EXHIBIT 1

CITY OF STOCKTON
**STANDARD AGREEMENT**

**Agreement Number:**

1. This Agreement is entered into between the City of Stockton ("City") and West Yost Associates ("Contractor") to provide Water Master Plan Update as set forth in Exhibit A to this Agreement.

2. The term of this Agreement is as follows, unless amended as described in Exhibit A and Exhibit C section 8:
Commences on: Terminates on: April 1, 2024

3. The maximum not to exceed amount to be paid to Contractor for the term of this Agreement, including if authorized, reimbursement of expenses, is: $ 777,000

4. The complete Agreement consists of all the following Agreement documents which by reference are incorporated and made a part of this Agreement. The parties agree to comply with the terms and conditions of this Agreement.

(a) Exhibit A – Statement of Work
(b) Exhibit B – Insurance
(c) Exhibit C – General Terms and Conditions
(d) Exhibit D – Professional Services Special Terms & Conditions
(e) Exhibit E – Compensation Schedule
(f) Exhibit F – Timeline

**IN WITNESS WHEREOF, the authorized parties have executed this Agreement.**

**CONTRACTOR**

West Yost Associates, a California corporation
Contractor's Name (if other than an individual, state whether a corporation, partnership, etc.):

Authorized Signature — Date: 3.09.2020

Charles Duncan, President
Printed Name and Title of Person Signing

6800 Koll Center Parkway, Suite 150, Pleasanton, CA 94566
Address

**CITY OF STOCKTON**

Harry Black, City Manager — Date

ATTEST:

Eliza R. Garza CMC, City Clerk

APPROVED AS TO FORM:
John M. Luebberke, City Attorney

BY:



(Rev. 2.11.20)

# EXHIBIT A

# STATEMENT OF WORK

## 1. Project Objectives

Provide professional engineering services to complete a Citywide water master plan (WMP) update with hydraulic modeling for existing conditions, as well as infrastructure planning for future development and efficient operations and maintenance of water facilities, consistent with the adopted Envision Stockton 2040 General Plan.

## 2. Project Scope

The WMP Update shall include analysis of water supply demand based on the 2040 General Plan, calibration of the City's water distribution system's hydraulic model, identification of infrastructure needs, and development of short and long-term capital improvement plan (CIP) with cost estimates for future improvements.

Refer to the Tasks noted under Item No. 5 below and the West Yost Associates Proposal for 2020 Water Master Plan (WYA Proposal) for further details of the project scope, which is attached and incorporated herein by this reference.

## 3. Specifications

Not Applicable

## 4. Major Deliverables

The following deliverables shall be provided as described in the WYA Proposal.

4.1 Meeting agendas, meeting notes
4.2 Draft Master Plan Chapters
4.3 Draft Master Plan Report
4.4 Final Master Plan Report with Financial Plan and Stand-Alone Executive Summary
4.5 Final Hydraulic Model digital files
4.6 Hydraulic Modeler's Notebook
4.7 Water System Model Training Materials
4.8 Technical Memorandums for individual analyses performed as part of Water System Model Maintenance and Technical Support
4.9 Presentation Materials for Public Meetings

## 5. Tasks That Support the Deliverables

The following tasks shall be performed as described in the WYA Proposal and as outlined below.

- 5.1 Project Management
- 5.2 Review City Policies and Existing Documents
  - 5.2.1 Includes review of current and future MUD CIP Projects, plus relevant private development projects
- 5.3 Establish Goals, Strategies and Priorities
- 5.4 Data Collection and Analysis
- 5.5 Water Distribution Hydraulic Model
  - 5.5.1 Includes minimum of one day training for City staff on the details of the model, software delivery platform, and methods and methodology for the use and maintenance of the hydraulic model
- 5.6 Draft and Final Water Master Plan Update
- 5.7 Financial Analysis
- 5.8 Water Distribution Systems Model Maintenance and Technical Support
  - 5.8.1 Includes technical support to perform:
    - 5.8.1.1 Water Supply Assessments
    - 5.8.1.2 Hydraulic Model Updates
    - 5.8.1.3 Specialty Modeling Services
- 5.9 Coordination and Plan Development
- 5.10 Modeler's Notebook
- 5.11 Near-Term System Evaluation
- 5.12 Extended Period Simulation (EPS) Verification
- 5.13 Stand-Alone Executive Summary

## 6. Internal and External Standards and Guidelines

Standards and Guidelines associated with the Water Master Plan Update include, but is not limited to, the following:

a) 2040 General Plan, Water Master Plan Supplement
b) 2008 Water Master Plan
c) 2015 Urban Water Management Plan
d) Current and Future MUD CIP Projects
e) Delta Water Supply Project
f) City of Stockton Standard Specifications and Plans
g) City of Stockton GIS Data of Water Distribution System Infrastructures

## 7. Criteria of Acceptance for Deliverables

All deliverables / services shall be acceptable to the City and reviewed for consistency and expediency.

## 8. Notices

Pursuant to Exhibit C – General Terms and Conditions, Paragraph 15 – Notices, the mailing address for all required notices is as follows:

| | |
|---|---|
| **Contractor**: West Yost Associates<br>Attn: Elizabeth Drayer<br>6800 Koll Center Parkway, Suite 150<br>Pleasanton, CA 94566 | **City**: City of Stockton<br>Attn: City Manager<br>425 N. El Dorado Street<br>Stockton, CA 95202 |

## 9. Key Personnel

Gemma Biscocho, Senior Civil Engineer / City Project Manager
209-937-8734
Gemma.Biscocho@stocktonca.gov

Elizabeth Drayer, West Yost Associates Project Manager
925-461-6793
edrayer@westyost.com

## 10. Option to Renew.

Not applicable.

**NOTE: The City of Stockton is now using the online insurance program PINS Advantage. Once you have been awarded a contract you will receive an email from the City's online insurance program requesting you to forward the email to your insurance provider(s).**

## Exhibit B:
## Insurance Requirements for Professional Services

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, or employees.

### MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability** (CGL): Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **$1,000,000** per accident for bodily injury and property damage.

3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **$1,000,000** per accident for bodily injury or disease.
***(Not required if Contractor provides written verification it has no employees)***

4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the Contractor's profession, with limit no less than **$2,000,000** per occurrence or claim, $2,000,000 aggregate. (If Claims-made, see below.)

It shall be a requirement under this agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to the Additional Insured. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any Insurance policy or proceeds available to the named insured; whichever is greater. No

representation is made that the minimum insurance requirements of this agreement are sufficient to cover the obligations of the Contractor under this agreement.

**Limits of Insurance**

The limits of insurance required in this agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

**Other Insurance Provisions**

The insurance policies are to contain, or be endorsed to contain, the following provisions:

***Additional Insured Status***

The City of Stockton, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor'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, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 if a later edition is used). Additional insured Name of Organization shall read "City of Stockton, its officers, officials, employees, and volunteers." Policy shall cover City of Stockton, its officers, officials, employees, and volunteers for all locations work is done under this contract.

***Primary Coverage***

The Additional Insured coverage under the Contractor's policy shall be "primary and non-contributory" and will not seek contribution from the City's insurance or self-insurance and shall be at least as broad as CG 20 01 04 13. The City of Stockton does not accept endorsements limiting the Contractor's insurance coverage to the sole negligence of the Named Insured.

***Notice of Cancellation***

Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the City of Stockton**.

***Waiver of Subrogation***

Contractor hereby grants to City of Stockton a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City of Stockton by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City of Stockton has received a waiver of subrogation endorsement from the insurer. **The Workers' Compensation policy shall be endorsed with a waiver of subrogation** in favor of the City of Stockton for all work performed by the Contractor, its employees, agents and subcontractors.

***Self-Insured Retentions***

All Self-insured retentions must be disclosed to Risk Management for approval and shall not reduce the limits of liability. The City of Stockton may require the Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City of Stockton.

***Acceptability of Insurers***

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City of Stockton.

***Claims Made Policies (note – applicable only to professional liability)***

If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work***.

3. If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of contract work.

### *Verification of Coverage*

Contractor shall furnish the City of Stockton with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City of Stockton Risk Services before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The City of Stockton reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Contractor shall, prior to the commencement of work under this Agreement, provide the City of Stockton with a copy of its declarations page(s) and endorsement page(s) for each of the required policies.

### *Subcontractors*

Contractors shall require and verify that all subcontractors, or other parties hired for this work, purchase and maintain coverage for indemnity and insurance requirements as least as broad as specified in this agreement to the extent they apply to the scope of the subcontractor's work with the same certificate of insurance requirements and naming as additional insureds all parties to this contract. Contractor shall include the following language in their agreement with Subcontractors: "S*ubcontractors hired by Contractor agree to be bound to Contractor and City in the same manner and to the same extent as Contractor is bound to City under the contract documents and provide a valid certificate of insurance and the required endorsements included in the agreement as proof of compliance prior to commencement of any work and to include this same requirement for any subcontractors they hire for this work. A copy of the owner contract document indemnity and insurance provisions will be furnished to the subcontractor upon request."* Contractor shall provide proof of such compliance and verification to the City upon request.

### *Special Risks or Circumstances*

City of Stockton reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

### *Certificate Holder Address*

Proper address for mailing certificates, endorsements and notices shall be:

City of Stockton Attn: City Risk Services
400 E Main Street, 3rd Floor – HR
Stockton, CA 95202

# EXHIBIT C

## GENERAL TERMS AND CONDITIONS

**1.** **Goods, Equipment and Services.** Subject to the terms and conditions set forth in this Agreement, Contractor shall provide to City the services described in Exhibit A of the Agreement. Contractor shall provide said services at the time, place and in the manner specified in Exhibit A of the Agreement.

**2.** **City Assistance, Facilities, Equipment and Clerical Support.** Except as set forth in Exhibit A, Contractor shall, at its sole cost and expense, furnish and maintain all facilities and equipment that may be required for furnishing services pursuant to this Agreement. If applicable, City shall furnish to Contractor only the facilities and equipment listed in Exhibit A to the Agreement.

**3.** **Compensation**. City shall pay Contractor for services rendered pursuant to this Agreement as described more particularly in Exhibit A and Exhibit E to the Agreement.

3.1 Invoices submitted by Contractor to City must contain a brief description of work performed, time spent and City reference number. Within thirty (30) days of receipt of Contractor's invoice, City will review invoice, and if acceptable make payment on approved invoice.

3.2 Upon completion of work and acceptance by City, Contractor shall have sixty (60) days in which to submit final invoicing for payment. An extension may be granted by City upon receiving a written request thirty (30) days in advance of said time limitation. The City shall have no obligation or liability to pay any invoice for work performed which the Contractor fails or neglects to submit within sixty (60) days, or any extension thereof granted by the City, after the work is accepted by the City.

**4.** **Sufficiency of Contractor's Work**. All Contractor services, work, and deliverables shall be performed in a good and workmanlike manner with due diligence in accordance with the degree of skill normally exercised by similar contractors supplying services and work of a similar nature, and in conformance with applicable laws, codes and professional standards. Contractor's work shall be adequate and sufficient to meet the purposes of this Agreement.

**5.** **Ownership of Work**. All reports, work product, all other documents completed or partially completed by Contractor or its approved subcontractors, in performance of this Agreement, and if applicable, drawings, designs, and plan review comments shall become the property of the City. Any and all copyrightable subject matter in all materials is hereby assigned to the City and the Contractor and its approved subcontractors agree

to execute any additional documents that may be necessary to evidence such assignment. All materials shall be delivered to the City upon completion or termination of the work under this Agreement. If any materials are lost, damaged or destroyed before final delivery to the City, the Contractor shall replace them at its own expense. Contractor and its approved subcontractors shall keep materials confidential. Materials shall not be used for purposes other than performance of services under this Agreement and shall not be disclosed to anyone not connected with these services, unless the City provides prior written consent.

**6. Timeliness.** Time is of the essence in this Agreement. Further, Contractor acknowledges that the failure of Contractor to comply with the time limits described in Exhibit A and Exhibit F may result in economic or other losses to the City.

**7. Changes**. Both parties to this Agreement understand that it may become desirable or necessary during the term of this Agreement for City to modify the scope of services provided for under this Agreement. Any material extension or change in the scope of work shall be discussed with City and the change and cost shall be memorialized in a written amendment to the original contract prior to the performance of the additional work. Until the amendment is so executed, City will not be responsible to pay any charges Contractor may incur in performing such additional services, and Contractor shall not be required to perform any such additional services.

**8. Amendment.** No variation of the terms of this Agreement shall be valid unless an amendment is made in writing and signed by both parties.

**9. Contractor's Status**.

9.1 In performing the obligations set forth in this Agreement, Contractor shall have the status of an independent contractor and Contractor shall not be considered to be an employee of the City for any purpose. All persons working for or under the direction of Contractor are its agents and employees and are not agents or employees of City. Contractor by virtue of this Agreement, has no authority to bind or incur any obligation on behalf of City. Except as expressly provided in Exhibit A, Contractor has no authority or responsibility to exercise any rights or power vested in the City. No agent, officer or employee of the City is to be considered an employee of the Contractor. It is understood by both Contractor and City that this Agreement shall not be construed or considered under any circumstances to create an employer-employee relationship or a joint venture.

9.2 Contractor shall determine the method, details and means of performing the work and services to be provided by Contractor under this Agreement. Contractor shall be responsible to City only for the requirements and results specified in this Agreement and, except as expressly provided in this Agreement, shall not be subjected to City's

control with respect to the physical action or activities of Contractor in fulfillment of this Agreement. Contractor has control over the manner and means of performing the services under this Agreement. If necessary, Contractor has the responsibility for employing other persons or firms to assist Contractor in fulfilling the terms and obligations under this Agreement.

9.3 If in the performance of this Agreement any third persons are employed by Contractor, such persons shall be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment including hours, wages, working conditions, discipline, hiring and discharging or any other term of employment or requirements of law shall be determined by the Contractor.

9.4 It is further understood and agreed that Contractor must issue W-2 forms or other forms as required by law for income and employment tax purposes for all of Contractor's assigned personnel under the terms and conditions of this Agreement.

**10. Subcontractor.**

10.1 Subcontractors shall not be recognized as having any direct or contractual relationship with City. Contractor shall be responsible for the work of subcontractors, which shall be subject to the provisions of this Agreement. Subcontractors will be provided with a copy of the Agreement and be bound by its terms. Contractor is responsible to City for the acts and omissions of its subcontractors and persons directly or indirectly employed by them.

10.2 If in the performance of this Agreement any third persons are employed by Contractor, such persons shall be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment including hours, wages working conditions, discipline, hiring, and discharging or any other term of employment or requirement of law shall be determined by Contractor.

10.3 It is further understood and agreed that Contractor must issue W-2 forms or other forms as required by law for income and employment tax purposes for all of Contractor’s personnel.

**11. Termination.**

11.1 Termination for Convenience of City. The City may terminate this Agreement at any time by mailing a notice in writing to Contractor. The Agreement shall then be deemed terminated, and no further work shall be performed by Contractor. If the Agreement is so terminated, the Contractor shall be paid for the work actually completed at the time the notice of termination is received.

11.2 Should either party default in the performance of this Agreement or materially breach any of its provisions, the other party, at that party's option, may terminate this Agreement by giving written notification to the other party.

