



**PROFESSIONAL SERVICES AGREEMENT
CONSULTANT SERVICES
INTEGRATED WATER, WASTEWATER, AND RECLAIMED WATER MASTER PLAN
PROJECT NO. WW2503.101**

Council Date: April 23, 2026

THIS AGREEMENT ("Agreement") is made and entered into on the ____ day of _____, 2026, ("Effective Date"), by and between City of Chandler, an Arizona municipal corporation, ("City"), and Black & Veatch Corporation, a Delaware corporation, ("Consultant") (City and Consultant may individually be referred to as "Party" and collectively referred to as "Parties").

RECITALS

- A. City proposes to engage Consultant to provide consultant services for Integrated Water, Wastewater, and Reclaimed Water Master Plan project ("Project") as more fully described in Exhibit "A" ("Services"), which is attached to and made a part of this Agreement by this reference.
- B. Consultant is ready, willing, and able to provide the services described in **Exhibit "A"** for the compensation and fees set forth and as described in **Exhibit "B"**, which is attached to and made a part of this Agreement by this reference.
- C. City desires to enter into an Agreement with Consultant to provide these services under the terms and conditions set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual promises contained in this Agreement, City and Consultant agree as follows:

SECTION I--CONSULTANT'S SERVICES

Consultant must perform the services described in **Exhibit "A"** to City's satisfaction within the terms and conditions of this Agreement and within the care and skill that a person who provides similar services in Chandler, Arizona exercises under similar conditions. All work or services furnished by Consultant under this Agreement must be performed in a skilled and workmanlike manner. All fixtures, furnishings, and equipment furnished by Consultant as part of the work or services under this Agreement must be new, or the latest model, and of the most suitable grade and quality for the intended purpose of the work or service.

SECTION II--PERIOD OF SERVICE

Consultant must perform the services described in **Exhibit "A"** for the term of this Agreement. Unless amended in writing by the Parties, the Agreement term expires 600 calendar days after the Notice to Proceed (NTP) Date.

SECTION III--PAYMENT OF COMPENSATION AND FEES

Unless amended in writing by the Parties, Consultant's compensation and fees as more fully described in **Exhibit "B"** for performance of the services approved and accepted by City under this Agreement must not exceed \$1,015,275 for the full term of the Agreement. Consultant may not increase any compensation or fees under this Agreement without the City's prior written consent. Consultant must submit monthly requests for payment of services approved and accepted during the previous billing period and must include, as applicable, detailed invoices and receipts, a narrative description of the tasks accomplished during the billing period, a list of any deliverables submitted, and any subconsultant's or supplier's actual requests for payment plus similar narrative and listing of their work. Consultant must submit an Application and Certification for Payment Sheet with the monthly request for payment to: CapitalProjects.Payables@chandleraz.gov. Payment for those services negotiated as a lump sum will be made in accordance with the percentage of the work completed during the preceding billing period. Services negotiated as a not-to-exceed fee will be paid in accordance with the work effort expended on the service during the preceding month. All requests for payment must be submitted to City for review and approval. City will make payment for approved and accepted services within 30 calendar days of City's receipt of the request for payment. Consultant bears all responsibility and liability for any and all tax obligations that result from Consultant's performance under this Agreement.

SECTION IV--CITY'S OBLIGATIONS

As part of Consultant's services under this Agreement, City will provide furnished items, services, or obligations as detailed in **Exhibit "D"**.

SECTION V--GENERAL CONDITIONS

5.1 Notices. Unless otherwise provided herein, demands under this Agreement must be in writing and will be deemed to have been duly given and received either (a) on the date of service if personally served on the party to whom notice is to be given, or (b) on the third day after the date of the postmark of deposit by first class United States mail, registered or certified, postage prepaid and properly addressed as follows:

City:	To	City of Chandler - Public Works & Utilities Department Attn: CIP City Engineer: Daniel Haskins, P.E. P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008 Phone: 480-782-3335 Email: Daniel.Haskins@chandleraz.gov
With a copy to:		City of Chandler - Public Works & Utilities Department Attn: Katie Gaul, Project Manager P.O. Box 4008, Mail Stop 407, Chandler, AZ 85244-4008 Phone: 480-782-3303 Email: Katie.Gaul@chandleraz.gov
To Consultant:	LEGAL COMPANY NAME:	Black & Veatch Corporation
	Mailing Address:	2231 East Camelback Road, #300 Phoenix, AZ 85016
	Physical Address:	2231 East Camelback Road, #300 Phoenix, AZ 85016
	Statutory Agent Name:	Andy Mally
	Statutory Agent Mailing Address:	2231 East Camelback Road, #300 Phoenix, AZ 85016
	Statutory Agent Physical Address:	2231 East Camelback Road, #300 Phoenix, AZ 85016
	CONSULTANT'S AUTHORIZED PROJECT REPRESENTATIVE	
	Name:	Andy Mally
	Title:	Client Direct, West Area Execution Lead
	Phone:	602-381-4466
Email:	mallyaj@bv.com	

5.2 Records/Audit. Records of Consultant's direct personnel payroll, reimbursable expenses pertaining to this Agreement and records of accounts between City and Consultant must be kept on the basis of generally accepted accounting principles and must be made available to City and its auditors for up to three years following City's final acceptance of the services under this Agreement (this requirement is increased to five years if construction of this project is federally funded). City, its authorized representative, or any federal agency, reserves the right to audit Consultant's records to verify the accuracy and appropriateness of all cost and pricing data, including data used to negotiate this Agreement and any amendments. City reserves the right to decrease the total amount of Agreement price or payments made under this Agreement or request reimbursement from Consultant following final Agreement payment on this Agreement if, upon audit of Consultant's records, the audit discloses Consultant has provided false, misleading, or inaccurate cost and pricing data. Consultant will include a similar provision in all of its Agreements with subconsultants who provide services under the Agreement to ensure that City, its authorized representative, or the appropriate federal agency, has access to the subconsultants' records to verify the accuracy of all cost and pricing data. City reserves the right to decrease Agreement price or payments made on this Agreement or request reimbursement from Consultant following

final payment on this Agreement if the above provision is not included in subconsultant agreements, and one or more subconsultants refuse to allow City to audit their records to verify the accuracy and appropriateness of all cost and pricing data. If, following an audit of this Agreement, the audit discloses Consultant has provided false, misleading, or inaccurate cost and pricing data, and the cost discrepancies exceed 1% of the total Agreement billings, Consultant will be liable for reimbursement of the reasonable, actual cost of the audit.

5.3 Alteration in Character of Work. Whenever an alteration in the character of work results in a substantial change in this Agreement, thereby materially increasing or decreasing the scope of services, cost of performance, or Project schedule, the work will be performed as directed by City. However, before any modified work is started, a written amendment must be approved and executed by City and Consultant. Such amendment must not be effective until approved by City. Additions to, modifications, or deletions from this Agreement as provided herein may be made, and the compensation to be paid to Consultant may accordingly be adjusted by mutual agreement of the Parties. It is distinctly understood and agreed that no claim for extra services or materials furnished by Consultant will be allowed by City except as provided herein, nor must Consultant do any work or furnish any materials not covered by this Agreement unless such work is first authorized in writing. Any such work or materials furnished by Consultant without prior written authorization will be at Consultant's own risk, cost, and expense, and Consultant hereby agrees that without written authorization Consultant will make no claim for compensation for such work or materials furnished.

5.4 Termination. City and Consultant hereby agree to the full performance of the covenants contained herein, except that City reserves the right, at its discretion and without cause, to terminate or abandon any service provided for in this Agreement, or abandon any portion of the Project for which services have been performed by Consultant. In the event City abandons or suspends the services, or any part of the services as provided in this Agreement, City will notify Consultant in writing and immediately after receiving such notice, Consultant must discontinue advancing the work specified under this Agreement. Upon such termination, abandonment, or suspension, Consultant must deliver to City all drawings, plans, specifications, special provisions, estimates and other work entirely or partially completed, together with all unused materials supplied by City. Consultant must appraise the work Consultant has completed and submit Consultant's appraisal to City for evaluation. City may inspect Consultant's work to appraise the work completed. Consultant will receive compensation in full for services performed to the date of such termination. The fee will be paid in accordance with Section III of this Agreement, and as mutually agreed upon by Consultant and City. If there is no mutual agreement on payment, the final determination will be made in accordance with the "Disputes" provision in this Agreement. However, in no event may the fee exceed the fee set forth in Section III of this Agreement nor as amended in accordance with Section "Alteration in Character of Work." City will make the final payment within 60 days after Consultant has delivered the last of the partially completed items and the Parties agree on the final fee. If City is found to have improperly terminated the Agreement for cause or default, the termination will be converted to a termination for convenience in accordance with the provisions of this Agreement.

5.5 Indemnification. To the extent permitted by law, the Consultant ("Indemnitor") must

indemnify, save and hold harmless City and its officers, officials, agents and employees ("Indemnitee") from any and all claims, actions, liabilities, damages, losses or expenses (including court costs, attorneys' fees and costs of claim processing, investigation and litigation) ("Claims") caused or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of Consultant or any of its owners, officers, directors, agents, employees, or subconsultants in connection with this Agreement. This indemnity includes any claim or amount arising out of or recovered under workers' compensation law or on account of the failure of Consultant to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. Consultant must indemnify Indemnitee from and against any and all Claims, except those arising solely from Indemnitee's own negligent or willful acts or omissions. Consultant is responsible for primary loss investigation, defense and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Consultant agrees to waive all rights of subrogation against Indemnitee for losses arising from or related to this Agreement. The obligations of Consultant under this provision survive the termination or expiration of this Agreement.

5.6 Insurance Requirements. Consultant must procure insurance under the terms and conditions and for the amounts of coverage set forth in **Exhibit "C"** against claims that may arise from or relate to performance of the work under this Agreement by Consultant and its agents, representatives, employees, and subconsultants. Consultant and any subconsultant must maintain this insurance until all of their obligations have been discharged, including any warranty periods under this Agreement. These insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. City in no way warrants that the minimum limits stated in **Exhibit "C"** are sufficient to protect Consultant from liabilities that might arise out of the performance of the work under this Agreement by Consultant, Consultant's agents, representatives, employees, or subconsultants. Consultant is free to purchase such additional insurance as may be determined necessary.

5.7 Cooperation and Further Documentation. Consultant agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of this Agreement.

5.8 Successors and Assigns. City and Consultant each bind itself, its partners, successors, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants of this Agreement. Neither City nor Consultant may assign, sublet, or transfer its interest in this Agreement without the written consent of the other party. In no event may any contractual relation be created between any third party and City.

5.9 Disputes. In any dispute arising out of an interpretation of this Agreement or the duties required not disposed of by agreement between Consultant and City, the final determination at the administrative level will be made by City Engineer.

5.10 Completeness and Accuracy of Consultant's Work. Consultant must be responsible for the completeness and accuracy of Consultant's services, data, and other work prepared or compiled under Consultant's obligation under this Agreement and must correct, at Consultant's expense, all willful or negligent errors, omissions, or acts that may be discovered. Correction of errors disclosed and determined to exist during any construction of the project on architectural or engineering drawings and specifications must be accomplished by Consultant. The cost of the design necessary to correct those errors attributable to Consultant and any damage incurred by City as a result of additional construction costs caused by such engineering or architectural errors will be chargeable to Consultant and will not be considered a cost of the Work. The fact that City has accepted or approved Consultant's work will in no way relieve Consultant of any of Consultant's responsibilities.

5.11 Reporting. Written monthly reports, along with updated work schedules, will be made by Consultant in the format prescribed by City. These reports will be delivered to City per schedule. When requested by City, Consultant will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.

5.12 Withholding Payment. City reserves the right to withhold funds from Consultant's payments up to the amount equal to the claims City may have against Consultant until such time that a settlement on those claims has been reached.

5.13 City's Right of Cancellation. The Parties acknowledge that this Agreement is subject to cancellation by City under the provisions of Section 38-511, Arizona Revised Statutes (A.R.S.).

5.14 Independent Consultant. For this Agreement Consultant constitutes an independent contractor. Any provisions in this Agreement that may appear to give City the right to direct Consultant as to the details of accomplishing the work or to exercise a measure of control over the work means that Consultant must follow the wishes of City as to the results of the work only. These results must comply with all applicable laws and ordinances.

5.15 Project Staffing. Prior to the start of any work under this Agreement, Consultant must submit to City detailed resumes of key personnel that will be involved in performing services prescribed in the Agreement. City hereby acknowledges its acceptance of such personnel to perform services under this Agreement. At any time hereafter that Consultant desires to change key personnel while performing under the Agreement, Consultant must submit the qualifications of the new personnel to City for prior approval. Key personnel include, but are not limited to, principals-in-charge, project manager, and project Consultant. Consultant will maintain an adequate and competent staff of qualified persons, as may be determined by City, throughout the performance of this Agreement to ensure acceptable and timely completion of the Scope of Services. If City objects, with reasonable cause, to any of Consultant's staff, Consultant must take prompt corrective action acceptable to City and, if required, remove such personnel from the Project and replace with new personnel agreed to by City.

5.16 Consultants or Subconsultants. Prior to beginning the work, Consultant must furnish City for approval the names of consultants or subconsultants to be used under this Agreement.

Any subsequent changes are subject to City's written prior approval.

5.17 Force Majeure. If either party is delayed or prevented from the performance of any act required under this Agreement by reason of acts of God or other cause beyond the control and without fault of the Party (financial inability excepted), performance of that act may be excused, but only for the period of the delay, if the Party provides written notice to the other Party within ten days of such act. The time for performance of the act may be extended for a period equivalent to the period of delay from the date written notice is received by the other Party.

5.18 Compliance with Federal Laws. Consultant understands and acknowledges the applicability of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989 to it. Consultant agrees to comply with these laws in performing this Agreement and to permit City to verify such compliance.

5.19 No Israel Boycott. By entering into this Agreement, Consultant certifies that Consultant is not currently engaged in, and agrees for the duration of the Agreement, not to engage in a boycott of Israel as defined by state statute.

5.20 Legal Worker Requirements. A.R.S. § 41-4401 prohibits City from awarding an Agreement to any consultant who fails, or whose subconsultants fail, to comply with A.R.S. § 23-214(A). Therefore, Consultant agrees Consultant and each subconsultant it uses warrants their compliance with all federal immigration laws and regulations that relate to their employees and their compliance with § 23-214, subsection A. A breach of this warranty will be deemed a material breach of the Agreement and may be subject to penalties up to and including termination of the Agreement. City retains the legal right to inspect the papers of any Consultant's or subconsultant's employee who provides services under this Agreement to ensure that Consultant and subconsultants comply with the warranty under this provision.

