

**AGREEMENT SUMMARY
BROKEN ARROW MUNICIPAL AUTHORITY
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE
PROFESSIONAL CONSULTANT AGREEMENT
PROJECT NO. 2454490**

1.0 Professional Consulting Firm:

1.1 Name: Jacobs Engineering Group Inc.
1.2 Telephone No.: 918-921-6050
1.3 Address: 401 S Boston, Suite 330
Tulsa, OK 74103

2.0 Project Name/Location: Risk and Resilience Analysis and Emergency Response Plan Update, Broken Arrow, OK

3.0 Statement of Purpose: CONSULTANT understands that the OWNER has retained their professional services in order to update the Authority's current Risk and Resilience Assessment and Emergency Response Plan. These updates will follow assist the Authority in complying with the requirements of the America's Water Infrastructure Act (AWIA) 2018 §2013.

4.0 Agreement Summary:

4.1 **TOTAL AGREEMENT AMOUNT** \$ 87,088.00
4.2 Agreement Time: 486 calendar days
4.3 Estimated Construction Cost: N/A

5.0 Agreement Approved by the Owner on: _____

**AGREEMENT
FOR
PROFESSIONAL CONSULTANT SERVICES
BETWEEN
BROKEN ARROW MUNICIPAL AUTHORITY
AND
JACOBS ENGINEERING GROUP INC.**

**FOR
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE
PROJECT 2454490**

This AGREEMENT, including Attachment A through Attachment E, between the Broken Arrow Municipal Authority (OWNER) and Jacobs Engineering Group Inc., (CONSULTANT);

W I T N E S S E T H:

WHEREAS, OWNER intends to update the Authority's current Risk and Resilience Assessment and Emergency Response Plan (PROJECT) for which, OWNER has requested that CONSULTANT provide certain professional services as required and,

WHEREAS, CONSULTANT is qualified and capable to provide the professional services required;

NOW, therefore, in consideration of the promises contained in this AGREEMENT, OWNER and CONSULTANT agree as follows:

ARTICLE 1 - EFFECTIVE DATE

This AGREEMENT shall be effective upon signature of both parties.

ARTICLE 2 - GOVERNING LAW

This AGREEMENT shall be governed by the laws of the State of Oklahoma and venue for any action concerning this Agreement shall be in the District Court of Tulsa County, Oklahoma.

ARTICLE 3 - SERVICES TO BE PERFORMED BY CONSULTANT

CONSULTANT shall perform the SERVICES described in Attachment A, Scope of Services. CONSULTANT and OWNER agree CONSULTANT'S work performed under this AGREEMENT are performed as an independent contractor. If construction phase services are included, the CONSULTANT shall be the OWNER'S agent and representative to observe, record and report with respect to all services that are required or authorized by the construction documents. OWNER and CONSULTANT agree that the services to be performed under this Agreement by the CONSULTANT shall be as an independent contractor.

ARTICLE 4 – ORGANIZATION OF SUBMITAL DOCUMENTS

CONSULTANT shall prepare the documents as described in Attachment B as part of this Agreement.

ARTICLE 5 - COMPENSATION

OWNER shall pay CONSULTANT in accordance with Attachment C, Compensation.

ARTICLE 6 - OWNER'S RESPONSIBILITIES

OWNER shall be responsible for all matters described in Attachment D, OWNER'S Responsibilities and Special Conditions.

ARTICLE 7 - STANDARD OF CARE

CONSULTANT shall perform the SERVICES undertaken in a manner consistent with the prevailing accepted standard for similar services with respect to projects of comparable function and complexity, and with the applicable state laws, as well as the specific codes, regulations, design criteria and construction specifications adopted by the owner and other governing policies published and generally considered authoritative by CONSULTANT'S profession that are in effect at the time of performance of these SERVICES. CONSULTANT is obligated to perform professional services in accordance with the foregoing standard with respect to the laws, codes, regulations, design criteria and construction specifications that are applicable pursuant to this AGREEMENT.

ARTICLE 8 - LIABILITY

8.1 General. Having considered the potential liabilities that may exist during the performance of these SERVICES, the benefits of the PROJECT, and CONSULTANT'S fee for the SERVICES; and in consideration of the promises contained in this AGREEMENT, OWNER and CONSULTANT agree to allocate and limit such liabilities in accordance with Article 10.

8.2 Indemnification. CONSULTANT agrees to defend, indemnify, and hold harmless OWNER, and its agents and employees, from and against legal liability for all claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are caused by the negligent or intentional acts, errors, or omissions of CONSULTANT, its agents or employees. In the event claims, losses, damages, or expenses are caused by the joint or concurrent negligence of OWNER and CONSULTANT, or their agents or employees, then they shall be borne by each party in proportion to each entity's own negligence.

