

**PUBLIC WORKS DEPARTMENT MEMORANDUM
#40-2020**

DATE: December 14, 2020
TO: Honorable Mayor Meredith Leighty and City Council Members
THROUGH: Heather Geyer, City Manager *Hmg*
FROM: Kent Kisselman, PE – Director of Public Works *FKK*
SUBJECT: CR-185 – AWIA Risk and Resilience Assessment for the Water Treatment Facility

PURPOSE

To consider CR-185, a resolution to approve a professional services agreement to complete the legally-mandated AWIA Risk and Resilience Assessment for the Water Treatment Facility.

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 (RRA) and develop an Emergency Response Plan (ERP). The deadline to complete the RRA is June 30, 2021. The deadline to complete the ERP is six months after the submission of the RRA. A request for proposal (RFP) was posted to solicit consultants for this project, and Water Treatment Facility staff selected Hazen and Sawyer to perform the work.

An AWIA assessment quantifies the types and severity of risks that the water plant faces so they can be mitigated, planned for, or eliminated. Some types of risks include source water contamination events, wildfire impacts on source water, cyber-attacks, insider threats, physical security vulnerabilities, and other risk items. The RRA will compile "threat/asset pairs" and rank them in terms of potential economic losses or safety issues, and address how to mitigate them.

The RRA will consist of three project tasks:

1. Complete risk and resilience analysis – Develop a full understanding of assets and documentation available on the system, conduct a cyber and physical security assessment, and identify critical assets, threats and existing vulnerability.
2. Remediation and resilience strategies – Develop a cost-benefit analysis, and prioritize risk reduction measures and capital project identification.
3. Update ERP – Review the existing ERP and, based on findings, update the existing documentation to reflect threats previously not covered.

STAFF RECOMMENDATION

Attached is CR-185, a resolution that, if approved, would authorize the Mayor to execute a contract between the City of Northglenn and Hazen and Sawyer for the AWIA Risk and Resiliency Assessment for the Water Treatment Facility in an amount not to exceed \$98,910. Staff recommends approval of CR-185.

BUDGET/TIME IMPLICATIONS

This project will be funded out of the 2021 Water Fund. The following table summarizes this budget:

AWIA Risk and Resilience Assessment budget	\$100,000
Risk and Resilience Assessment and ERP cost	-\$98,910
Remainder	\$1,090

This project is projected to start in early 2021 with a contract schedule of 180 days, although the consultant has expressed optimism that it will be finished sooner. The RRA will be complete before the June 30 deadline.

STAFF REFERENCE

If Council members have any questions they may contact Director of Public Works Kent Kisselman at 303.450.4005 or kkisselman@northglenn.org.

CR-185 – AWIA Risk and Resilience Assessment for the Water Treatment Facility

AWIA Risk and Resilience Assessment for the Water Treatment Facility contract

SPONSORED BY: MAYOR LEIGHTY

COUNCILMAN'S RESOLUTION

RESOLUTION NO.

No. CR-185
Series of 2020

Series of 2020

A RESOLUTION APPROVING A PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF NORTHGLENN AND HAZEN AND SAWYER FOR THE AWIA RISK AND RESILIENCE ASSESSMENT FOR THE WATER TREATMENT FACILITY

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO, THAT:

Section 1. The Professional Services Agreement between the City of Northglenn and Hazen and Sawyer, attached hereto, for an amount not to exceed \$98,910.00 for the AWIA Risk and Resilience Assessment for the Water Treatment Facility is hereby approved and the Mayor is authorized to execute same on behalf of the City of Northglenn.

DATED, at Northglenn, Colorado, this _____ day of _____, 2020.

MEREDITH LEIGHTY
Mayor

ATTEST:

JOHANNA SMALL, CMC
City Clerk

APPROVED AS TO FORM:

COREY Y. HOFFMANN
City Attorney

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made and entered into this _____ day of _____, 20____, by and between the City of Northglenn, State of Colorado (hereinafter referred to as the "City") and Hazen and Sawyer (hereinafter referred to as "Consultant").

RECITALS:

A. The City requires professional services.

B. Consultant has held itself out to the City as having the requisite expertise and experience to perform the required work for the Project.