5.21 Lawful Presence Requirement. A.R.S. §§ 1-501 and 1-502 prohibit City from awarding an Agreement to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming that the identification provided is genuine. This requirement will be imposed at the time of Agreement award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

5.22 Covenant Against Contingent Fees. Consultant warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of the Chandler City Council, or any City employee has any interest, financially, or otherwise, in Consultant's firm. For breach or violation of this warrant, City may annul this Agreement without liability or, at its discretion, to deduct from the Agreement price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

5.23 Non-Waiver Provision. The failure of either Party to enforce any of the provisions of this Agreement or to require performance of the other Party of any of the provisions hereof must

not be construed to be a waiver of such provisions, nor must it affect the validity of this Agreement or any part thereof, or the right of either Party to thereafter enforce each and every provision.

5.24 Disclosure of Information Adverse to City's Interests. To evaluate and avoid potential conflicts of interest, Consultant must provide written notice to City, as set forth in this Section, of any work or services performed by Consultant for third parties that may involve or be associated with any real property or personal property owned or leased by City. Such notice must be given 7 business days prior to commencement of the services by Consultant for a third party, or 7 business days prior to an adverse action as defined below. Written notice and disclosure must be sent in accordance with Section 6.7 above. An adverse action under this Agreement includes, but is not limited to: (a) using data as defined in the Agreement acquired in connection with this Agreement to assist a third party in pursuing administrative or judicial action against City; or (b) testifying or providing evidence on behalf of any person in connection with an administrative or judicial action against City; or (c) using data to produce income for Consultant or its employees independently of performing the services under this Agreement, without the prior written consent of City. Consultant represents that except for those persons, entities, and projects identified to City, the services performed by Consultant under this Agreement are not expected to create an interest with any person, entity, or third party project that is or may be adverse to City's interests. Consultant's failure to provide a written notice and disclosure of the information as set forth in this Section constitute a material breach of this Agreement.

5.25 Data Confidentiality and Data Security. As used in the Agreement, "data" means all information, whether written or verbal, including plans, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to Consultant or its subconsultants in the performance of this Agreement. The Parties agree that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to Consultant or its subconsultants in connection with Consultant's or its subconsultant's performance of this Agreement is confidential and proprietary information belonging to City. Except as specifically provided in this Agreement, Consultant or its subconsultants must not divulge data to any third party without City's prior written consent. Consultant or its subconsultants must not use the data for any purposes except to perform the services required under this Agreement. These prohibitions do not apply to the following data provided to Consultant or its subconsultants have first given the required notice to City: (a) data which was known to Consultant or its subconsultants prior to its performance under this Agreement by a third party, who to the best of Consultant's or its subconsultants' knowledge and belief, had the legal right to make such disclosure and Consultant or its subconsultants are not otherwise required to hold such data in confidence; or (c) data which is required to be disclosed by virtue of law, regulation, or court order, to which Consultant or its subconsultants are subject. In the event Consultant or its subconsultants are required or requested to disclose data to a third party, or any other information to which Consultant or its subconsultants became privy as a result of any other Agreement with City, Consultant must first notify City as set forth in this Section of the request or demand for the data. Consultant or its subconsultants must give City sufficient facts so

that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure. All data must continue to be subject to the confidentiality agreements of this Agreement. Consultant or its subconsultants assume all liability to maintain the confidentiality of the data in its possession and agrees to compensate City if any of the provisions of this Section are violated by Consultant, its employees, agents or subconsultants. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. Consultant agrees that the requirements of this Section must be incorporated into all subagreements entered into by Consultant. A violation of this Section may result in immediate termination of this Agreement without notice.

5.26 Personal Identifying Information-Data Security. Personal identifying information, financial account information, or restricted City information, whether electronic format or hard copy, must be secured and protected at all times by Consultant or its subconsultants. At a minimum, Consultant or its subconsultants must encrypt or password-protect electronic files. This includes data saved to laptop computers, computerized devices, or removable storage devices. When personal identifying information, financial account information, or restricted City information, regardless of its format, is no longer necessary, the information must be redacted or destroyed through appropriate and secure methods that ensure the information cannot be viewed, accessed, or reconstructed. In the event that data collected or obtained by Consultant or its subconsultants in connection with this Agreement is believed to have been compromised, Consultant or its subconsultants must immediately notify City contact. Consultant agrees to reimburse City for any costs incurred by City to investigate potential breaches of this data and, where applicable, the cost of notifying individuals who may be impacted by the breach. Consultant agrees that the requirements of this Section must be incorporated into all subcontracts entered into by Consultant. It is further agreed that a violation of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Agreement without notice. The obligations of Consultant or its subconsultants under this Section must survive the termination of this Agreement.

5.27 Jurisdiction and Venue. This Agreement is made under and must be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any action to enforce any provision of this Agreement or to obtain any remedy with respect hereto must be brought in the courts located in Maricopa County, Arizona, and for this purpose, each Party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

5.28 Survival. All warranties, representations, and indemnifications by Consultant must survive the completion or termination of this Agreement.

5.29 Modification. Except as expressly provided herein to the contrary, no supplement, modification, or amendment of any term of this Agreement will be deemed binding or effective unless in writing and signed by the Parties.

5.30 Severability. If any provision of this Agreement or the application to any person or circumstance may be invalid, illegal or unenforceable to any extent, the remainder of this

Agreement and the application will not be affected and will be enforceable to the fullest extent permitted by law.

5.31 Integration. This Agreement contains the full agreement of the Parties. Any prior or contemporaneous written or oral agreement between the Parties regarding the subject matter is merged and superseded.

5.32 Time is of the Essence. Time of each of the terms, covenants, and conditions of this Agreement is hereby expressly made of the essence.

5.33 Date of Performance. If the date of performance of any obligation or the last day of any time period provided for should fall on a Saturday, Sunday, or holiday for City, the obligation will be due and owing, and the time period will expire, on the first day after which is not a Saturday, Sunday or legal City holiday. Except as may otherwise be set forth in this Agreement, any performance provided for herein will be timely made if completed no later than 5:00 p.m. (Chandler time) on the day of performance.

5.34 Third Party Beneficiary. Nothing under this Agreement will be construed to give any rights or benefits in the Agreement to anyone other than City and Consultant, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of City and Consultant and not for the benefit of any other party.

5.35 Conflict in Language. All work performed must conform to all applicable City of Chandler codes, ordinances, and requirements as outlined in this Agreement. If there is a conflict in interpretation between provisions in this Agreement and those in **Exhibit "A"**, the provisions in this Agreement prevail.

5.36 Document/Information Release. Documents and materials released to Consultant, which are identified by City as sensitive and confidential, are City's property. The document/material must be issued by and returned to City upon completion of the services under this Agreement. Consultant secondary distribution, disclosure, copying, or duplication in any manner is prohibited without City's prior written approval. The document/material must be kept secure at all times. This directive applies to all City documents, whether in photographic, printed, or electronic data format.

5.37 Exhibits. The following exhibits are made a part of this Agreement and are incorporated by reference:

Exhibit A - Scope of Services / Schedule

Exhibit B - Compensation and Fees

Exhibit C - Insurance Requirements

Exhibit D - Special Conditions

Exhibit E - Subconsultant Documents with Consultant (if applicable)

Exhibit F - Federal Requirements (if applicable)

5.38 Special Conditions. As part of the services Consultant provides under this Agreement, Consultant agrees to comply with and fully perform the special terms and conditions set forth in **Exhibit "D"**, which is attached to and made a part of this Agreement.

5.39 Non-Discrimination and Anti-Harassment Laws. Consultant must comply with all applicable City, state, and federal non-discrimination and anti-harassment laws, rules, and regulations.

5.40 Licenses and Permits. Beginning with the Effective Date and for the full term of this Agreement, Consultant must maintain all applicable City, state, and federal licenses and permits required to fully perform Consultant's services under this Agreement.

5.41 Warranties. Consultant must furnish a one-year warranty on all work and services performed under this Agreement. Consultant must furnish, or cause to be furnished, a two-year warranty on all fixtures, furnishings, and equipment furnished by Consultant, subconsultants or suppliers under this Agreement. Any defects in design, workmanship, or materials that do not comply with this Agreement must be corrected by Consultant (including, but not limited to, all parts and labor) at Consultant's sole cost and expense. All written warranties and redlines for as-built conditions must be delivered to City on or before City's final acceptance of Consultant's services under this Agreement.

5.42 Cooperative Purchasing Agreement (S.A.V.E. – Strategic Alliance for Volume Expenditures). In addition to City of Chandler and with the approval of Consultant, this Agreement may be extended for use by other municipalities, school districts, and government agencies of the State. Any such usage by other entities must be in accordance with the ordinance, charter, or procurement rules and regulations of the respective political entity.

5.43 Budget Approval into Next Fiscal Year. This Agreement will commence on the Effective Date and continue in full force and effect until it is terminated or expires in accordance with the provisions of this Agreement. The Parties recognize that the continuation of this Agreement after the close of the City's fiscal year, which ends on June 30 of each year, is subject to the City Council's approval of a budget that includes an appropriation for this item as an expenditure. The City does not represent that this budget item will be actually adopted. This determination is solely made by the City Council.

5.44 Forced Labor of Ethnic Uyghurs Prohibited. By entering into this Agreement, Contractor certifies and agrees Contractor does not currently use and will not use for the term of this Agreement: (i) the forced labor of ethnic Uyghurs in the People's Republic of China; or (ii) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or (iii) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

5.45 License to City for Reasonable Use. With this Agreement, Consultant and its subconsultants hereby grant a license to City, its agents, employees, and representatives for an indefinite period of time to reasonably use, make copies, and distribute as appropriate the Documents, works or deliverables developed or created as a result of the Project and this Agreement. This license also includes the making of derivative works.


This Agreement will be in full force and effect only when it has been approved and executed by the duly authorized City officials.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

"CITY"
CITY OF CHANDLER

"CONSULTANT"
BLACK & VEATCH CORPORATION

Mayor

 _____ March 18, 2026
Signature Date

RECOMMENDED BY:

Daniel Haskins March 22, 2026
Daniel Haskins, P.E.
CIP City Engineer

Andy Mally

Print Name

Associate Vice President

Title

mallyaj@bv.com

Signer Email Address

APPROVED AS TO FORM:

City Attorney 

ATTEST:

City Clerk Seal

EXHIBIT "A"
SCOPE OF SERVICES/SCHEDULE



Black & Veatch Corporation
2231 E Camelback Rd, Suite 300, Phoenix AZ 85331
P +1 602 381 4416 E thigpenbm@bv.com

PROPRIETARY & CONFIDENTIAL

March 9, 2026

Katie Gaul
Project Manager
City of Chandler
215 E Buffalo St
Chandler, AZ 85225
Email: katie.gaul@chandleraz.gov

Black & Veatch Prospect No. O-00370281

Subject: Black & Veatch Proposal for WW2503.101 City of Chandler Integrated Water, Wastewater and Reclaimed Water Master Plan

Dear Katie

Black & Veatch, in association with Carollo, is pleased to submit this proposal to City of Chandler (city) to provide support for the Integrated Water Wastewater, Reclaimed Water Master Plan (IMP) project. We propose to support this effort as described below.

Project Description

This Integrated Master Plan (IMP) will update and integrate the city's water resources, water, wastewater, and reclaimed water master plans through the year 2060 planning horizon to align with the city's planned General Plan update. The IMP will combine the four components into one cohesive integrated master plan and will serve as the city's roadmap for future infrastructure improvement for the city. The Black & Veatch team (Consultant) was selected to provide the following Scope of Services to the city as part of this IMP effort.

Scope of Services

The Scope of Services is divided into major work activities corresponding to the following project task series and Provided in Exhibit A.

- Task 100 Data Collection, Review, and Project Kickoff
- Task 200: Planning Framework
- Task 300: Water Resources Master Plan
- Task 400: Potable Water System Master Plan
- Task 500: Wastewater System Master Plan
- Task 600 Reclaimed Water System Master Plan
- Task 700: Integrated Water Master Plan
- Task 800: Project Management
- Task 900: Allowance

Exhibit A: Scope of Work

Task 100: Data Collection, Review and Project Kickoff

Engineer will submit a copy of the preliminary Data Request prior to the Project Kickoff Meeting. This request will be refined and resubmitted based on Project Kickoff Meeting discussion. The status of data transmittals will be tracked by Engineer until all available items are received.

Engineer will obtain pertinent data for the IMP with the city's assistance and review this information for completeness, consistency, and application for this IMP. Data to be gathered include the following if not previously provided or in Engineer's possession:

Task 101. Kickoff Meeting

- a. Engineer will coordinate and lead a project a 2-hour kick-off meeting with city staff to review the project purpose and objectives, scope of work, schedule for project activities and deliverables, status of data request and data gathered to date, and initial discussions regarding the city's goals and long-term vision for the IMP.

Task 102. Data Request, Collection, and Review

- a. Engineer will submit a copy of the preliminary Data Request prior to the Project Kickoff Meeting. This request will be refined and resubmitted based on Project Kickoff Meeting discussion. The status of data transmittals will be tracked by Engineer until all available items are received.
- b. Engineer will obtain pertinent data for the IMP with the city's assistance and review this information for completeness, consistency, and application for this IMP. Data to be uploaded to a SharePoint site hosted by the Engineer.

Deliverables

- Project Data Request
- Project Kickoff Meeting Agendas and Minutes
- Presentation materials
- Project Schedule (pdf and MSPProject)

Task 200: Planning Framework

Engineer will develop a range of projections of water demands and wastewater flow rates using the data received as part of this project and coupled other city initiatives (General Plan, drought planning, etc.). Projections will be produced using the latest available vacant parcels, land use, large-planned developments, and customer water use data. The data will be used to forecast growth projections for each of the IMP planning periods. The IMP projections will be incorporated into the City's water demand projection dashboard (the dashboard was developed under a separate contract). The proposed tasks are presented below.

Task 201. Water Demand Use Patterns and Projections

- a. Engineer will collect and review available water demand use and patterns.
 - i. Water Production Data: Engineer will review available water production records and system operating logs to determine historical average day demand (ADD), maximum month demand (MMD), maximum day demand (MDD), and peak hour

demand (PHD) ratios for the entire system for the last 10 years depending on the availability of data. Average day demand for summer and winter will be analyzed to provide a comparison. Demand analysis and projections will be summarized by pressure zone and Salt River Project (SRP) Member Land status.