8.3 Consequential Damages. OWNER shall not be liable to CONSULTANT for any special, indirect, or consequential damages resulting in any way from the performance of the SERVICES such as, but not limited to, loss of use, loss of revenue, or loss of anticipated profits.

8.4 Survival. Upon completion of all SERVICES, obligations, and duties provided for in this AGREEMENT, or if this AGREEMENT is terminated for any reason, the terms and conditions of this Article 8 shall survive.

ARTICLE 9 - INSURANCE

During the performance of the SERVICES under this AGREEMENT, CONSULTANT shall maintain the following insurance:

- (1) General Liability Insurance, with a combined single limit of \$1,000,000 for each occurrence and \$1,000,000 in the aggregate;
- (2) Automobile Liability Insurance, with a combined single limit of not less than \$1,000,000 for each person, not less than \$1,000,000 for each accident and not less than \$1,000,000 for property damage; and
- (3) Professional Liability Insurance, with a limit of \$1,000,000 annual aggregate.

CONSULTANT shall furnish OWNER certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days written notice to OWNER. All PROJECT sub-consultants shall be required to name OWNER and CONSULTANT as certificate holders on their certificate of insurance for the PROJECT, and shall be required to indemnify OWNER and CONSULTANT to the same extent. CONSULTANT shall be held responsible to submit certificates of insurance for sub-consultants to OWNER prior to the sub-consultant's release to commence work.

ARTICLE 10 - LIMITATIONS OF RESPONSIBILITY

CONSULTANT shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the construction

of the PROJECT; or (2) procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to CONSULTANT in Attachment A, Scope of Services.

ARTICLE 11 - LIMITATIONS OF RESPONSIBILITIES FOR ACTS OF OTHERS

CONSULTANT shall not at any time supervise, direct, control or have authority over any work performed by any employee, contractor or other agent of OWNER. CONSULTANT shall not be responsible for the acts or omissions of any employee, contractor or other agent associated with the PROJECT except for its own employees, subcontractors and other agents.

ARTICLE 12 - OPINIONS OF COST AND SCHEDULE

Since CONSULTANT has no control over the cost of labor, materials, or equipment furnished by others, or over the resources provided by others to meet PROJECT schedules, CONSULTANT'S opinion of probable costs and of PROJECT schedules shall be made on the basis of experience and qualifications as a professional. CONSULTANT does not guarantee that proposals, bids, or actual PROJECT costs will conform to OWNER'S cost estimates or that actual schedules will conform to OWNER'S projected schedules.

ARTICLE 13 - REUSE OF DOCUMENTS

All documents, including, but not limited to, drawings, specifications, and details, reports, etc. prepared by CONSULTANT pursuant to this AGREEMENT are instruments of service in respect to the PROJECT. They are not intended or represented to be suitable for reuse by CONSULTANT or others on extensions of the PROJECT or on any other project. Any reuse or adaptation without prior written verification by the OWNER for the specific purpose intended will be at CONSULTANT'S sole risk and without liability or legal exposure to the OWNER. CONSULTANT shall defend, indemnify, and hold harmless the OWNER against all claims, losses, damages, injuries, and expenses, including attorney's fees, arising out of or resulting from such reuse.

ARTICLE 14 - OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

Except as otherwise provided herein, engineering documents, drawings, and specifications prepared by CONSULTANT as part of the SERVICES shall become the property of OWNER. CONSULTANT shall retain its rights in its standard drawing details, specifications, data bases, computer software, and other proprietary property. Rights to intellectual property developed, utilized, or modified in the performance of the SERVICES shall remain the property of CONSULTANT, but shall be provided to the OWNER, at no additional expense to the OWNER.

ARTICLE 15 - TERMINATION

This AGREEMENT may be terminated by either party upon written notice in the event of substantial failure by the either party to perform in accordance with the terms of this AGREEMENT. The non-performing party shall have fifteen (15) calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

OWNER may suspend performance of this AGREEMENT for OWNER'S convenience upon written notice to CONSULTANT. Upon restart, an equitable adjustment may be made to CONSULTANT'S compensation, if the period of suspension has created an economic hardship for the CONSULTANT.

ARTICLE 16 - DELAY IN PERFORMANCE

Neither OWNER nor CONSULTANT shall be considered in default of this AGREEMENT for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this AGREEMENT, such circumstances include, but are not limited to, abnormal weather conditions such as floods, earthquakes, fire; civil disturbances such as war, riots, or other civil epidemic; power outages, strikes, lockouts, work slowdowns, or other labor disturbances; sabotage; judicial restraint, and inability to procure permits, licenses, or

authorizations from any local, state, or federal agency for any of the supplies, materials, accesses, or services required to be provided by either OWNER or CONSULTANT under this AGREEMENT.

Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this AGREEMENT.