NOW, THEREFORE, it is hereby agreed for the consideration hereinafter set forth, that Consultant shall provide to the City, professional consulting services for the Project.

I. SCOPE OF SERVICES

Consultant shall furnish all labor and materials to perform the work and services required for the complete and prompt execution and performance of all duties, obligations, and responsibilities for the Project which are described or reasonably implied from **Exhibit A** which is attached hereto and incorporated herein by this reference.

II. THE CITY'S OBLIGATIONS/CONFIDENTIALITY

The City shall provide Consultant with reports and such other data as may be available to the City and reasonably required by Consultant to perform hereunder. No project information shall be disclosed by Consultant to third parties without prior written consent of the City or pursuant to a lawful court order directing such disclosure. All documents provided by the City to Consultant shall be returned to the City. Consultant is authorized by the City to retain copies of such data and materials at Consultant's expense.

III. OWNERSHIP OF WORK PRODUCT

The City acknowledges that the Consultant's work product is an instrument of professional service. Nevertheless, the products prepared under this Agreement shall become the property of the City upon completion of the work.

IV. COMPENSATION

A. In consideration for the completion of the services specified herein by Consultant, the City shall pay Consultant an amount not to exceed ninety eight thousand nine hundred ten dollars(\$98,910). Payment shall be made in accordance with the schedule of charges in Exhibit B which is attached hereto and incorporated herein by this reference. Invoices will be itemized and include hourly breakdown for all personnel and other charges. The maximum fee specified herein shall include all fees and expenses incurred by Consultant in performing all services hereunder.

B. Consultant may submit monthly or periodic statements requesting payment. Such request shall be based upon the amount and value of the work and services performed by Consultant under this Agreement except as otherwise supplemented or accompanied by such supporting data as may be required by the City.

1. All invoices, including Consultant's verified payment request, shall be submitted by Consultant to the City no later than the twenty-fourth (24th) day of each month for payment pursuant

to the terms of this Agreement. In the event Consultant fails to submit any invoice on or before the twenty-fourth (24th) day of any given month, Consultant defers its right to payment pursuant to said late invoice until the twenty-fourth (24th) day of the following month.

2. Progress payments may be claimed on a monthly basis for reimbursable costs actually incurred to date as supported by detailed statements, including hourly breakdowns for all personnel and other charges. The amounts of all such monthly payments shall be paid within thirty (30) days after the timely receipt of invoice as provided by this Agreement.

C. The City has the right to ask for clarification on any Consultant invoice after receipt of the invoice by the City.

D. In the event payment for services rendered has not been made within forty-five (45) days from the receipt of the invoice for any uncontested billing, interest will accrue at the legal rate of interest. In the event payment has not been made within ninety (90) days from the receipt of the invoice for any uncontested billing, Consultant may, after giving seven (7) days written notice and without penalty or liability of any nature, suspend all work on all authorized services specified herein. In the event payment in full is not received within thirty (30) days of giving the seven (7) days written notice, Consultant may terminate this Agreement. Upon receipt of payment in full for services rendered, Consultant will continue with all authorized services.

E. Final payment shall be made within sixty (60) calendar days after all data and reports (which are suitable for reproduction and distribution by the City) required by this Agreement have been turned over to and approved by the City and upon receipt by the City of Consultant's certification that services required herein by Consultant have been fully completed in accordance with this Agreement and all data and reports for the Project.

V. COMMENCEMENT AND COMPLETION OF WORK

Within seven (7) days of receipt from the City of a Notice to Proceed, Consultant shall commence work on all its obligations as set forth in the Scope of Services or that portion of such obligations as is specified in said Notice. Except as may be changed in writing by the City, the Project shall be complete and Consultant shall furnish the City the specified deliverables as provided in Exhibit A.

VI. CHANGES IN SCOPE OF SERVICES

A change in the Scope of Services shall constitute any material change or amendment of services or work which is different from or additional to the Scope of Services specified in Section I of this Agreement. No such change, including any additional compensation, shall be effective, or paid unless authorized by written amendment executed by the City. If Consultant proceeds without such written authorization, then Consultant shall be deemed to have waived any claim for additional compensation, including a claim based on the theory of unjust enrichment, quantum merit or implied contract. Except as expressly provided herein, no agent, employee, or representative of the City shall have the authority to enter into any changes or modifications, either directly or implied by a course of action, relating to the terms and scope of this Agreement.