- ii. Historical Customer Demand Data (Per Capita/Land Use Type/Account Demands): Engineer will review historical metered water sales records, as available, to determine historic ADD and MMD per capita / land use type.
- iii. Non-Revenue Water (NRW): Engineer will calculate historical NRW from the production and customer consumption data as well as any NRW reports prepared by the city.
- iv. Peaking Factors: Engineer will calculate the monthly seasonal demand peaking factor ratios to be used to peak system demands from ADD.
- v. Diurnal Demand Patterns: Engineer will use archived SCADA data for flow and tank level data from SCADA and/or other system operational records collected by the city, including Advanced Metering Infrastructure (AMI) data, as available. The data will be analyzed to calculate diurnal demand patterns for the system under the calibration period and system demand conditions to be used during system capacity analyses and water quality/age simulations, respectively.
- vi. Water Demand Projections: Engineer will prepare water demand projections for each IMP planning period using the unit water demands developed from the water billing and land use analysis which will be applied to the vacant parcel shapefile. Large water user demands will be accounted for separately in the unit water demand analysis. Projections for large water users will be developed in collaboration with the city based on factors specific to each user. Water demand forecasts will be prepared by pressure zone and On-Project / Off-Project / Non-Member service areas.

Task 202. Wastewater Flow Analysis

- a. Engineer will collect and review available data on wastewater flows and patterns.
 - i. Flow Monitoring Plan: Engineer will develop a wastewater collection system flow monitoring plan for the purposes of developing unit wastewater flows, developing diurnal flow patterns, and calibrating the wastewater hydraulic model for dry weather conditions. The flow monitoring plan will include a GIS system-wide map showing the proposed manholes to place flow monitoring equipment, individual maps showing the locations of the flow monitoring manholes or sewer structures, and a table summarizing the pipe diameters and estimated depths of the flow monitoring manholes.
 - ii. Engineer will work with the city to identify up to five (5) locations for temporary flow monitoring and data collection throughout the wastewater collection system for up to six (6) weeks, in conjunction with data collected by the city's recently installed flow meters, to use for model verification. Unit prices (dollars per meter per month or per week, as appropriate) will be provided in the budget for subsequent authorization by the city if more than five (5) flow monitoring locations are required and/or if a longer period is required to collect sufficient data for model calibration. Engineer will retain a subcontractor to provide, calibrate, install, and retrieve the flow meters. The city will inspect the proposed manholes for flow monitoring and provide cleaning prior to metering, if required.

Flow monitoring by a third party up to \$50,000 is included in the original scope. Additionally flow monitoring above and below the limit included in the scope will be completed under an allowance or separate scope item.

- iii. Engineer will prepare a system flow mass balance using the flow monitoring data and accounting for the upstream – downstream relationships between basins. Flow monitoring data will be reviewed with city staff in a progress meeting prior to incorporating it into the unit wastewater flow calculations or hydraulic model calibration.
- iv. Historical Wastewater Unit Rates: Flow data collected during the previous task will be used in conjunction with SCADA data for lift station and treatment plant flows to develop the existing system flow generation values. Engineer will incorporate the population estimates and land use data to develop unit wastewater flows on a per-capita and per-acre basis in terms of average dry weather flow (ADWF) depending on the results of the analysis (basis used will be identified and noted). As a check on wastewater flow estimates, geocoded water billing records will be adjusted by a factor to also calculate average daily wastewater flows. The final unit wastewater flow factors may be based on a combination of per-capita and per-acre values and may also vary regionally, depending on the outcome of the analysis. Unit flow factors for large water users/industrial customers may be developed using data from private sewer flow meters, if available. The final unit wastewater flow factors will be established in collaboration with the city.
- v. Wet Weather Flow Factors: Wet weather peaking factors will be selected from previous studies or data summaries for use in the system modeling and analysis and confirmed through collaboration with the city.
- vi. Wastewater Flow Projections: Engineer will prepare wastewater flow projections for each planning year using the unit wastewater flows and wastewater return rates developed from the water billing and wastewater collection system flow monitoring data. Wastewater flow forecasts will be prepared by collection system sub-basin and water reclamation facility service area. Wastewater flow estimates for areas currently served by septic areas using metered sales and wastewater return rates. Wastewater flows will include a gallon per capita per day (gpcd) value to provide the city with a number to compare to previous studies and reports. The unit wastewater flows and/or wastewater return rates to be used in the projections will be determined through discussions with the city and agreement on the approach to apply for the IMP.

Task 203. Reclaimed Flow Analysis

- a. Engineer will develop reclaimed water flow projections for each plant based on the water demand and wastewater flow projections and an estimate of the portion of wastewater that becomes reclaimed water.
- b. Engineer will review the city's historical reclaimed water generation rates throughout the year. Engineer will quantify the amount of reclaimed water that will need to be managed seasonally (summer versus winter) through recharge or direct reuse for each planning period. This analysis will include reclaimed water distribution system customer demands and other end uses including deliveries through the Reclaimed Water Interconnect Facility (RWIF).

- c. Engineer will facilitate data request and / or meetings with reclaimed water users to discuss demand and operational practices to develop diurnal patterns of daily and seasonal use.

Task 204. Planning Framework Workshop

- a. Engineer will prepare and present the results of Task 200 – Planning Framework, to city staff.

Task 205. Planning Framework Chapter

- a. Engineer will prepare a Chapter documenting the Planning Framework for the IMP Report. This Chapter will include a summary of the data provided by the city to complete the IMP and how the data was applied to develop the planning framework. It will also include a summary of the growth projection assumptions, unit water demands, unit wastewater flows, and wet weather flow assumptions for the wastewater system modeling. The Chapter will contain tables, charts, and maps with narrative text to explain the flow projections and associated assumptions. The Chapter will be provided to city after the Planning Framework Workshop for review and comment.
- b. After city comments are received, necessary changes to the planning framework analysis will be made and confirmed with the city prior to water resources, water, wastewater, or reclaimed water system analysis. Full resolution of the city's comments will be made when the information from this Chapter is incorporated in the final report.

Deliverables:

- Presentation and Meeting Minutes (electronically)
- Updated Water Demand Projections Dashboard
- System Growth and Demand Projections provided in pdf and excel format
- Planning Framework Chapter (electronically)

Task 300: Water Resource Master Plan

Engineer will review the city's current water portfolio, including surface water, groundwater, and reclaimed water. Engineer will summarize the normal and dry-year yields, access (availability) issues, restrictions to use and regulatory constraints.

Task 301. Water Portfolio Review

- a. Engineer will review the city's current water portfolio, including surface water, groundwater, and reclaimed water. Engineer will summarize the normal and dry-year yields, access (availability) issues, restrictions to use and regulatory constraints for the following specific sources:
 - i. Member / On-project (SRP entitlement) lands
 - ii. Non-member / Off-project (non-SRP) lands
 - iii. Central Arizona Project (CAP)
 - iv. New Roosevelt Conservation Space (NCS)
 - v. Groundwater Allowance
 - vi. Long Term Storage Credits
 - vii. Reclaimed water / advanced water purification (including long-term storage credits (LSTC))

Task 302. Water Supply Demand Balance

- a. Engineer will summarize the city's water demands for each of the planning years and compare them to available supplies for normal conditions and up to three (3) dry-year conditions (i.e. 50% CAP allocation cut for 2025 and 2050, etc.). Engineer and city will collaborate to define dry years (i.e., frequency of occurrence, probable impacts to surface water allocations, etc.). This may include dry year assumptions for CAP or SRP supplies or both. The available supplies will be finalized through an iterative process with Task 506. Engineer will conduct cost/benefit for alternative portfolios (i.e., reclaimed water, groundwater, SRP, CAP and other sources). This task will be developed concurrently with the wastewater analysis. It will be finalized as part of the overall integrated IMP which will optimize the various water resources components, including wastewater and reclaimed water.

Task 303. Water Supply Alternatives

- a. Engineer will identify potential water acquisition opportunities that may be beneficial for the City to explore. This analysis will characterize the available opportunities in a narrative format, anticipated quantities of water supplies that could be obtained, a discussion of the comparative capital and operations and maintenance costs, and whether the opportunity represents a temporary supply (i.e., a lease) versus a permanent source of supply. This does not include discussion or coordination with other entities (tribes, third-parties, regulatory agencies, etc.) and will be presented in narrative format. Infrastructure requirements will also be identified at a conceptual level.

Task 304. Water Resource Workshop

- a. Engineer will prepare and present the results of Task 300 – Water Resources to city staff.

Task 305. Water Resources Master Plan Chapter

- a. Engineer will prepare a Chapter documenting the Water Resources Evaluation for the IMP. This chapter will include a summary of the existing water portfolio, water supply and demand balances for normal and drought years, safe yield analysis, and long-term sustainability of supplies. The Chapter will be provided to city after the Water Resources Workshop for review and comment.
- b. After the city's comments are received, necessary changes to the water resources analysis will be made and confirmed with the city. Full resolution of the city's comments will be made when the information from this Chapter is incorporated in the final report.

Deliverables

- Presentation and Meeting Minutes (electronically)
- Water Resources Master Plan Chapter (electronically)

Task 400: Potable Water Master Plan

Engineer will update the city's existing Water System Master Plans to evaluate the condition, reliability, and resiliency of the existing systems, and to plan for future growth. This updated plan will identify areas of the city's supply and distribution system that need improvement, provide recommendations for reliability and efficiency improvements, and plan for future infrastructure to accommodate growth in various time horizons.

Task 401. Hydraulic Model Development/Update

- a. Engineer will review the city's existing water model to determine its readiness to complete the hydraulic and water age and source trace analyses required for Task 400

and to identify future capital improvements for system expansion. If review of the hydraulic model indicates that the model is reflective of existing system conditions, funds allocated to this task may be reallocated to other tasks or allowance.

- b. If the model review indicates deficiencies the following updates will be performed:
 - i. Incomplete pipe network - Utilize Client GIS and available digital elevation data to update pipeline network
 - ii. Incomplete water production or remote facility representation - Utilize Client as-built drawings and other records to update facilities
 - iii. Outdated demand allocation - Utilize Client customer billing and production records to allocate customer demand
 - iv. System Operation not representative of current and or anticipated operations - Incorporate pump and valve controls/settings based on information obtained from Operations

Task 402. Water System Performance Criteria

- a. Engineer will obtain and review existing water system performance, water quality, and operational criteria, including water storage requirements, pump station requirements, peaking factors, master planning fire flow volumes and durations, and distribution system pressure and velocity requirements. Reliability and redundancy criteria for facilities will also be developed. Engineer will meet with city staff to review proposed criteria and arrive at a consensus on system performance criteria. These criteria will serve as the basis for performance evaluations and infrastructure planning.

Task 403. Water Model Hydraulic Model Calibration

- a. Model Calibration Plan – Engineer will develop a peak demand 24-hour EPS model calibration plan including identification of needed system operations data (i.e., SCADA data and remote pressure monitoring locations) and duration of data collection. Engineer will compile the data and use the data for model calibration. The calibration plan will utilize hydraulic calibration only (not based on water quality).
- b. Demand Allocation. Engineer will update the model demands based on most current demand analysis and NRW percentages evenly distributed across the system. Engineer will review available AMI data available and will utilize app
- c. Model Calibration. Engineer will calibrate the hydraulic model using a 24-hour extended period simulation (EPS). The model results will be compared to the field data and appropriate adjustments to model input parameters will be made to make certain the model simulates actual system conditions within reasonable accuracy tolerances for system planning purposes. The calibration period will be limited to the availability and time of the field data collection. For areas of the system where the modeled output is significantly different than the SCADA data, Engineer will attempt to adjust appropriate model input parameters to improve the correlation. Any remaining areas with significant discrepancies, as deemed by city and Engineer, will be documented with possible reasons for the discrepancy. If it is determined after, discussions with the city, that any of these discrepancy areas could adversely impact the model results for the purposes of this master plan project, Engineer will provide the city with recommended additional system data collection and/or field testing that would be needed to improve the model calibration in these areas. If installation of temporary pressure monitoring is deemed necessary, it will be completed as part of an allowance.

- d. Calibration Results Workshop. A workshop will be conducted by Engineer with the city to review the hydraulic calibration results, and to document the calibration process, collected field data, adjustments made to model input parameters to better correlate the model results with the field data, field data to final model output data comparisons, and any needed explanations for calibration discrepancies.

Task 404. Existing and Future Distribution System Evaluations

- a. Water Production Plans. Engineer will prepare water production plans to show the way production facilities (wells, WTPs, pumps and reservoirs) can be utilized to meet the updated demands. Production plans, consisting of seasonal curves indicating the quantity (rate) of water to be produced at each facility and the way water is to be moved from zone to zone and on/off project under Max Day and canal outage conditions. These curves and plots become the guide for setting up all water model runs as well as a record for future modelers. Production Plans will be developed for existing, buildout and two intermediate years identified in Phase 200.
- b. Capacity Evaluation. Engineer will review the model results to compare with existing infrastructure capacity to identify any shortcomings as well as identify where the city has surplus capacity available to facilitate high-density development or redevelopment. Capacity Evaluations will be developed for existing, buildout and an intermediate year determined by the city.
 - i. Supply, Storage and Pumping Capacity: Engineer will conduct desktop / spreadsheet capacity assessments of the supply (surface water and groundwater), storage, and pumping facilities for each planning year to evaluate the adequacy of existing facilities and to identify any deficiencies in capacity based on the performance criteria. Additional assessments will be completed in following tasks to identify any portion of the system that may not have sufficient supply, storage or pumping capacity available due to hydraulic limitations in the distribution system.
 - ii. Well Supply Planning – Engineer will review existing well and groundwater related data and incorporate assessment of historical and current well capacity volumes for existing wells into the evaluation of well supply needs required through buildout. Engineer will provide assessment of installed versus permitted capacity
 - iii. MDD 24-hour EPS Capacity: Using the calibrated hydraulic model, Engineer will perform hydraulic system analyses to evaluate the distribution system performance and identify potential improvements under the moderate MDD system conditions using 24-hour EPS for each planning year. Demand allocation for each planning year will be based on the spatial distribution determined in Task 200. The EPS analyses will encompass and assess the peak hour and minimum hour (storage replenishment) within the MDD scenario. The system analyses will evaluate the effectiveness and adequacy of the distribution system to meet the level of service criteria established in conjunction with the city. Engineer will identify required improvements, either capital or operational, to improve the existing level of service for the moderate growth conditions. Engineer will prepare graphics and/or tabular exhibits of the model output for review with city personnel.