11.3 Funding- Non-Appropriation. It is mutually understood between the Parties that payment to the Contractor for performance shall be dependent upon the availability of appropriations by the City Council for the purposes of this Agreement. No legal liability on the part of the City for any payment may arise under this Agreement until funds are made available and until the Contractor has received funding availability, which will be confirmed in writing. If funding for any fiscal year is reduced or deleted, or if the City loses funding for any reason, the City, in its sole discretion, shall have the option to either (a) cause this Agreement to be canceled or terminated pursuant to applicable provisions of the Agreement; or (b) offer to amend the Agreement to reflect the reduced funding for this Agreement.

**12. Non-Assignability**. The Contractor shall not assign, sublet, or transfer this Agreement or any interest or obligation in the Agreement without the prior written consent of the City, and then only upon such terms and conditions as City may set forth in writing. Contractor shall be solely responsible for reimbursing subcontractors.

**13. Indemnity and Hold Harmless.** To the fullest extent permitted by law, Contractor shall hold harmless, defend at its own expense, and indemnify the City of Stockton, its officers, employees, agents, and volunteers, against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees, arising from all acts or omissions of contractor or its officers, agents, or employees in rendering services under this contract; excluding, however, such liability, claims, losses, damages, or expenses arising from the City of Stockton's sole negligence or willful acts. The duty to defend and the duty to indemnify are separate and distinct obligations. The indemnification obligations of this section shall survive the termination of this agreement.

**14. Insurance**. During the term of this Agreement, Contractor shall maintain in full force and effect at its own cost and expense the insurance coverage as set forth in the attached Exhibit B to this Agreement and shall otherwise comply with the other provisions of Exhibit B to this Agreement.

**15. Notices**. All notices herein required shall be in writing and shall be sent by certified or registered mail, postage prepaid, addressed in Exhibit A to this Agreement.

**16. Conformance to Applicable Laws**. Contractor shall comply with all applicable Federal, State, and Municipal laws, rules, and ordinances. Contractor shall not discriminate in the employment of persons or in the provision of services under this Agreement on the basis of any legally protected classification, including race, color, national origin, ancestry, sex or religion of such person.

**17.** **Licenses, Certifications and Permits**. Prior to the City's execution of this Agreement and prior to the Contractor's engaging in any operation or activity set forth in this Agreement, Contractor shall obtain a City of Stockton business license, which must be kept in effect during the term of this Agreement. Contractor covenants that it has obtained all certificates, licenses, permits and the like required to perform the services under this Agreement. Such licenses, certificates and permits shall be maintained in full force and effect during the term of this Agreement.

**18.** **Records and Audits**.

Contractor shall maintain all records regarding this Agreement and the services performed for a period of three (3) years from the date that final payment is made. At any time during normal business hours, the records shall be made available to the City to inspect and audit. To the extent Contractor renders services on a time and materials basis, Contractor shall maintain complete and accurate accounting records, in a form prescribed by City or, if not prescribed by City, in accordance with generally accepted accounting principles, such records to include, but not be limited to, payroll records, attendance cards, time sheets, and job summaries.

**19.** **Confidentiality**. Contractor shall exercise reasonable precautions to prevent the unauthorized disclosure and use of City reports, information or conclusions.

**20.** **Conflicts of Interest**. Contractor covenants that other than this Agreement, Contractor has no financial interest with any official, employee or other representative of the City. Contractor and its principals do not have any financial interest in real property, sources of income or investment that would be affected in any manner of degree by the performance of Contractor's services under this Agreement. If such an interest arises, Contractor shall immediately notify the City.

**21.** **Waiver**. In the event either City or Contractor at any time waive any breach of this Agreement by the other, such waiver shall not constitute a waiver of any other or succeeding breach of this Agreement, whether of the same or of any other covenant, condition or obligation. No payment, partial payment, acceptance, or partial acceptance by City shall operate as a waiver on the part of City of any of its rights under this Agreement.

**22.** **Governing Law**. California law shall govern any legal action pursuant to this Agreement with venue for all claims in the Superior Court of the County of San Joaquin, Stockton Branch or, where applicable, in the Federal District Court of California, Eastern District, Sacramento Division.

**23.** **No Personal Liability**. No official or employee of City shall be personally liable

to Contractor in the event of any default or breach by the City or for any amount due Contractor.

**24. Severability.** If any portion of this Agreement or application thereof to any person or circumstance shall be declared invalid by a court of competent jurisdiction or if it is found in contravention of any federal, state or city statue, ordinance or regulation the remaining provisions of this Agreement or the application thereof shall not be invalidated thereby and shall remain in full force and effect to the extent that the provisions of this Agreement are severable.

**25. Non-Discrimination.** During the performance of this Agreement, Contractor and its officers, employees, agents, representatives or subcontractors shall not unlawfully discriminate in violation of any federal, state, or local law, rule or regulation against any employee, applicant for employment or person receiving services under this Agreement because of race, religion, color, national origin, ancestry, physical or mental disability, medical condition (including genetic characteristics), marital status, age, political affiliation, sex or sexual orientation, family and medical care leave, pregnancy leave, or disability leave. Contractor and its officers, employees, agents, representative or subcontractors shall comply with all applicable Federal, State and local laws and regulations related to non-discrimination and equal opportunity, including without limitation the City's nondiscrimination policy; the Fair Employment and Housing Act (Government Code sections 12990 (et seq.); California Labor Code sections 1101, 1102 and 1102.1; the Federal Civil Rights Act of 1964 (P.L. 88-352), as amended; and all applicable regulations promulgated in the California Code of Regulation or Code of Federal Regulations. Title VI of the Civil Rights Act of 1964 requires that "no person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." (42 USC Section 2000d). http://www.dol.gov/oasam/regs/statutes/titlevi.htm. The City requires compliance with the requirements of Title VI in all of its programs and activities regardless of funding source.

**26. Force Majeure**. Neither party shall be responsible for delays or failures in performance resulting from acts of God, acts of civil or military authority, terrorism, fire, flood, strikes, war, epidemics, pandemics, shortage of power or other acts or causes reasonably beyond the control of that party. The party experiencing the force majeure event agrees to give the other party notice promptly following the occurrence of a force majeure event, and to use diligent efforts to re-commence performance as promptly as commercially practicable.

**27. Taxes and Charges.** Contractor shall be responsible for payment of all taxes, fees, contributions or charges applicable to the conduct of the Contractor's business.

**28. Cumulative Rights.** Any specific right or remedy provided in this Agreement will

not be exclusive but will be cumulative of all other rights and remedies to which may be legally entitled.

**29. Advice of Attorney.** Each party warrants and represents that in executing this Agreement, it has received independent legal advice from its attorneys or the opportunity to seek such advice.

**30. Heading Not Controlling.** Headings used in this Agreement are for reference purposes only and shall not be considered in construing this Agreement.

**31. Entire Agreement, Integration, and Modification.**

31.1 This Agreement represents the entire integrated agreement between Contractor and the City; supersedes all prior negotiations, representations, or agreements, either written or oral between the parties and may be amended only by a written Amendment signed by the Contractor and City Manager.

31.2 All Exhibits to this Agreement and this Agreement are intended to be construed as a single document.

**32. Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.

**33. Authority.** The individual(s) executing this Agreement represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

# EXHIBIT D

## PROFESSIONAL SERVICES SPECIAL TERMS AND CONDITIONS

**1. Definitions.** The following words and phrases have the following meanings for purposes of this Agreement:

1.1 "Services" means, collectively, the services, duties and responsibilities described in Exhibit A of this Agreement and any and all work necessary to complete them or carry them out fully and to the standard of performance required in this Agreement.

1.2 “Deliverable” means quantifiable goods or services that will be provided upon completion of a project. A deliverable is any tangible material, work or thing delivered by one party to the other, including associated technical documentation. A deliverable can be tangible or intangible parts of the development process, and often are specified functions or characteristics of the project.

**2. General.** The following terms and conditions are applicable for the Professional Services only. The special conditions shall be read in conjunction with the Standard Agreement, General Terms and Conditions (“GTC”) Exhibit C, and all other Exhibits identified in the Standard Agreement.

2.1 Where any portion of the GTC is in conflict to or at variance with any provisions of the Special Conditions of the Agreement, then unless a different intention stated, the provision(s) of the Special Conditions of the Agreement shall be deemed to override the provision(s) of GTC only to the extent that such conflict or variations in the Special Conditions of the Agreement are not possible of being reconciled with the provisions of the GTC.

2.2 In the case of modification of a part or provision of the GTC, the unaltered part or provision, or both shall remain in effect. The Special Conditions shall relate to a particular project and be peculiar to that project but shall not weaken the character or intent of the GTC.

**3. Time for Performance.**

3.1 Contractor shall perform the services according to the schedule contained in Exhibit F.

3.2 Timeliness of Performance i) Contractor shall provide the Services, and Deliverables within the term and within the time limits required under this Agreement, pursuant to the provisions of Exhibit A and Exhibit F. ii) Neither Contractor nor Contractor’s agents, employees nor subcontractors are entitled to any damages from the City, nor is any party entitled to be reimbursed by the City, for damages, charges or other

losses or expenses incurred by Contractor by reason of delays or hindrances in the performance of the Services, whether or not caused by the City.

## 4. Standard of Performance

In addition to Exhibit C, Section 4 and 17, Contractor agrees as follows:

4.1 Contractor's Services shall be performed in accordance with generally accepted professional practices and principles and in a manner consistent with the level of care and skill ordinarily exercised by members of Contractor's profession currently practicing under similar conditions. Contractor shall comply with the profession's standard of performance, applicable laws, regulations, and industry standards. By delivery of completed work, Contractor certifies that the work conforms to the requirements of this Agreement and all applicable federal, state and local laws. If Contractor is retained to perform services requiring a license, certification, registration or other similar requirement under California law, Contractor shall maintain that license, certification, registration or other similar requirement throughout the term of this Agreement.

4.2 Contractor acknowledges that it is entrusted with or has access to valuable and confidential information and records of the City and with respect to that information, Contractor agrees to be held to the standard of care of a fiduciary. Contractor shall assure that all services that require the exercise of professional skills or judgment are accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed, if required by law. Contractor must provide copies of any such licenses. Contractor remains responsible for the professional and technical accuracy of all Services or Deliverables furnished, whether by Contractor or its subcontractors or others on its behalf. All Deliverables must be prepared in a form and content satisfactory to the Using Agency and delivered in a timely manner consistent with the requirements of this Agreement.

4.3 If Contractor fails to comply with the foregoing standards, Contractor must perform again, at its own expense, all Services required to be re-performed as a direct or indirect result of that failure. Any review, approval, acceptance or payment for any of the Services by the City does not relieve Contractor of its responsibility for the professional skill and care and technical accuracy of its Services and Deliverables. This provision in no way limits the City's rights against Contractor either under this Agreement, at law or in equity.

## 5. Compensation

5.1 In addition to Section 3 Compensation in Exhibit C – GTC, the Contractor shall be compensated for the services provided under this Agreement as follows:

5.1.1 Contractor shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears on a not to exceed

basis, based upon the rates set forth in Exhibit E attached hereto and made a part of this Agreement. Contractor may vary the compensation for each task in Exhibit E provided that the total project compensation listed in Exhibit E and the Standard Agreement is not exceeded.

## 6. Personnel

6.1 None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of the City. Any work or services subcontracted hereunder shall be specified by written agreement and shall be subject to each provision of this Agreement. Contractor shall provide subcontractor a copy of this fully executed Agreement.

6.2 Contractor agrees to assign only competent personnel according to the reasonable and customary standards of training and experience in the relevant field to perform services under this Agreement. Failure to assign such competent personnel shall constitute grounds for termination of this Agreement. The payment made to Contractor pursuant to this Agreement shall be the full and complete compensation to which Contractor and Contractor's officers, employees, agents, and subcontractors are entitled for performance of any work under this Agreement. Neither Contractor nor Contractor's officers or employees are entitled to any salary or wages, or retirement, health, leave or other fringe benefits applicable to employees of the City. The City will not make any federal or state tax withholdings on behalf of Contractor. The City shall not be required to pay any workers' compensation insurance on behalf of Contractor. Contractor shall pay, when and as due, any and all taxes incurred as a result of Contractor's compensation hereunder, including estimated taxes, and shall provide City with proof of such payments upon request.

6.3 Key Personnel: Because of the special skills required to satisfy the requirements of this Agreement, Contractor shall not reassign or replace key personnel without the written consent of the City, which consent the City will not unreasonably withhold. "key personnel" means those job titles and the persons assigned to those positions in accordance with the provisions of this Agreement. The City may at any time in writing notify Contractor that the City will no longer accept performance of Services under this Agreement by one or more Key Personnel listed. Upon that notice Contractor shall immediately suspend the services of the key person or persons and must replace him or them in accordance with the terms of this Agreement. A list of key personnel is found in Exhibit A, Scope of Services.

## 7. Reports and Information

Contractor shall at such times and in such forms as the City may require furnish the City such periodic reports as it may request pertaining to the work or services undertaken pursuant to this Agreement, the costs and obligations incurred or to be incurred in connection therewith, and any other matters are covered by this Agreement as specified in Exhibit A and Exhibit E.

## 8. Findings Confidential

All of the reports, information, data, et cetera, prepared or assembled by the Contractor under this Agreement are confidential and the Contractor agrees that they shall not be made available to any individual or organization without the prior written approval of the City. Contractor shall not be required under the provisions of this paragraph to keep confidential any data or information which is or becomes publicly available, is required by applicable law or by proper legal or governmental authority, is already rightfully in the Contractor's possession without obligation of confidentiality, is independently developed by Contractor outside the scope of this Agreement or is rightfully obtained from third parties. Contractor shall give City prompt notice of any such legal or governmental demand and reasonably cooperate with City in any effort to seek a protective order or otherwise to contest such required disclosure.

## 9. Copyright

No materials, including but not limited to reports, maps, or documents produced as a result of this Agreement, in whole or in part, shall be available to Contractor for copyright purposes. Any such materials produced as a result of this Agreement that might be subject to copyright shall be the property of the City and all such rights shall belong to the City, and the City shall be sole and exclusive entity who may exercise such rights.

## 10. Deliverables

Contractor shall prepare or provide to the City various Deliverables. "Deliverables" include work product, such as written reviews, recommendations, reports and analyses, produced by Contractor for the City. The City may reject Deliverables that do not include relevant information or data, or do not include all documents or other materials specified in this Agreement or reasonably necessary for the purpose for which the City made this Agreement or for which the City intends to use the Deliverables. If the City determines that Contractor has failed to comply with the foregoing standards, it has 30 days from the discovery to notify Contractor of its failure. If Contractor does not correct the failure, or if it is possible to do so, within 30 days after receipt of notice from the City specifying the failure, then the City, by written notice, may treat the failure as a default of this Agreement. Partial or incomplete Deliverables may be accepted for review only when required for a specific and well-defined purpose and when consented to in advance by the City. Such Deliverables will not be considered as satisfying the requirements of this Agreement and partial or incomplete Deliverables in no way relieve Contractor of its commitments under this Agreement.

