

**CITY OF SANTA ROSA
PROFESSIONAL SERVICES AGREEMENT
WITH BLACK & VEATCH CORPORATION
AGREEMENT NUMBER E001939**

This "Agreement" is made as of this _____ day of _____, 2019, by and between the City of Santa Rosa, a municipal corporation ("City"), and Black & Veatch Corporation, a Delaware Corporation ("Consultant").

RECITALS

- A. City desires to provide services to assist in increasing water system reliability.
- B. City desires to retain a qualified firm to conduct the services described above in accordance with the Scope of Services as more particularly set forth in Exhibit A to the Agreement.
- C. Consultant represents to City that it is a firm composed of highly trained professionals and is fully qualified to conduct the services described above and render advice to City in connection with said services.
- D. The parties have negotiated upon the terms pursuant to which Consultant will provide such services and have reduced such terms to writing.

AGREEMENT

NOW, THEREFORE, City and Consultant agree as follows:

1. SCOPE OF SERVICES

Consultant shall provide to City the services described in Exhibit A ("Scope of Services"). Consultant shall provide these services at the time, place, and in the manner specified in Exhibit A. Exhibit A is attached hereto for the purpose of defining the manner and scope of services to be provided by Consultant and is not intended to, and shall not be construed so as to, modify or expand the terms, conditions or provisions contained in this Agreement. In the event of any conflict between this Agreement and any terms or conditions of any document prepared or provided by Consultant and made a part of this Agreement, including without limitation any document relating to the scope of services or payment therefor, the terms of this Agreement shall control and prevail.

2. COMPENSATION

- a. City shall pay Consultant for services rendered pursuant to this Agreement at the rates, times and in the manner set forth in Exhibit B. Consultant shall submit monthly statements to City which shall itemize the services performed as of the date of the statement and set forth a progress report, including work accomplished during the period, percent of each task completed, and planned effort for the next period. Invoices shall identify personnel who have worked on the services provided, the number of hours each worked during the period covered by the invoice, the hourly rate for each person, and the percent of the total project completed, consistent with the rates and amounts shown in Exhibit B.
- b. The payments prescribed herein shall constitute all compensation to Consultant for all costs of services, including, but not limited to, direct costs of labor of employees engaged by Consultant, travel expenses, telephone charges, copying and reproduction, computer time, and any and all other costs, expenses and charges of Consultant, its agents and employees. In no event shall City

be obligated to pay late fees or interest, whether or not such requirements are contained in Consultant's invoice.

c. Notwithstanding any other provision in this Agreement to the contrary, the total maximum compensation to be paid for the satisfactory accomplishment and completion of all services to be performed hereunder shall in no event exceed the sum of four hundred-three thousand, eight-hundred ninety dollars and no cents (\$403,890.00). The City's Chief Financial Officer is authorized to pay all proper claims from Charge Number 55774.

3. DOCUMENTATION; RETENTION OF MATERIALS

a. Consultant shall maintain adequate documentation to substantiate all charges as required under Section 2 of this Agreement.

b. Consultant shall keep and maintain full and complete documentation and accounting records concerning all extra or special services performed by it that are compensable by other than an hourly or flat rate and shall make such documents and records available to authorized representatives of City for inspection at any reasonable time.

c. Consultant shall maintain the records and any other records related to the performance of this Agreement and shall allow City access to such records during the performance of this Agreement and for a period of four (4) years after completion of all services hereunder.

4. INDEMNITY

a. Consultant shall, to the fullest extent permitted by law, indemnify, protect, defend and hold harmless City, and its employees, officials and agents ("Indemnified Parties") from all claims, demands, costs or liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, interest, defense costs, and expert witness fees), that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant, its officers, employees, or agents, in said performance of professional services under this Agreement, excepting only liability arising from the sole negligence, active negligence or intentional misconduct of City.

b. The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City's rights under this Section 4, nor shall the limits of such insurance limit the liability of Consultant hereunder. This Section 4 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 17(b), below. The provisions of this Section 4 shall survive any expiration or termination of this Agreement.