VII. PROFESSIONAL RESPONSIBILITY

A. Consultant hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law.

B. The work performed by Consultant shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work in the applicable community.

C. Consultant shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by Consultant under this Agreement. Consultant shall, without additional compensation, correct or resolve any errors or deficiencies in his designs, drawings, specifications, reports, and other services, which fall below the standard of professional practice, and reimburse the City for construction costs caused by errors and omissions which fall below the standard of professional practice.

D. Approval by the City of drawings, designs, specifications, reports, and incidental work or materials furnished hereunder shall not in any way relieve Consultant of responsibility for technical adequacy of the work. Neither the City's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement, and Consultant shall be and remain liable in accordance with applicable performance of any of the services furnished under this Agreement.

E. The rights and remedies of the City provided for under this Agreement are in addition to any other rights and remedies provided by law.

VIII. ILLEGAL ALIENS

A. Certification. By entering into this Agreement, Consultant hereby certifies that, at the time of this certification, it does not knowingly employ or contract with an illegal alien who will perform work under the Agreement and that Consultant will participate in either the E-Verify Program administered by the United States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the Agreement.

B. Prohibited Acts. Consultant shall not:

1. Knowingly employ or contract with an illegal alien to perform work under this Agreement; or

2. Enter into a contract with a subcontractor that fails to certify to Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

C. Verification.

1. Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement through participation in either the E-Verify Program or the Department Program.

2. Consultant shall not use the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

3. If Consultant obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien who is performing work under the Agreement, Consultant shall:

a. Notify the subcontractor and the City within three (3) days that Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien who is performing work under the Agreement; and

b. Terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to subparagraph (a) hereof, the subcontractor does

not stop employing or contracting with the illegal alien who is performing work under the Agreement; except that Consultant shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien who is performing work under the Agreement.

D. Duty to Comply with Investigations. Consultant shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation conducted pursuant to C.R.S. § 8-17.5-102(5)(a) to ensure that Consultant is complying with the terms of this Agreement.

E. If Consultant does not currently employ any employees, Consultant shall sign the NO Employee Affidavit attached hereto.

F. If Consultant wishes to verify the lawful presence of newly hired employees who perform work under the Agreement via the Department Program, Consultant shall sign the Department Program Affidavit attached hereto.

IX. INDEMNIFICATION

A. INDEMNIFICATION – GENERAL: The City cannot and by this Agreement does not agree to indemnify, hold harmless, exonerate or assume the defense of the Consultant or any other person or entity whatsoever, for any purpose whatsoever. Provided that the claims, demands, suits, actions or proceedings of any kind are not the result of professional negligence, the Consultant, to the fullest extent permitted by law, shall defend, indemnify and hold harmless the City, its Council members, officials, officers, directors, agents and employees from any and all claims, demands, suits, actions or proceedings of any kind or nature whatsoever, including worker's compensation claims, in any way resulting from or arising from the services rendered by Consultant, its employees, agents or subconsultants, or others for whom the Consultant is legally liable, under this Agreement; provided, however, that the Consultant need not indemnify or save harmless the City, its Council members, its officers, agents and employees from damages resulting from the negligence of the Council members, officials, officers, directors, agents and employees.

B. INDEMNIFICATION FOR PROFESSIONAL NEGLIGENCE: The Consultant shall, to the fullest extent permitted by law, defend, indemnify and hold harmless the City, its Council members, and any of its officials, officers, directors, and employees from and against damages, liability, losses, costs and expenses, including reasonable attorneys fees, but only to the extent caused by or arising out of the negligent acts, errors or omissions of the Consultant, its employees, agents or subconsultants, or others for whom the Consultant is legally liable, in the performance of professional services under this Agreement. The Consultant is not obligated under this subparagraph IX.B. to indemnify the City for the negligent acts of the City, its Council members, or any of its officials, officers, directors, agents and employees.