# EXHIBIT E

# COMPENSATION SCHEDULE

The Contractor shall be compensated for the services identified in Exhibit A, Exhibit C, and Exhibit D to this Agreement as follows:

## 1. Project Price

1.1 The maximum the Contractor shall be paid on this Agreement is $777,000 (hereafter the "not to exceed" amount). The "not to exceed" amount includes all payments to be made pursuant to this Agreement, including City approved reimbursable expenses, if any. Nothing in this Agreement requires the City to pay for work that does not meet the Standard of Performance identified in Exhibit D section 4 or other requirements of this Agreement.

1.2 Standard Reimbursable Items: Only the reimbursable items identified in Exhibit A, C, and D (Compensation), shall be compensated to the Contractor. Reimbursable expenses will be reimbursed without markup. Fees plus reimbursable expenses shall not exceed the amount set forth in section 1.1 of this Exhibit and a copy of the original invoice for the items listed in i, ii or iii below shall be attached to the invoice submitted to the City for reimbursement. Payments shall be based upon work documents submitted by the Contractor to the City and accepted by the City as being satisfactory to City's needs. The City shall not pay a markup on any of the items listed in i, ii or iii. Additionally, items such a telephone, fax, postage or freight are already included in the billable hourly rate. Contractor shall be reimbursed the direct expenses, which are the actual cost of the following items that are reasonable, necessary and actually incurred, by the Contractor in connection with the services:

i. Expenses, fees or charges for printing, reproduction or binding of documents at actual costs with no markup added to the actual cost.

ii. Any filing fees, permit fees, or other fees paid or advanced by the Contractor at actual costs with no markup added to the actual cost.

iii. Travel expenses shall be reimbursed in accordance with the City's travel policy, which is incorporated herein by reference. Reimbursement shall be made at actual costs with no markup added to the actual cost.

1.3 The Contractor shall be entitled to receive payments for its work performed pursuant to the Agreement. The City will pay Contractor based on invoices for acceptable work performed and approved until the "not to exceed" amount is reached. Thereafter, Contractor must complete services based on the Agreement without additional compensation unless there is a material change to the Statement of Work and Scope by a written Amendment.

1.4 If work is completed before the "not to exceed" amount is reached, the Contractor's compensation will be based on the Contractor's invoices previously submitted for acceptable work performed and approved.

1.5 Subcontractor Costs: Compensation for subcontractors shall be limited to the same restrictions imposed on the Contractor. Maximum markup Contractor may apply to subcontractor fees, minus reimbursable expenses, shall not exceed 10%.

2. **Task Price**. Below is the price for the services and reimbursable expenses as described in Exhibit A of this Agreement.

| Task | Description | Task Price |
|---|---|---|
| 1 | Project Management | $52,800 |
| 2 | Review City Policies and Existing Documents | $47,400 |
| 3 | Establish Goals, Strategies and Priorities | $10,000 |
| 4 | Data Collection and Analysis | $145,900 |
| 5 | Water Distribution Hydraulic Model | $106,800 |
| 6 | Draft and Final Water Master Plan Update | $65,700 |
| 7 | Financial Analysis | $56,700 |
| 8 | Water Distribution Systems Model Maintenance and Technical Support | $185,400 |
| 9 | Coordination and Plan Development | $17,400 |
| 10 | Modeler's Notebook | $12,300 |
| 11 | Near-Term System Evaluation | $20,600 |
| 12 | Extended Period Simulation (EPS) Verification | $45,600 |
| 13 | Stand-Alone Executive Summary | $10,400 |
| | **TOTAL PRICE** | **$777,000** |

**3. Hourly Rates.** The following is a list of hourly billable rates that Contractor shall apply for additional services requested of the Contractor. Contractor shall be compensated based on the hourly rates set forth below, on a time and material basis for those services that are within the general scope of services of this Agreement, but beyond the description of services required under Exhibit A, and all services are reasonably necessary to complete the standards of performance required by this Agreement. Any changes and related fees shall be mutually agreed upon between the parties by a written amendment to this Agreement.

**Hourly Billable Rate Schedule**

See Attachment A to Exhibit E, West Yost Associates Fee Proposal and 2020 Billing Rate Schedule

**4. Additional Fees.** Should an amendment to the Agreement be issued for additional services that require the following items, the unit prices are as follows:

See Attachment A to Exhibit E, West Yost Associates Fee Proposal and 2020 Billing Rate Schedule for unit and hourly prices.

**5.** **Invoice to Address.** Each invoice submitted shall identify the specific task(s) listed in Exhibit A and this Exhibit, and the completed work product/deliverable for the agreed upon price listed in this Exhibit. Invoices shall be submitted to the below address:

City of Stockton Municipal Utilities Department
Attention: mudeng@stocktonca.gov
MUD Engineering Division
425 N. El Dorado Street
Stockton, CA 95202

# EXHIBIT F

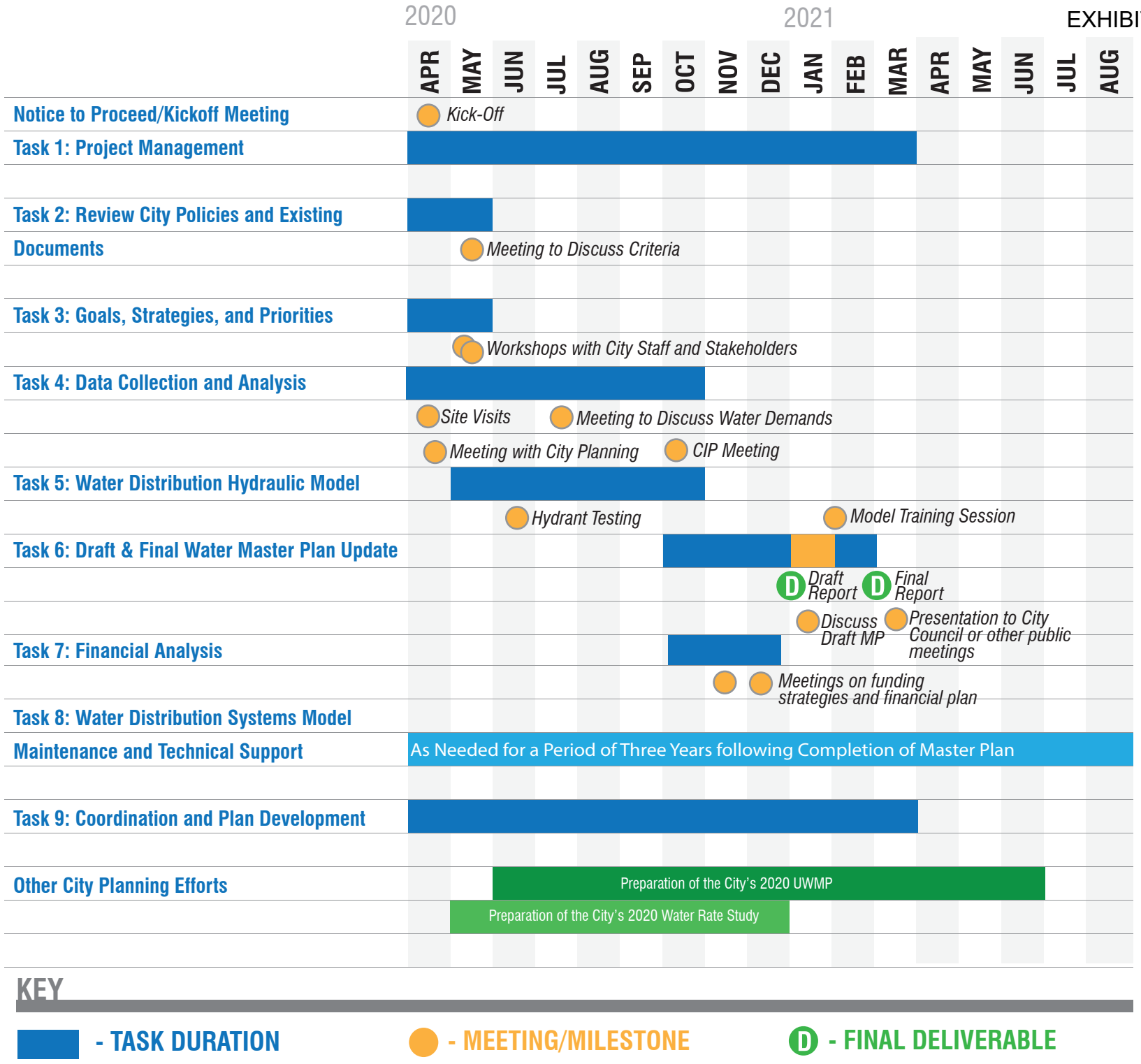
# TIMELINE

1. Consultant shall complete the requested services identified in Exhibit A as follows:

## 1.1 TIMELINE FOR COMPLETION OF WORK

Refer to attached schedule showing task durations, milestones, and final deliverables. Water System CIP Projects shall be identified by October 1, 2020.

EXHIBIT 1


2020
2021
APR
MAY
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OCT
NOV
DEC
JAN
FEB
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APR
MAY
JUN
JUL
AUG
Notice to Proceed/Kickoff Meeting
Kick-Off
Task 1: Project Management
Task 2: Review City Policies and Existing Documents
Meeting to Discuss Criteria
Task 3: Goals, Strategies, and Priorities
Workshops with City Staff and Stakeholders
Task 4: Data Collection and Analysis
Site Visits
Meeting to Discuss Water Demands
Meeting with City Planning
CIP Meeting
Task 5: Water Distribution Hydraulic Model
Hydrant Testing
Model Training Session
Task 6: Draft & Final Water Master Plan Update
D Draft Report
D Final Report
Discuss Draft MP
Presentation to City Council or other public meetings
Task 7: Financial Analysis
Meetings on funding strategies and financial plan
Task 8: Water Distribution Systems Model
Maintenance and Technical Support
As Needed for a Period of Three Years following Completion of Master Plan
Task 9: Coordination and Plan Development
Other City Planning Efforts
Preparation of the City's 2020 UWMP
Preparation of the City's 2020 Water Rate Study
KEY
- TASK DURATION
- MEETING/MILESTONE
D - FINAL DELIVERABLE

# CITY OF STOCKTON, CALIFORNIA
# CITY MANAGER ADMINISTRATIVE DIRECTIVE

| Subject: | Directive No. HR-15 | Page No. 1 of 14 |
|---|---|---|
| **DISCRIMINATION AND HARASSMENT POLICY** | Effective Date: **5/1/2015** | Revised From: **7/27/09 4/6/09 3/1/2010 (see below)** |

PER-015 (Sexual Harassment in the Workplace) revised from 10/21/94, 5/1/95, 1/1/98
PER-037 (Sexual Harassment Investigative Procedures) revised from 2/15/93

## I. PURPOSE

The purpose of this policy is to reaffirm the City's commitment to demonstrating respect for all individuals by strictly prohibiting discrimination and harassment, including sexual harassment in the workplace. This policy defines prohibited behavior and conduct, and sets forth a procedure for reporting, investigating and resolving complaints of discrimination, harassment, in the workplace, including retaliation and hostile work environment.

## II. POLICY

A. The City of Stockton prohibits any form of discrimination and/or harassment of any person based on race, religious creed, color, national origin, ancestry, military and veterans status, physical or mental disability, medical condition, genetic characteristics or information, denial of family and medical care leave, marital status, sexual orientation, sex (including gender, gender identity, gender expression, transgender, pregnancy, childbirth and breastfeeding), political affiliation, age (40 and older), concerted labor activity, or any other category or attribute consistent with state or federal law. All such discrimination and harassment is unlawful and shall not be tolerated. In addition, under the federal Affordable Care Act (ACA), the City of Stockton prohibits discrimination and/or harassment, or retaliation against an employee who obtains coverage, receives a tax credit or subsidy through the Health Care "Market Place" or "Exchange."

B. It is an unlawful employment practice to discriminate against or to harass an unpaid intern or volunteer on the basis of any legally protected classification unless an exception applies, such as a bona fide occupational qualification.

C. The City will neither tolerate nor condone discrimination and/or harassment of employees by managers, supervisors, co-workers, or non-employees with whom City employees have a business service, or professional relationship.

D. All City employees and non-employees share a responsibility to assist in

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maintaining an employment environment free of discrimination and harassment. This policy applies to all aspects of City employment, including, but not limited to, hiring, reassignment, placement, promotion, employment action, disciplinary action, layoff, reemployment, transfer, leave of absence, compensation and benefits, training; or other terms of treatment of that person in an unpaid internship, or another limited duration program to provide unpaid work experience for that person, or the harassment of an unpaid intern or volunteer.

E. All allegations of discrimination and/or harassment shall be investigated immediately by the City, in accordance with this policy. If it is determined that any prohibited activity has occurred, remedial action shall be taken. Such action may include discipline up to and including discharge. In addition, under applicable law, individual supervisors and employees may be subject to personal liability and/or punitive damages in any litigation arising as a result of such conduct.

F. All new hires shall attend harassment awareness training, and supervisors and managers shall attend harassment awareness and prevention training for supervisors every two years.

G. The City of Stockton prohibits retaliation against any employee or non-employee by another employee, non-employee, supervisor, or manager for reporting, filing, testifying, assisting or participating in any manner in any investigation, proceeding, or hearing conducted by the employer or a federal or state enforcement agency.

H. This policy applies to all officials, employees, volunteers, unpaid interns, agents, or contractors of the City.

I. This policy shall be administered by the Director of Human Resources.

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## III. DEFINITION AND EXAMPLES OF DISCRIMINATION AND HARASSMENT

A. "Discrimination," as used in this policy, is any action, behavior, practice, or process that is intended to deny, or results in the denial of, employment rights, privileges, or benefits because of a person's race, religious creed, color, national origin, ancestry, military and veterans status, physical or mental disability, medical condition, genetic characteristics or information, denial of family and medical care leave, marital status, sexual orientation, sex (including gender, gender identity, gender expression, transgender, pregnancy, childbirth and breastfeeding), political affiliation, age (40 and older), concerted labor activity, or any other prohibition identified under state and federal law. The following are examples of conduct that may constitute discrimination:

1. Soliciting applications from a source where all or most of potential workers are of the same race or color.

2. Considering a person's gender as the basis for differences in pay, work assignments, performance evaluations, training, discipline, or any other area of employment; and

3. Questioning a job applicant about the existence, nature and severity of a disability.

B. "Harassment," as used in this policy, consists of any conduct affecting another person because of his or her race, religious creed, color, national origin, ancestry, military and veterans status, physical or mental disability, medical condition, genetic characteristics or information, denial of family and medical care leave, marital status, sexual orientation, sex (including gender, gender identity, gender expression, transgender, pregnancy, childbirth and breastfeeding), political affiliation, age (40 and older), concerted labor activity, or any other category or attribute identified under state and federal law when such conduct has the purpose or the effect of: (1) creating an intimidating, hostile or offensive work environment; (2) unreasonably interfering with the employee's or non-employee's work performance; or (3)

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otherwise adversely affecting an employee's or non-employee's employment opportunities.

Harassment may take many forms, including, but not limited to, the following examples:

1. Verbal Harassment: Epithets, derogatory and offensive comments or slurs based on race, religion, color, national origin, ancestry, physical or mental disability, marital status, pregnancy, medical condition, gender, sexual orientation, political affiliation, age, or any other category or attribute identified under state and federal law.