ARTICLE 17 - WAIVER

A waiver by either OWNER or CONSULTANT of any breach of this AGREEMENT shall be in writing. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

ARTICLE 18 - SEVERABILITY

The invalidity, illegality, or unenforceability of any provision of this AGREEMENT or the occurrence of any event rendering any portion or provision of this AGREEMENT void shall in no way affect the validity or enforceability of any other portion or provision of this AGREEMENT. Any void provision shall be deemed severed from this AGREEMENT, and the balance of this AGREEMENT shall be construed and enforced as if this AGREEMENT did not contain the particular portion or provision held to be void. The parties further agree to amend this AGREEMENT to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire AGREEMENT from being void should a provision which is of the essence of this AGREEMENT be determined void.

ARTICLE 19 - INTEGRATION

This AGREEMENT represents the entire and integrated AGREEMENT between OWNER and CONSULTANT. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this AGREEMENT.

ARTICLE 20 - SUCCESSORS AND ASSIGNS

To the extent permitted by Article 22, OWNER and CONSULTANT each binds itself and its successors and assigns to the other party to this AGREEMENT.

ARTICLE 21 - ASSIGNMENT

Neither OWNER nor CONSULTANT shall assign its duties under this AGREEMENT without the prior written consent of the other party. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this AGREEMENT. Nothing contained in this Article shall prevent CONSULTANT from employing independent sub-consultants, associates, and sub-contractors to assist in the performance of the SERVICES. However, third party entities must comply with Article 9.

ARTICLE 22 - THIRD PARTY RIGHTS

Nothing in this AGREEMENT shall be construed to give any rights or benefits to anyone other than OWNER and CONSULTANT.

ARTICLE 23 - COMPLETION

CONSULTANT shall complete the services within the time frame outlined on Attachment E, Schedule, subject to conditions which are beyond the control of the CONSULTANT.

ARTICLE 24 - IMMIGRATION COMPLIANCE

24.1 Consultant shall demonstrate that he:

- 24.1.1 Has complied, and shall at all times during the term of this Contract, comply in all respects with all immigration-related laws, statutes, ordinances and regulations including without limitation, the Immigration and Nationality Act, as amended, the Immigration Reform and Control Act of 1986, as amended, and the Oklahoma Taxpayer and Citizen Protection Act of 2007 (Oklahoma HB 1804) and any successor laws, ordinances or regulations (collectively, the Immigration Laws”); and
- 24.1.2 Has properly maintained, and shall at all times during the term of this Contract, maintain any and all employee records required by the U.S. Department of Homeland Security (“DHS”), including, without limitation, properly completed and maintained Form I-9s for each of the Consultants employees; and
- 24.1.3 Has verified the employment eligibility for all employees hired on or after July 1, 2008 through DHS’s E-Verify system, and shall at all times continue to verify the employment eligibility of all employees hired during the term of this Contract; and
- 24.1.4 Has required, and will at all times during the term of this Contract, require any sub-contractor utilized, hired or sub-contracted for by Consultant for the completion or undertaking of any duties, tasks or responsibilities under this Contract, to comply the requirements and obligations imposed by the Immigration Laws and set forth in Paragraph (I), parts (a), (b) and (c), above, with regards to each of the sub-contractor’s employees.
- 24.2 Consultant will indemnify, defend and hold harmless City against any loss, cost, liability, expense (including, without limitation, costs and expenses of litigation and reasonable attorney’s fees) demands, claims, actions, causes of action, liabilities, suits, damages, including special and consequential damages that arise from or in connection with, directly or indirectly, Consultants failure, deliberate or negligent, to fulfill its obligations and representations regarding verifying the employment eligibility of its employees and the employees of any subcontractor utilized by Consultant as set forth more fully in Paragraph 24.1 above.

ARTICLE 25 - COMMUNICATIONS

Any communication required by this AGREEMENT shall be made in writing to the address specified below:

OWNER: Broken Arrow Municipal Authority
485 N. Poplar Avenue
Broken Arrow, OK 74012
Contact: Charlie Bright, P.E.
Director of Engineering & Construction

CONSULTANT: Jacobs Engineering Group Inc.
401 S Boston, Suite 330
Tulsa, OK 74103
918-921-6050

Contact Name: Luke Lenard, PE
Project Manager

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of OWNER and CONSULTANT.

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IN WITNESS WHEREOF, the General Manager of the Broken Arrow Municipal Authority, Oklahoma has hereunto set his hand, for and on behalf of the Broken Arrow Municipal Authority and the CONSULTANT has signed, or caused his name to be signed, and seal affixed by proper authority, the day and year first above written and these presents have been executed in triplicate counterparts.

OWNER:

Broken Arrow Municipal Authority

By: _____

Michael L. Spurgeon, General
Manager

Date: _____

CONSULTANT:

Jacobs Engineering Group Inc.