C. INDEMNIFICATION – COSTS: Consultant shall, to the fullest extent permitted by law, defend, investigate, handle, respond to, and provide defense for and defend against, any such liability, claims or demands at the sole expense of Consultant or, at the option of the City, agrees to pay the City or reimburse the City for the defense costs incurred by the City in connection with any such liability, claims or demands. Consultant shall, to the fullest extent permitted by law, defend and bear all other costs and expenses related thereto, including court costs and attorney fees, whether or not any such liability, claims or demands alleged are groundless, false or fraudulent. If it is determined by the final judgment of a court of any competent jurisdiction that such injury, loss or damage was caused in whole or in part by the act, omission or other fault of the City, its Council members, officials, officers, directors, agents and employees, the City shall reimburse Consultant for the portion of the judgment attributable to such act, omission or other fault of the City, its Council members, officials, officers, directors, agents and employees.

D. To the extent this Agreement is subject to C.R.S. § 13-50.5-102(8), Contractor's liability under this provision shall be to the fullest extent of, but shall not exceed, that amount represented by the degree or

percentage of negligence or fault attributable to Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor or of any subcontractor of Contractor. If Contractor is providing architectural, engineering, surveying or other design services under this Agreement, the extent of Contractor's obligation to defend, indemnify and hold harmless the City may be determined only after Contractor's liability or fault has been determined by adjudication, alternative dispute resolution or otherwise resolved by mutual agreement of the Parties, as provided by C.R.S. § 13-50.5-102(8)(c).

X. INSURANCE

A. Consultant agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Consultant pursuant to Section IX, above. Such insurance shall be in addition to any other insurance requirements imposed by this Agreement or by law. Consultant shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to Section IX, above, by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

B. Consultant shall procure and maintain, and shall cause any subcontractor of Consultant to procure and maintain, the minimum insurance coverages listed below. Such coverages shall be procured and maintained with forms and insurers acceptable to the City. All coverages shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by Consultant pursuant to Section IX, above. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Worker's Compensation Insurance to cover obligations imposed by applicable laws for any employee engaged in the performance of work under this Contract, and Employer's Liability Insurance with minimum limits of five hundred thousand dollars (\$500,000) each incident, five hundred thousand dollars (\$500,000) disease - policy limit, and five hundred thousand dollars (\$500,000) disease - each employee.

2. Commercial general liability insurance with minimum combined single limits of one million dollars (\$1,000,000) each occurrence and two million dollars (\$2,000,000) general aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall contain a severability of interests provision.

3. Professional liability insurance with minimum limits of six hundred thousand dollars (\$600,000) each claim and one million dollars (\$1,000,000) general aggregate.

C. The policy required by paragraph 2. above shall be endorsed to include the City and the City's officers, employees, and consultants as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the City, its officers, its employees, or its consultants shall be excess and not contributory insurance to that provided by Consultant. No additional insured endorsement to the policy required by paragraph 1. above shall contain any exclusion for bodily injury or property damage arising from completed operations. Consultant shall be solely responsible for any deductible losses under any policy required above.

D. The certificate of insurance provided for the City shall be completed by Consultant's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be reviewed and approved by the City prior to commencement of the Agreement. No other form of certificate shall be used. If the City is named as an additional insured on any policy which does not allow for the automatic addition of additional insureds, the Consultant's insurance agent shall also provide a copy of all accompanying endorsements recognizing the City as an additional insured. The

certificate shall identify this Agreement and shall provide that the coverages afforded under the policies shall not be cancelled, terminated or materially changed until at least thirty (30) days prior written notice has been given to the City. The completed certificate of insurance shall be sent to:

City of Northglenn
Attn: Mike Roman
11701 Community Center Drive
Northglenn, Colorado 80233-8061

E. Failure on the part of Consultant to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material breach of agreement upon which the City may immediately terminate this Agreement, or at its discretion, the City may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the City shall be repaid by Consultant to the City upon demand, or the City may offset the cost of the premiums against any monies due to Consultant from the City.

F. The City reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

G. The parties hereto understand and agree that the City, its officers, and its employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations (presently three hundred fifty thousand dollars (\$350,000) per person and nine hundred ninety thousand dollars (\$990,000) per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, Colo. Rev. Stat., §§ 24-10-101, et seq., as from time to time amended, or otherwise available to the City, its officers, or its employees.