2. Physical Harassment: Assault, impeding or blocking movement that results in the physical interference with normal work or movement on the basis of race, religion, color, national origin, ancestry, physical or mental disability, marital status, pregnancy, medical condition, gender, sexual orientation, political affiliation, age, or any other category or attribute identified under state and federal law.

3. Visual Harassment: The displaying of posters, photography, notices, bulletins, e-mails, cartoons or drawings with derogatory and offensive content based on race, religion, color, national origin, ancestry, physical or mental disability, marital status, pregnancy, medical condition, gender, sexual orientation, political affiliation, age, or any other category or attribute identified under state and federal law.

C. "Sexual harassment," as used in this policy, is a subcategory of harassment, and is specifically defined by law as unwanted sexual advances, requests for sexual favors or visual, verbal or physical conduct of a sexual nature when:

1. Submission to such conduct is made a term or condition of employment; or

2. Submission to or rejection of such conduct is used as a basis for employment decisions affecting the individual; or

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3. Such conduct has the purpose or effect of unreasonably interfering with an employee's or non-employee's work performance or creating an intimidating, hostile or offensive working environment because of the persistent, severe or pervasive nature of the conduct.

   Examples of Sexual Harassment include, but are not limited to the following:

   a. Unwelcome sexual overtures or propositions.

   b. Offering employment benefits or status in exchange for sexual favors.

   c. Making or threatening retaliation after a negative response to sexual advances.

   d. Visual conduct such as leering, making sexual gestures, displaying sexually suggestive objects or pictures, cartoons, calendars or posters.

   e. Verbal conduct such as using epithets or slurs, telling sexually explicit jokes, or making derogatory or suggestive comments about a person's body or dress.

   f. Written communications of a sexual nature distributed in hard copy, soft copy or via a computer network.

   g. Verbal abuse of a sexual nature, graphic verbal commentary about an individual's body, sexually degrading words to describe an individual, suggestive or obscene letters, notes or invitations.

   h. Physical conduct such as touching, assaulting, impeding or blocking movements.

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i. Retaliation for making harassment reports or threatening to report harassment.

D. Affordable Care Act (ACA) Anti-Retaliation

Pursuant to section §1558 of the Affordable Care Act, the City prohibits discrimination or retaliation towards any employee who:

1. Receives a health insurance tax credit or subsidy through the Health Care "Marketplace" or "Exchange", by which can trigger a penalty payable by the employer;
2. Reports potential violations of protections afforded under Title I of the Act, which provides guaranteed availability protections among other things;
3. Testifies in a proceeding concerning such violation;
4. Assists or participates in a proceeding concerning a violation; or
5. Objects to, or refuses to participate in, any activity, policy, practice, or assigned task that the employee reasonably believes to be in violation of any provision of the Title I of the Act.

An employee who believes that he or she has been discharged or otherwise discriminated against in violation of section §1558 of the Affordable Care Act may seek relief in accordance with the procedures, notifications, burdens of proof, remedies, and statutes of limitation set forth in section 2087(b) of title 15, United States Code.

## IV. REPORTING AND COMPLAINT PROCEDURES

A. Immediate Action Required

The City's reporting and complaint procedures provide for an immediate, thorough and objective investigation of discrimination or harassment claims, appropriate disciplinary action taken against any person found to have engaged in prohibited behavior, and appropriate alternative remedies to any

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employee or non-employee subject to discrimination or harassment. To accomplish this, such incidents must be reported immediately to a supervisor or manager.

1. Employee's and Non-Employee's Responsibilities when Subjected to Discrimination and/or Harassment

   a. Employees or non-employees who believe they have been subjected to discrimination or harassment, or are aware of discrimination or harassment against others, shall report the situation immediately to his/her supervisor or manager, except as specified in subsection (b), below. Employees and non-employees shall report any such incidents occurring in the workplace, whether committed by coworkers, supervisors or managers, or third persons doing business with the City, such as customers or vendors, or other non-employees. If comfortable doing so, an employee or non-employee who has a complaint of discrimination or harassment is encouraged to directly inform the person(s) engaging in the behavior that such conduct is offensive and insist the behavior to stop.

   b. Employees and non-employees must immediately contact a supervisor or manager to register a complaint of discrimination or harassment, unless that supervisor or manager is the individual engaging in the unwanted behavior. In that case, the employee or non-employee may contact someone at the next supervisory level. If the employee or non-employee feels uncomfortable dealing directly with his or her immediate supervisor or manager, he or she may contact the department head, or the Director of Human Resources (or either of their designees) to register a complaint of discrimination or harassment.

   c. Employees and non-employees may file a formal complaint of harassment or discrimination with their department head or

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with Human Resources. To assist the City in conducting a thorough investigation, complaints shall be submitted in writing and shall include specific details of the incident(s), the names of the individuals involved, the names of any witnesses, and any documentary evidence (notes, pictures, cartoons, etc.) that will corroborate the allegations.

d. Employees and non-employees shall immediately report any retaliation to a supervisor, manager, department head or Director of Human Resources (or designee). All retaliation complaints shall be immediately, objectively and thoroughly investigated in accordance with the investigation procedures. If a report of retaliation is substantiated, appropriate disciplinary action, up to and including discharge shall be taken.

2. Supervisor's or Manager's Responsibilities to Eliminate Discrimination and/or Harassment

a. A supervisor or manager is responsible for enforcing the City's discrimination and harassment policy. Supervisors or managers must ensure that all employees and non-employees are aware of the City's policy through open discussion of the policy at staff meetings and by posting the policy in a conspicuous location accessible to all staff members.

b. A supervisor or manager shall be cognizant of employees' and non-employees' behavior and shall not permit any employee or non-employee under their supervision to be subjected to or engage in any conduct prohibited by this policy.

c. A supervisor or manager who observes conduct prohibited by this policy shall immediately direct the employee or non-employee to cease the conduct.

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d. A supervisor or manager who receives a complaint of prohibited conduct is required to take the complaint seriously, and report the matter immediately to the department head; be supportive of the complainant; ensure there is no retaliation against the complainant; conduct an internal fact-finding review into the allegations; obtain as much detailed information as possible; thoroughly document the findings; communicate in written form to the parties the resolution of the complaint; and report to and consult with the Human Resources Department promptly, without delay.

B. Confidentiality. The City will make every effort to protect the privacy and confidentiality of all parties involved, as well as any information and/or documentation obtained, to the extent possible consistent with a thorough investigation.

C. Penalty for Non-Compliance. The City shall take disciplinary action, up to and including discharge, against any supervisor or manager who fails in his/her responsibility to take immediate action in response to an employee's or non-employee's complaint of discrimination or harassment. Further, such disciplinary action shall be taken against a supervisor or manager who fails to stop discriminatory or harassing conduct committed in his/her presence or to stop such conduct about which the supervisor or manager has knowledge.

## V. INVESTIGATION PROCEDURES

A. Determination of Responsibility for Investigation

If a formal complaint is filed with the department head or the Director of Human Resources (or either of their designees), the department head and the Director of Human Resources shall consult with one another to determine whether the department or Human Resources shall conduct the fact-finding investigation into the allegations. Either the department head or the Director of Human Resources (or either of their designees), depending on who is

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responsible for the investigation, shall issue written notification to the complainant and alleged harasser(s). The notification shall specify the nature of the complaint, and inform the parties that an investigation into the allegations of discrimination and/or harassment shall be conducted.

B. Investigative Guidelines

The investigation shall include the following steps taken in the order best suited to the circumstances:

1. Identify and preserve the evidence.

2. Confirm the name and position of the complainant. Interview the complainant.

3. Allow the complainant the opportunity to place the complaint in writing.

4. Obtain the identity of the alleged harasser(s).

5. Obtain as many details as possible regarding the incident(s) that prompted the complaint, including the number of occurrences, dates, times, locations, and witnesses (if applicable).

6. Ascertain how the complainant felt about the alleged incident when it occurred; complainant's response(s) to the alleged behavior; and witness statements (if applicable).

7. Ascertain if any threats or promises were made in connection with the alleged harassment.

8. Ascertain if the complainant knows of or suspects that there are other victims of harassment by the same person(s).

9. Ascertain whether the complainant has spoken to anyone, especially

supervisors, about the harassment.

10. Ascertain what resolution would be acceptable to the complainant.

11. Interview the alleged harasser to get his or her side of the story, including any possible motivation for a false allegation.

12. Interview witnesses who were identified by the complainant regarding the alleged harasser or other persons identified during the investigation.

13. Interview witnesses who were identified by the alleged harasser or other persons identified during the investigation.

14. Advise all participants that the investigation is "confidential" and not to engage in any retaliatory conduct, as such conduct is subject to disciplinary action up to and including discharge. Confidentiality will be maintained to the extent possible. An individual who is interviewed during the course of an investigation is prohibited from discussing the substance of the interview, except as otherwise directed by a supervisor or the Director of Human Resources. Any individual who discusses the content of an investigatory interview will be subject to discipline or other appropriate sanction.

15. Conduct follow-up interviews, if warranted.

16. Prepare report of findings and discuss with management and designated legal staff.

## VI. RESPONDING TO THE COMPLAINT

A. Following the completion of the fact-finding investigation, either the department head or the Director of Human Resources (or either of their designees), depending on who is responsible for the investigation, shall

**CITY OF STOCKTON, CALIFORNIA**
**CITY MANAGER ADMINISTRATIVE DIRECTIVE**

| Subject: | Directive No. HR-15 | Page No. 12 of 14 |
|---|---|---|
| **DISCRIMINATION AND HARASSMENT POLICY** | Effective Date: **5/1/2015** | Revised From: **7/27/09 4/6/09 3/1/2010 (see below)** |

PER-015 (Sexual Harassment in the Workplace) revised from 10/21/94, 5/1/95, 1/1/98
PER-037 (Sexual Harassment Investigative Procedures) revised from 2/15/93

make a report of findings, along with a recommendation regarding the appropriate remedial action to be taken, if warranted. The recommendation shall be made after reviewing the findings of the investigation, giving consideration to all factual information, the nature of the alleged conduct, and the totality of the circumstances. If the investigation was conducted by the Director of Human Resources, or designee, the Director, or designee, shall confer with the affected department head and both shall concur on the remedial action to be taken, if any. If the investigation was conducted by the department head, the department head shall confer with the Director of Human Resources prior to making the report of findings and both shall concur on the remedial action to be taken, if any.

B. If either the department head or the Director of Human Resources does not concur with the findings and recommendation of the other, the City Attorney (or designee) shall review and resolve the matter in dispute.

C. Report of findings and recommendation shall be treated as a confidential document and no other distribution shall be made without first consulting with the City Attorney's Office. A completed investigation report will not be disclosed, except as it is deemed necessary to support a disciplinary action, to take remedial action, to defend the City in adversarial proceedings, or to comply with the law or court order.

D. Either the department head or the Director of Human Resources (or either of their designees), depending on who is responsible for the investigation shall provide a written response to the complainant and the person alleged to have committed the misconduct, discrimination and/or harassment. The response shall include a copy of the City's discrimination and harassment policy and a memorandum indicating the City's determination as to whether the complaint is:

1. Unsustained: The investigation failed to disclose sufficient evidence to substantiate the allegation(s).

2. Unfounded: The investigation proved that the act(s) or omission(s)

**CITY OF STOCKTON, CALIFORNIA**
**CITY MANAGER ADMINISTRATIVE DIRECTIVE**

| Subject: | Directive No. HR-15 | Page No. 13 of 14 |
|---|---|---|
| **DISCRIMINATION AND HARASSMENT POLICY** | Effective Date: **5/1/2015** | Revised From: **7/27/09 4/6/09 3/1/2010 (see below)** |

PER-015 (Sexual Harassment in the Workplace) revised from 10/21/94, 5/1/95, 1/1/98
PER-037 (Sexual Harassment Investigative Procedures) revised from 2/15/93

complained of did not occur. The finding also applies when the individual employee(s) named in the complaint were not involved in the act(s) or omission(s) alleged.

3. Sustained: The investigation disclosed sufficient evidence to substantiate the allegation(s) made in the complaint; appropriate action will be taken.

E. Details regarding any specific fact-findings or disciplinary action to be taken will not be communicated to the complainant. The City Attorney shall review the response for legal sufficiency before dissemination.

F. The City shall close and retain the investigation file, in accordance with applicable laws, regulations, and City policy regarding retention of City records.

## VII. DISCIPLINE

Disciplinary action imposed as a result of any investigation conducted pursuant to this policy shall be commensurate with the severity of the offense, up to and including discharge, even for a first offense.

## VIII. ALTERNATIVE REMEDIES

If upon exhausting all internal remedies to file, investigate, and respond to a charges of discrimination/harassment, pursuant to title VII of the Federal Civil Rights Act of 1964 (42 U.S.C §§ 2000e *et seq.)*, any person has a right to file a charge of discrimination/harassment with the Equal Employment Opportunity Commission ("EEOC"). In addition, pursuant to the California Fair Employment and Housing Act (Gov. Code §§ 12900 – 12996.) a person may also file a complaint of discrimination/harassment with the California Department of Fair Employment and Housing ("DFEH"). Employees or non-employees who believe that they have been subjected to discrimination/harassment may file a complaint with either of these

**CITY OF STOCKTON, CALIFORNIA**
**CITY MANAGER ADMINISTRATIVE DIRECTIVE**

| Subject: | Directive No. HR-15 | Page No. 14 of 14 |
|---|---|---|
| **DISCRIMINATION AND HARASSMENT POLICY** | Effective Date: **5/1/2015** | Revised From: **7/27/09 4/6/09 3/1/2010 (see below)** |

PER-015 (Sexual Harassment in the Workplace) revised from 10/21/94, 5/1/95, 1/1/98
PER-037 (Sexual Harassment Investigative Procedures) revised from 2/15/93

agencies. Both the EEOC and DFEH serve as neutral fact-finders and attempt to assist parties in resolving disputes voluntarily.

## IX. COMMUNICATION OF POLICY

This policy shall be provided to all managers, supervisors, employees, volunteers, unpaid interns, agents or contractors of the City and shall be posted in the appropriate places. All employees shall participate in City approved harassment awareness training as directed by management or Human Resources; and all supervisors, as required by law, shall participate in City approved interactive harassment awareness training and education sessions at least once every two years, or as otherwise specified by law.

APPROVED:

KURT O. WILSON
CITY MANAGER

::ODMA\GRPWISE\COS.PER.PER_Library:96180.1

EXHIBIT 1

CITY OF STOCKTON

# 2020 Water Master Plan Update

WEST YOST ASSOCIATES

# Proposal Forms

- Proposal Documents
- Addendum 1 Acknowledgment
- Addendum 2 Acknowledgment
- Addendum 3 Acknowledgment
- Addendum 4 Acknowledgment

# PROPOSAL DOCUMENTS

A) **RFP –**
**Water Master Plan Update**

B) **M20006/PUR 19-052**

C) **February 6, 2020**

**COMPANY NAME:** West Yost Associates

**CONTACT NAME:** Elizabeth Drayer

**ADDRESS:** 6800 Koll Center Parkway, Suite 150

Pleasanton, CA 94566

**TELEPHONE NUMBER:** 925.461.6793

**EMAIL:** edrayer@westyost.com

CITY OF STOCKTON
REQUEST FOR PROPOSALS (RFP)
WATER MASTER PLAN UPDATE
PROJECT NO. M20006/PUR 19-052

**PROPONENT'S AGREEMENT**

In submitting this proposal, as herein described, the proponent agrees that:

1. They have carefully examined the Scope of Work and all other provisions of this document and understand the meaning, intent and requirements of same.