- iv. **MDD+FF Capacity:** Using the calibrated hydraulic model, Engineer will perform hydraulic analyses to evaluate the distribution system performance and identify potential improvements under the moderate growth MDD plus fire flow (FF) conditions using a steady state (SS) simulation for the planning years 2025 and 2055. The system analyses will evaluate the effectiveness and adequacy of the distribution system to meet the fire flow level of service criteria established in conjunction with the city.
- c. **Resiliency/Redundancy/Emergency Preparedness.** Engineer will assess the distribution system's ability to meet customer demands during scenarios where critical facilities and/or pipelines are out of service. Engineer will work with the city to identify up to two (2) emergency scenarios to evaluate but will likely include canal outages, WTP outages or large transmission main outages to evaluate the need for additional groundwater wells, interconnect pipelines, or other distribution system improvements. The emergency scenarios may include outages of the city's water supplies, booster pumping facilities and major water main breaks. Improvements to maintain minimum level of service conditions during potential emergency outage scenarios will be developed.

Task 405. Recommended Project List

- a. Engineer will compile the results of the Tasks 401-404 to develop graphical and tabular summaries of recommended capital and operational water projects. This will account for projects already identified in the city's 10-year capital improvement plan and/or those projects recommended in the city's 2018 IWMP.

Task 406. Client workshop

- a. Engineer will prepare and present the results of Task 400 to city staff.

Task 407. Water Master Plan Chapter

- a. Engineer will prepare a Chapter documenting the Water System Evaluation for the IMP. This Chapter will include a summary of the analysis and recommendations. The Chapter will be provided to city after the Water System Workshop for review and comment.
- b. After the city's comments are received, necessary changes to the water system analysis will be made and confirmed with the city. Full resolution of the city's comments will be made when the information from this Chapter is incorporated in the final report.

Deliverables:

- Hydraulic Model Development/Update and Calibration TM that will become Appendix. (electronically)
- Water Master Plan Chapter (electronically)
- System evaluation tools, model results in shapefile format and hydraulic model

Task 500: Wastewater Master Plan

Engineer will assess the conveyance capability of the existing wastewater collection system, the capacities of the treatment facilities and develop a plan for future growth. This updated plan will identify areas of the treatment and collection system that need improvements, provide recommendations for reliability and efficiency improvements, and plan for future infrastructure to accommodate growth in various time horizons.

Task 501. Hydraulic Model Development/Update

- a. Engineer will update the City's existing wastewater model that will be used to complete the hydraulic analyses required for Task 500 and to identify capital improvements for system expansion. Updates will include the following:
 - i. Utilize Client GIS and available pipe/manhole survey data to update the pipeline network.
 - ii. Utilize Client as-built drawings and other records to update facilities.
 - iii. Allocate wastewater flows and patterns as determined in Task 202 (except in areas where the city only provides water service).
 - iv. Incorporate pump station information and operational settings (pump capacity, number of pumps, on/off set points) obtained from the city.
 - v. Update diversion structure controls based on settings to be provided by the city.

Task 502. Wastewater System Performance Criteria

- a. Engineer will review existing wastewater system performance and operational criteria including pipeline capacity, velocity, peaking factors, lift station, and force main criteria. Additionally, wet weather criteria will be reviewed and established for wet weather pipeline depths (e.g. no surcharge under a storm event). Criteria will be updated as needed, and Engineer will meet with City staff to review the proposed criteria and arrive at a consensus on system performance criteria that will be used for system evaluations and proposed infrastructure.

Task 503. System Testing/Monitoring [to support model development and calibration/validation]

- a. Field Testing Plan: Engineer will develop a wastewater collection system flow monitoring plan for the purposes of developing unit wastewater flows, developing diurnal flow patterns, and calibrating the wastewater hydraulic model to dry weather flow conditions.
- b. Once flow monitoring data is available, Engineer will perform data clean up and prepare a mass balance using the flow monitoring data collected by the sub-contractor and any permanent flow monitoring data provided by the city, accounting for the upstream and downstream relationships with other meters. Engineer will select representative dry periods to compute average flows and representative diurnal patterns. Flow data will be used to develop the existing system flow generation rates.

Task 504. Hydraulic Model Calibration/Validation

- a. Engineer will calibrate the collection system hydraulic model to dry weather flow conditions for flow, depth, and velocity for a two-day period for each flow monitoring location. Engineer will develop methodology to allocate wastewater loads into the model.
- b. Dry weather flow and wet weather flow calibration will be validated using an independent set of data if available.
- c. Model calibration completeness will be determined using the agreed guidelines that include both quantitative and qualitative metrics. A client workshop will be conducted to review model calibration to confirm the model calibration.

Task 505. Existing and Future Collection System Evaluations

- a. Capacity Evaluation. Engineer will review the model results to compare with existing infrastructure capacity to identify any shortcomings as well as identify where the city has surplus capacity available to facilitate high-density development or redevelopment.
 - i. Maximum Month Dry Weather Flow: Using the calibrated model, Engineer will perform hydraulic system analyses to evaluate the collection system performance and identify potential improvements under the moderate MMDWF conditions each planning year. Flow allocation for each planning year will be

based on the spatial distribution determined in Task 200. The system analyses will evaluate the collection systems' adequacy to meet the evaluation criteria established in Task 502. Engineer will identify required improvements, either capital or operational (i.e., action that could be taken to mitigate collection system odors through maintenance), to improve the existing level of service for projected growth. Engineer will utilize intermediate planning years to identify flow triggered improvements. Engineer will prepare graphics and/or tabular exhibits of the model output for review with city personnel.

- ii. PWWF: Peaking factors for existing and future PWWF will be determined in conjunction with the city. Engineer will perform hydraulic system analyses to evaluate the collection system performance using the criteria established in Task 502 and identify potential improvements under PWWF conditions each planning year.
- b. System Optimization. Engineer will use the hydraulic model to identify flow routing alternatives to optimize the system. The main purpose of this evaluation is to:
 - i. Maximize the available capacity within the existing collection system and identify infrastructure that may be underutilized and has capacity to accommodate additional flows.
 - ii. Balance flows at each treatment facility with the goal of optimizing reclaimed water management and utilization.
 - iii. Evaluate up to five reaches in the collection system, identified through collaboration with the city, to analyze with the hydraulic model for the time it takes for flow to wastewater to travel through that reach, which will assist the city in making decisions related to odor control.

Task 506. Recommended Projects List

- a. Engineer will compile the results of the Tasks 501-505 to develop graphical and tabular summaries of recommended capital and operational wastewater projects. This will account for projects already identified in the city's 10-year capital improvement plan and/or those projects recommended in the city's 2018 IWMP.

Task 507. Client workshop

- a. Engineer will prepare and present the results of task 500 to City Staff.

Task 508. Wastewater Master Plan Chapter

- a. Engineer will prepare a Chapter documenting the Wastewater System Evaluation for the IMP. This Chapter will include a summary of the analysis and recommendations. The Chapter will be provided to city after the Wastewater System Workshop for review and comment.
- b. After the city's comments are received, necessary changes to the wastewater system analysis will be made and confirmed with the city. Full resolution of the City's comments will be made when the information from this Chapter is incorporated in the final report.

Deliverables:

- Hydraulic Model Development/Update and Calibration TM that will become Appendix.
- Wastewater Master Plan Chapter
- System evaluation tools, model results in shapefile format and hydraulic model

Task 600: Reclaimed Water Master Plan

Engineer will develop a Reclaimed Water System Master Plan to evaluate the conveyance capability of the existing reclaimed water system, the reliability and resiliency of the system and the interactions with conveyance of surface water to the RWIF. This updated plan will identify areas that need upgrades, replacement or expansion. Engineer will also provide recommendations for reliability and efficiency improvements and plan for future infrastructure to accommodate growth in various time horizons.

Task 601. Hydraulic Model Development/Update

- a. Engineer will develop a hydraulic model of the city's reclaimed system that will be used to complete the hydraulic analyses required for Task 600 and to identify future capital improvements for improved system operation. The model will be developed utilizing the following:
 - i. Utilize Client GIS and available digital elevation data to update pipeline network.
 - ii. Utilize Client as-built drawings and other records to update facilities
 - iii. Utilize available customer records to allocate customer demand.
 - iv. Incorporate controls/settings based on information obtained from operations.

Task 602. Existing and Future Distribution System Evaluations

- a. In coordination with Task 300, Engineer will develop reclaimed water management strategies that identify opportunities the City has to optimize use of reclaimed water resources.
- b. Engineer will perform hydraulic system analyses to evaluate the reclaimed system performance and identify potential improvements under two seasonal demand delivery conditions using 24-hour EPS for existing and buildout. The system analyses will evaluate the effectiveness and adequacy of the distribution system to meet the delivery requirements established in conjunction with the city. Engineer will identify operational and or capital improvements to improve system operations while meeting the city's recharge, reuse, and GRIC exchange needs.

Task 603. Recommended Projects List

- a. Engineer will compile the results of the Tasks 601-602 to develop graphical and tabular summaries of recommended capital and operational wastewater projects. This will account for projects already identified in the city's 10-year capital improvement plan and/or those projects recommended in the city's 2018 IWMP.

Task 604. Client workshop

- a. Engineer will prepare and present the results of Task 600 to city staff.

Task 605. Reclaimed Water Master Plan Chapter

- a. Engineer will prepare a Chapter documenting the Reclaimed System Evaluation for the IMP. This Chapter will include a summary of the analysis and recommendations. The Chapter will be provided to city after the Reclaimed System Workshop for review and comment.
- b. After the city's comments are received, necessary changes to the reclaimed system analysis will be made and confirmed with the city. Full resolution of the City's comments will be made when the information from this Chapter is incorporated in the final report.

Deliverables:

- Hydraulic Model Development/Update Chapter
- Reclaimed Water Master Plan Chapter

- System evaluation tools, model results in shapefile format and hydraulic model

Task 700: Integrated Water Mater Plan

The improvement needs identified in the previous tasks will be presented in a candidate capital improvement projects list. Planning-level cost opinions of probable construction cost will be prepared for each project. Engineer will prepare an updated 5-year, 10-year and Buildout CIP based on the recommended improvements generated within this IMP.

Task 701. Planning-level Opinions of Probable Construction Costs (OPCC)

- a. Engineer will prepare unit cost (in 2026 dollars) information and assumptions for the variety of types of improvements that will be identified as part of the potable water system master planning efforts. Cost estimates will utilize AACEI Level 5 level of accuracy for planning purposes. This unit cost information will be used to develop planning-level opinions of probable project costs.
- b. Engineer will prepare a table of construction and capital unit rates for pipelines, pumping stations, reservoirs, wells, and treatment facilities based on 1) general knowledge of current construction costs in the larger metro area as well as 2) project specific estimates provided by the City. The proposed unit rates will be reviewed with the city, adjusted as requested and then extended using quantity take-offs from the hydraulic models to form the updated CIPs. The unit cost information will be added to the CIP Tool to support the calculation and organization of CIP project costs. Tables will be prepared to summarize cost information for the proposed improvement projects.

Task 702. CIP project prioritization

- a. The Engineer will develop a CIP Tracking Tool to help prioritize and manage the city's CIP. The tool will document project ID, size, location, description, trigger and other project information including project costs and schedules. CIP Tracking Tool will incorporate information developed as part of the city's separate Replacement Project into the tracking tool. Format of tool will be discussed and approved by the city prior to development.
- b. The CIP Tool with the final CIP recommendations will be delivered to the city at the end of the project for their use in updating and managing the water system CIP in subsequent years after the IMP project is completed.
- c. Engineer will prepare and present the results of Task 700 – Capital Improvement Planning to City staff.

Task 703. Final Project Documentation

- a. Engineer will prepare a color brochure style (11 x 17-inch stock, folded to 8.5 x 11-inch booklet) executive summary of the IMP that will be suitable for distribution to the City Council, City Leadership, and stakeholders. The Executive Summary will contain color graphics, charts, and pictures explaining the IMP. Engineer will provide an electronic copy of the draft Executive Summary for City review prior to issuing the final document. Engineer will prepare and deliver an electronic copy in PDF format.
- b. Engineer will document the IMP project in a draft report. The report will incorporate the final versions of the various technical chapters and CIP tables prepared and outcomes of the various workshops during previous phases of work. The report will describe the evaluations performed and the resulting recommendations. The report will provide recommendations for system and facility improvements that fall within the 5-year and 10-

year CIPs; and define longer-term improvements recommended through Buildout. System maps and figures to support the recommendations and summarize the proposed improvements will be provided.

- c. Engineer will facilitate a workshop and PowerPoint presentation with the City Staff to present the draft report and receive comments.
- d. Engineer will incorporate comments from the review workshop and update the Integrated Master Plan Report to address these comments.

Deliverables:

- 20-Year CIP Project Sheets (electronically)
- Draft Report (electronically)
- Final Report (electronically)
- CIP Tracking Tools

Task 800: Project Management

Task 801. Monthly Project Meetings

- a. Monthly project meetings (a virtual and in-person option) will be conducted throughout the project to keep the City informed on the progress, project issues and recommendations and to discuss and resolve specific project issues. Engineer will coordinate and create an agenda for each meeting. Engineer will lead the meetings and prepare meeting presentations and handouts. A summary of the key decisions and action items will be documented in meeting minutes.

Task 802. Project Management and Administration

- a. Monthly invoices will be prepared and submitted to the city project manager. A status report will be prepared and submitted along with each monthly invoice. The status report will identify what work has been performed during the billing period and updated summary schedule on a task-by-task basis.

Deliverables:

- Project Meeting Agendas and Minutes
- Presentation materials
- Project Schedule updates as needed
- Project Monthly payment application / status report

Task 900: Allowance

Consultant may perform additional work requested by City that is not included in this scope of services as part of this supplemental services allowance. The scope and fee associated with these additional supplemental services will be agreed upon by City and the Engineer generally before the work is performed.

Task 901. Flow Monitoring

- a. Engineer will retain a subcontractor to provide, calibrate, install, and retrieve the flow meters for all locations identified in Task 202. City will inspect the proposed manholes for flow monitoring and provide cleaning prior to metering, if required. (e.g., Flow Monitoring Plan identifying number of meters and locations, pump stations lacking

critical data). All tasks completed under this allowance shall be authorized in advance, in writing, by the city's project manager.

Task 902. Owners Allowance

- a. The Owners Allowance is intended for additional services that are found by the city to be required during the course of the project. All tasks completed under this allowance shall be authorized in advance, in writing, by the city's project manager.