XI. NON-ASSIGNABILITY

Neither this Agreement, nor any of the rights or obligations of the parties hereto, shall be assigned by either party without the written consent of the other.

XII. TERMINATION

This Agreement shall terminate at such time as the work in Section I is completed and the requirements of this Agreement are satisfied, or upon the City's providing Consultant with seven (7) days advance written notice, whichever occurs first. In the event the Agreement is terminated by the City's issuance of said written notice of intent to terminate, the City shall pay Consultant for all work previously authorized and completed prior to the date of termination. If, however, Consultant has substantially or materially breached the standards and terms of this Agreement, the City shall have any remedy or right of set-off available at law and equity. If the Agreement is terminated for any reason other than cause prior to completion of the Project, any use of documents by the City thereafter shall be at the City's sole risk, unless otherwise consented to by Consultant.

XIII. CONFLICT OF INTEREST

The Consultant shall disclose any personal or private interest related to property or business within the City. Upon disclosure of any such personal or private interest, the City shall determine if the interest constitutes a conflict of interest. If the City determines that a conflict of interest exists, the City may treat such conflict of interest as a default and terminate this Agreement.

XIV. VENUE

This Agreement shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in the County of Adams, State of Colorado.

XV. INDEPENDENT CONTRACTOR

Consultant is an independent contractor. Notwithstanding any provision appearing in this Agreement, all personnel assigned by Consultant to perform work under the terms of this Agreement shall be, and remain at all times, employees or agents of Consultant for all purposes. Consultant shall make no representation that it is the employee of the City for any purposes.

XVI. NO WAIVER

Delays in enforcement or the waiver of any one or more defaults or breaches of this Agreement by the City shall not constitute a waiver of any of the other terms or obligation of this Agreement.

XVII. ENTIRE AGREEMENT

This Agreement and the attached Exhibits A and B is the entire Agreement between Consultant and the City, superseding all prior oral or written communications. None of the provisions of this Agreement may be amended, modified, or changed, except as specified herein.

XVIII. SUBJECT TO ANNUAL APPROPRIATION

Consistent with Article X, Section 20 of the Colorado Constitution, any financial obligations of the City not to be performed during the current fiscal year are subject to annual appropriation, and thus any obligations of the City hereunder shall extend only to monies currently appropriated.

XIX. NOTICE

Any notice or communication between Consultant and the City which may be required, or which may be given, under the terms of this Agreement shall be in writing, and shall be deemed to have been sufficiently given when directly presented or sent pre-paid, first class United States Mail, addressed as follows:

The City: City of Northglenn
11701 Community Center Drive
Northglenn, Colorado 80233-8061

Consultant: Hazen and Sawyer
143 Union Blvd, Suite 200
Lakewood, CO 80228

IN WITNESS WHEREOF, the parties hereto each herewith subscribe the same in duplicate.

CITY OF NORTHGLENN, COLORADO

By: _____

Meredith Leighty
Print Name

Mayor
Title Date

ATTEST:

Johanna Small, CMC Date
City Clerk

APPROVED AS TO FORM:

Corey Y. Hoffmann Date
City Attorney

CONSULTANT:

By: Benjamin D. Stanford

Benjamin D. Stanford
Print Name

Associate Vice President 12/1/2020
Title Date

ATTEST:

By: Steven Dwight Price
Steven Dwight Price
Print Name

Associate Vice President
Title Date
12-1-2020

Exhibit A – Scope of Work

Task 1 – Complete Risk and Resilience Analysis

Step 1: Document Request and Discovery

The first part of the risk and resilience assessment (RRA) involves identification of critical assets and probable threats to the system. To facilitate this process, Hazen will host a virtual kickoff meeting with key staff from Northglenn (hereafter “the City”) to familiarize the group with the approach to achieving AWIA compliance and to provide an opportunity discover relevant documents for the project. At the kickoff meeting the following topics will be covered:

- An overview of AWIA including the RRA process
- Discussion of confidentiality and impacts on open records requests
- Schedule Review
- Expectations for staff involvement through the project
- A threat identification exercise followed by review of Threat-Asset pairs
- Walkthrough the modified Hazen J100 spreadsheet tool
- Discussion of relevant documents to support initial project work (see next paragraph)