2. They will enter into contract negotiations and furnish the services specified.

3. They have signed and notarized the attached Non-Collusion Affidavit form, whether individual, corporate or partnership. Must be 'A Jurat' notarization.

4. They have reviewed all clarifications/questions/answers on the City's website at www.stocktonca.gov/mudbid .

5. Confidentiality: Successful Proponent hereby acknowledges that information provided by the City of Stockton is personal and confidential and shall not be used for any purpose other than the original intent outlined in the Request for Proposal. Breach of confidentiality shall be just cause for immediate termination of contract agreement.

| | |
|---|---|
| West Yost Associates | 2020 Research Park Drive, Suite 100, Davis CA 95618 |
| FIRM | ADDRESS |
| Charles Duncan | President and CEO |
| SIGNED BY | TITLE OR AGENCY |
| 530.756.5905 | January 17, 2020 |
| TELEPHONE NO./FAX NO. | DATE |
| cduncan@westyost.com | |
| E-MAIL ADDRESS | |

## NON-COLLUSION

**No. 1** **AFFIDAVIT FOR INDIVIDUAL PROPONENT**

**STATE OF CALIFORNIA,_____)ss.**
**County of _____)**
**(insert)**

_____being first duly sworn, deposes and says: That on behalf of any person not named herein; that said Proponent has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation to put in a sham bid, or that such other person, firm or corporation shall or should refrain from bidding; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Proponent.

_____
(Signature Individual Proponent)

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20_____
by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal _____

Signature _____

---

**No. 2** **AFFIDAVIT FOR CORPORATION PROPONENT**

**STATE OF CALIFORNIA,_____)ss.**
**County of** Yolo **)**
**(insert)**

Charles Duncan _____being first duly sworn, deposes and says: That they are the President and CEO of West Yost Associates a corporation, which corporation is the party making the foregoing bid, that such bid is genuine and not sham or collusive, or made in the interest or behalf of any person not named herein; that said Proponent has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation to put in a sham bid, or that such other person, firm or corporation shall or should refrain from bidding; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Proponent.

Charles Duncan
(Signature Corporation Proponent)

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20_____
by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

See attached jurat certificate

Seal _____

Signature _____

---

**No. 3** **AFFIDAVIT FOR FIRM, ASSOCIATION, OR CO-PARTNERSHIP**

**STATE OF CALIFORNIA,_____)ss.**
**County of _____)**
**(insert)**

_____,
each being first duly sworn, depose and say: That they are a member of the firm, association or co-partnership,

designated as _____who is the party making the foregoing bid; that the other partner, or partners, are _____that such bid is genuine and not sham or collusive, or made in the interest or behalf of any person not named herein; that said Proponent has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation shall or should refrain from proposing; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Proponent.

_____
(Signature)

_____
(Signature)

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20_____
by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal _____

Signature _____

EXHIBIT 1

**CALIFORNIA JURAT** **GOVERNMENT CODE § 8202**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Yolo

Subscribed and sworn to (or affirmed) before me on this 17th (Date) day of January (Month), 2020 (Year), by

(1) Charles Thornbury Duncan

(and (2) _____),
*Name(s) of Signer(s)*

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

PERI LEE SIEPMAN
Notary Public - California
Yolo County
Commission # 2236997
My Comm. Expires Apr 5, 2022

Signature _____
*Signature of Notary Public*

*Place Notary Seal and/or Stamp Above*

**OPTIONAL**

*Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: City of Stockton - Non Collusion Affidavit

Document Date: 1/17/2020 Number of Pages: 3

Signer(s) Other Than Named Above: n/a

**REQUEST FOR PROPOSAL**
**WATER MASTER PLAN UPDATE**
**FOR THE CITY OF STOCKTON, CALIFORNIA**
**(PUR 19-052)**

ADDENDUM No. 1

DATE: 1/16/20

To All Potential Bidders:

**A. This Addendum shall be considered part of the proposal documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. PROPONENTS MUST SIGN THE ADDENDUM AND SUBMIT IT WITH THEIR PROPOSALS.**

**B. Proponents are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each proponent's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.**

**Item Number 1**

Specifications, Page 8, - Indemnity and Hold Harmless

**PLEASE NOTE THE FOLLOWING CHANGES TO THE SECTION 1.16 OFTHE RFP WATER MASTER PLAN UPDATE (PUR 19-052)**

Indemnity and Hold harmless:

To the fullest extent permitted by law, Contractor shall hold harmless, defend at its own expense, and indemnify the City of Stockton, its officers, employees, agents, and volunteers, against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees, arising from all acts or omissions of contractor or its officers, agents, or employees in rendering services under this contract; excluding, however, such liability, claims, losses, damages, or expenses arising from the City of Stockton's sole negligence or willful acts. The duty to defend and the duty to indemnify are separate and distinct obligations. The defense and indemnification obligations of this agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this agreement. Contractor's responsibility for such defense and indemnity obligations shall survive the termination or completion of this agreement for the full period of time allowed by law.

**Item Number 2**

Specifications, Page 18 – Proposal and Fee, First Paragraph

Delete
"...For the subconsultants, provide a recommended budget for the independent material testing and labor compliance program for a project of this size and complexity. Include a

summary of the fee schedule (break down) for the materials testing and LCP effort, based on recommended budget."

**Item Number 3**

Specification, Pages 26 thru 29, - Exhibit B, Insurance Requirements

Replace with the attached Exhibit B.

**** END OF ADDENDUM 1****

**BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:**

Company Name West Yost Associates

Contact Person Charles Duncan

Signature _____

Date February 3, 2020

**Bids Due** – Promptly by 2:00 P.M., Thursday, February 6, 2020, City Clerk's Office.

----------City of Stockton Use Only below this line----------

Addendum acknowledged and signed? _____ (Procurement Specialist's initials)

# EXHIBIT B
# INSURANCE REQUIREMENTS

**NOTE: The City of Stockton is now using the online insurance program PINS Advantage. Once you have been awarded a contract you will receive an email from the City's online insurance program requesting you to forward the email to your insurance provider(s).**

## Insurance Requirements for Professional Services

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, or employees.

## MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability** (CGL): Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **$1,000,000** per accident for bodily injury and property damage.

3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **$1,000,000** per accident for bodily injury or disease.
***(Not required if Contractor provides written verification it has no employees)***

4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the Contractor's profession, with limit no less than **$2,000,000** per occurrence or claim, $2,000,000 aggregate. (If Claims-made, see below.)

It shall be a requirement under this agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to the Additional Insured. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this

Agreement; or (2) the broader coverage and maximum limits of coverage of any Insurance policy or proceeds available to the named insured; whichever is greater. No representation is made that the minimum insurance requirements of this agreement are sufficient to cover the obligations of the Contractor under this agreement.

**Limits of Insurance**

The limits of insurance required in this agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

**Other Insurance Provisions**

The insurance policies are to contain, or be endorsed to contain, the following provisions:

***Additional Insured Status***

The City of Stockton, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor'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, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 if a later edition is used). Additional insured Name of Organization shall read "City of Stockton, its officers, officials, employees, and volunteers." Policy shall cover City of Stockton, its officers, officials, employees, and volunteers for all locations work is done under this contract.

***Primary Coverage***

The Additional Insured coverage under the Contractor's policy shall be "primary and non-contributory" and will not seek contribution from the City's insurance or self-insurance and shall be at least as broad as CG 20 01 04 13. The City of Stockton does not accept endorsements limiting the Contractor's insurance coverage to the sole negligence of the Named Insured.

***Notice of Cancellation***

Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the City of Stockton.**

***Waiver of Subrogation***

Contractor hereby grants to City of Stockton a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City of Stockton by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City of Stockton has received a waiver of subrogation endorsement from the insurer. **The Workers' Compensation policy shall be endorsed with a waiver of subrogation** in favor of the City of Stockton for all work performed by the Contractor, its employees, agents and subcontractors.

***Self-Insured Retentions***

All Self-insured retentions must be disclosed to Risk Management for approval and shall not reduce the limits of liability. The City of Stockton may require the Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City of Stockton.

***Acceptability of Insurers***

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City of Stockton.

***Claims Made Policies (note – applicable only to professional liability)***

If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***

3. If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of contract work.

***Verification of Coverage***

Contractor shall furnish the City of Stockton with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City of Stockton Risk Services before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The City of Stockton reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Contractor shall, prior to the commencement of work under this Agreement, provide the City of Stockton with a copy of its declarations page(s) and endorsement page(s) for each of the required policies.

***Subcontractors***

Contractors shall require and verify that all subcontractors, or other parties hired for this work, purchase and maintain coverage for indemnity and insurance requirements as least as broad as specified in this agreement to the extent they apply to the scope of the subcontractor's work with the same certificate of insurance requirements and naming as additional insureds all parties to this contract. Contractor shall include the following language in their agreement with Subcontractors: "S*ubcontractors hired by Contractor agree to be bound to Contractor and City in the same manner and to the same extent as Contractor is bound to City under the contract documents and provide a valid certificate of insurance and the required endorsements included in the agreement as proof of compliance prior to commencement of any work and to include this same requirement for any subcontractors they hire for this work. A copy of the owner contract document indemnity and insurance provisions will be furnished to the subcontractor upon request."* Contractor shall provide proof of such compliance and verification to the City upon request.

***Special Risks or Circumstances***

City of Stockton reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

***Certificate Holder Address***

Proper address for mailing certificates, endorsements and notices shall be:

City of Stockton Attn: City Risk Services
400 E Main Street, 3rd Floor – HR
Stockton, CA 95202

# REQUEST FOR PROPOSAL
# WATER MASTER PLAN UPDATE
# FOR THE CITY OF STOCKTON, CALIFORNIA
# (PUR 19-052)

ADDENDUM No. 2

DATE: 1/23/20

To All Potential Bidders:

**A. This Addendum shall be considered part of the proposal documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. PROPONENTS MUST SIGN THE ADDENDUM AND SUBMIT IT WITH THEIR PROPOSALS.**

**B. Proponents are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each proponent's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.**

## THE CITY'S RESPONSES TO QUESTIONS SUBMITTED ARE IN BLUE

Questions:

1. Can you please clarify the page count for the proposal? Page 16 of the RFP says that the proposal shall not exceed 10 pages on double-sided paper. Does this mean up to 10 pages of text printed double-sided on 5 sheets of paper or up to 20 pages of text printed double-sided on 10 sheets of paper?
   The proposal shall not exceed 10 pages printed double-sided on 5 sheets.

2. On page 18 of the RFP in Section 3.0.7 (first paragraph) it says "For the subconsultants, provide a recommended budget for the independent material testing and labor compliance program for a project of this size and complexity. Include a summary of the fee schedule (breakdown) for the materials testing and LCP effort, based on recommended budget." It does not seem like these requirements apply to this project and that these sentences may be remnants from another RFP. Can you please confirm?
   These sentences have been deleted from the RFP Section by Addendum No. 1.

3. What is the project budget?
   The overall project budget is $994,000 per the adopted City of Stockton 2019-2024 Capital Improvement Plan.

4. Who did the Water Master Plan Supplement for the 2040 General Plan?
   West Yost Associates prepared the Water Master Plan Supplement for the Envision Stockton 2040 General Plan.

5. Who did the 2010 and 2015 UWMPs?
   Kennedy/Jenks Consultants prepared the 2010 UWMP, and Brown and Caldwell prepared the 2015 UWMP.

6. Has a financial consultant been selected for the rate study and if so, who was selected?
   No. Proposals for the Water Cost of Service Rate Study are due January 23, 2020.

7. What modeling software and what version is being used by the City?
   The 2008 Water Master Plan used the H2ONET model. The City MUD staff also used InfoWater in recent modeling scenarios. The City is open to any modeling software proposal.

8. What is the desired schedule?
   The desired project delivery schedule is 6 months from the notice to proceed.

9. What is the anticipated award date?
   The anticipated award date is April 2020.

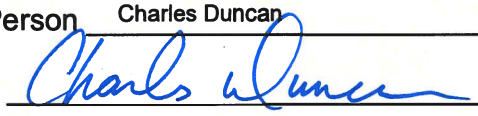
10. Can the financial statement be provided at a later date or does it need to be included with the proposal? We are not used to sharing this information.
    The financial statement shall be submitted with the proposal. It can be in a separate envelope for confidentiality purposes.

**** END OF ADDENDUM 2****

**BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:**

Company Name West Yost Associates

Contact Person Charles Duncan

Signature 

Date February 3, 2020

**Bids Due** – Promptly by 2:00 P.M., Thursday, February 6, 2020, City Clerk's Office.

----------City of Stockton Use Only below this line----------

Addendum acknowledged and signed? _____ (Procurement Specialist's initials)

**REQUEST FOR PROPOSAL**
**WATER MASTER PLAN UPDATE**
**FOR THE CITY OF STOCKTON, CALIFORNIA**
**(PUR 19-052)**

ADDENDUM No. 3
DATE: 1/27/20

To All Potential Bidders:

**A. This Addendum shall be considered part of the proposal documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. PROPONENTS MUST SIGN THE ADDENDUM AND SUBMIT IT WITH THEIR PROPOSALS.**

**B. Proponents are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each proponent's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.**

## THE CITY'S ADDITIONAL RESPONSES TO QUESTIONS SUBMITTED ARE IN BLUE

Questions:

1. Does the City wish to include field testing for hydraulic model calibration? If so, what testing would the City like to include and does the City have the forces and equipment to perform testing? If not, does the City's SCADA cover all pertinent water facilities?
   The proponents shall include in their approach and methodology all necessary resources to successfully complete the task.

2. Per page 3 of the RFP: Please clarify the meaning of "short-term" and "long-term" CIP. What are these outlooks in number of years?
   Short-term capital improvement projects (CIPs) are projects programmed within 1-2 years, whereas long term CIPs are projects programmed 3 years and beyond.

3. Can the City provide a copy of its current GIS?
   GIS information will only be provided to the successful consultant contracted to perform the master plan update.

4. When was the City's GIS last updated?
   According to MUD GIS staff, the last update was done in the last two weeks.

5. Approximately how many as-builts have been completed that are not reflected in the City's GIS or hydraulic model?
   The City's GIS is updated, as much as possible, soon as as-builts for public and private development projects are received.

6. Can the City provide the existing hydraulic model?
   The hydraulic model will only be provided to the successful consultant contracted to perform the master plan update

7. What software is the existing hydraulic model in?
   The 2008 Water Master Plan used the H2ONET model.

8. When was the hydraulic model last updated?
   The hydraulic model has not been updated.

9. Can the City provide the current Water CIP?
   The current Water CIP is published with the City's Adopted 2019-2024 CIP Budget on the City's website (http://www.stocktongov.com/files/2019-24_Adopted_CIP.pdf).