Task 903. Groundwater Management Allowance

- a. The Groundwater Management Allowance (Exhibit E) is intended for additional services, performed by LRE, to complete an Area of Hydrologic Impact (AOHI) groundwater modeling analysis. This will require updates to the Arizona Department of Water Resources (ADWR) Phoenix Active Management Area groundwater model. LRE will apply the groundwater model to estimate how the AOHI changes (expands) from the Underground Storage Facilities (USFs) where the City's recharges CAP and reclaimed water with varying amounts of credits remaining in storage. All tasks completed under this allowance shall be authorized in advance, in writing, by the city's project manager.

Schedule – Exhibit A

Consultant must complete all services specified herein in accordance with the Production Schedule and progress milestones included in Exhibit A attached herein. In the event delays are experienced beyond the control of Consultant, the completion date may be extended as mutually agreed upon by City and Consultant.

Level of Effort – Exhibit B

The services will be performed on a time and material basis according to the Fee Schedules attached to this proposal as Exhibit B.

Black & Veatch appreciates the opportunity to prepare this proposal, and we look forward to working together with Carollo Engineers on this important project. If you have any questions or require any additional information, please contact me (Tel: 602-381-4416}, email: thigpenbm@bv.com).

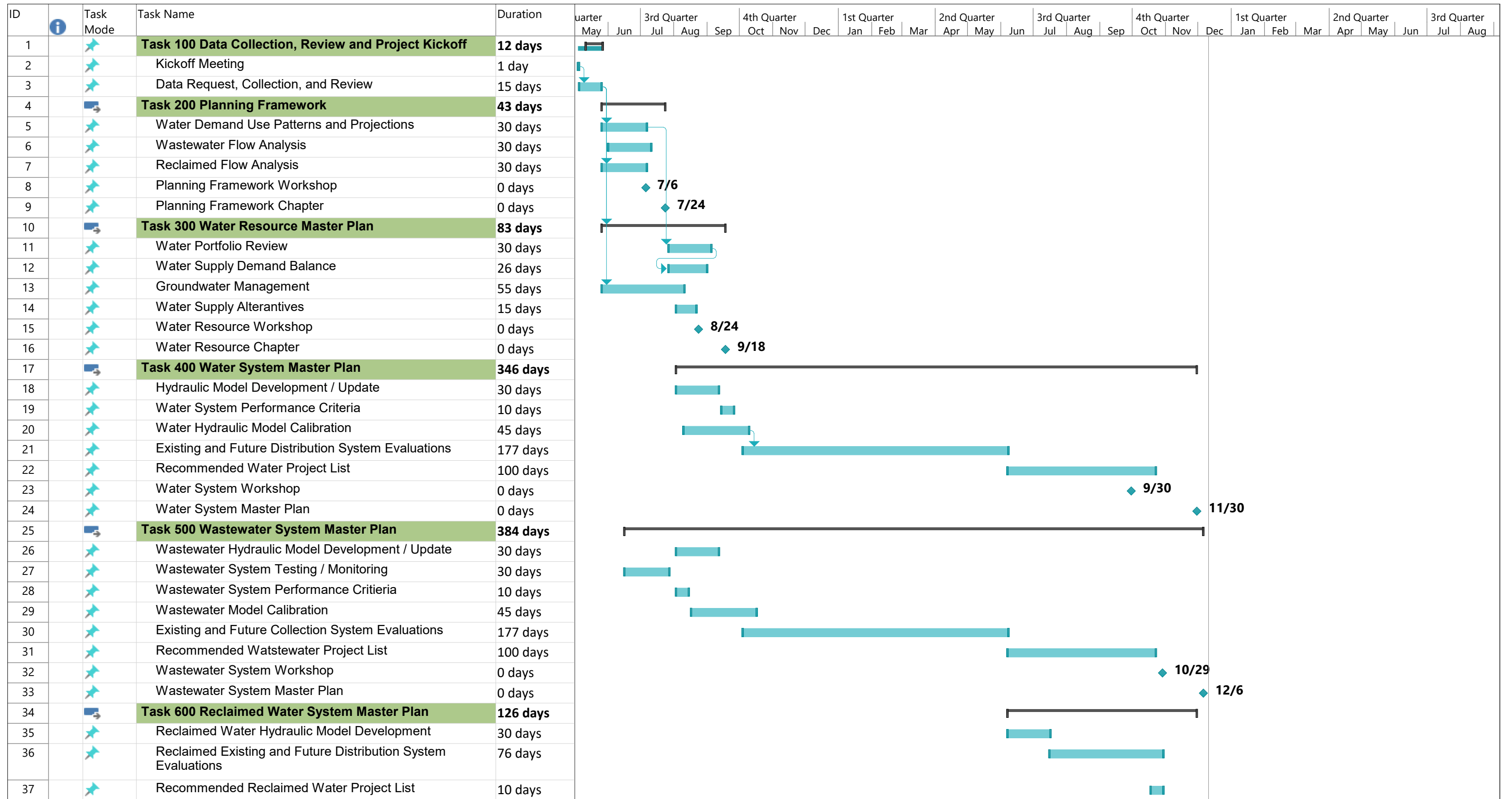
Very truly yours,



Black & Veatch Corporation
Brandy Thigpen
Project Manager

Enclosure(s)
Exhibit B – Level of Effort
Exhibit E – Subconsultant Services

cc: Eric McLeskey. Carollo Engineers



Project: WW2503.101
City of Chandler IMP
Date: Wed 4/15/26

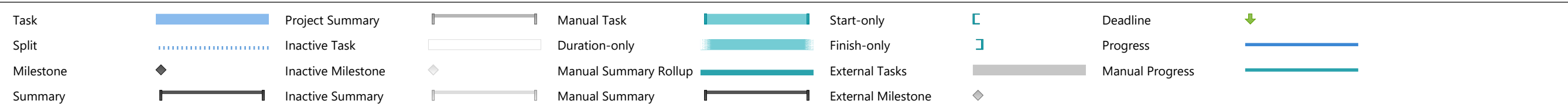


EXHIBIT "B"
COMPENSATION AND FEES



EXHIBIT "B-1"



City of Chandler
 WW2503.101 Integrated Water, Wastewater, Reclaimed water Master Plan
 Lump Sum Cost Per Task

TASK DESCRIPTION		Black & Veatch	Carollo	SUBTOTAL
Task 100 Data Collection, Review and Project Kickoff				\$25,902
101	Kickoff Meeting	\$3,256	\$3,520	\$6,776
102	Data Request, Collection, and Review	\$10,166	\$8,960	\$19,126
Task 200 Planning Framework				\$149,752
201	Water Demand Use Patterns and Projections	\$6,088	\$48,120	\$54,208
202	Wastewater Flow Analysis	\$804	\$28,040	\$28,844
203	Reclaimed Flow Analysis	\$33,736	\$0	\$33,736
204	Planning Framework Workshop	\$3,466	\$4,280	\$7,746
205	Planning Framework Chapter	\$6,978	\$18,240	\$25,218
Task 300 Water Resource Master Plan				\$86,574
301	Water Portfolio Review	\$1,986	\$11,840	\$13,826
302	Water Supply Demand Balance	\$804	\$25,720	\$26,524
303	Water Supply Alternatives	\$402	\$16,920	\$17,322
304	Water Resource Workshop	\$2,112	\$4,280	\$6,392
305	Water Resource Chapter	\$4,270	\$18,240	\$22,510
Task 400 Potable Water Master Plan				\$128,117
401	Hydraulic Model Development / Update	\$18,007	\$0	\$18,007
402	Water System Performance Criteria	\$4,014	\$0	\$4,014
403	Water Hydraulic Model Calibration	\$20,160	\$0	\$20,160
404	Existing and Future Distribution System Evaluations	\$25,126	\$0	\$25,126
405	Recommended Water Project List	\$13,683	\$0	\$13,683
406	Water System Workshop	\$10,711	\$2,680	\$13,391
407	Potable Water System Master Plan	\$29,656	\$4,080	\$33,736
Task 500 Wastewater Master Plan				\$134,531
501	Hydraulic Model Development and Update	\$452	\$17,640	\$18,092
502	Wastewater System Performance Criteria	\$452	\$4,480	\$4,932
503	System Testing and Monitoring	\$452	\$7,520	\$7,972
504	Wastewater Hydraulic Model Calibration and Validation	\$452	\$29,360	\$29,812
505	Existing and Future Collection System Evaluations	\$452	\$27,200	\$27,652
506	Recommended Projects List	\$1,189	\$16,240	\$17,429
507	Wastewater Master Plan Workshop	\$2,898	\$4,280	\$7,178
508	Wastewater Master Plan Chapter	\$3,226	\$18,240	\$21,466
Task 600 Reclaimed Master Plan				\$60,932
601	Hydraulic Model Development and Update	\$7,123	\$0	\$7,123
602	Existing and Future Distribution System Evaluations	\$15,070	\$0	\$15,070
603	Recommended Projects List	\$6,538	\$0	\$6,538
604	Reclaimed Water Master Plan Client Workshop	\$8,784	\$2,680	\$11,464
605	Reclaimed Water Master Plan Master Plan Chapter	\$16,657	\$4,080	\$20,737
Task 700 Integrated Water Master Plan				\$140,552
701	Prepare 60% CAD Base Plans	\$8,199	\$5,200	\$13,399
702	Coordinate Preliminary MP&E Engineering	\$27,905	\$4,560	\$32,465
703	Prepare 60% Plans & Outline Specs	\$74,968	\$19,720	\$94,688
Task 800 Project Management				\$75,065
801	Monthly Meetings	\$17,864	\$18,660	\$36,524
802	Project Management and Administration	\$19,021	\$19,520	\$38,541
ALLOWANCES				\$210,350
901	Flow Monitoring			\$50,000
902	Owners Allowance			\$95,000
902	Groundwater Management Allowance			\$65,350
EXPENSES				\$3,500
	Travel Allowance		\$3,500	\$3,500
TOTAL COST:		\$407,125	\$397,800	\$1,015,275



EXHIBIT B-2
City of Chandler
Black & Veatch

WW2503.101 Integrated Water, Wastewater, Reclaimed water Master Plan

Mike Caruso Brandy Thigpen Shania Andrews Alicia White Travis Blair Bethany McDonald Michael Jermaine Eric Spooner Zuly Pasdillas Brian Lentd Ben Cownie

TASK DESCRIPTION	Chandler Labor Hours											TOTAL LABOR HOURS PER TASK	Black & Veatch Fee
	Client Director	Project Manager	Project Administration	Project Controls	Project Accountant	Quality Assurance and Quality Control	Water System Lead	Reclaimed System Lead	Staff Engineer	GIS Lead	Digital Tool Lead		
Task 100 Data Collection, Review and Project Kickoff	0	4	2	0	0	0	4	10	21	27	0	68	\$ 13,422
101 Kickoff Meeting		2					2	2	8	2		16	\$ 3,256
102 Data Request, Collection, and Review		2	2				2	8	13	25		52	\$ 10,166
Task 200 Planning Framework	0	28	2	0	0	0	12	20	48	0	0	110	\$ 51,072
201 Water Demand Use Patterns and Projections		8					8	2	8			26	\$ 6,088
202 Wastewater Flow Analysis		4										4	\$ 804
203 Reclaimed Flow Analysis		8						16	32			56	\$ 33,736
204 Planning Framework Workshop		4					2	2	2			10	\$ 3,466
205 Planning Framework Chapter		4	2				2		6			14	\$ 6,978
Task 300 Water Resource Master Plan	0	22	0	0	0	0	8	8	2	0	0	40	\$ 9,574
301 Water Portfolio Review		4					2	4				10	\$ 1,986
302 Water Supply Demand Balance		4										4	\$ 804
303 Water Supply Alternatives		2										2	\$ 402
304 Water Resource Workshop		4					4	2				10	\$ 2,112
305 Water Resource Chapter		8					2	2	2			14	\$ 4,270
Task 400 Potable Water Master Plan	2	68	17	0	0	8	102	2	414	0	0	613	\$ 121,357
401 Hydraulic Model Development / Update		4					13		80			97	\$ 18,007
402 Water System Performance Criteria		2					2		17			21	\$ 4,014
403 Water Hydraulic Model Calibration		8					17		80			105	\$ 20,160
404 Existing and Future Distribution System Evaluations		17					25		82			124	\$ 25,126
405 Recommended Water Project List	2	8					8		50			68	\$ 13,683
406 Water System Workshop		4					8	2	42			56	\$ 10,711
407 Potable Water System Master Plan		25	17			8	29		63			142	\$ 29,656
Task 500 Wastewater System Master Plan	2	8	0	0	0	4	20	2	2	0	0	38	\$ 9,571
501 Hydraulic Model Development and Update							2					2	\$ 452
502 Wastewater System Performance Criteria							2					2	\$ 452
503 System Testing and Monitoring							2					2	\$ 452
504 Wastewater Hydraulic Model Calibration and Validation							2					2	\$ 452
505 Existing and Future Collection System Evaluations							2					2	\$ 452
506 Recommended Projects List	2						2					4	\$ 1,189
507 Wastewater Master Plan Workshop		4					4	2	2			12	\$ 2,898
508 Wastewater Master Plan Chapter		4				4	4					12	\$ 3,226
Task 600 Reclaimed Water System Master Plan	0	8	18	0	0	6	0	58	209	0	0	299	\$ 54,172
601 Hydraulic Model Development and Update								8	32			40	\$ 7,123
602 Existing and Future Distribution System Evaluations		2						17	64			83	\$ 15,070
603 Recommended Projects List		2						8	25			35	\$ 6,538
604 Reclaimed Water Master Plan Client Workshop		2						8	38			48	\$ 8,784
605 Reclaimed Water Master Plan Master Plan Chapter		2	18			6		17	50			93	\$ 16,657
Task 700 Integrated Water Master Plan	2	27	25	0	0	13	75	58	202	42	117	561	\$ 111,072
701 Planning Level Opinion of Probable Costs		2					4	4	34			44	\$ 8,199
702 CIP Project Prioritization		8					16	16	50		50	140	\$ 27,905
703 Final Project Documentation	2	17	25			13	55	38	118	42	67	377	\$ 74,968
Task 800 Project Management	4	36	36	18	36	0	18	18	18	0	0	184	\$ 36,885
801 Monthly Meetings	4	18					18	18	18			76	\$ 17,864
802 Project Management and Administration		18	36	18	36							108	\$ 19,021
Total Estimated Chandler Labor Hours	10	201	100	18	36	31	239	176	916	69	117	1913	\$ 407,125
Hourly Rates	\$369	\$313	\$133	\$193	\$143	\$268	\$226	\$199	\$173	\$199	\$199		
Total Chandler Labor Cost per Category	\$3,689	\$62,827	\$13,318	\$3,471	\$5,130	\$8,312	\$53,970	\$35,075	\$158,249	\$13,751	\$23,317		

EXHIBIT B-2
City of Chandler
Carollo Engineers, Inc.