By: _____

Jennifer Kassa
Jennifer Kassa, Business Vice
President and Designated Manager

Date: _____

06/11/2024

(CORPORATE SEAL, IF APPLICABLE)



Attest: _____

Secretary [Seal]

Date: _____

Attest: _____

Justin Johnson

Justin Johnson, Secretary

Date: _____

June 11, 2024

Approved as to form:

D. Graham Parker

Assistant City Attorney

VERIFICATION

State of Oklahoma)
County of Tulsa) §

Before me, a Notary Public, on this 12th day of June, 2024, personally appeared Luke Lenard, known to be to be the (President, Vice-President, Corporate Officer, Member, or Other: Designated Manager) of Jacobs Engineering Group Inc., and to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he/she executed the same as his/her free and voluntary act and deed for the uses and purposes therein set forth.

My Commission Expires:

12-02-2027

Amanda M. George
Notary Public



**ATTACHMENT A
TO
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES
BETWEEN
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)
AND
JACOBS ENGINEERING GROUP INC. (CONSULTANT)
FOR
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE
PROJECT NO. 2454490**

SCOPE OF SERVICES

The following scope of services shall be made a part of the AGREEMENT dated the 17th day of June, 2024.

1.0 PROJECT UNDERSTANDING

- 1.1 CONSULTANT understands that the OWNER has retained their professional services in order to update the Authority's current Risk and Resilience Assessment and Emergency Response Plan. These updates will follow assist the Authority in complying with the requirements of the America's Water Infrastructure Act (AWIA) 2018 §2013.
- 1.2 The CONSULTANT is required to keep the OWNER apprised of the PROJECT costs and advise the OWNER of necessary cost reduction measures, if required, during the course of the PROJECT.
- 1.3 Furthermore, the CONSULTANT understands that the OWNER has \$175,000.00 budgeted for this PROJECT that includes all professional consultant fees and project construction monies.

2.0 PROJECT SCOPE

- 2.1 Updating the Authority's current Risk and Resilience Analysis and Emergency Response Plan including a cybersecurity assessment for the water utility only.

3.0 SCOPE OF SERVICES

- 3.1 ADMINISTRATIVE/MANAGERIAL DUTIES: CONSULTANT shall be responsible to perform the following tasks throughout the course of the PROJECT:
 - 3.1.1 Document all meetings, conferences, coordination, phone conversations, etc. and send documentation to OWNER within three (3) calendar days.
 - 3.1.2 Meet with the Owner in a kickoff meeting to review the scope of services, requirements and codes, and the project schedule and milestone dates.
 - 3.1.3 Provide Owner with a list of all proposed sub-consultants and tasks sub-consultants are responsible to perform.
 - 3.1.4 Meet with the Owner to discuss review comments on each phase of the project, and incorporate appropriate comments into following phase.
- 3.2 See Appendix 1 for the full scope of services.

**ATTACHMENT B
TO
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES
BETWEEN
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)
JACOBS ENGINEERING GROUP INC. (CONSULTANT)
FOR
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE,
PROJECT NO. 2454490**

ORGANIZATION OF SUBMITTAL DOCUMENTS

The CONSULTANT shall prepare the following documents as described as a part of the AGREEMENT dated the 17th day of June, 2024.

- 1.0 RISK AND RESILIENCE ANALYSIS:** The CONSULTANT shall submit in-full, draft and final Risk and Resilience Assessment.
- 2.0 CYBER ANALYSIS:** The CONSULTANT shall submit in-full, draft and final Cybersecurity Assessment Technical Memorandum for the water utility only.
- 3.0 EMERGENCY RESPONSE PLAN:** The CONSULTANT shall submit in-full, draft and final Emergency Response Plan.

**ATTACHMENT C
TO
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES
BETWEEN
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)
AND
JACOBS ENGINEERING GROUP INC. (CONSULTANT)
FOR
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE,
PROJECT NO. 2454490**

COMPENSATION AND ADDITIONAL SERVICES

The following compensation and hourly rates shall apply as described in Attachment D and shall be made a part of the AGREEMENT dated the 17th day of June, 2024.

1.0 BASIC COMPENSATION

The basic compensation for the Professional Consultant to perform all duties and responsibilities associated with the Scope of Services as described in Attachment A shall be in accordance with the following payment breakdown:

- 1.1 Risk and Resilience Analysis Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 20,239.00 for the completion of the Risk and Resilience Analysis. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.2 Cybersecurity Assessment Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 38,736.00 for the completion of the Emergency Response Plan. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.3 Emergency Response Plan Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 25,203.00 for the completion of the Emergency Response Plan. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.4 Expenses: The OWNER shall pay the CONSULTANT on a time and material basis a not to exceed amount of \$ 2,910.00 for project expenses.
- 1.5 The OWNER may negotiate other professional services fees with the CONSULTANT at the OWNER'S discretion.

2.0 ADDITIONAL SERVICES BASED ON TIME

The hourly rates set forth in Appendix 1 include all salaries, benefits, overhead and other indirect costs including federal, state, and local taxes, plus profit and effective as of January 1, 2024 for architectural / engineering services.