**** END OF ADDENDUM 3****

**BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:**

Company Name West Yost Associates

Contact Person Charles Duncan

Signature _____

Date February 3, 2020

**Bids Due** – Promptly by 2:00 P.M., Thursday, February 6, 2020, City Clerk's Office.

----------City of Stockton Use Only below this line----------

Addendum acknowledged and signed? _____ (Procurement Specialist's initials)

**REQUEST FOR PROPOSAL**
**WATER MASTER PLAN UPDATE**
**FOR THE CITY OF STOCKTON, CALIFORNIA**
**(PUR 19-052)**

ADDENDUM No. 4

DATE: 2/4/20

To All Potential Bidders:

**A. This Addendum shall be considered part of the proposal documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. PROPONENTS MUST SIGN THE ADDENDUM AND SUBMIT IT WITH THEIR PROPOSALS.**

**B. Proponents are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each proponent's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.**

**Item Number 1**

Specifications, Page 33, Exhibit C, Section 13 - Indemnity and Hold Harmless

**Please note the following changes to Section 13 of "EXHIBIT C" of the RFP Water Master Plan Update (PUR19-052) consistent with the Section 1.15 "Indemnity and Hold Harmless" of the RFP Specifications, as amended by Addendum No. 1.**

Indemnity and Hold harmless:

To the fullest extent permitted by law, Contractor shall hold harmless, defend at its own expense, and indemnify the City of Stockton, its officers, employees, agents, and volunteers, against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees, arising from all acts or omissions of contractor or its officers, agents, or employees in rendering services under this contract; excluding, however, such liability, claims, losses, damages, or expenses arising from the City of Stockton's sole negligence or willful acts. The duty to defend and the duty to indemnify are separate and distinct obligations. The defense and indemnification obligations of this agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this agreement. Contractor's responsibility for such defense and indemnity obligations shall survive the termination or completion of this agreement for the full period of time allowed by law.

**** END OF ADDENDUM 4****

**BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:**

Company Name WEST YOST ASSOCIATES

Contact Person Charles Duncan

Signature Chas Duncan

Date 2.5.2020

**Bids Due** – Promptly by 2:00 P.M., Thursday, February 6, 2020, City Clerk's Office.

----------City of Stockton Use Only below this line----------

Addendum acknowledged and signed? _____ (Procurement Specialist's initials)

EXHIBIT 1

WEST YOST ASSOCIATES

February 6, 2020

City Clerk
City of Stockton
425 North El Dorado Street
Stockton, CA 95202-1997

SUBJECT: City of Stockton Water Master Plan Update (M20006/PUR 19-052)

The City of Stockton Water Master Plan Update offers an opportunity to develop a road map that guides the City of Stockton's (City) water system improvements and investments for years to come. With West Yost Associates' (West Yost) assistance, the City can:

- **Rely on updated demand projections that provide accurate forecasting of future water system needs.** Updated demand projections will be developed based on the Envision Stockton 2040 General Plan land uses considering recent water use trends and patterns, along with new statewide water use efficiency standards.
- **Be confident in the accuracy of the updated hydraulic model and its ability to simulate existing and future conditions, and identify water system needs.** The updated and calibrated hydraulic model will incorporate recent improvements to the City's water system, including the addition of the Delta Water Supply Project to the City's water supply portfolio, and will provide confidence that the City is right-sizing system fire flow and other capital improvements.
- **Prioritize its Capital Improvement Program (CIP) to effectively spend City dollars where they are most needed.** West Yost will work with the City to create a CIP that balances system needs and costs to properly prioritize capital improvements and provide a clear and concise plan for the most effective use of funds.
- **Understand available funding strategies to minimize impacts to water rates.** West Yost has included HDR on our team to develop a financial plan to fund the City's necessary capital improvements and operating costs, while determining the optimal combination of financing alternatives to minimize water rates over time.

Like all public utilities and municipal agencies, the City looks out for its rate payers and strives to do the most with its available funds. West Yost is especially sensitive to our clients' needs when meeting budgets and focusing our efforts on long-term efficiency and sustainability.

**The Right Team** – Success on the Water Master Plan Update requires an experienced and effective project team that will work collaboratively with the City. West Yost has that team, consisting of uniquely qualified individuals with expertise in water master planning, modeling, analysis and financial planning that know your system and have an extensive record of successfully preparing water master plans. West Yost's work on the City's 2008 Water Master Plan, and recent Envision Stockton 2040 General Plan Update, provides us with a detailed understanding of the City's water system, its existing and future needs and the needed insight to efficiently evaluate the need for system improvements. HDR prepared the City's latest water rate study and is familiar with the City's financial policies and procedures and is uniquely qualified to evaluate potential financial strategies to fund recommended water system improvements while minimizing impacts to water rates.

2020 Research Park Drive, Suite 100 Davis, CA 95618 Phone 530 756-5905 Fax 530 756-5991 westyost.com

**Elizabeth Drayer** will be the Project Manager and your direct point of contact with the West Yost team. She will be responsible for directing the work of the West Yost project team and collaborating with City staff. Elizabeth has over 30 years of experience and has prepared several water master plans for cities and water agencies throughout California, including the cities of Modesto, Tracy, Sacramento, Livermore and Santa Rosa.

**PROJECT MANAGER**

**Elizabeth Drayer, P.E.**
6800 Koll Center Parkway, Suite 150
Pleasanton, CA 94566
edrayer@westyost.com
(925) 461-6793 direct
(925) 426-2580 office

Working with Elizabeth on this project is a dedicated team with extensive water master planning experience. The team includes **Brenda Estrada** who will lead the overall development of the Water Master Plan Update and lead the hydraulic model update and analysis tasks; **Bobby Vera** who will lead the field inspection and water demand projection tasks; and **Jim Connell** who will lead the CIP development task. **Charles Duncan**, as Principal-in-Charge, will oversee the project to ensure that West Yost's resources are made available to meet your project's technical needs and schedule objectives. **Polly Boissevain** will be responsible for Quality Assurance and Quality Control. She will follow our strict QA/QC policies and review all work products to ensure that all of our deliverables meet your needs and exceed your expectations.

**The Right Approach** – West Yost has prepared a project approach which includes a clear plan and focused methodology for completing the City's Water Master Plan Update that:

- **Allows for the Water Master Plan Update to be prepared quickly and efficiently** so that it can effectively support the City's other on-going planning efforts
- **Leverages City engineering and operations staff's detailed knowledge** of water system facilities and operations
- **Accurately accounts for the City's future development plans** as documented in the Envision Stockton 2040 General Plan Update and other on-going planning efforts
- **Coordinates with and informs other City planning efforts**, including the 2020 Urban Water Management Plan, 2020 Water Rate Study, future connection fee updates, as well as other utility system master plans as appropriate.

As President and CEO of West Yost, and Principal-in-Charge for this project, I am authorized to commit the firm to contractual agreements. West Yost has reviewed the City's Standard Professional Services Agreement and found no major differences from our previous contract with the City, and we are confident that we will be able to enter into an agreement with the City for this project. As requested in your RFP, our fee proposal is provided under separate cover in a separate sealed envelope.

This year marks West Yost Associates' 30th year of providing high-quality, responsive services to our clients and we are excited at the prospect of continuing our work with the City of Stockton on this important project. We look forward to the opportunity to meet with you to further discuss our approach for completing your Water Master Plan Update.

Please contact me at (530) 792-3220 if you have any questions regarding our proposal or would like any additional information.

Sincerely,

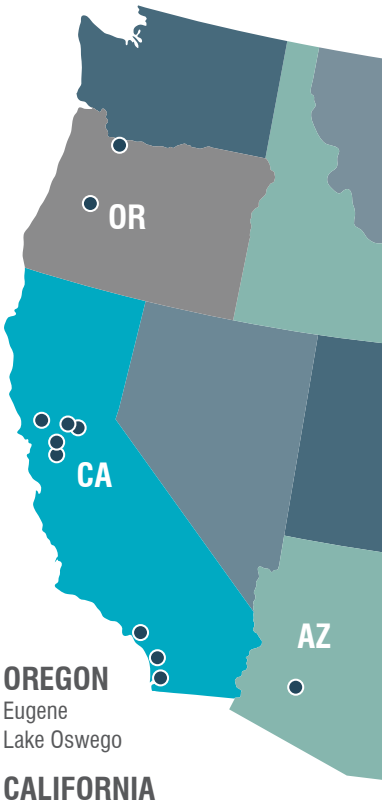
WEST YOST ASSOCIATES

Charles T. Duncan, PE
President and CEO

# Proposal

- Section 1 - Minimum Experience Qualifications Summary
- Section 2 - Management/Method of Operation
- Section 3 - References and Experience Summary
- Section 4 - Financial Statement
- Section 5 - Corporate Structure and Organization

# Section 1. Minimum Experience Qualifications Summary




**OREGON**
Eugene
Lake Oswego

**CALIFORNIA**
Carlsbad
Concord
Davis (Corporate HQ)
Irvine
Pleasanton
Sacramento
San Diego
Santa Rosa

**ARIZONA**
Phoenix

WEST YOST ASSOCIATES

West Yost is a water consulting engineering firm that was formed in 1990 to provide high-quality client services in water supply, wastewater, recycled water, groundwater, and stormwater. In these areas, we provide planning, design, construction management and program management services.

West Yost is employee-owned and has eleven California offices, two Oregon and one Arizona office. Our 180 staff members include certified or registered professionals in civil, mechanical, electrical, environmental, and control systems engineering; stormwater pollution protection plan design; and construction management and inspection services. We also have expertise in GIS, CAD, and hydraulic modeling.

**30+** Years of Water System Planning Experience in northern California.

**180+** Water-focused engineers and planners in West Yost, ready to assist the City.

**60+** Water system planning projects in the past 10 years.

**40+** Different clients working with West Yost on water system planning in the past 10 years.

HDR

For more than a century, HDR has partnered with clients to shape communities and push the boundaries of what's possible. Our expertise spans nearly 10,000 employees, in more than 225 locations around the world — and counting. HDR has more than 230 employees based in Northern California dedicated to successfully completing water/wastewater projects. This group provides a variety of engineering and environmental services from offices in Sacramento, Folsom, Walnut Creek, San Francisco, Berkeley, Oakland, and Santa Clara.

HDR offers extensive capabilities in a broad array of financial services with special emphasis on financial planning and rate studies. These financial services are offered to water, sewer, electric, stormwater, solid waste, and natural gas utilities. A critical element of financial management is to optimize existing resources and utilize every available opportunity to procure additional funding. The financial services team assists clients in identifying and developing the financial resources needed to manage utilities in a financially stable and prudent manner.

# Section 2. Management/Method of Operation

West Yost provides an unmatched and proven project team and a coordinated and collaborative approach for the preparation of the City's Water Master Plan Update that:

- Allows for the Water Master Plan Update to be prepared quickly and efficiently so that it can effectively support the City's other on-going planning efforts
- Leverages City engineering and operations staff's detailed knowledge of water system facilities and operations
- Accurately accounts for the City's future development plans as documented in the Envision Stockton 2040 General Plan and other on-going planning efforts
- Coordinates with and informs other City planning efforts, including the 2020 UWMP, 2020 Water Rate Study, future connection fee updates, as well as other utility system master plans as appropriate

## Task 1: Project Management

The most successful projects are those that are executed in accordance with a plan that is collaboratively developed at the outset of the project. A Project Management Plan (PMP) to direct, coordinate and monitor project progress gets the entire project team on board from the beginning so that everyone understands how their work relates to the rest of the project and how all of the pieces of the scope fit together within the established schedule. Doing so will be particularly important for this project to ensure that work on the Water Master Plan Update is coordinated with the City's other planning efforts.

### Project Kickoff Meeting

A kickoff meeting will be held with City staff and key members of the West Yost project team to review the overall objectives for the Water Master Plan Update, as well as the specific scope and schedule for the project. It is also a typical West Yost practice to hold a separate internal project kickoff meeting with our staff (including technical and administrative support staff) to ensure that the entire project team understands their project role and responsibilities.

### Progress Meetings

Five (5) in-person progress meetings with City staff will be scheduled to coincide with major milestones of the project. Suggested milestones for the Water Master Plan Update are as follows:

1. Review of Planning and Design Criteria (Task 2)
2. Discussion of Future Land Uses and Development Plans (with Community Development) (Task 4)
3. Review of Existing and Projected Water Demands (Task 4)
4. Review of Recommended Water System Capital Improvements (Task 6)
5. Review of Comments on the Draft Water Master Plan Report (Task 6)

**Recommendation:** If the City's wastewater and stormwater master plans are being prepared in parallel with the Water Master Plan Update, and if schedules permit, it is recommended that the meeting with Community Development to discuss future land uses and development plans be combined to streamline the discussion with Community Development and ensure a consistent understanding of the City's future development plans.

These progress meetings are in addition to other task-specific site visits, workshops and coordination described in subsequent tasks, including:

- Water system facility site visits with City operations staff (one day assumed) (Task 2)
- Workshops with City staff and the development community and other stakeholders to review master plan goals, strategies and priorities (Task 3)
- One day of hydrant testing for hydraulic model calibration (Task 5)
- One day of model training for City staff on use of the updated hydraulic model (Task 5)
- Meetings with City staff to discuss the development of funding strategies and financial plan (Task 7)
- Attendance at one City Council meeting and up to three other public meetings as requested to present plan recommendations (Task 9)

### Bi-Weekly Team Meetings to Provide Ongoing Input/ Feedback on Progress

In addition to the kickoff meeting and scheduled face-to-face progress meetings with City staff to discuss key milestones, West Yost proposes supplementing these meetings with bi-weekly conference call check-ins with City staff to maintain project momentum. These regularly scheduled check-ins will allow us to continuously monitor and discuss project progress and address issues as they arise.

Parallel bi-weekly internal team meetings are also held to keep the internal project team on track.

### Real-Time Tracking of Work Progress and Expenditures

West Yost maintains up-to-date financial information in its Deltek Vision accounting system, allowing real-time budget reporting and workload allocation. Budget reports obtained using this tool will be utilized to report status for the bi-weekly progress check-ins with the City and for monthly status reports.

### Project Reviews

It is West Yost's standard practice to hold monthly project reviews between project managers and firm principals on all active projects to review project status in terms of budget, schedule and resources.

### Quality Assurance and Quality Control

West Yost's project teams each include a designated quality control lead who is responsible for providing independent review of work products. For most projects, the quality control lead is

an experienced engineer (Senior Engineer/Scientist or above) with expertise in the subject matter. The quality control lead will prepare a QA/QC plan at the beginning of the project, identifying review points and procedures. The project budget will include hours dedicated to quality control review.

## Task 2: Review City Policies and Existing Documents

West Yost staff will review the City's existing documents and materials that are relevant to the Water Master Plan Update and summarize how the assumptions, findings and recommendations from those plans will inform the Water Master Plan Update. Relevant documents and materials include:

- Envision Stockton 2040 General Plan and associated Environmental Impact Report for related policies and required mitigation measures
- City of Stockton GIS Data/Mapping
- City of Stockton Standard Specifications and Plans
- 2008 Water Master Plan
- 2015 Urban Water Management Plan
- Delta Water Supply Project documents

West Yost understands that there will inevitably be data gaps and discrepancies, and we are accustomed to working closely with our client's GIS, planning, engineering, and operations staff to gain a clear understanding of existing system facilities and operations. Accordingly, we are able to effectively communicate what data we really need in order to focus data collection efforts and reduce City staff time as much as possible.