5. INSURANCE

a. Consultant shall maintain in full force and effect all of the insurance coverage described in, and in accordance with, Attachment One, "Insurance Requirements." Maintenance of the insurance coverage set forth in Attachment One is a material element of this Agreement and a material part of the consideration provided by Consultant in exchange for City's agreement to make the payments prescribed hereunder. Failure by Consultant to (i) maintain or renew coverage, (ii) provide City notice of any changes, modifications, or reductions in coverage, or (iii) provide evidence of renewal, may be treated by City as a material breach of this Agreement by Consultant, whereupon City shall be entitled to all rights and remedies at law or in equity, including but not limited to immediate termination of this Agreement.

Notwithstanding the foregoing, any failure by Consultant to maintain required insurance coverage shall not excuse or alleviate Consultant from any of its other duties or obligations under this Agreement. In the event Consultant, with approval of City pursuant to Section 6 below, retains or utilizes any subcontractors or subconsultants in the provision of any services to City under this Agreement, Consultant shall assure that any such subcontractor has first obtained, and shall maintain, all of the insurance coverages set forth in the Insurance Requirements in Attachment One.

b. Consultant agrees that any available insurance proceeds broader than or in excess of the coverages set forth in the Insurance Requirements in Attachment One shall be available to the additional insureds identified therein.

c. Consultant agrees that the insurance coverages and limits provided under this Agreement are the greater of: (i) the coverages and limits specified in Attachment One, or (ii) the broader coverages and maximum limits of coverage of any insurance policy or proceeds available to the name insureds.

6. ASSIGNMENT

Consultant shall not assign any rights or duties under this Agreement to a third party without the express prior written consent of City, in City's sole and absolute discretion. Consultant agrees that the City shall have the right to approve any and all subcontractors and subconsultants to be used by Consultant in the performance of this Agreement before Consultant contracts with or otherwise engages any such subcontractors or subconsultants.

7. NOTICES

Except as otherwise provided in this Agreement, any notice, submittal or communication required or permitted to be served on a party, shall be in writing and may be served by personal delivery to the person or the office of the person identified below. Service may also be made by mail, by placing first-class postage, and addressed as indicated below, and depositing in the United States mail to:

City Representative:

Mark Kasraie
69 Stony Circle
Santa Rosa, CA 95401
(707) 543-3857

Consultant Representative:

Karen Burgi
10995 Gold Center Drive, Suite 100
Rancho Cordova, CA 95670
(720) 834-4259

8. INDEPENDENT CONTRACTOR

a. It is understood and agreed that Consultant (including Consultant's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither Consultant nor Consultant's assigned personnel shall be entitled to any benefits payable to employees of City. City is not required to make any deductions or withholdings from the compensation payable to Consultant under the provisions of this Agreement, and Consultant shall be issued a Form 1099 for its services hereunder. As an independent contractor, Consultant hereby agrees to indemnify and hold City harmless from any and all claims that may be made against City based upon any contention by any of Consultant's employees or by any third party, including

but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any services under this Agreement.

b. It is further understood and agreed by the parties hereto that Consultant, in the performance of Consultant's obligations hereunder, is subject to the control and direction of City as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by Consultant for accomplishing such results. To the extent that Consultant obtains permission to, and does, use City facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the Consultant's sole discretion based on the Consultant's determination that such use will promote Consultant's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the City does not require that Consultant use City facilities, equipment or support services or work in City locations in the performance of this Agreement.

c. If, in the performance of this Agreement, any third persons are employed by Consultant, such persons shall be entirely and exclusively under the direction, supervision, and control of Consultant. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by Consultant. It is further understood and agreed that Consultant shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of Consultant's assigned personnel and subcontractors.

d. The provisions of this Section 8 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between City and Consultant. Consultant may represent, perform services for, or be employed by such additional persons or companies as Consultant sees fit.

9. ADDITIONAL SERVICES

Changes to the Scope of Services shall be by written amendment to this Agreement and shall be paid on an hourly basis at the rates set forth in Exhibit B, or paid as otherwise agreed upon by the parties in writing prior to the provision of any such additional services.

10. SUCCESSORS AND ASSIGNS

City and Consultant each binds itself, its partners, successors, legal representatives and assigns to the other party to this Agreement and to the partners, successors, legal representatives and assigns of such other party in respect of all promises and agreements contained herein.

