served.

Important Dates

- March 31, 2020 if serving ≥100,000 people.
- December 31, 2020 if serving 50,000 to 99,999 people.
- June 30, 2021 if serving 3,301 to 49,999 people.

- September 30, 2020 if serving ≥100,000 people.
- June 30, 2021 if serving 50,000 to 99,999 people.
- December 30, 2021 if serving 3,301 to 49,999 people.

Recertification

Every five years, your utility must review the risk and resilience assessment and submit a recertification to the U.S. EPA that the assessment has been reviewed and, if necessary, revised.

Within six months of submitting the recertification for the risk and resilience assessment, your utility must certify it has reviewed and, if necessary, revised, its emergency response plan.

Visit the U.S. EPA website to find more information on guidance for developing a risk and resilience assessment at https://www.epa.gov/waterriskassessment/conduct-drinking-water-or-wastewater-utility-risk-assessment.

Visit the U.S. EPA website for guidance on developing an Emergency Response Plan at https://www.epa.gov/waterutilityresponse/develop-or-update-drinking-water-or-wastewater-utility-emergency-response-plan.

TOOLS OR METHODS

AWIA does not require the use of any standards, methods or tools for the risk and resilience assessment or emergency response plan. Your utility is responsible for ensuring that the risk and resilience assessment and emergency response plan address all the criteria in AWIA Section 2013(a) and (b), respectively. The U.S. EPA recommends the use of standards, including AWWA J100-10 Risk and Resilience Management of Water and Wastewater Systems, along with tools from the U.S. EPA and other organizations, to facilitate sound risk and resilience assessments and emergency response plans.

[1] Section 2013 of AWIA applies to community water systems. Community water systems are drinking water utilities that consistently serve at least 25 people or 15 service connections year-round.

Still have questions about the new AWIA requirements?
Contact the U.S. Environmental Protection Agency (U.S. EPA) at dwresilience@epa.gov.

Office of Water (4608T)
EPA-817-F-19-004
May 2019

FREQUENTLY ASKED QUESTIONS

I need more information about risk and resilience assessments and emergency response plans:

Risk and resilience assessments evaluate the vulnerabilities, threats and consequences from potential hazards.

What does a risk and resilience assessment include?

- Natural hazards and malevolent acts (i.e., all hazards).
- Resilience of water facility infrastructure (including pipes, physical barriers, water sources and collection, treatment, storage and distribution, and electronic, computer and other automated systems).
- Monitoring practices.
- Financial systems (e.g., billing systems).
- Chemical storage and handling.
- Operation and maintenance.

What does an emergency response plan include?

- Strategies and resources to improve resilience, including physical security and cybersecurity.
- Plans and procedures for responding to a natural hazard or malevolent act that threatens safe drinking water.
- Actions and equipment to lessen the impact of a malevolent act or natural hazard, including alternative water sources, relocating intakes and flood protection barriers.
- Strategies to detect malevolent acts or natural hazards that threaten the system.

Who should I work with when creating my emergency response plan?

- Utilities must coordinate the risk and resilience assessments, as well as the emergency response plans with local emergency planning committees.

For more information, see www.congress.gov/bill/115th-congress/senate-bill.

I need more information on the certification process:

What do I need to submit to the U.S. EPA?

- Each utility must submit a certification of your risk and resilience assessment and emergency response plan. Each submission must include: utility name, date and a statement that the utility has completed, reviewed or revised the assessment. The U.S. EPA has developed an optional certification template that can be used for email or mail certification. The optional certification form will be available in August 2019.

Who can certify my risk and resilience assessment and emergency response plan?

- Risk and resilience assessments and emergency response plans can be self-certified by the utility.

How do I submit my certification?

- Three options will be provided for submittal: regular mail, email and a user-friendly secure online portal. The online submission portal will provide drinking water systems with a receipt of submittal. The U.S. EPA recommends using this method. The certification system will be available in August 2019.

When can I submit the initial certification?

- Utilities should wait to submit the initial certification to the U.S. EPA until the U.S. EPA publishes *Baseline Information on Malevolent Acts Relevant to Community Water Systems,* which is required under AWIA by August 2019.

Do I need to submit my certification to my state or local government?

- No. Section 2013 of AWIA does not require utilities to submit the certification to state or local governments.

How long do I need to keep a copy of my risk and resilience assessment and emergency response plan?

- Utilities need to keep a copy of both documents for five years after certification.

What if I do not have a copy of my most recent risk and resilience assessment?

- The U.S. EPA intends to destroy vulnerability assessments (VAs) submitted in response to the Bioterrorism Act of 2002, but if utilities would like to have their VA and certification documents mailed to them, contact WSD-Outreach@epa.gov, and on utility letterhead, include the utility name, PWSID, address and point of contact as an attachment to the email.

RESOURCES & TOOLS

Conducting a Risk and Resilience Assessment

- The U.S. EPA's Risk and Resilience Baseline Threat Document (available August 2019).
- The U.S. EPA's Vulnerability Self-Assessment.

Developing an Emergency Response Plan

- Emergency Response Plan Guidance.
- The U.S. EPA's Emergency Response Webpage.
- Local Emergency Planning Committees.

The U.S. EPA Website

- https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans.

Still have questions about the new AWIA requirements?
Contact the U.S. Environmental Protection Agency (U.S. EPA) at dwresilience@epa.gov.

Office of Water (4608T)
EPA-817-F-19-004
May 2019