3.0 REPRODUCTION

All charges for reproduction shall be included in Basic Compensation Fee of the Professional Consultant. No separate payment will be made for these expenses.

4.0 MILEAGE

All direct costs shall be included in the Basic Compensation of the Professional Consultant. No separate payment will be made for these expenses.

5.0 DIRECT COSTS

All direct costs shall be included in the Basic Compensation of the Professional Consultant. No separate payment will be made for these expenses.

6.0 ADJUSTMENT CLAUSE

The rates and costs described in this AGREEMENT shall not be revised annually, unless mutually agreed upon by both parties.

**ATTACHMENT D
TO
AGREEMENT FOR CONSULTING SERVICES
BETWEEN
BROKEN ARROW MUNICIPAL AUTHORITY (OWNER)
AND
JACOBS ENGINEERING GROUP INC. (CONSULTANT)
FOR
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE,
PROJECT NO. 2454490**

OWNER'S RESPONSIBILITIES AND SPECIAL CONDITIONS

The following list of special OWNER'S responsibilities and contract special conditions shall be made a part of this AGREEMENT dated the 17th day of June, 2024.

1.0 OWNER'S RESPONSIBILITIES

- 1.1 OWNER shall furnish to CONSULTANT all available information pertinent to the PROJECT including previous reports and any other data relative to the PROJECT;
- 1.2 OWNER shall furnish to CONSULTANT list of codes adopted by the municipality as well as subdivision regulations, design criteria and construction standards and specifications that may be pertinent to the design and construction of the PROJECT;
- 1.3 OWNER shall examine all studies, reports, sketches, estimates, specifications, plan drawings, proposals, and other documents presented by the CONSULTANT and render in writing decisions pertaining thereto within a reasonable time so as not to delay the SERVICES of the CONSULTANT.

2.0 SPECIAL CONDITIONS

- 2.1 None

**ATTACHMENT E
TO
AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES
BETWEEN
BROKEN ARROW MUNICIPAL AUTHORITY(OWNER)
AND
JACOBS ENGINEERING GROUP INC. (CONSULTANT)
FOR
RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN UPDATE
PROJECT NO. 2454490**

PROJECT SCHEDULE

The following schedule shall be made a part of the AGREEMENT dated the 17th day of June, 2024.

- 1.0 Notice to Proceed: June 17, 2024
- 2.0 Risk and Resilience Assessment: February 14, 2025
- 3.0 Cybersecurity Analysis: March 31, 2025
- 4.0 Emergency Response Plan: September 30, 2025

This scope outlines the preparation of two documents for the City of Broken Arrow Municipal Authority (BAMA) also known as the Authority – to conduct a water system: Risk and Resilience Assessment (RRA) and an Emergency Response Plan (ERP). These two documents are central to complying with the requirements of the America's Water Infrastructure Act 2018 §2013 (AWIA). Jacobs will provide the Authority with an updated and completed RRA and ERP as described in this scope for the Authority to submit certification letters in accordance with the AWIA requirements for a large (>100,000 served) water utility.

Common to all the tasks below is that Jacobs will continuously check in with the USEPA for any AWIA requirement changes and/or updates and shall communicate updated information to the Authority's project manager and subsequently utilize the information within the RRA and ERP development and documents.

TASK 1 — Project Management

The focus of this project management task is adherence to the scope, schedule, budget, and work product quality obligations to the Authority. Upon Notice to Proceed (NTP), Jacobs will coordinate with BAMA to commence work for the RRA and ERP document updates. Jacobs will prepare, implement, monitor, and update the project execution plan throughout delivery of the work. Jacobs will manage, administer, coordinate, and integrate engineering services to deliver these services within budget and on schedule. Jacobs will provide a project work plan and schedule 2 weeks after NTP. Deliverables will be internally reviewed by a Senior staff for quality assurance prior to distribution to the Authority.

Deliverables:

- Project work plan and schedule
- Monthly invoices with project status reports
- Monthly status calls