11. TERM, SUSPENSION, TERMINATION

a. This Agreement shall become effective on the date that it is made, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

b. City shall have the right at any time to temporarily suspend Consultant's

performance hereunder, in whole or in part, by giving a written notice of suspension to Consultant. If City gives such notice of suspension, Consultant shall immediately suspend its activities under this Agreement, as specified in such notice.

c. City shall have the right to terminate this Agreement for convenience at any time by giving a written notice of termination to Consultant. Upon such termination, Consultant shall submit to City an itemized statement of services performed as of the date of termination in accordance with Section 2 of this Agreement. These services may include both completed work and work in progress at the time of termination. City shall pay Consultant for any services for which compensation is owed; provided, however, City shall not in any manner be liable for lost profits that might have been made by Consultant had the Agreement not been terminated or had Consultant completed the services required by this Agreement. Consultant shall promptly deliver to City all documents related to the performance of this Agreement in its possession or control. All such documents shall be the property of City without additional compensation to Consultant.

12. TIME OF PERFORMANCE

The services described herein shall be provided during the period, or in accordance with the schedule, set forth in Exhibit A. Consultant shall complete all the required services and tasks and complete and tender all deliverables to the reasonable satisfaction of City, not later than April 30, 2020.

13. STANDARD OF PERFORMANCE

Consultant shall perform all services performed under this Agreement in the manner and according to the standards currently observed by a competent practitioner of Consultant's profession in California. All products of whatsoever nature that Consultant delivers to City shall be prepared in a professional manner and conform to the standards of quality normally observed by a person currently practicing in Consultant's profession, and shall be provided in accordance with any schedule of performance. Consultant shall assign only competent personnel to perform services under this Agreement. Consultant shall notify City in writing of any changes in Consultant's staff assigned to perform the services under this Agreement prior to any such performance. In the event that City, at any time, desires the removal of any person assigned by Consultant to perform services under this Agreement, because City, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, Consultant shall remove such person immediately upon receiving notice from City of the desire of City for the removal of such person.

14. CONFLICTS OF INTEREST

Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of City or that would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of City. Consultant agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City at all times during the performance of this Agreement.

15. CONFLICT OF INTEREST REQUIREMENTS

a. **Generally.** The City's Conflict of Interest Code requires that individuals who qualify as "consultants" under the Political Reform Act, California Government Code sections 87200 *et seq.*, comply with the conflict of interest provisions of the Political Reform Act and the City's Conflict of Interest Code, which generally prohibit individuals from making or participating in the making of decisions that will have a material financial effect on their economic interests. The term "consultant" generally includes individuals who make governmental decisions or who serve in a staff capacity.

b. **Conflict of Interest Statements.** The individual(s) who will provide services or perform work pursuant to this Agreement are "consultants" within the meaning of the Political Reform Act and the City's Conflict of Interest Code:

____ yes X no (check one)

If "yes" is checked by the City, Consultant shall cause the following to occur within 30 days after execution of this Agreement:

- (1) Identify the individuals who will provide services or perform work under this Agreement as "consultants"; and
- (2) Cause these individuals to file with the City Clerk the assuming office statements of economic interests required by the City's Conflict of Interest Code.

Thereafter, throughout the term of the Agreement, Consultant shall cause these individuals to file with the City Clerk annual statements of economic interests, and "leaving office" statements of economic interests, as required by the City's Conflict of Interest Code.

The above statements of economic interests are public records subject to public disclosure under the California Public Records Act. The City may withhold all or a portion of any payment due under this Agreement until all required statements are filed.