Integrated Master Plan
Estimate of Effort
March 9, 2026

Jessica Dresang Eric McLeskey Andy Baldwin Matt Huang Jessica Fritsche Grace Gonzales Gunnar Hagstrom Kevin Christensen Chris Hurlburt

Tasks	Carollo Labor Hours									Total Labor Hours Per Task	Subconsultant Fee	Fee per Task
	Principal In Charge	Senior Project Manager	Senior Quality Manager	Quality Manager	Senior Project Professional	Professional	Staff Professional	GIS Technician	Document Processing/ Clerical			
Task 100 Data Collection, Review and Project Kickoff	2	8	0	0	0	16	32	0	0	58	\$ -	\$ 12,480
101 Kickoff Meeting	2	4	0	0	0	8	0	0	0	14	\$ -	\$ 3,520
102 Data Request, Collection, and Review	0	4	0	0	0	8	32	0	0	44	\$ -	\$ 8,960
Task 200 Planning Framework	6	44	32	0	52	104	156	40	8	442	\$ -	\$ 98,680
201 Water Demand Use Patterns and Projections	0	16	32	0	40	40	60	16	0	204	\$ -	\$ 48,120
202 Wastewater Flow Analysis	0	16	0	0	8	40	52	16	0	132	\$ -	\$ 28,040
203 Reclaimed Flow Analysis	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
204 Planning Framework Workshop	2	4	0	0	0	8	4	0	0	18	\$ -	\$ 4,280
205 Planning Framework Chapter	4	8	0	0	4	16	40	8	8	88	\$ -	\$ 18,240
Task 300 Water Resources Master Plan	6	48	0	8	0	104	176	12	8	362	\$ -	\$ 77,000
301 Water Portfolio Review	0	8	0	0	0	16	32	0	0	56	\$ -	\$ 11,840
302 Water Supply Demand Balance	0	16	0	4	0	40	60	0	0	120	\$ -	\$ 25,720
303 Water Supply Alternatives	0	12	0	0	0	24	40	4	0	80	\$ -	\$ 16,920
304 Water Resource Workshop	2	4	0	0	0	8	4	0	0	18	\$ -	\$ 4,280
305 Water Resources Master Plan Chapter	4	8	0	4	0	16	40	8	8	88	\$ -	\$ 18,240
Task 400 Potable Water Master Plan	2	12	0	0	0	12	0	0	0	26		\$ 6,760
401 Hydraulic Model Development / Update	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
402 Water System Performance Criteria	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
403 Water Hydraulic Model Calibration	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
404 Existing and Future Distribution System Evaluations	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
405 Recommended Water Project List	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
406 Water System Workshop	2	4	0	0	0	4	0	0	0	10	\$ -	\$ 2,680
407 Potable Water System Master Plan	0	8	0	0	0	8	0	0	0	16	\$ -	\$ 4,080
Task 500 Wastewater System Master Plan	8	54	0	26	0	156	328	16	8	596	\$ -	\$ 124,960
501 Hydraulic Model Development and Update	0	4	0	0	0	24	60	0	0	88	\$ -	\$ 17,640
502 Wastewater System Performance Criteria	0	2	0	0	0	4	16	0	0	22	\$ -	\$ 4,480
503 System Testing and Monitoring	0	8	0	2	0	8	8	8	0	34	\$ -	\$ 7,520
504 Wastewater Hydraulic Model Calibration and Validation	0	8	0	12	0	40	80	0	0	140	\$ -	\$ 29,360
505 Existing and Future Collection System Evaluations	0	12	0	0	0	40	80	0	0	132	\$ -	\$ 27,200
506 Recommended Projects List	2	8	0	8	0	16	40	0	0	74	\$ -	\$ 16,240
507 Wastewater Master Plan Workshop	2	4	0	0	0	8	4	0	0	18	\$ -	\$ 4,280
508 Wastewater Master Plan Chapter	4	8	0	4	0	16	40	8	8	88	\$ -	\$ 18,240

Tasks	Carollo Labor Hours									Total Labor Hours Per Task	Subconsultant Fee	Fee per Task
	Principal In Charge	Senior Project Manager	Senior Quality Manager	Quality Manager	Senior Project Professional	Professional	Staff Professional	GIS Technician	Document Processing/ Clerical			
Task 600 Reclaimed Water Master Plan	2	12	0	0	0	12	0	0	0	26	\$ -	\$ 6,760
601 Hydraulic Model Development and Update	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
602 Existing and Future Distribution System Evaluations	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
603 Recommended Projects List	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -
604 Reclaimed Water Master Plan Client Workshop	2	4	0	0	0	4	0	0	0	10	\$ -	\$ 2,680
605 Reclaimed Water Master Plan Master Plan Chapter	0	8	0	0	0	8	0	0	0	16	\$ -	\$ 4,080
Task 700 Integrated Water Master Plan	8	28	0	4	0	56	0	20	16	132	\$ -	\$ 29,480
701 Planning-level Opinions of Probable Construction Costs (OPCC)	0	8	0	4	0	8	0	0	0	20	\$ -	\$ 5,200
702 CIP project prioritization	0	4	0	0	0	16	0	0	0	20	\$ -	\$ 4,560
703 Final Project Documentation	8	16	0	0	0	32	0	20	16	92	\$ -	\$ 19,720
Task 800 Project Management	12	36	0	0	0	94	20	0	0	162	\$ -	\$ 38,180
801 Monthly Progress Meetings	8	20	0	0	0	30	20	0	0	78	\$ -	\$ 18,660
802 Project Management and Administration	4	16	0	0	0	64	0	0	0	84	\$ -	\$ 19,520
Total Estimated Carollo Labor Hours	46	242	32	38	52	554	712	88	40	1,804	\$ -	\$ 394,300
Hourly rates	\$ 320	\$ 300	\$ 300	\$ 280	\$ 280	\$ 210	\$ 190	\$ 170	\$ 140			
Total Carollo Labor Cost per Category	\$14,720	\$72,600	\$9,600	\$10,640	\$14,560	\$116,340	\$135,280	\$14,960	\$5,600			

Expenses & Other Direct Costs (ODCs)		Cost
Printing, Mileage, Travel and Expenses		\$ 3,500
		\$ 3,500
Total Estimated Fee (Tasks 100 - 800)		\$ 394,300
Total Expenses and ODCs		\$ 3,500
Total Contract Value		\$ 397,800

EXHIBIT "C"

INSURANCE REQUIREMENTS

1. General.
 - 1.1 At the same time as execution of this Agreement, Consultant must furnish City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement will not be deemed to apply to required Workers' Compensation coverage.
 - 1.2 Consultant and any of its subconsultants must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.
 - 1.3 The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.
 - 1.4 City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Consultant from liabilities that might arise out of the performance of the Agreement services under this Agreement by Consultant, its agents, representatives, employees, subconsultants, and Consultant is free to purchase any additional insurance as may be determined necessary.
 - 1.5 Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve Consultant from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.
 - 1.6 Use of subconsultants: If any work is subcontracted in any way, Consultant must execute a written Agreement with subconsultant containing the same Indemnification Clause and Insurance Requirements as City requires of Consultant in this Agreement. Consultant is responsible for executing the Agreement with the subconsultant and obtaining Certificates of Insurance and verifying the insurance requirements.
2. Minimum Scope and Limits of Insurance. Consultant must provide coverage with limits of liability not less than those stated below.
 - 2.1 *Professional Liability.* If the Agreement is the subject of any professional services or work performed by Consultant, or if Consultant engages in any professional services or work adjunct or residual to performing the work under this Agreement, Consultant must maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by Consultant, or anyone employed by Consultant, or anyone whose acts, mistakes, errors and omissions Consultant is legally liable, with a liability limit of \$1,000,000 each claim and \$2,000,000 all claims. In the event the Professional Liability insurance policy is written on a "claims made" basis, coverage must extend for 3 years past

completion and acceptance of the work or services, and Consultant, or its selected Design Professional will submit Certificates of Insurance as evidence the required coverage is in effect. The Design Professional must annually submit Certificates of Insurance citing that the applicable coverage is in force and contains the required provisions for a 3 year period.

2.2 *Commercial General Liability-Occurrence Form.* Consultant must maintain “occurrence” form Commercial General Liability insurance with a limit of not less than \$2,000,000 for each occurrence, \$4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be “follow form” equal or broader in coverage scope than underlying insurance.

2.3 *Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles Vehicle Liability:* Consultant must maintain Business/Automobile Liability insurance with a limit of \$1,000,000 each accident on Consultant owned, hired, and non-owned vehicles assigned to or used in the performance of Consultant’s work or services under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be “follow form” equal or broader in coverage scope than underlying insurance.

2.4 *Workers Compensation and Employers Liability Insurance:* Consultant must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Consultant employees engaged in the performance of work or services under this Agreement and must also maintain Employers’ Liability insurance of not less than \$1,000,000 for each accident and \$1,000,000 disease for each employee.

3. Additional Policy Provisions Required.

3.1 *Self-Insured Retentions or Deductibles.* Any self-insured retentions and deductibles must be declared and approved by City. If not approved, City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to City, its officers, officials, agents, employees, and volunteers.

3.1.1. Consultant’s insurance must contain broad form contractual liability coverage.

3.1.2. Consultant’s insurance coverage must be primary insurance with respect to City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by City, its officers, officials, agents, and employees will be in excess of the coverage provided by Consultant and must not contribute to it.

3.1.3. Consultant’s insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

3.1.4. Coverage provided by Consultant must not be limited to the liability assumed under the indemnification provisions of this Agreement.

- 3.1.5. The policies must contain a severability of interest clause and waiver of subrogation against City, its officers, officials, agents, and employees, for losses arising from Work performed by Consultant for City. (Does not apply to Professional Liability coverage.)
- 3.1.6. Consultant, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. Consultant must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3-year period containing all the Agreement insurance requirements, including naming City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.
- 3.1.7. If a Certificate of Insurance is submitted as verification of coverage, City will reasonably rely upon the Certificate of Insurance as evidence of coverage, but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

3.2. *Insurance Cancellation During Term of Agreement.*

- 3.2.1. If any of the required policies expire during the life of this Agreement, Consultant must forward renewal or replacement Certificates to City within 10 days after the renewal date containing all the required insurance provisions.
- 3.2.2. Each insurance policy required by the insurance provisions of this Agreement must provide the required coverage and must not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to City, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the required notice, Consultant or its insurance broker must notify City of any cancellation, suspension, non-renewal of any insurance within seven (7) days of receipt of insurers' notification to that effect.

3.3 *City as Additional Insured.* The policies are to contain, or be endorsed to contain, the following provisions:

- 3.3.1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, Consultant; Products and Completed operations of Consultant; and automobiles owned, leased, hired, or borrowed by Consultant.
- 3.3.2. City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by Consultant even if those limits of liability are in excess of those required by this Agreement.

EXHIBIT "D" **SPECIAL CONDITIONS**

Standard Details and Specifications. Consultant must be familiar with City's latest revision of the MAG Specifications and MAG Standard Details as amended by City. City's current amendment to the MAG Specifications, part of City's Unified Development Manual, may be found and downloaded from City's website at <http://www.chandleraz.gov/udm>.

City Ownership of Project Documents. All work products (electronically or manually generated) including, but not limited to: plans, specifications, cost estimates, field notes, tracings, studies, investigations, design analyses, original drawings, original mylars, Computer Aided Drafting and Design (CADD) file diskettes which reflect all final drawings, and other related documents which are prepared in the performance of this Agreement (collectively referred to as "Documents") are to be and remain the property of City and are to be delivered to the Project Manager before the final payment is made to Consultant. In the event these Documents are altered, modified or adapted without the written consent of Consultant, which consent Consultant must not unreasonably withhold, City agrees to hold Consultant harmless to the extent permitted by law from the legal liability arising out of City's alteration, modification or adaptation of the Documents.

Re-use of Documents. The parties agree the documents, drawings, specifications and designs, although the property of City, are prepared for this specific project and are not intended nor represented by Consultant to be suitable for re-use for any other project. Any re-use without written verification or adaptation by Consultant for the specific purpose intended will be at City's sole risk and without liability or legal exposure to Consultant.

Documents to Bear Seal. Consultant and its subconsultants must endorse by professional seal all plans, works, and deliverables prepared by each for this Agreement as required by state law.

Work within City's Right-of-Way. All work performed within City's Right-of-Way by Consultant and Consultant's subconsultants must comply with City of Chandler requirements.

EXHIBIT "E"
SUBCONSULTANT DOCUMENTS WITH CONSULTANT

Any subconsultant assumptions, clarifications, exclusions, terms & conditions, signature blocks, etc. included are strictly between the Consultant and their subconsultants, and do not apply to the Agreement between the Consultant and the City.



March 6, 2026

P26-00408-00

Brandy Thigpen, P.E.
Black & Veatch
2231 E. Camelback Rd, Suite 300
Phoenix, Arizona 85016

Re: Proposal for City of Chandler Area of Hydrologic Impact at a Recharge Facility

Dear Ms. Thigpen,

Spheros Environmental (Spheros) is pleased to submit the requested Scope of Services and Fee Estimate for Black & Veatch (BV) to conduct hydrologic modeling at a City of Chandler recharge facility to determine the Area of Hydrologic Impact (AOHI). The primary objective of this analysis is to model the size of the AOHI and determine if existing wells fall within its boundary to recover banked recharge supplies. To prepare this Scope of Services and Fee Estimate, Spheros has reviewed the project objectives outlined by BV and the Arizona Department of Water Resources (ADWR) substantive policy statement regarding the area of impact for a recovery well. We have detailed the Scope of Services and our underlying assumptions in the following sections. Spheros can begin the proposed services as soon as we receive authorization to proceed.

I. Project Background

Spheros understands that BV is seeking support to model the AOHI for a City of Chandler recharge facility, however they hold four underground storage facility (USF) permits. Spheros will assess various modeling scenarios to establish an AOHI that encompasses a range of existing and proposed wells that may be used for recovery of banked recharge credits. Spheros will gather the required data for the modeling from ADWR to carry out the scenarios. This scope includes the pre-application meeting with ADWR, AOHI modeling scenarios, a technical memorandum presenting the results to BV, and the hydrologic study and permit application in support of future recovery well application submittals to ADWR, if requested. This scope is outlined to conduct the work at one of the City of Chandler USFs. If more than one AOHI analysis is desired, this scope and approximately 75 percent of the cost estimate can be applied to subsequent USFs.