To perform the RRA, documents such as Emergency Response Plans, Vulnerability Assessments, and system maps need to be collected. Additional useful, but optional, documents to receive from the City may include:

- Existing vulnerability assessment and ERP (if available)
- System maps of water sources, facilities, and distribution system assets
- Existing security plans and procedures
- SCADA system information
- Door lock/key policies
- Security camera use and policies
- Source water protection plans
- Local natural hazard mitigation plan(s)

Because the availability of these documents varies widely by utility, Hazen will help the City identify important documents that may be available and/or that are not listed here and review them at a high level to prepare for the workshop. Hazen will submit a records request to the City and will provide a secure file transfer portal for submittal of the documents to Hazen for review. Hazen will review the documents and use the information to prepare an initial list of critical assets and threats to be discussed during Step 3.

Deliverables: A secure SharePoint site for document transfer. A Threat-Asset Matrix and the Draft J100 Tool will be provided for review.

Step 2: Cybersecurity and Physical Security Assessments

The network and SCADA security assessment will be accomplished by subcontractor Zivaro using the AWWA cybersecurity tool to provide a list of best practices and security measures based on available information for the City system. The subtasks below describe the information required to complete the basic review using the AWWA tools. Additionally, a physical security review of existing documentation will be provided with on-site visits for a physical security professional to verify previously indicated security system policies and protocols. Appropriate City IT staff will be asked to meet with Zivaro to discuss specific cybersecurity questions as noted below.

Business IT Network Evaluation

Network Configuration: Subcontractor Zivaro will meet with City staff to review and evaluate documents and practices related to the City's business network configuration for physical and cyber security with respect to local and remote access, firewalls, robustness of communication links (fiber, copper, etc.), and data reliability and security including:

- Network architecture and topology
- Communication link bandwidth
- Vulnerabilities associated with connection media (fiber optic cable, digital data service, etc.)
- Cyber security
- Hardware
- Software

SCADA Network Evaluation

Network Configuration: Subcontractor Zivaro will meet with City staff to review and evaluate the City's SCADA network configuration for physical and cyber security with respect to local and remote access, firewalls, robustness of communication links (fiber, copper, etc.), and data reliability and security. The Engineer will review and evaluate the following aspects the SCADA network via document review and on-site interviews (but not including system scan and system penetration test):

- Network architecture and topology
- Communication link bandwidth
- Vulnerabilities associated with connection media (fiber optic cable, digital data service, etc.)
- Cyber security
- Hardware
- Software
- Telemetry System

Network Policies Review

Network: Subcontractor Zivaro will meet with City staff to review and evaluate the access policies and procedures for the City's business and SCADA networks, including password policies, procedures for remote access to systems, granting of system administrator privileges, access to operating systems and other applications on SCADA workstations, etc.

Email: Subcontractor Zivaro will review and evaluate the security policies and procedures for the City's e-mail system to determine vulnerability to malware, phishing, and other typical security risks.

Deliverables: The results of the AWWA cybersecurity assessment tool will be provided, including a prioritized list of recommended controls to enhance cybersecurity posture. A summary memo documenting the findings of the physical security assessment will be provided with a list of recommended security enhancements to improve the City's security posture.

Step 3: Workshops and Prioritization of Threat-Asset Pairs

One of the key aspects of a risk and resilience analysis using J100 is a series of workshops that enable the risk assessment team to identify critical assets, threats, consequences, and existing vulnerability. As the most important part of the J100 and AWIA process, Hazen with subcontractor Zivaro will facilitate a series of up to three on-site or virtual workshops (half-day each) where key staff familiar with the City's system from source through distribution, including administrative facilities and business systems, come together to work through threat-asset pairing, vulnerability analysis, and consequence analysis. The outcome of the workshops will be a list of all identified system threats, critical assets, and a prioritized list of up to 20 threat-asset pairs to be used for further analysis. The workshop team would include our proposed Project Manager, Dr. Ben Stanford, in addition to several staff familiar with the J100 process and documentation tools to help facilitate and record information. The first workshop will focus on confirming critical assets and threats to the system. The second workshop will focus on ranking the threats with the goal of determining (by consensus) the top ranked system threats. The third workshop will focus on identifying current and future countermeasures that can be used to mitigate risks from those threats.