16. CONFIDENTIALITY OF CITY INFORMATION

During performance of this Agreement, Consultant may gain access to and use City information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the City. Consultant agrees to protect all City Information and treat it as strictly confidential, and further agrees that Consultant shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of City. In addition, Consultant shall comply with all City policies governing the use of the City network and technology systems. A violation by Consultant of this Section 16 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

17. CONSULTANT INFORMATION

a. City shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by Consultant pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostatting, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. Consultant shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by City.

b. Consultant shall fully defend, indemnify and hold harmless City, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by Consultant pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. City shall make reasonable efforts to notify Consultant not later than ten (10) days after City is served with any such claim, action, lawsuit or other proceeding, provided that City's failure to provide such notice within such time period shall not relieve Consultant of its obligations hereunder, which shall survive any termination or expiration of this Agreement.

c. All proprietary and other information received from Consultant by City, whether received in connection with Consultant's proposal, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to City, City shall give notice to Consultant of any request for the disclosure of such information. Consultant shall then have five (5) days from the date it receives such notice to enter into an agreement with the City, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorneys' fees) incurred by City in any legal action to compel the disclosure of such information under the California Public Records Act. Consultant shall have sole responsibility for defense of the actual "trade secret" designation of such information.

d. The parties understand and agree that any failure by Consultant to respond to the notice provided by City and/or to enter into an agreement with City, in accordance with the provisions of subsection c, above, shall constitute a complete waiver by Consultant of any rights regarding the information designated "trade secret" by Consultant, and such information shall be disclosed by City pursuant to applicable procedures required by the Public Records Act.

18. MISCELLANEOUS

a. Entire Agreement. This Agreement contains the entire agreement between the parties. Any and all verbal or written agreements made prior to the date of this Agreement are superseded by this Agreement and shall have no further effect.

b. Modification. No modification or change to the terms of this Agreement will be binding on a party unless in writing and signed by an authorized representative of that party.

c. Compliance with Laws. Consultant shall perform all services described herein in

compliance with all applicable federal, state and local laws, rules, regulations, and ordinances, including but not limited to, (i) the Americans with Disabilities Act of 1990 (42 U.S.C. 12101, et seq.) ("ADA"), and any regulations and guidelines issued pursuant to the ADA; and (ii) Labor Code sections 1720, et seq., which require prevailing wages (in accordance with DIR determinations at www.dir.ca.gov) be paid to any employee performing work covered by Labor Code sections 1720 et seq. Consultant shall pay to the City when due all business taxes payable by Consultant under the provisions of Chapter 6-04 of the Santa Rosa City Code. The City may deduct any delinquent business taxes, and any penalties and interest added to the delinquent taxes, from its payments to Consultant.

d. **Discrimination Prohibited.** With respect to the provision of services under this Agreement, Consultant agrees not to discriminate against any person because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status of that person.

e. **Governing Law; Venue.** This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court in Sonoma County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such court, and consent to service of process issued by such court.

f. **Waiver of Rights.** Neither City acceptance of, or payment for, any service or performed by Consultant, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.

g. **Incorporation of Attachments and Exhibits.** The attachments and exhibits to this Agreement are incorporated and made part of this Agreement, subject to terms and provisions herein contained.

19. AUTHORITY; SIGNATURES REQUIRED FOR CORPORATIONS

Consultant hereby represents and warrants to City that it is (a) a duly organized and validly existing corporation, formed and in good standing under the laws of the State of Delaware, (b) has the power and authority and the legal right to conduct the business in which it is currently engaged, and (c) has all requisite power and authority and the legal right to consummate the transactions contemplated in this Agreement. Consultant hereby further represents and warrants that this Agreement has been duly authorized, and when executed by the signatory or signatories listed below, shall constitute a valid agreement binding on Consultant in accordance with the terms hereof.

If this Agreement is entered into by a corporation, it shall be signed by two corporate officers, one from each of the following two groups: a) the chairman of the board, president or any vice-president; b) the secretary, any assistant secretary, chief financial officer, or any assistant treasurer. The title of the corporate officer shall be listed under the signature.

Executed as of the day and year first above stated.

CONSULTANT:

CITY OF SANTA ROSA
a Municipal Corporation

Name of Firm: Black & Veatch Corporation

TYPE OF BUSINESS ENTITY (check one):

☐ Individual/Sole Proprietor

☐ Partnership

☒ Corporation

☐ Limited Liability Company

☐ Other (please specify: _____)

By: _____

Print
Name: _____

Title: _____

Signatures of Authorized Persons:

APPROVED AS TO FORM:

By: [Signature]

Print Name: David J. Corbin

Title: Vice President

By: [Signature]

Print Name: Thomas Peter Loftis

Title: Assistant Secretary

City of Santa Rosa Business Tax Cert. No. 92

[Signature]
Office of the City Attorney

Attachments:

Attachment One - Insurance Requirements

Exhibit A - Scope of Services

Exhibit B - Compensation

ATTACHMENT ONE INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICES AGREEMENTS

- A. Insurance Policies:** Consultant shall, at all times during the terms of this Agreement, maintain and keep in full force and effect, the following policies of insurance with minimum coverage as indicated below and issued by insurers with AM Best ratings of no less than A-:VI or otherwise acceptable to the City.