Spheros proposes the following Scope of Services:

1221 Auraria Parkway, Denver, CO 80204
www.spherosenv.com

Innovative Environmental Solutions for a Sustainable Future

••• *Proposal For City Of Chandler Area Of Hydrologic Impact At A Recharge Facility*

II. Scope of Services

Task Series 1: Project Management

This task series involves activities related to project management, administration, team meetings, and quality management.

Task 1.1: Project Administration

This task involves the administration of Spheros' agreement with BV. Spheros will submit monthly invoices and progress reports that provide a summary of billing period activities and progress to date. Project Administration also includes quality assurance/quality control (QA/QC) of all deliverables. A Senior Hydrogeologist will be assigned as a QA/QC Manager for the duration of the project and will be responsible for the quality control and assurance throughout the execution of the project tasks, alongside the Project Manager.

Task 1.2: Project Team Meetings

Spheros will attend a kick-off meeting/workshop with the project team. The meeting is assumed to be one hour in length. In addition, Spheros will attend progress meetings with the project team and a Pre-Application Meeting with ADWR. Progress meetings are assumed to be up to one hour in length and held via teleconference. Spheros will coordinate with the project team to assist in the preparation of the agenda, presentation materials, and meeting summaries, as needed.

Task Series 2: AOHI Modeling

Spheros conduct AOHI modeling for the recharge facility in a systematic and phased manner. The process will involve the following steps:

1. Review of Existing Data: Spheros will examine the available data related to the recharge facility and the hydrologic characteristics. This will include reviewing previous studies, reports, and any relevant information provided by BV and City of Chandler.
2. Preparation and Execution of Modeling Scenarios: Based on the available data, Spheros will develop various modeling scenarios for the recharge facility and execute these scenarios using groundwater modeling software. This will involve simulating the behavior of the AOHI under different conditions.

••• *Proposal For City Of Chandler Area Of Hydrologic Impact At A Recharge Facility*

Task 2.1: Review of Existing Data

This Task 2.1 will include a comprehensive review of the ADWR groundwater flow model for the Phoenix Active Management Area (AMA). Spheros will closely collaborate with ADWR's modeling group to ensure accurate and up-to-date information is incorporated into our modeling efforts. This will include discussions and coordination to obtain the necessary data related to pumping and recharge rates, as well as the accumulation of long-term storage credits. Spheros will conduct a thorough review and consideration of any existing previously submitted applications related to the project. This review will encompass examining the content and findings of these applications, including any relevant reports or studies that have been previously submitted.

Task 2.2: Preparation and Execution of Modeling Scenarios

Task 2.2 will include coordination with BV to define and model various scenarios for the recharge facility that encompass existing and proposed potable and reclaimed wells. Spheros will collaborate with BV to define the specific parameters and characteristics of these scenarios. This will include determining the various factors such as recharge rates, Long Term Storage Credit (LTSC) volumes, and the locations of both existing and proposed potable and reclaimed wells.

Once the scenarios have been established, Spheros will proceed with the hydrologic modeling to simulate the AOHI under these conditions.

Task Series 3: Results Briefing and Technical Memorandum

Following completion of the desktop review and modeling scenarios, Spheros will prepare a brief technical memorandum to present the results of the modeling scenarios to BV for next steps.

Task 3.1: Technical Memorandum

The findings will be compiled and presented in a concise technical memorandum. This memorandum will serve as a comprehensive summary of the results obtained from the hydrologic modeling and analysis conducted in this Scope of Services.

The technical memorandum will include the key outcomes, insights, and conclusions derived from the modeling scenarios. It will present the implications and potential impacts of the various configurations and operations of the recharge facility, as well as the locations and functioning of potable and reclaimed wells within the AOHI.

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Task 3.2: Executive Briefing

Spheros will present the results of the study to BV and discuss next steps for additional modeling scenarios or recovery well permitting. The executive briefing is assumed to be approximately one hour and held via teleconference.

Task Series 4: ADWR Hydrologic Study and Permit Application

Contingent on the results of the AOHI modeling scenarios, and at BV's request, this task will be used to prepare the application report and supporting documentation to ADWR to apply for recovery well permits and/or to run additional modeling scenarios.

Task 4.1: Preparation of Hydrologic Study

Spheros will prepare a hydrologic study to document the AOHI modeling conducted in support of City of Chandler's application for recovery well permits. The study methodology will follow the Substantive Policy Statement for Recovery Well Area of Impact (RW1) issued by the ADWR on August 21, 2021. The purpose of the AOHI study is to project the AOHI at the recharge facility where City of Chandler stores water to determine which wells may be permitted as recovery wells within an AOHI.

Task 4.2: Preparation of Application Documents

Spheros will prepare the appropriate application documents to be submitted to ADWR for a recovery well permit. This includes the compilation of detailed documentation to ensure compliance with regulatory standards to facilitate a smooth application review. Additionally, the scope of this task encompasses Spheros to respond to any clarifying questions from ADWR.

III. Assumptions

Spheros has made assumptions in order to prepare this Scope of Services and Fee Estimate. These assumptions are listed below.

- One project kick-off meeting will be held with the project team.
- BV or City of Chandler will be responsible for paying for any ADWR application fees, should a recovery well permit be prepared under Task 4.
- The Fee Estimate has been developed using Spheros Standard 2026 rates.
- If any additional project management or scope of services is required, Spheros will revise this Scope of Services and Fee Estimate accordingly.

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- Costs for each Task are estimated as accurately as possible given Spheros' current knowledge of the project. However, should the need arise, the Spheros project manager can move funds between Tasks 1 through 4.

These assumptions are subject to change based on information gained from the modeling and specific requests from the team. However, Spheros will not deviate from these assumptions without written authorization from the team.

IV. Schedule

Spheros can begin work immediately upon receiving the signed contract.

V. Cost Estimate

The cost of the project as proposed is \$65,350 with details per task provided as Attachment I. Spheros' standard terms and conditions for Proposal for City of Chandler Area of Hydrologic Impact at a Recharge Facility are provided as Attachment II. The terms of this proposal will be honored for a period of 90 days Please don't hesitate to contact me at 602-296-7093 or Elizabeth.Mora@spherosenv.com. We look forward to the opportunity to work with you on this important project.

Thank you for providing us the opportunity to present this proposal to Black & Veatch.

Sincerely,

Approved:



Elizabeth Mora
Senior Project Manager / Hydrogeologist

Lauren Handley
VP, Central Division Director

Attachment I: Cost Estimate

Attachment II: Spheros Environmental's Standard Terms and Conditions for Proposal for City of Chandler Area of Hydrologic Impact at a Recharge Facility

••• *Proposal For City Of Chandler Area Of Hydrologic Impact At A Recharge Facility*

Attachment I. Cost Estimate

Attachment I. Cost Estimate



Task/ Sub Task	Task Name	Labor Hours	Labor Cost
1	Project Management	42.00	\$ 9,690.00
2	AOHI Modeling	104.00	\$ 20,900.00
3	Results Briefing and Technical Memorandum	84.00	\$ 15,780.00
4	ADWR Hydro Study and Permit Application	104.00	\$ 18,980.00
		334.00	\$ 65,350.00

••• *Proposal For City Of Chandler Area Of Hydrologic Impact At A Recharge Facility*

Attachment II. Spheros Environmental's Standard Terms and Conditions



GENERAL TERMS AND CONDITIONS FOR SERVICES

I. APPLICABILITY. These terms and conditions for services (these "Terms") are the only terms that govern the provision of services by Spheros Environmental Group Parent, Inc. ("Spheros Environmental") to name of the customer ("Client" and together with Spheros Environmental, the "Parties" and each, a "Party") set forth on the accompanying order confirmation, letter, statement of work, or purchase order (the "Order Confirmation"). The Order Confirmation and these Terms (collectively, this "Agreement") comprise the entire agreement between the Parties, and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. In the event of any conflict between these Terms and the Order Confirmation, these Terms shall govern, unless the Order Confirmation expressly states that the terms and conditions of the Order Confirmation shall control. These Terms prevail over any of Client's general terms and conditions regardless of whether or when Client has submitted its request for proposal, order, or such terms. Provision of services to Client does not constitute acceptance of any of Client's terms and conditions and does not serve to modify or amend these Terms. This Agreement may not be modified except by an amendment in writing, signed by both Parties.

II. SERVICES; PERFORMANCE DATES. Spheros Environmental shall provide the services to Client as described in the Order Confirmation (the "Services") in accordance with these Terms. Spheros Environmental shall use reasonable efforts to meet any performance dates specified in the Order Confirmation, and any such dates shall be estimates only.

III. CLIENT'S ACTS OR OMISSIONS. If Spheros Environmental's performance of its obligations is delayed or prevented by any act or omission of Client or its agents, subcontractors, consultants, or employees, Spheros Environmental shall not be deemed in breach of its obligations under this Agreement or otherwise liable for any costs, charges, or losses sustained by Client to the extent arising directly or indirectly from such prevention or delay.

IV. COMPENSATION. For the performance of the Services, Client agrees to pay, and Spheros Environmental agrees to accept, compensation set forth in the Order Confirmation. Spheros Environmental will be compensated in US dollars for its Services on a time-and-materials or fixed-price basis. Spheros Environmental's estimate of the cost for its Services is based on the information provided by Client, and rates, reimbursable expenses, and management fees made a part of the Agreement. Client shall be responsible for all sales, use, and excises taxes, and any other similar taxes, duties, and charges of any kind imposed by any federal, state, or local governmental entity. Client agrees to reimburse Spheros Environmental for all reasonable travel and out-of-pocket expenses incurred by Spheros Environmental in connection with the performance of the Services. In the event that the Services occur over more than one (1) calendar year or the Services start date is delayed more than ninety (90) days due to factors outside of Spheros Environmental's sole control, Spheros Environmental may, without the approval of Client, increase its rates by the greater of: (a) five percent (5%) or (b) the United States Department of Labor, Bureau of Labor Statistics consumer price

index. Spheros Environmental will provide reasonable advance notice to Client prior to any potential rate increase. Invoices are submitted routinely, but no more than monthly, for time and expenses incurred or in the event of a fixed price contract as determined by the scope of work and applicable milestone for the percent of work completed. Terms of payment are net thirty (30) days. Overdue accounts are subject to an interest charge of one and a half percent (1.5%) per month and services may stop whenever payment is overdue more than sixty (60) days. Either Party may, at any time and from time to time during the term of this Agreement, request a change to the Services (each, a "Change"). Upon receipt of a request for any Change from Client, Spheros Environmental shall prepare and deliver to Client a proposal regarding the effect that such Change would have on (i) the cost of the Services, (ii) the timing for performance of the Services; and (iii) any other material aspect of this Agreement. Client and Spheros Environmental shall agree in writing on the terms applicable to any Change (each, a "Change Order"). Spheros Environmental may charge for the time it spends assessing and documenting a change request from Client on a time and materials basis. Spheros Environmental shall not implement any Change, and shall not be entitled to compensation for Services performed in respect of any Change, unless a Change Order in respect of such Change has been executed by both Parties. In the event that Spheros Environmental seeks any change to the Services such that the cost, scope, or schedule is impacted, Spheros Environmental shall within seven (7) days, notify Client in writing of the Change and promptly prepare and deliver to Client a proposal regarding the effect that such Change would have on (1) the cost of the Services, (2) the timing for performance of the Services and (3) any other material aspect of this Agreement. Notwithstanding this Section IV, Spheros Environmental may change the Services without the consent of Client provided that such changes do not materially affect the nature or scope of the Services, or the fees or any performance dates.

V. OWNERSHIP OF DOCUMENTS. All intellectual property rights, including copyrights, patents, patent disclosures and inventions (whether patentable or not), trademarks, service marks, trade secrets, know-how and other confidential information, trade dress, trade names, logos, corporate names, and domain names, together with all of the goodwill associated therewith, derivative works and all other rights (collectively, "Intellectual Property Rights") in and to all documents, work product, and other materials that are delivered to Client under this Agreement or prepared by or on behalf of Spheros Environmental in the course of performing the Services, including any items identified as such in the Order Confirmation (collectively, the "Deliverables") except for any Confidential Information (as defined in Section VI) of Client or Client materials shall be owned by Spheros Environmental. Spheros Environmental hereby grants Client a license to use all Intellectual Property Rights free of additional charge and on a non-exclusive, worldwide, non-transferable, non-sublicensable, fully paid-up, royalty-free, and perpetual basis to the extent necessary to enable Client to make reasonable use of the Deliverables and the Services. The Client shall not re-use or make any modification to Spheros Environmental's designs, documents or work product without the prior written authorization of Spheros Environmental, and any such

authorized use or modification shall be at the sole risk of Client with no liability to Spheros Environmental.

VI. CONFIDENTIALITY. From time to time during the term of this Agreement, either Party (as the "Disclosing Party") may disclose or make available to the other Party (as the "Receiving Party"), non-public, proprietary, and confidential information of Disclosing Party (whether or not marked, designated, or otherwise identified as "confidential") in connection with the Services ("Confidential Information"); provided, however, that Confidential Information does not include any information that: (a) is or becomes generally available to the public other than as a result of Receiving Party's breach of this Section VI; (b) is or becomes available to the Receiving Party on a non-confidential basis from a third-party source, provided that such third party is not and was not prohibited from disclosing such Confidential Information; (c) was in Receiving Party's possession prior to Disclosing Party's disclosure hereunder; or (d) was or is independently developed by Receiving Party without using any Confidential Information. Spheros Environmental's Confidential Information shall include the Services performed hereunder and the nature or results of the work performed hereunder. The Receiving Party shall: (i) protect and safeguard the confidentiality of the Disclosing Party's Confidential Information with at least the same degree of care as the Receiving Party would protect its own Confidential Information, but in no event with less than a commercially reasonable degree of care; (ii) not use the Disclosing Party's Confidential Information, or permit it to be accessed or used, for any purpose other than to exercise its rights or perform its obligations under this Agreement; and (iii) not disclose any such Confidential Information to any person or entity, except to the Receiving Party's Group who need to know the Confidential Information to assist the Receiving Party, or act on its behalf, to exercise its rights or perform its obligations under this Agreement. The Receiving Party shall be responsible for any breach of the confidentiality and non-use obligations contained herein by the Receiving Party's Group. If the Receiving Party is required by applicable law or legal process to disclose any Confidential Information, it shall, prior to making such disclosure, use commercially reasonable efforts to notify Disclosing Party of such requirements to afford Disclosing Party the opportunity to seek, at Disclosing Party's sole cost and expense, a protective order or other remedy. For purposes of this Section VI only, "Receiving Party's Group" shall mean the Receiving Party's affiliates and its or their employees, officers, directors, shareholders, partners, members, managers, agents, independent contractors, service providers, sublicensees, subcontractors, attorneys, accountants, and financial advisors. The terms of this Section VI shall survive and remain in force after any termination or expiration of this Agreement.