Deliverables: The populated J100 spreadsheet tool with the threat-asset screening matrix will be provided to the City for review, including notes captured within the J100 tool regarding countermeasures.

Task 2 – Remediation and Resilience Strategies

After the workshops, the Hazen team will use the J100 framework and Excel-based tool to complete risk calculations and develop countermeasures for the top 10-20 threat-asset pairs as identified by the collective group. The total risk calculations (consequence x vulnerability x threat likelihood) and countermeasures will be recorded in the J100 tool. A conference call or an in-person meeting may be needed to discuss potential countermeasures and the impact on risk to the City. A short summary document will also be prepared and delivered along with the Hazen J100 tool in Excel format to the City.

The completion of the tool and short summary document is sufficient to satisfy regulatory requirements from AWIA and will allow the City to submit their certification to EPA via the online portal.

Deliverables: The Hazen/Zivaro team will submit a spreadsheet (J100 tool) showing data collected, results of the assessment, summary of each critical asset and the mitigation measures chosen by the City. Hazen's non-proprietary spreadsheet will be used to catalog the following:

- All Threat-Asset (T-A) pairs identified at the workshop
- A consequence analysis for the top 20 identified T-A pairs
- A list of potential resilience improvement strategies with order of magnitude costs for the top T-A pairs

The Hazen/Zivaro team will provide the draft RRA spreadsheet to the City for review. A brief memorandum summarizing key results and prioritized improvements will also be provided for review. It is assumed that the City's comments will be received within two weeks after receipt of the draft. The Engineer will make corresponding revisions to the spreadsheet and provide the final document in electronic format. Phone meetings may be scheduled as needed to discuss findings with key City staff. Hazen will provide assistance to the City as needed in walking through the online certification process to the EPA.

Task 3 – Update Emergency Response Plan (ERP)

Step 1: Kick-off Meeting and ERP Coordination

Hazen will conduct an ERP kickoff meeting with the City to review the scope of services and project schedule, review the existing ERP to conduct a gap analysis, and identify any additional information to be reviewed. The following items will be discussed during the meeting:

- Identification of City staff to participate in the emergency plan update
- Identification of any external team members and/or plan reviewers
- AWIA ERP requirements
- Recommended updates based on RRA

Deliverables: Gap analysis memo and outline of proposed updates to the emergency plan for City review and comment prior to drafting the updated plan.

Step 2: Emergency Plan Update (Development, Review and Final Version)

Using the existing ERP as the base document and the results of the gap analysis, Hazen will draft the updated emergency plan. The document will be submitted to the City for review and comment. City staff will provide additional changes/comments on the draft plan within ten days after the workshop and the Engineer will deliver a final version of the emergency plan to the City's designated Project Manager in electronic format.

The City will then certify via the online portal to the Administrator of the EPA that the ERP has been completed, copying Hazen on the confirmation email. Such certification will remain valid for five years. It is recommended that the City perform a review yearly and significant revision after four years, recertifying to EPA following each revision.

Deliverables: A .docx and .pdf version of the final ERP will be provided to the City for printing and distribution internally.

NOTES ON CITY RESPONSIBILITIES:

- All existing documents will be provided by the City in electronic file formats which can be utilized during the RRA and ERP development.
- The City will coordinate with non-utility agency staff (such as from police or fire departments) who are identified as part the RRA/Emergency Response Team.
- The City will ensure that required personnel from all necessary departments are present at all meetings to provide necessary input in the development of the RRA and ERP.
- City's existing ERP/incident response plan will serve as the base document for the emergency response plan.
- The City will file certifications online to the Administrator of the EPA, copying Hazen on the confirmation email following completion of the RRA and ERP.