Insurance	Minimum Coverage Limits	Additional Coverage Requirements
1. Commercial general liability	\$ 1 million per occurrence \$ 2 million aggregate	Coverage must be at least as broad as ISO CG 00 01 and must include completed operations coverage. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. Coverage may be met by a combination of primary and umbrella or excess insurance but umbrella and excess shall provide coverage at least as broad as specified for underlying coverage. Coverage shall not exclude subsidence.
2. Business auto coverage	\$ 1 million	ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$ 1 million per accident for bodily injury and property damage.
3. Professional liability (E&O)	\$ 1 million per claim \$ 1 million aggregate	Consultant shall provide on a policy form appropriate to profession. If on a claims made basis, Insurance must show coverage date prior to start of work and it must be maintained for three years after completion of work.
4. Workers' compensation and employer's liability	\$ 1 million	As required by the State of California, with Statutory Limits and Employer's Liability Insurance with limit of no less than \$ 1 million per accident for bodily injury or disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Consultant, its employees, agents and subcontractors.

B. Endorsements:

1. All policies shall provide or be endorsed to provide that coverage shall not be canceled, except after prior written notice has been provided to the City in accordance with the policy provisions.

2. Liability, umbrella and excess policies shall provide or be endorsed to provide the following:

a. For any claims related to this project, Consultant's insurance coverage shall be primary and any insurance or self-insurance maintained by City shall be excess of the Consultant's insurance and shall not contribute with it; and,

b. **The City of Santa Rosa, its officers, agents, employees and volunteers are to be covered as additional insureds on the CGL policy.** General liability coverage can be provided in the form of an endorsement to Consultant's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used.

C. Verification of Coverage and Certificates of Insurance: Consultant shall furnish City with original certificates and endorsements effecting coverage required above. Certificates and endorsements shall make reference to policy numbers. All certificates and endorsements are to be received and approved by the City before work commences and must be in effect for the duration of the Agreement. The City reserves the right to require complete copies of all required policies and endorsements.

D. Other Insurance Provisions:

1. No policy required by this Agreement shall prohibit Consultant from waiving any right of recovery prior to loss. Consultant hereby waives such right with regard to the indemnitees.

2. All insurance coverage amounts provided by Consultant and available or applicable to this Agreement are intended to apply to the full extent of the policies. Nothing contained in this Agreement limits the application of such insurance coverage. Defense costs must be paid in addition to coverage amounts.

3. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either Consultant or City. Self-insured retentions above \$10,000 must be approved by City. At City's option, Consultant may be required to provide financial guarantees.

4. Sole Proprietors must provide a representation of their Workers' Compensation Insurance exempt status.

5. City reserves the right to modify these insurance requirements while this Agreement is in effect, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Exhibit A

Scope of Services

Black & Veatch proposes the following scope of services to address the services mentioned in the Request for Proposals (RFP). In addition to the items identified in the RFP, Black & Veatch has identified some optional task items that may provide value to the City as they consider the alternatives to increase water system reliability. The City has 17 pumped pressure zones (not served off Sonoma County pressure) with 18 pump stations, and 20 existing reservoirs that provide the required storage and pump capacity to meet normal and emergency conditions.

TASK 100 – PROJECT ADMINISTRATION, INVESTIGATION & COORDINATION

Task 101 – Project Administration

Provide management and administration of the project including progress reporting, schedule, and invoicing.

Provide a project execution plan (PEP), which establishes the project's staffing plan, scope of services, communication plan, quality control plan, and budget.

Task 102 – Bi-Weekly Meetings

Twice monthly conference calls to provide an opportunity to give an update on project status and discuss needed information or input from the City.