1.1 Task 1.1 – Kickoff Meeting

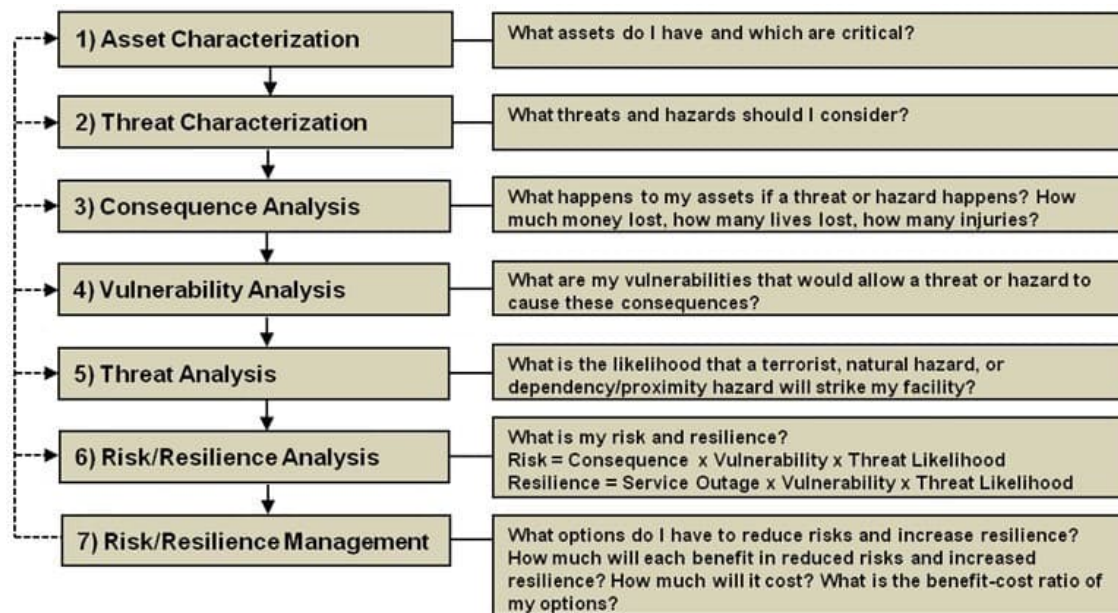
Upon Notice to Proceed (NTP), Jacobs will plan and schedule a webinar kickoff meeting to initiate the project team, review the scope of services, and confirm expectations for the project. The team will conduct a one-hour kickoff meeting with BAMA stakeholders. At the kickoff meeting, the team will establish secure methods of transmitting electronic and paper documents

(e. g., SharePoint site), and discuss how to protect this work from any public record act information requests. Deliverables will be classified as Protected Critical Information, and/or as otherwise preferred by the Authority. Participants will also discuss the Authority's previous RRA and other documents pertinent to the project.

TASK 2 — Risk and Resilience Assessment Update

Jacobs will build upon the 2020 RRA to execute the asset and threat characterizations, which are the first two steps of the J100-21 methodology as indicated below, then will proceed with the remaining steps as indicated in the diagram below. Jacobs will conduct a webinar meeting with the Authority to review the existing RRA results, critical assets and threats and determine what needs to be updated or changed.

AWWA J100-21 Methodology Diagram



In accordance with the AWIA requirements, and incorporating the AWWA M19 manual, ANSI/AWWA J100-21, ANSI/AWWA G300, ANSI/AWWA G440-17, and ANSI/AWWA G430-14 standards as appropriate, the RRA for the Authority water system shall include an assessment of:

1. Risk to the system from malevolent acts and natural hazards
2. Resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities,

electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system

3. Monitoring practices of the system
4. Financial infrastructure of the system
5. Use, storage, or handling of various chemicals by the system
6. Operation and maintenance of the system
7. Evaluation of capital and operational needs for risk and resilience management for the system (optional per AWIA)

2.1 Task 2.1 RRA Update Workshop

Jacobs will conduct a webinar workshop with the Authority to review the 2020 RRA and determine if there are any updates to the asset and threat characterizations documented in the existing RRA. The resultant threat-asset pairs are the fundamental building blocks of the J100-21 process. The “top-down” stakeholder review and confirmation of this information is essential to an effective updated RRA.

2.2 Task 2.2 Risk and Resilience Assessment Report

Jacobs will develop and/or update the draft Risk and Resilience Report for submission to the Utilities Department by January 31, 2025. The Authority Stakeholder team will have approximately two weeks for review. Jacobs will then incorporate BAMA Stakeholder comments and submit the final RRA to the Utilities Department prior to the certification deadline of March 31, 2025.

Deliverables:

- Draft RRA – Jacobs will provide the Authority with a draft of the RRA by January 17, 2025.
- Final RRA – After review and revisions, a final RRA will be submitted to the Authority by February 14, 2025 to meet the legislative deadline of March 31, 2025. This scope and budget assume that the Authority will be responsible for certifying the completion of the RRA per AWIA requirements.

TASK 3 — Cybersecurity Assessment

AWIA calls for the cybersecurity assessment of a water utility's “electronic, computer, or other automated systems.” An in-depth analysis of water and wastewater utility cybersecurity practices

can better position the Authority for cybersecurity resilience and operational continuity. This assessment will identify the Authority's current cyber practices for its water systems and their alignment with industry standards such as AWWA G430 and NIST 800-82.

3.1 Task 3.1 – Cybersecurity Workshop and Site Visits

Jacobs will prepare for a site visit workshop (described below) and focused physical site inspections in this task. Jacobs will utilize the list of critical cybersecurity assets (including, but not limited to, IT and SCADA) that require further evaluation during the site visit based on current system knowledge, reports, data, and information.