Exhibit B – Fee

Hazen and Sawyer Fee Northglenn AWIA Revision November 25, 2020		Vice Pres	Assoc. VP	Senior Assoc.	Senior Assoc.	Assist. Eng.	Assist. Eng.	Cyber	Physical	Total	Fee		
Task	Description	\$275	\$275	\$190	\$225	\$135	\$135	\$250	\$175	Hours	Labor	Expenses	Total
1	Task 1: Complete Risk and Resilience Analysis	0	20	28	20	32	36	40	52	228	\$ 43,600	\$ 1,000	\$ 44,600
1.1	Step 1: Kickoff, Discovery, and Site Visits	0	8	8	8	8	20	0	0	52	\$ 9,300	\$ 200	\$ 9,500
1.2a	Step 2-A: Cybersecurity Audit, Basic	0	0	4	0	4	0	40	0	48	\$ 11,300	\$ -	\$ 11,300
1.2b	Step 2-B: Physical Security Audit, Basic	0	0	4	0	8	0	0	40	52	\$ 8,840	\$ -	\$ 8,840
1.3	Step 3: Workshops (3 @ 4 hours)	0	12	12	12	12	16	0	12	76	\$ 14,160	\$ 800	\$ 14,960
2	Task 2: Remediation and Resilience Strategies	6	14	24	18	34	66	0	0	162	\$ 27,610	\$ -	\$ 27,610
2.1	J100 Clean-Up and Countermeasures Post-Workshop	0	4	8	0	20	40	0	0	72	\$ 10,720	\$ -	\$ 10,720
2.2	Risk Management Summary & Financial Resilience Summary Report and J100 Tool plus QA/QC	0	4	8	6	4	16	0	0	38	\$ 6,670	\$ -	\$ 6,670
		6	6	8	12	10	10	0	0	52	\$ 10,220	\$ -	\$ 10,220
3	Task 3: Emergency Response Plan & ISRPs	6	4	8	8	20	40	0	0	86	\$ 14,170	\$ -	\$ 26,700
3.1	Develop ERP and ISRPs, with QA/QC	0	8	20	20	40	80	0	0	168	\$ 26,700	\$ -	\$ 26,700
	Project Cost for Compliance	12	38	60	46	86	142	40	52	476	\$ 85,380	\$ 1,000	\$ 98,910

PROSPECTIVE CONSULTANT'S CERTIFICATE REGARDING EMPLOYING OR CONTRACTING WITH AN ILLEGAL ALIEN

FROM: Hazen and Sawyer
(Prospective Consultant)

TO: City of Northglenn
11701 Community Center Drive
Northglenn, CO 80233

Project Name AWIA Risk and Resilienc Assessment for Northglenn VTF

Bid Number 2020-019

Project No. 2020-121

As a prospective Consultant for the above-identified bid, I (we) do hereby certify that, as of the date of this certification, I (we) do not knowingly employ or contract with an illegal alien who will perform work under the Agreement and that I (we) will confirm the employment eligibility of all employees who are newly hired for employment to perform work under the Agreement through participation in either the E-Verify Program administered by the United States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment.

Executed this 1st day of December, 2020.

Prospective Consultant Hazen and Sawyer

By: Benjamin D. Scarful

Title: Associate Vice President

DEPARTMENT PROGRAM AFFIDAVIT

(To be completed if Consultant participates in the Department of Labor Lawful Presence Verification Program)

I, Steven Price, as a public contractor under contract with the City of Northglenn (the "City"), hereby affirm that:

- 1. I have examined or will examine the legal work status of all employees who are newly hired for employment to perform work under this public contract for services ("Contract") with the City within twenty (20) days after such hiring date;
- 2. I have retained or will retain file copies of all documents required by 8 U.S.C. § 1324a, which verify the employment eligibility and identity of newly hired employees who perform work under this Contract; and
- 3. I have not and will not alter or falsify the identification documents for my newly hired employees who perform work under this Contract.

[Signature]
Consultant Signature

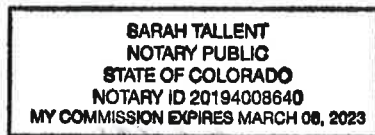
12-1-2020
Date

STATE OF COLORADO)
) ss.
COUNTY OF Jefferson)

The foregoing instrument was subscribed, sworn to and acknowledged before me this 01 December 2020 Steven Price Associate Vice day of , by as President of Hazen and Sawyer.

My commission expires: March 06, 2023

(SEAL)



[Signature]
Notary Public