Task 103 – Data Collection & Review

Prepare and submit a list of data and information to be provided by the City for use during the study including but not limited to SCADA data, GIS data, existing level of service and goals, and facility information, and related studies and reports. Black & Veatch will review data received prior to the Project Initiation Workshop.

Task 104 – Project Initiation Workshop

Conduct a workshop to introduce team members and review the PEP. In addition, the Project Initiation Workshop will be used as an opportunity to discuss City priorities and objectives for the project, identify likely alternatives to be considered, discuss fire flow goals based on zoning, and to conduct a preliminary discussion on alternative evaluation, ranking, and prioritization approach. In conjunction with this workshop, Black & Veatch will meet with appropriate City staff to review existing SCADA communications and identify critical SCADA information.

TASK 200 – SCADA SYSTEM RELIABILITY & REDUNDANCY

Task 201 – SCADA System Reliability & Redundancy

This task will review existing SCADA components and communications and research opportunities for increasing the reliability and redundancy of the system with respect to the reservoirs and pump stations in the water distribution system. Based on the recommendations from the Fountaingrove Evaluation and the RFP specific efforts will include:

- Black & Veatch Instrumentation & Control (I&C) staff will meet with City staff in conjunction with the Project Initiation Workshop to understand the existing SCADA system, existing reliability and redundancy, and alternatives to consider in this evaluation.
- SCADA System Evaluation will be done at the system level and not at the facility level and may include discussions of multiple communication methods, PLC enclosure insulation and protection, and standby power sizing for lengthy outages.
- I&C staff will perform evaluation and develop recommendations considering latest available technologies and market trends.

Task 202 – Criteria Development Workshop (In Conjunction with Task 303 and 405)

A workshop will be held to review preliminary findings and discuss evaluation criteria for selecting and prioritizing recommendations. This workshop will be held in conjunction with a similar discussion on preliminary findings from the Task 300 and Task 400 activities.

Task 203 – SCADA Reliability & Redundancy TM

Following the Criteria Development Workshop, evaluations will be finalized and capital costs for alternatives identified. The approach and findings will be summarized in the SCADA Reliability & Redundancy TM. The Draft TM will be submitted to the City for review at the Project Prioritization Workshop.

TASK 300 – TECHNOLOGY, EQUIPMENT, & SOFTWARE

Task 301 – Flow Control Opportunities

This task will require identifying alternatives based on several sources of information that Black & Veatch will characterize through the following tasks:

- Evaluate available technology for remote close valves from AMI or SCADA or automatically. Focus on large consumers or fire suppression systems.
- Identify flow sensors, such as AMI and SCADA, to identify need for flow control and potentially automatically isolating very high flow rates.
- Use GIS and/or the City's water model to help identify critical locations and isolation opportunities

Based on this information, up to 4 alternatives will be identified to provide a range of flow control opportunities and their relative costs of implementation and level of maintenance required.

Task 302 – Back-Up Power Generation

Evaluation will include review of best practices for backup generation for pump stations, design improvements to limit harmonics under power failure scenarios, advantages/disadvantages of using VFDs, sizing of backup generators and its impact on cost and operations and current market trends.

It is assumed that the backup power generators for all pump stations are of the same type. Black & Veatch will visit one site that best represents the generator configuration for all sites in the system and develop alternatives evaluation using the data gathered.

Task 303 – Criteria Development Workshop (In Conjunction with Task 202 and Task 405)

A workshop will be held to review preliminary findings and discuss evaluation criteria for selecting and prioritizing recommendations. This workshop will be held in conjunction with a similar discussion on preliminary findings from the Task 200 and Task 400 activities.

Task 304 – Technology, Equipment, & Software TM

Following the Criteria Development Workshop, evaluations will be finalized and capital costs for alternatives identified. The approach and findings will be summarized in the Technology, Equipment, & Software TM. The Draft TM will be submitted to the City for review at the Project Prioritization Workshop.