Prior to the site visit, Jacobs will review the 2020 RRA to gain a working knowledge of current cybersecurity systems and measures currently in place. Because of the inherent knowledge of BAMA personnel regarding these facilities/assets, operating procedures, and current security system, BAMA participation in the site visits is critical to the success of the project.

Jacobs will facilitate a workshop with BAMA staff to further refine and finalize the cyber-specific concerns and vulnerabilities. Site visits will be conducted by the Jacobs Cybersecurity SME and staff with direct knowledge of the Authority facilities. The Cybersecurity SME will be onsite for 1 day. In addition, several interviews will be conducted regarding financial infrastructure and computer system security. A debrief /summary of findings will be presented to BAMA staff upon conclusion of the site visit. The Project Manager will attend the workshop and debrief meeting.

Additional required documents, information, and drawings will be requested from BAMA for site visit preparation and are anticipated to be provided prior to the site visit.

3.2 Task 3.2 – Draft Cybersecurity Assessment

The RRA team will document data collected and develop a cybersecurity technical memorandum (TM). Teleconference meetings will be scheduled to discuss interim results and recommendations (including cost estimates). The draft cybersecurity TM will be transmitted securely to the Authority for review and comment. It is anticipated that the Authority will provide comments regarding the RRA to be addressed by Jacobs within 2 weeks of the draft submittal.

3.3 Task 3.3 – Final Cybersecurity Assessment

BAMA will submit comments received by the staff reviewers to Jacobs. A webinar will be conducted to review comments and address questions, which will be attended by the Jacobs Project Manager and the Cybersecurity SME. The Jacobs team will make requested changes and

edits to address comments. A final cybersecurity assessment will be submitted for final review that address BAMA's comments within 30 days of comment receipt. An electronic deliverable of the final cybersecurity TM will be submitted to the Authority in a secure method.

Deliverables

- Asset-Threat Workshop summary
- Draft Cybersecurity Assessment TM (one electronic copy) by January 31, 2025
- Final Cybersecurity Assessment TM (one electronic copy) by March 31, 2025
- Site Visit Debrief/Summary of Findings

Meetings

- Cybersecurity Assessment Kickoff Call
- Cybersecurity Assessment review webinar

Assumptions

- BAMA will provide knowledgeable staff to escort site visit teams to selected facilities/assets.
- BAMA will provide Jacobs access to its facilities, as required, for performance of the services. BAMA will provide interview rooms and conference rooms as needed for interviews, workshop, and site visit debriefing. It is assumed the site visits will not require confined space entry, vertical ladder climbing needing fall protection, or other areas requiring special training.
- BAMA will provide comments in a timely manner (approximately 2 weeks after draft submittal) to Jacobs.
- Cost estimates for recommended security improvements are based on current material pricing available and are subject to change depending on supplier and vendor.
- Electronic deliverables will be provided to BAMA via email or via an ftp site, as needed. No hard copies will be delivered as part of this scope.
- Jacobs will manage the health, safety, and environmental activities of its staff to achieve compliance with applicable health and safety laws and regulations.

TASK 4 — Water System Emergency Response Plan Update

The 2021 ERP will be updated in accordance with the AWIA and current guidelines associated with National Incident Management System (NIMS) standards, the National Response

Framework (NRF), the USEPA, Federal Emergency Management Agency (FEMA), and Department of Homeland Security (DHS). Existing BAMA ERPs and/or related documents will be considered and incorporated, as appropriate, in the ERP for the water system. In addition, the ERP will consider current County emergency management efforts, procedures, policies, and other information related to emergency preparedness and response.

Per the AWIA requirements, the water system ERP will achieve the following:

- Incorporate the findings of the risk and resilience assessment
- Include strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system
- Include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water
- Include actions, procedures, and equipment that can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes, and construction of flood protection barriers
- Include strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system

4.1 Task 4.1 – Water System ERP Task Kickoff Webinar

Jacobs will plan and schedule a 1-hour webinar with the Authority to introduce the ERP team, review the task, and discuss expectations. The webinar with key BAMA staff will be facilitated to review the current water system ERP and identify appropriate stakeholders and additional points of contact to interview that may have emerged during the period between the completion of the 2021 ERP and the present. A key objective of the workshop is to confirm any changes in the Authority's Incident Management Team (IMT) and Emergency Action Levels (EALs) between the present and 2021.

4.2 Task 4.2 Draft and Final ERP

An updated ERP will be developed in accordance with AWIA Section 2013 requirements and appropriate industry guidance. This includes utilizing NIMS/ICS as the framework for responding to emergencies. This will assist the Authority with coordination with and support of local, state, and federal response agencies as appropriate. The updated ERP will address facility emergencies

that are managed primarily by the Authority to support and cooperation with other agencies during large-scale emergencies. The goal of the ERP is to help protect the health and safety of utility employees, customers, and the general public.