In addition, West Yost plans to have hydraulic modeling staff attend site visits (one day assumed) to get a head start on understanding the City's system facilities and operations. Doing so will also allow City engineering and operations staff to interact with West Yost modeling staff early on and establish a working relationship for a successful model update and calibration effort.

## Task 3: Goals, Strategies, and Priorities

The City's Water Master Plan Update must be strategically developed to provide a road map for City staff to implement future capital improvement projects. The first part of the strategic approach would be to establish the goals and priorities for the Water Master Plan Update. In order to incorporate perspectives from City staff and other key stakeholders, West Yost plans to perform the following tasks to develop the goals and priorities for the Water Master Plan Update:

- Update the water system inventory based on data collected in Task 2
- Conduct a workshop with City municipal utilities and community development staff to receive input on goals, strategies and priorities
- Conduct a workshop with development community and other key stakeholders to receive public input
- Develop a preliminary capacity problem map and associated table
- Summarize the relevant General Plan goals, policies and actions, as well as the relevant EIR impacts and mitigation measures and identify how the Water Master Plan Update will address each goal, policy, action, and mitigation measure
- Identify how the Water Master Plan Update will achieve compliance with applicable water codes and requirements

## Task 4: Data Collection and Analysis

### Accurately Estimating Water Demands

In recent years, the City has seen significant reductions in water use due to recent drought conditions and implementation of SBx7-7. Such trends are expected to continue with implementation of the 2015 revisions to the State's Model Water Efficient Landscape Ordinance (MWELO), and the signing of Assembly Bill 1668 and Senate Bill 606, which will establish residential indoor and outdoor water use standards, along with commercial, institutional and industrial (CII) outdoor water use performance standards by 2022.

Data inputs from City Billing and Planning staff, as well as from developers, are critical to the development of water demand projections. West Yost understands the data (e.g., meter records, proposed land use, vacant parcels, and timing) that needs to be discussed with City Billing and Planning staff to perform this task as efficiently as possible.

West Yost has an extensive database of unit water demand factors used by other agencies in the region to help provide a comparison to the City's updated factors. Demand projections and assumptions will be clearly tabulated and shown geographically for documentation and City review to confirm accuracy. Our demand projection spreadsheets will be flexible and user-friendly to allow for future updates as developments change in size or timing.

### Focus on Critical Improvements Needed

West Yost's system evaluation efforts focus on identifying the most critical improvements that will be needed to provide a reliable system to support existing customers and future developments.

The calibrated hydraulic model will enable the City to evaluate water system fire flow availability under existing and buildout supply and demand conditions. West Yost routinely works with clients to perform fire flow evaluations utilizing InfoWater's Fireflow module. Identification of fire flow deficiencies requires a thorough understanding of the City's land-use-based fire flow requirements. West Yost will review the latest fire flow requirements with the City of Stockton Fire Department to identify applicable fire flows for general land use categories and understand the impact of sprinkler system requirements. West Yost proposes conducting a system-wide fire flow evaluation to assess fire flow availability throughout the water system using InfoWater's Fireflow module.

West Yost will also evaluate the water system transmission and distribution capacity during a peak hour demand under existing and future supply and demand conditions. This evaluation will help identify any major water system capacity constraints so

the City can make the needed improvements to provide reliable water service during peak demands. For this task, we will work with the City to confirm what the desired/appropriate future condition should be assumed to be, either the 2040 level of buildout (as was evaluated for the Master Plan Supplements for the General Plan Update) or the full buildout of the General Plan.

## Project Prioritization and Triggers

West Yost will work with the City to prioritize projects using factors such as level of service, degree of deficiency, overall cost of improvement, and pipeline age to prioritize the CIP to identify the most critical investments for the City, and how they should be sequenced given the City's available funding. An important feature of a clearly prioritized CIP is clearly defined project triggers. We not only present capacity project triggers as time-frames, but we also link them to specific development/redevelopment actions and clearly show what is triggering the need (e.g., additional water demands and/or number of new units brought online). Knowing those triggers gives implementation of the Water Master Plan more flexibility, since the timing of projects will likely change as development projects come and go.

To the extent possible, through coordination with City staff, CIP prioritization will be coordinated with the City's other master planning efforts, to look for opportunities to streamline project implementation (e.g., construction of needed water, sewer and/or storm improvements in a specific street or neighborhood).

**Optional Task:** West Yost can also perform a near-term water system evaluation to help the City identify the necessary capital improvements that will be needed in the near-term (ten-year) time-frame. This evaluation will help the City prioritize improvements to ensure that they will be in service and ready to support demands from near-term development.

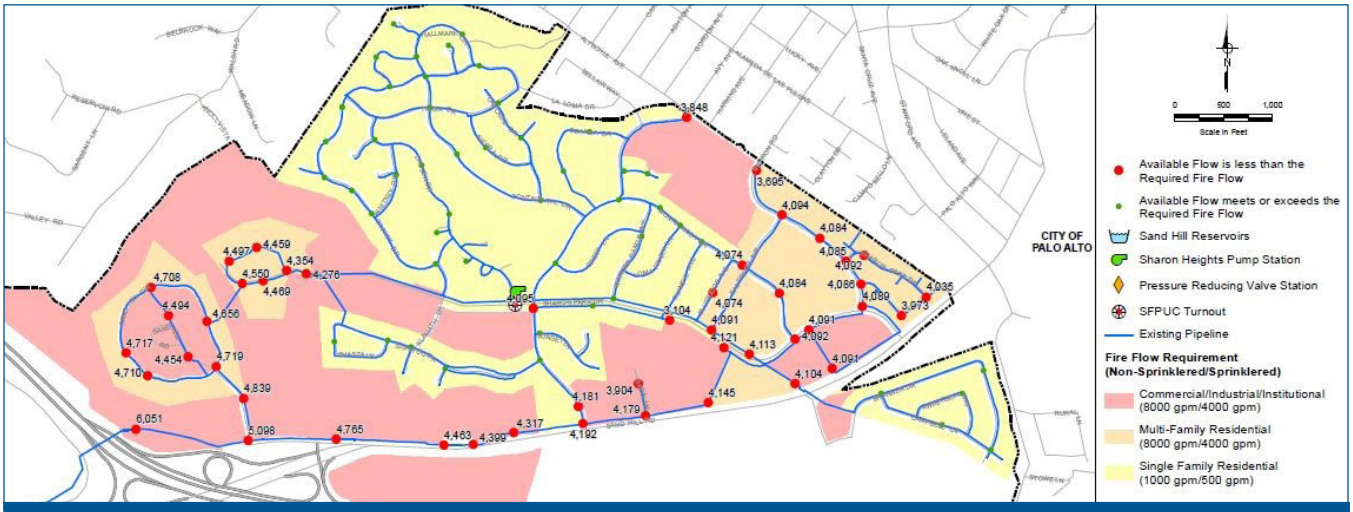
# Task 5: Water Distribution Hydraulic Model

## Collaborative Process to Increase Stakeholder Confidence in the Model

West Yost will work collaboratively with City engineering and operations staff early in the hydraulic model update process. Doing so helps us understand how the City's water system has changed (infrastructure and operations) since the 2008 Water Master Plan in order to accurately update these conditions in the City's hydraulic model. Our staff are extremely knowledgeable in water system design and operations and have extensive experience working closely with water system operations staff. This collaborative working process will ultimately improve stakeholder confidence in the hydraulic model and its results as it is subsequently used as a planning tool.

## Proven, Robust Model Update and Calibration Experience

West Yost will use proven and robust methods to streamline the City's hydraulic model update and calibration process. West Yost proposes to upgrade the City's water model to InfoWater, which uses a GIS platform and allows for the previous model to be seamlessly upgraded to the new software with the click of a button. West Yost plans to reuse as much of the City's older H2ONET model as possible to streamline the model update task, but will also perform a thorough review and update to confirm accuracy. We plan to replace the existing pipes in the H2ONET model with the City's updated GIS pipeline layer to provide a one-to-one relationship with your GIS data. This will help streamline any future model updates as improvements are made to the City's water distribution system pipelines. West Yost will work closely with the City to obtain and review current water system information, including GIS pipeline data, meter data, elevation data, new as-builts, new pump curves, pump test data, and SCADA data.




West Yost compares fire flow availability with land use requirements to develop figures showing pass/fail results by land use type and the magnitude of deficiencies. This graphic, from a recent Master Plan completed for Menlo Park Municipal Water, illustrates the different land use categories, sprinklered and non-sprinklered requirements. For areas that don't meet requirements, the graphic shows available flows. **The degree of deficiency, as well as the land use type, or specific land use, can be used to prioritize fire flow improvements.**

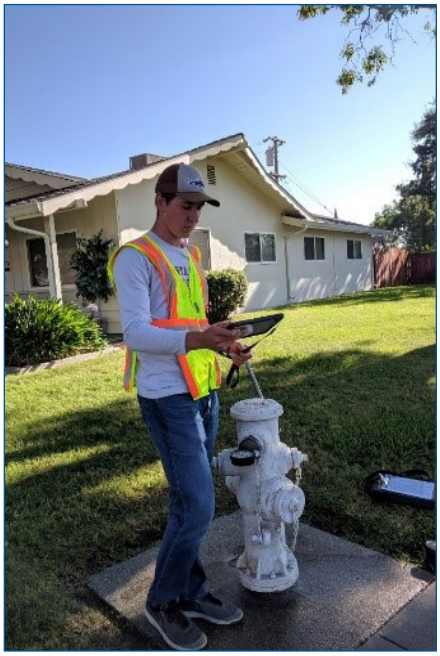
The City needs an updated hydraulic model that accurately represents the existing facilities and system operations. West Yost proposes to perform steady state calibration in the hydraulic model using field hydrant test data to confirm that the hydraulic model can simulate actual flows and pressures. West Yost typically performs uni-directional-style hydrant tests for steady state (C-factor) calibration, closing valves, and isolating pipelines to collect data on specific pipeline materials and diameters. West Yost will prepare a Field Calibration Plan, documenting locations to be tested, valves to be closed to isolate specific pipelines, and locations to monitor residual pressure for City review prior to field testing. West Yost recommends one day of field hydrant testing to allow for collection of data from a total of 8 to 10 tests in the City's north and south water systems. West Yost will review current SCADA monitoring locations available and recommend locations for collection of supplemental pressure data, as needed, by deploying hydrant pressure recorders (HPRs) at key locations in the City's water system.

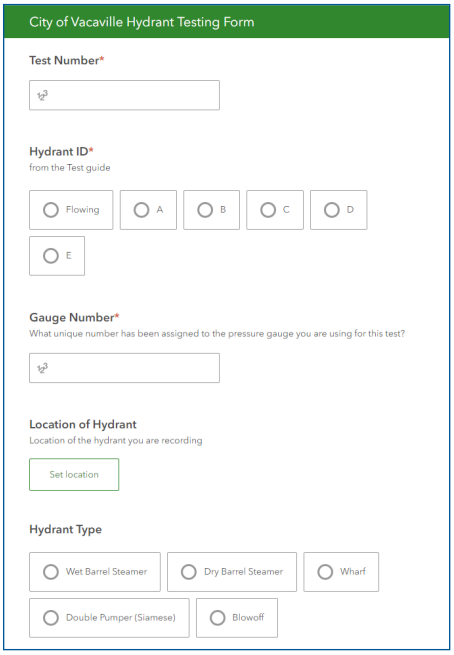
Our field hydrant testing procedures have been improved recently with the implementation of data collection using mobile tablet (iPad) technology. We also design customized hydrant test forms that can be accessed over the internet in real-time. These on-line forms save paper and allow us to avoid the time and effort of entering the field data manually once we are back in the office. This new and innovative hydrant testing data collection procedure streamlines the field data collection effort and provides remote monitoring of test results in real-time.

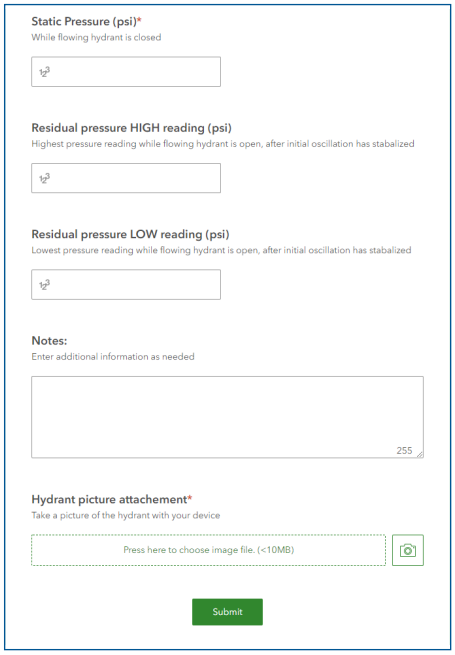
**Optional Task:** The City's North and South Stockton water system hydraulic models were previously calibrated dynamically through Extended Period Simulation (EPS) scenarios in the 2008 Water Master Plan. However, with the addition of the Delta Water Supply Project, the water system hydraulics would have changed significantly with the introduction of a new treated surface water supply source. West Yost has included an optional task to develop a new EPS scenario. An EPS calibration process requires a more thorough understanding of how the water system facilities are operated over a period of time and is helpful to confirm that the hydraulic model is representative of actual operational conditions and for evaluating the operational constraints of a water system. To add this time variable to the hydraulic model to compare to the City's SCADA data, realistic hourly diurnal patterns will need to be developed. West Yost recommends using data from days following hydrant testing, so that supplemental pressure data (collected from hydrant pressure recorders) can also be collected and used for the EPS calibration. If the City decides to move forward with an EPS calibration process, it would need to confirm the ability of the SCADA system to provide historical hourly data for tank level, pressure, and flow at each supply facility.

## Intuitive Model Organization and Training

West Yost builds hydraulic models using intuitive naming conventions for facilities, data sets, and facility sets that will make it easier for City staff to use in-house. These conventions, along with our tailored training sessions, are designed to get City staff up-to-speed on your model after the first training session. West Yost has developed proven training materials and sessions





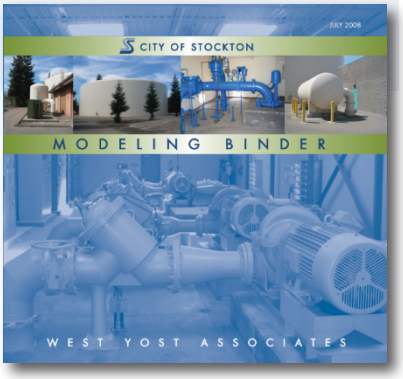




**Electronic Data Collection for Hydrant Testing**

West Yost's new electronic data collection procedure provides more efficient data collection and remote and real-time monitoring during field hydrant testing. This new and innovative data collection procedure streamlines the field data collection effort and provides remote monitoring of test results in real-time.

for other municipal clients that are focused on developing skills that are necessary to keep the hydraulic models up-to-date and for use in conducting simple analyses. Our step-by-step training manuals are developed in-house (not standard guides from the software vendor) and are specifically tailored to your water system and your water model.