TASK 400 – WATER MASTER PLAN UPDATE

Task 401 – System-Wide Fire Flow Evaluation & Recommendations

Update the model to incorporate any distribution system changes since the Water Master Plan. Collaborate with the City to identify appropriate land use/zoning fire flow goals. Perform two fire flow evaluations to identify deficiencies based on new fire flow goals: 1) Existing system and 2) update future fire flow evaluations from the Water Master Plan. Identify and recommend necessary system improvements to meet the new fire flow goals such as: replacement program for small diameter dead-end pipe sections, additional looping, or new PRV connections.

Task 402 – System Reliability Opportunities

Evaluate up to 6 alternatives to address system reliability in the upper pressure zones. Alternatives are anticipated to include: 1) additional locations for interconnects and/or pressure reducing valves and 2) additional pumping/storage in upper zones.

Task 403 – Proctor Heights Evaluation

Evaluate water tanks in the Proctor Heights area to determine options to modify operations or tank configuration to improve system reliability and redundancy. This task includes updating the existing model for water age evaluations.

Task 404 - Off-Line Storage

Evaluate up to 3 alternatives to provide off-line storage of non-potable water for use during a fire event. This evaluation will be a high-level evaluation of the volume of storage needed, the potential location of storage, likely costs, and the pros and cons of developing, operating, and maintaining a non-potable off-line storage program.

Task 405 – Criteria Development Workshop (In Conjunction with Task 202 and task 303)

A workshop will be held to review preliminary findings and discuss evaluation criteria for selecting and prioritizing recommendations. This workshop will be held in conjunction with a similar discussion on preliminary findings from the Task 200 and Task 300 activities. At this meeting the new differentiated fire flow goals based on zoning and/or land use type and the evaluation criteria for system pressures and reliability will be finalized. It is anticipated that the initial reliability evaluation may result in abandoning some options and possibly identifying hybrid alternatives that need to be investigated. The goal of this workshop will be to take initial findings and identify and mid-project course changes that need to be made.

Task 406 – Water Distribution System Evaluation TM

Following the Criteria Development Workshop, evaluations will be finalized and capital costs for alternatives identified. The approach and findings will be summarized in the Water Distribution System Evaluation TM. The Draft TM will be submitted to the City for review at the Project Prioritization Workshop.

TASK 500 – PROJECT IDENTIFICATION AND PRIORITIZATION

Task 501 – Project Prioritization Workshop

Following submission of the SCADA Reliability & Redundancy TM, the Technology, Equipment & Software TM, and the Water Distribution System Evaluation TM, a workshop will be held to review the findings, identify the preferred alternatives, and develop a prioritized project implementation plan. In addition, the format of the Water Master Plan Update will be discussed at this workshop.

Task 502 – Prioritized Recommendations and Costs TM

Following the workshop, Black & Veatch will submit a Prioritized Recommendations and Cost TM that summarizes the project selection approach, incorporates the recommended improvements identified at the workshop, and presents the prioritized recommendations, schedule and costs. For the Water System Reliability Study, an Association for the Advancement of Cost Engineering (AACE) Class 5 cost estimate will be included. A draft TM will be submitted to the City for review and comment. A conference call will be held to review the comments.

Task 503 – Draft Water Master Plan Update

Based on the draft TMs and the City's comments, a draft Water Master Plan Update will be developed and submitted to the City for review. The format of the Water Master Plan Update will be determined at the Project Prioritization Workshop.

Task 504 – Report Review Meeting

Once the City has reviewed the draft report, a meeting will be held to review the findings and discuss comments from the City. In addition, this meeting will include a discussion of the final report and deliverables.

Task 505 – Final Reports & Deliverables

Following the Report Review Workshop, Black & Veatch will finalize the reports and submit them to the City. In addition, deliverables such as the updated hydraulic model, GIS files, and calculation files will be submitted to the City.

TASK 600 – OPTIONAL SERVICES

The following tasks are items that may be of interest to the City to include in the project, but their scope and/or need are not yet certain. Budget is Included for these items, but it may not be used without written approval from the City.

Task 601 - Fire Department Coordination

Fire Department coordination would include, providing time to meet with the fire department following, or in conjunction with, the Project Initiation Workshop to solicit ideas and suggestions related to opportunities to provide additional water system reliability, alignment with Fire Department service goals, or improved coordination with the fire department.