The updated ERP will include the following:

- Verification of the Incident Management Team and identification of responsibilities for each team member including participation in a regional Unified Command structure during a sustained event involving the utility
- Verification of the Emergency Operations Center (EOC) with essential components
- Confirmation of procedures for internal and external notification and crisis communications, including emergency contact information
- Update of training guidelines to conduct emergency response training for staff
- Preparation of guidelines for distribution, revision, and updates of the ERP

An electronic version of the draft ERP will be provided to the Authority for review and comment. After the two-week review period, Jacobs will incorporate Authority stakeholder comments and issue the Final ERP.

Deliverables:

- ERP Kickoff Webinar Agenda
- ERP Kickoff Webinar summary
- Draft ERP – Jacobs will provide the Authority with a draft of the ERP by July 31, 2025.
- Final ERP – After review and revisions, a completed ERP will be submitted to the Authority prior to the project deadline of September 30, 2025, which is 2 months prior to the legislative certification deadline of September 30, 2025 (assuming a March 31, 2025 submittal of the RRA certification). This scope and budget assume that the Authority will be responsible for certifying the completion of the ERP per AWIA requirements.

Budget

The table below indicates Jacobs' budget by task to deliver the scope of services described in this document. This budget is inclusive of all project labor and expenses, and does not include any services not described by this scope of work. Jacobs will promptly communicate any out-of-scope needs or other budget challenges that arise to the Authority's project manager, and will not proceed with any additional services until and unless authorized by the Authority to do so.

Appendix 1
City of Broken Arrow Municipal Authority
Water System Risk and Resilience Assessment and Emergency Response Plan Update
Scope of Services

Table 1 - Risk & Resiliency Assessment and Emergency Response Plan Updates - Fee Estimate

Team Member			Luke Lenard	Michael Grosenheider	Megan Ellis	Alec Rodriguez	Christine Rafferty or Katie Hoagland	Paul Hosmer	John Karabias	Rebecca Little	Andrea Dupree				
Role			Task Manager - Principal PM	Physical Security - Principal Technologist	ERP Lead - Principal Technologist	RRA Lead - Principal Technologist	Associate Engineer	Cyber SME - Principal Technologist	Cyber Assessment - Senior QC	Document Editor/Publisher 5	Admin Assistant/Assistant PM	Labor Hours	Labor \$	Expenses \$	Total Cost \$
Rate			\$ 235	\$ 222	\$ 270	\$ 167	\$ 108	\$ 270	\$ 300	\$ 111	\$ 142				
Task 1 - Project Management			21	0	1	1	1	0	0	0	20	44	\$8,334	\$0	\$ 8,334
	1.1	Kickoff Meeting	3		1	1	1					6	\$1,250		\$1,250
		Project Set up, PXP, Accounting, Health and Safety	4								8	12	\$2,081		\$2,081
		Monthly Coordination with Client (6 Months)	6									6	\$1,412		\$1,412
		Manage schedule and budget (6 Months)	8								12	20	\$3,591		\$3,591
Task 2 - Risk and Resilience Assessment Update			13	8	1	40	58	0	0	20	0	140	\$20,239	\$0	\$ 20,239
2.1 RRA Workshop															
		RRA Workshop and Meeting Minutes	4			3	3					10	\$1,765		\$1,765
		Preparation/Document Review				4	8					12	\$1,529		\$1,529
2.2 RRA Assessment Report															
		Collate Notes and Data Entry				8	10					18	\$2,411		\$2,411
		Draft RRA Development and Meetings				10	16			16		42	\$5,164		\$5,164
		Draft RRA Review Workshop	6	8		14	10					38	\$6,599		\$6,599
		Address Comments	3		1	1	1					6	\$1,250		\$1,250
		Final Updated RRA					10			4		14	\$1,521		\$1,521
Task 3 - Cybersecurity Assessment			6	0	0	0	0	112	8	16	0	142	\$35,826	\$2,910	\$ 38,736
	3.1	CyberSecurity Workshop and Site Visit	6					52				58		\$2,910	
	3.2	Draft Cybersecurity Assessment						42				42			
	3.3	Final Cybersecurity Assessment						18	8	16		42			
Task 4 - Water System Emergency Response Plan Update			0	0	48	0	24	0	0	12	0	84	\$16,869	\$0	\$ 16,869
4.1 Water System ERP Task Kickoff Webinar															
		Preparation/Document Review			8		4					12	\$2,590		\$2,590
		ERP Workshop			18							18	\$4,857		\$4,857
4.2 Draft and Final ERP															
		Draft AWIA Complaint ERP			18		12			8		38	\$7,037		\$7,037
		Final Updated ERP			4		8			4		16	\$2,385		\$2,385
Expenses															\$ 2,910
Total			40	8	50	41	83	112	8	48	20	410	\$81,268	\$2,910	\$87,088