VII. HEALTH AND SAFETY. Spheros Environmental has full responsibility for safety of its employees and agents, including providing appropriate safety equipment for its field personnel. In performance of the work, Spheros Environmental shall (a) comply with applicable federal, state and local statutes, regulations and ordinances regarding health and safety, and (b) prepare and comply with its own Health and Safety Plan, as well as any Health

and Safety Plan prepared by Client and delivered to Spheros Environmental prior to commencement of the Services for the site.

VIII. SITE ENVIRONMENTAL CONDITIONS. Client shall furnish or make available to Spheros Environmental such documents and information that relate to the identity, location, quantity, nature, or characteristics of any petroleum products, hazardous materials or asbestos at, on, or under the site. If, at any time, evidence of the existence or possible existence of such substances is discovered, Spheros Environmental reserves the right to stop work and renegotiate any consulting agreement and, the fees for our services and our continued involvement in the project. Spheros Environmental will promptly notify Client of any unanticipated hazardous materials or suspected hazardous materials it discovers. In the event that Spheros Environmental removes any pre-existing materials, Spheros Environmental may, but not shall be required to, assist the Client in characterization and handle the pre-existing materials in accordance with applicable federal, state and local laws, rules, regulations and ordinances. Client shall be responsible for signing any manifest that may be required to ship pre-existing hazardous materials off site. At no time whatsoever shall Spheros Environmental be considered or assume the responsibilities of a generator of any pre-existing petroleum, chemical or hazardous material located on or about the site where the work is performed. The discovery of hazardous materials or suspected hazardous materials may make it necessary for Spheros Environmental to take immediate measures to protect human health and safety and/or the environment. Client agrees to compensate Spheros Environmental for the cost of any and all measures that, in our professional onsite judgment are justified to preserve and protect the health and safety of our personnel, Client's employees and/or the public, and/or the environment. In addition, Client waives any claims against Spheros Environmental and, to the full extent permitted by law, agrees to indemnify, defend and hold Spheros Environmental harmless from any and all claims, damages and liability, including but not limited to cost of defense, in any way connected with petroleum products, hazardous materials or asbestos.

RCRA Compliance. Client shall be responsible for complying with the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et. seq. ("RCRA") and its implementing regulations in connection with Spheros Environmental's work under this Agreement. Client may request Spheros Environmental's assistance in meeting its RCRA and other similar waste management obligations, including analytical testing to assist Client in proper characterization of waste, identifying potential transporters and disposal facilities for waste (provided that Client shall make the final selection of both the transporter and disposal facility), entering into subcontracts or purchase order arrangements with the transporters and/or disposal facilities selected by Client, and preparing manifests for the Client's approval and execution. Client agrees that, by virtue of providing these services, Spheros Environmental shall not be deemed a "generator" or a party who "arranges" for the "transportation," "treatment" or "disposal" of any "hazardous waste" or "hazardous substance" (as those terms are defined in the Comprehensive Environmental Response Compensation and Liability Act or "CERCLA", 42 U.S.C. Section 9601). Client agrees to

indemnify, defend and hold Spheros Environmental, its directors, officers, employees and agents, harmless from and against any and all damages, claims, demands, judgments, obligations, liabilities, any costs (including reasonable attorneys' and expert fees) relating to: (1) Spheros Environmental's work in assisting Client with its RCRA obligations; and (2) the generation, arrangement, transportation, treatment, and disposal of hazardous substances or hazardous waste generated by the field activities conducted for Client.

IX. CLIENT OBLIGATIONS AND SITE ACCESS. Client shall at its cost and at such times as may be required by Spheros Environmental for the successful and timely completion of Services: (a) provide unimpeded and timely access to any site, including third party sites if required (b) provide an adequate area for Spheros Environmental's site office facilities, equipment storage, and employee parking; (c) furnish all construction utilities and utilities releases necessary for the Services; (d) provide the locations of all subsurface structures, including piping, tanks, cables, and utilities; (e) approve all locations for digging and drilling operations; (f) obtain all permits and licenses which are necessary and required to be taken out in Spheros Environmental's name for the Services; (g) cooperate with Spheros Environmental in all matters relating to Services; and (h) respond and provide promptly to any Spheros Environmental requests for information, material, authorizations, approvals, or other items reasonably necessary to provide or complete Services. Spheros Environmental will not be liable for damage or injury arising from damage to subsurface structures that are not disclosed in writing to Spheros Environmental in connection with its work.

Reporting Requirements. Client may be required under federal, state or local statutes or regulations to report the results of Spheros Environmental's services to appropriate regulatory agencies. Spheros Environmental is not responsible for advising Client about its reporting obligations and Client agrees that it shall be responsible for all reporting, unless Spheros Environmental has an independent duty to report under applicable law. In those situations, Spheros Environmental will provide Client with advance notice that Spheros Environmental believes that it has an obligation to report as well as the substance of the report it intends to make.

X. COST ESTIMATES. If included in the Services, Spheros Environmental will provide cost estimates based upon Spheros Environmental's experience on similar projects, which are not intended for use by Client or any other party in developing firm budgets or financial models, or in making investment decisions. Such cost estimates represent only Spheros Environmental's judgment as a professional and, if furnished, only for Client's general guidance and are not guaranteed as to accuracy.

XI. LIMITED WARRANTY AND REMEDIES. Spheros Environmental represents and warrants to Client that it shall perform the Services with the standard of care, diligence and skill ordinarily exercised by firms providing similar services and in accordance with generally recognized industry standards. Spheros Environmental shall furnish all tools, labor, and supplies in such quantities and of the proper quality to professionally and timely

perform the Services. Spheros Environmental shall not be liable for a breach of the warranty set forth in this Section XI unless Client gives written notice of the defective Services, reasonably described, to Spheros Environmental within thirty (30) days of the time when Client discovers or ought to have discovered that the Services were defective. Subject to the foregoing, Spheros Environmental shall, in its sole discretion, either (a) repair or re-perform such Services; or (b) credit or refund the price of such Services at the pro rata contract rate. THE REMEDIES SET FORTH IN THIS SECTION XI SHALL BE CLIENT'S SOLE AND EXCLUSIVE REMEDY AND SPHEROS ENVIRONMENTAL'S ENTIRE LIABILITY FOR ANY BREACH OF THE LIMITED WARRANTY SET FORTH HEREIN.

XII. DISCLAIMER OF WARRANTIES. EXCEPT FOR THE WARRANTY SET FORTH IN SECTION XII ABOVE, SPHEROS ENVIRONMENTAL MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE SERVICES, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; (c) WARRANTY OF TITLE; OR (d) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE, OR OTHERWISE.

XIII. INDEPENDENT CONTRACTOR. Spheros Environmental is an independent contractor, and is responsible for the means and methods of carrying out the scope of services and for the safety of its employees and agents. Spheros Environmental retains the right to require that the services provided by Spheros Environmental meet specific standards without regard to the manner and means of accomplishment thereof. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment, or fiduciary relationship between the Parties, and neither Party shall have authority to contract for or bind the other Party in any manner whatsoever.

XIV. INDEMNIFICATION. Client agrees, to the fullest extent permitted by law, to defend, indemnify, and hold harmless Spheros Environmental and their respective officers, directors and employees against damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or resulting from (a) bodily injury, death of any person, or damage to real or tangible, personal property resulting from negligent or willful acts or omissions of Client and (b) Client's breach of any representation, warranty, or obligation of Client in this Agreement. This Section XIV shall survive the expiration or termination of this Agreement.

XV. LIMITATION OF LIABILITY. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY OR TO ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT OR LOSS OF DATA OR DIMINUTION IN VALUE, OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE AND WHETHER OR NOT SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE. IN NO

EVENT SHALL SPHEROS ENVIRONMENTAL'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE AGGREGATE AMOUNTS PAID OR PAYABLE TO SPHEROS ENVIRONMENTAL PURSUANT TO THE APPLICABLE ORDER CONFIRMATION.

XVI. INSURANCE. Spheros Environmental shall procure and maintain the following insurance throughout the term of this Agreement: (a) Commercial General Liability; (b) Automobile Liability; (c) Workers' Compensation and Employer's Liability; and (d) Professional Liability.

XVII. FORCE MAJEURE. Neither Party shall be liable nor deemed to be in default for any delay or failure in performance under this Agreement resulting from the acts of God, civil or military authority, material change of law, acts of public enemy, war, accidents, fires, explosions, earthquakes, floods, failure of transportation, regional emergencies, strikes or other industrial interruptions by either Party's employees, or any similar or dissimilar cause beyond the reasonable control of either Party. The impacted Party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. In the event that the impacted Party's failure or delay remains uncured for a period of fifteen (15) consecutive days following written, either Party may thereafter terminate this Agreement upon twenty (20) days' written notice.

XVIII. NOTICE. Any notice to be given hereunder by either Party to the other, shall be in writing and addressed to the Parties at the addresses set forth in the Order Confirmation or to such other address that may be designated by the receiving Party in writing. All notices shall be deemed given when delivered (a) in person, (b) by certified mail, return receipt requested, (c) by commercial courier that provides a receipt of delivery, or (d) by email when the receiving Party acknowledges receipt.

XIX. TERMINATION FOR CONVENIENCE. Either Party may terminate all or part of this Agreement for its convenience and without cause upon giving the other Party not less than thirty (30) days written notice. In such event, Spheros Environmental shall be compensated for the Services competently performed up to and including the date of termination.

XX. TERMINATION FOR DEFAULT. Either Party may terminate this Agreement for cause upon giving the other Party not less than ten (10) days written notice for any of the following reasons: (a) substantial failure by the other Party to perform in accordance with the terms of this Agreement and through no fault of the terminating Party, including lack of payment by Client; (b) assignment of this Agreement or transfer of the project by either Party to any other entity without prior written consent of the other Party; (c) suspension of the project or of the Services for more than ninety (90) days, consecutive or in the aggregate; (d) material changes in the conditions under which this Agreement was entered into, the Services or the nature of the project, and the failure of the Parties to reach agreement on the compensation; or (e) Client becomes insolvent or files a petition for bankruptcy. Either Party shall have a period of ten (10) business days from the notice of

noncompliance and threatened termination to cure or correct the default. If this Agreement is terminated following default by Spheros Environmental, Client is relieved of any unpaid payment obligations owed Spheros Environmental for services performed after the default. If this Agreement is terminated following default by Client, Client shall be liable to Spheros Environmental for all unpaid compensation for Services, as well as any collection fees associated with the collection of said compensation including but not limited to, attorneys' fees, court costs, and other related expenses up to and including the termination date.

XXI. ASSIGNMENT. Client shall not assign this Agreement without the prior written consent of Spheros Environmental. Any purported assignment or delegation in violation of this Section XXI is null and void. No assignment or delegation relieves Client of any of its obligations under this Agreement.

XXII. ANTI-DISCRIMINATION. The Parties hereby incorporate the requirements of 41 C.F.R. § 60-1.4(a) and 29 C.F.R. § 471, Appendix A to Subpart A, if applicable. Spheros Environmental and Client shall also abide by the requirements of 41 CFR 60-300.5(a) and 41 CFR 60-741.5(a), if applicable. These regulations prohibit discrimination against qualified protected veterans and qualified individuals with disabilities and require affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans and qualified individuals with disabilities.

XXIII. ENFORCEMENT AND WAIVER. The failure of either Party in any one or more instances to insist upon strict performance of any of the terms and provisions of this Agreement, shall not be construed as a waiver of the right to assert any such terms and provisions on any future occasion or of damages caused thereby.

XXIV. CHOICE OF LAW; JURISDICTION. This Agreement shall be administered and interpreted under the laws of the State of Colorado without giving effect to any choice or conflict of law provision. Subject to Section XXVIII, any legal suit, action, or proceeding arising out of or relating to this Agreement shall be instituted in the federal courts of the United States of America or the courts of the State of Colorado, and each Party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action, or proceeding.

XXV. SEVERABILITY. If any of the provisions of this Agreement shall be invalid or unenforceable, such invalidity or unenforceability shall not invalidate or render unenforceable the entire Agreement, but rather the entire Agreement shall be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of the Party shall be construed and enforced accordingly, to effectuate the essential intent and purposes of this Agreement.

XXVI. NONEXCLUSIVE NATURE. This Agreement is not exclusive. Spheros Environmental is free to provide similar services or deliverables to others. Client makes no representations or

warranties as to a minimum or maximum procurement of services hereunder.

XXVII. SURVIVAL. Provisions of these Terms, which by their nature should apply beyond their terms, will remain in force after any termination or expiration of this Agreement including, but not limited to, the following provisions: Confidentiality, Disputes, Compensation, Ownership of Documents, Insurance, and Survival.

XXVIII. DISPUTES. In an effort to resolve any conflicts that may arise, Client and Spheros Environmental agree to resolve any claims or disputes related to this Agreement, in an amicable, professional, and expeditious manner so as to avoid unnecessary disruptions and delays to the Services. For any claim or dispute the Parties shall first attempt to resolve such claim or dispute through discussions between Client's and Spheros Environmental's designated representatives. If any such claim or dispute is not resolved through such discussions, the responsible executive of each Party, who shall possess the authority to resolve such matter, shall attempt to resolve such claim or dispute. Either Party may initiate discussions by written notice to the other Party setting forth the subject of the claim or dispute and the resolution sought. The Party in receipt of such notice shall respond within five (5) business days with a written statement of its position on, and recommended solution to, the claim or dispute. If the claim or dispute is not resolved by this exchange of correspondence, then the responsible senior executives of each Party shall meet at a mutually agreeable time and place within ten (10) business days from the Party's response in an attempt to resolve the claim or dispute. Any claims or disputes between the Parties arising out of or relating to this Agreement, which have not been resolved in accordance with the procedures set forth in this Section XXVIII shall be submitted to nonbinding mediation unless the Parties mutually agree otherwise. Each Party shall pay for its own costs and one-half the cost of a mutually acceptable mediator. In the event mediation is not successful, the claims or disputes between the Parties shall subject to litigation in a court of competent jurisdiction in the State of Colorado. The Parties irrevocably consent to the personal jurisdiction of said courts and waive any and all defenses of forum non conveniens, improper venue, or lack of personal jurisdiction.

[***]

EXHIBIT "F"
FEDERAL REQUIREMENTS

N/A