Task 602 – Redundant Communication Studies

In addition to providing high level recommendations on improved SCADA reliability, budget has been included to take the results of the high-level study and provide a more detailed study of the radio, fiber or cellular data; along with recommendations and planning level capital costs.

Task 603 - Coffey Park Investigation

Following the evaluation of Fountaingrove, there is interest in looking at a similar evaluation for the Coffey Park area during and following the Tubbs Fire. This evaluation will include a "forensic" evaluation of the operations and impact of the fires in the Coffey Park area during October 2017. This will require coordinating with the Sonoma County Water Agency and obtaining their records from this time period as well as reviewing the City's SCADA data for the Coffey Park and aqueduct pressure zones during the Tubbs Fire.

Task 604 - Fire Damage Probability

Explore developing a fire damage probability index if the data is available. Fire damage probability could consider the roof construction materials, the proximity of foliage to the building, proximity to other structures and previous loss history. This information could be used by the City water or fire departments to better understand areas of risk and focus for mitigation.

Task 605 - Water Quality/Water Age Impact Evaluations

Some system improvements, which could be recommended, will have an impact on water quality by increasing the water age or residence time, within the system. This may, in turn, affect chlorine residual concentration and decay. Examples of these improvements include: added storage or operating storage at higher volumes than current operations, added infrastructure and/or pipe upsizing, and modifying pressure zone boundary configurations. This task includes 3 scenarios for evaluating of water quality, in terms of the surrogate water age, for baseline conditions and the impact to water age from recommended improvements.

Task 606 - Presentation to City Council

Development of presentation materials, a conference call to review the materials, and a presentation to City Council.

TASK 700 – CONTINGENCY

As requested by the City, 10% has been added to the fee to cover potential changes in scope or level of effort. This budget may not be used without written approval from the City.

PROJECT WORKSHOPS & DELIVERABLES

TASK OBJECTIVE	WORKSHOPS	DELIVERABLES
Task 100 -- Project Administration, Investigation, & Coordination	- Kick-off Workshop - Bi-Monthly Coordination Calls	- Project Management/Execution Plan - Data Request - Workshop Agenda and Meeting Minutes - Bi-Monthly Meeting Minutes - Monthly Updates and Invoices
Task 200 -- SCADA System Reliability & Redundancy	Criteria Development Workshop (with Task 300 & 400)	- Workshop Agenda and Meeting Minutes - Draft SCADA System Reliability and Redundancy TM
Task 300 -- Technology, Equipment, & Software	Criteria Development Workshop (with Task 200 & 400)	Draft Technology, Equipment & Software TM
Task 400 -- Water Master Plan Update	Criteria Development Workshop (with Task 200 & 300)	Draft Water Distribution System Evaluation TM
Task 500 -- Project Identification & Prioritization	- Project Prioritization Workshop - Report Review Meeting	- Workshop/Meeting Agenda and Meeting Minutes - Prioritized Recommendations and Costs TM - Draft Reports - Final Reports - Other project deliverables
Task 600 -- Optional Tasks	Presentation to City Council	- Communication Reliability Recommendations TM - Other optional tasks would be included in the Draft Water Distribution System Evaluation TM

Task	March	April	May	June	July	August	September	October	November	December
Task 100 - Project Administration, Investigation and Coordination										
Task 200 - SCADA System Reliability & Redundancy										
Task 300 - Technology, Equipment, and Software										
Task 400 - Water Master Plan Update										
Task 500 - Project Identification and Prioritization										

This schedule may be adjusted if/when optional scope items are approved to accommodate the additional effort needed to complete the scope.

4.

[illegible]

Black & Veatch Billing Rates 2019	
Description	Rate
	(\$/hr)
Sr. Project Director	295
Sr. Project Manager	240
Administrative	105
Project Controls	160
Planning Director/QC	295
Sr. Planning Engineer	190
Planning Engineer	150
I&C Director/QC	250
Sr. I&C Engineer	230
I&C Engineer	165
Telecom Engineer	165
Sr. Electrical Engineer	190
Electrical Technician	160
GIS Analyst	140
CAD Technician	110
Estimating	174
Civil Sr. Engineer	194
Civil Engineer	164