**Optional Task:** West Yost will develop a Modeler's Notebook to document the water system hydraulic model. Documentation includes descriptions of modeled scenarios, data sets and data structures, and also provides modeled information for pump stations and storage tanks. Notebooks are tailored to client needs, and can document other important modeling information, such as source information about facilities (pump curves, as-builts, site facility maps). The notebooks provide clients with a "living" reference that can be used by in-house modeling staff, as well as provided to outside parties running the hydraulic model.




## Task 6: Draft and Final Water Master Plan Update

The key to a successful Master Plan is to document the study findings in a clear and concise manner that the City can then use as a ready reference. West Yost prides itself on preparing comprehensive Master Plan reports which clearly document the studies conducted, options evaluated and justifications for recommendations made. Our Master Plan reports include user-friendly summaries, tables and graphics to clearly illustrate evaluation findings, recommendations and priorities for future system improvements.

### Detailed Report and Chapter Outlines Help Organize and Facilitate Report Preparation

Development of an outline of the Master Plan Report at the beginning of the project will establish the report organization and prescribe how the results of the various evaluations will be presented. Some project tasks may result in a draft chapter, while others may result in a technical memorandum which would be an appendix of the Master Plan Report. Establishing this organization early in the project will allow for work products to be prepared more efficiently and will assist the project manager in tracking progress on the project and assist the project team in understanding how their tasks and work products relate to one another. As the project progresses, the report outline will be updated as needed to reflect updates and track the status of report elements. It is envisioned that the initial outline will be developed to follow the sections/chapters in the 2008 Water Master Plan. Any suggested changes in the outline from the previous Water Master Plan will be discussed with City staff.

### Document Templates Streamline Formatting

Following development of the report outline, West Yost will create chapter templates in Microsoft Word for project team use, including each chapter outline with consistent document styles and page formats, including headers and footers. Preparation of these chapter templates streamlines the development of draft chapters and minimizes the need for time-consuming chapter formatting later.

### Task Findings Quickly Turn into Draft Master Plan Chapters

As the project tasks are completed, draft chapters will be prepared and submitted for City review and comment. Comments received on the draft chapters will be logged and tracked, and the revised draft chapters will be assembled to form the Draft Master Plan Report. This results in a Draft Master Plan Report with no surprises. Comments received on the Draft Master Plan Report will then be incorporated to develop the Final Master Plan Report.

**Optional Task:** A Stand-Alone Executive Summary can be prepared for the Water Master Plan Update and can serve as an effective outreach and communication tool. The format would be developed with City staff input but could be a 10- to 12-page brochure-type document with easy-to-understand project summaries, timelines, and graphics that could be distributed at meetings with the public and stakeholders. We would work closely with the City to make both the content and the format clear and easy to understand. Our goal would be to prepare this Stand-Alone Executive Summary to provide the City with an effective outreach and communication tool and we would assign both our graphics and communication professionals to assist with this task. This Stand-Alone Executive Summary could also be developed to provide an overall summary of recommendations from all of the City's Infrastructure Master Planning efforts to provide a clear and comprehensive picture of the improvements needed for each of the systems, and how they relate to one another in terms of timing and funding requirements.

## Task 7: Financial Analysis

West Yost has also included HDR on our team to develop funding strategies and a financial plan to implement the Water Master Plan recommendations. HDR prepared the City's last water rate study and is familiar with the City's financial protocols and staff which will allow HDR to efficiently develop an optimal financial plan for water system improvements. To operate a utility cost-effectively and proactively, financial planning and utility management must be addressed. The objective of the Water Master Plan financial analysis is to develop a plan to evaluate and fund the utility's necessary capital improvements and operating costs, while determining the optimal combination of financing alternatives to minimize rates over time.

The first phase of the analysis will be the development of a financial plan to meet the funding needs of the City's utility. The project team, with assistance from City staff, will prepare a

long-term financial plan. The financial plan will be based on the latest water rate analysis completed for the City by the project team. This will also include a review of financial and rate setting policies established in the prior water rate study. This analysis will provide the basis for the development of a long-term rate review (e.g., rate transition plan) along with the utility's current operating expenses and revenues. Key to the financial plan will be the development of a capital funding plan to maximize capital improvements and minimize rates to the greatest extent possible. The basis for the capital plan will be the projects identified as part of the Water Master Plan previous tasks along with any other City identified capital improvement needs. The project team will work with City staff and its financial advisor to develop funding strategies and an optimal financial plan to implement Master Plan recommendations for capital projects. This includes the funding for annual repair, rehabilitation, and improvement. The analysis will provide a basis to help the City communicate and prioritize financial resources required to sustain current and desired assets at appropriate level of service. As the funding analysis is developed, the project team will assist the City in prioritizing the capital projects based on available revenues and funding sources. The project team will collaborate with City staff to develop the final capital improvement plan and work with the City, and its financial advisor, to develop any long-term debt financing scenarios. A key consideration will also be the impact future capital has on the City's water connection fee calculation.

The financial plan will also analyze the water utility's ability to meet other relevant financial requirements, such as debt service coverage, reserve fund levels, and adequate funding for renewal and replacement of existing infrastructure. The results of the financial plan will include recommendations regarding potential changes in rates to fully fund the operating and capital items identified in the Water Master Plan.

## Task 8: Water Distribution System Model Maintenance and Technical Support

West Yost continues to work successfully with many of our clients to serve as an on-call water system planning consultant after the hydraulic model has been developed and calibrated. We routinely perform hydraulic evaluations for new developments to confirm if water system improvements are needed to serve new water demands or needs. We also work closely with our clients to address any operational and design challenges that the model can help solve (e.g., developing system curves for pump replacements, optimizing pump controls, re-zoning pressure zones to improve service, etc.). We can also provide additional technical support to perform water supply assessments, hydraulic model updates, and specialty modeling services (e.g., water quality modeling, uni-directional flushing program development, etc.), if requested by City staff.

## Task 9: Coordination and Plan Development

West Yost understands the urgency of this Water Master Plan Update and its importance in the City's other planning efforts. During the development of the Water Master Plan Update, the City will have several other related studies either on-going or following the Water Master Plan Update. These must be closely coordinated to ensure consistency in assumptions and recommendations.

**Recommendation:** Because of the importance of the Water Master Plan Update to the City's other planning efforts, the schedule for preparation of the Water Master Plan Update is critical. To get a jump start, West Yost recommends an "Early Start Package" of tasks to begin upon contract award, including initiation of project management activities, development of report and chapter outlines, and development and submittal of a data request list to allow for data collection and review to begin as soon as possible.

Our proven approach involves frequent communication between the City engineering, operations, and maintenance groups and other stakeholders and our project team with a focus on developing recommendations for cost-effective and implementable improvements to meet the City's facility requirements. As described for Task 6, as the project tasks are completed, draft chapters will be prepared and submitted for City review and comment for effective and timely feedback and support. West Yost recommends that City operations and maintenance staff, the people who know the systems and the facilities the best, be involved throughout the process, from field investigations to hydraulic model development and calibration to CIP prioritization, to gain trust in the hydraulic modeling and analysis and its results.

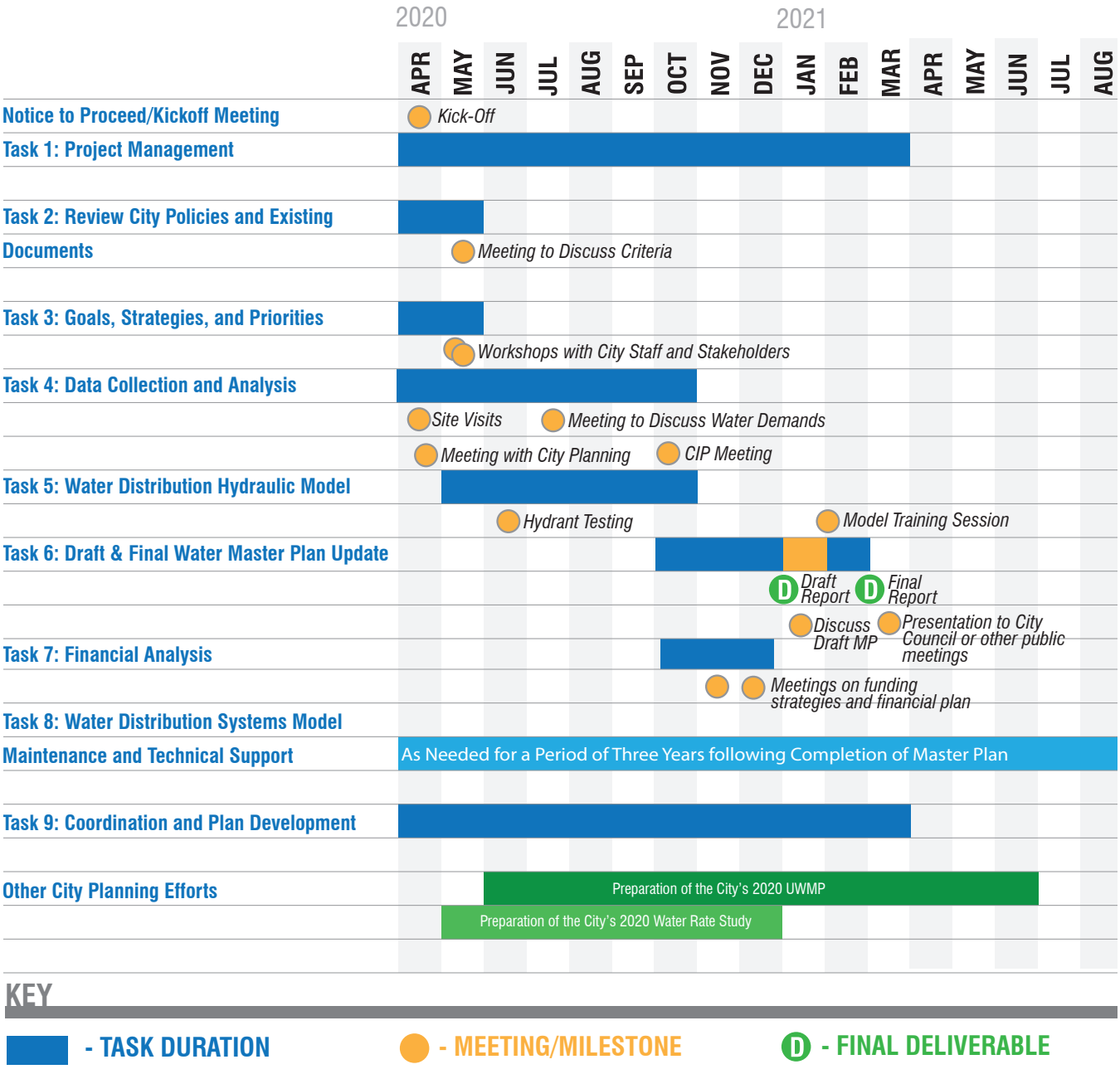
The West Yost team will be available to attend City Council and other public meetings to present findings and recommendations and answer questions. For budgeting purposes, we have assumed attendance at one (1) City Council meeting and up to three (3) other public meetings.

# Project Schedule

West Yost has prepared a preliminary project schedule for the Water Master Plan Update assuming an April 2020 Notice to Proceed. Estimated task durations, task relationships and key milestone meetings are shown. A one-year schedule is currently proposed based on the level of effort anticipated for the tasks included in the City's RFP. If selected for this project, West Yost will work with the City to refine the project schedule as needed based on the final scope of work, considering the basic scope of services in addition to authorized optional tasks, to coordinate with the City's other on-going planning efforts, particularly the 2020 Water Rate Study and the 2020 UWMP.

We understand that the Water Master Plan Update may be proceeding in parallel with the City's 2020 Water Rate Study. We have included HDR on our project team for the financial analysis (Task 7) for the Water Master Plan Update. HDR's experience on the City's previous water rate study will assist with our team's coordination with the City's 2020 Water Rate Study project team.

The City's 2020 UWMP is due to the Department of Water Resources on July 1, 2021. Our proposed schedule for the Water Master Plan Update will allow for demand projections to be completed by mid to late summer 2020 so that they can then be incorporated into the development of the City's 2020 UWMP.



# Summary of Task Assumptions, Meetings, and Deliverables

| Assumptions/Optional Sub-Tasks | Deliverables |
|---|---|
| **1: Project Management** | |
| ▪ Water MP Kickoff Meeting<br>▪ Five (5) Progress Meetings<br>▪ Regularly Scheduled Bi-Weekly Conference Calls to discuss project status and progress | ▪ Meeting agendas, meeting notes<br>▪ Monthly status reports, invoices |
| **2: Review City Policies and Existing Documents** | |
| ▪ Review of existing policies and studies to update system inventory and planning criteria<br>▪ One (1) day of water system facility site visits with City operations staff | ▪ Draft chapters:<br>  ▪ Existing service area, facilities<br>  ▪ Planning and design criteria |
| **3: Goals, Strategies and Priorities** | |
| ▪ Coordinate with City staff to establish goals, strategies and methodology<br>▪ Two workshops (one with City staff and one with the development community and other stakeholders) to review and discuss goals, strategies and priorities<br>▪ Goals, strategies and priorities will be applied to other tasks as applicable | ▪ Draft chapter: Introduction and summary of goals, strategies and priorities |
| **4: Data Collection and Analysis** | |
| ▪ Upon contract award, a data request list will be submitted so that data collection can begin as soon as possible, and any data gaps can be identified<br>▪ Future water efficiency standards as required by SB 606 and AB 1668 have not been fully defined (especially for outdoor water use), thus future demand projections will need to estimate future potential water efficiencies<br>▪ *Optional Task: A near-term system evaluation can be prepared as an optional task to identify improvements that would be needed in the next ten (10) years* | ▪ Data Request List<br>▪ Draft chapters:<br>  ▪ Existing, future water demands<br>  ▪ Supply evaluation<br>  ▪ Existing system evaluation<br>  ▪ Buildout system evaluation |
| **5: Water Distribution Hydraulic Model** | |
| ▪ Model update to reflect current system facilities and operations and includes one (1) day of hydrant testing for the north and south water systems (a total of 8-10 hydrant tests) and pressure monitoring using hydrant pressure recorders (HPRs) for model calibration<br>▪ One (1) day of model training for City staff<br>▪ *Optional Task: Dynamic (EPS) verification can be performed as an optional task*<br>▪ *Optional Task: A Modeler's Notebook can be prepared as an optional task* | ▪ Draft chapter: Hydraulic model update and calibration<br>▪ Final hydraulic model with all evaluations (in selected modeling software format)<br>▪ Training materials |
| **6: Draft and Final Water Master Plan Update** | |
| ▪ West Yost will develop Report and Chapter Outlines to guide team and help track progress on the Water Master Plan development<br>▪ *Optional Task: A Stand-Alone Executive Summary can be prepared to provide a user-friendly summary of the Water Master Plan for Public and Stakeholder Outreach* | ▪ Report/Chapter Outline<br>▪ Draft Master Plan Report<br>▪ Final Master Plan Report |
| **7: Financial Analysis** | |
| ▪ The CIP will be developed and prioritized based on project triggers so that implementation can have flexibility to change as project timing will likely change<br>▪ Funding strategies/financial plan to implement Master Plan recommended improvements<br>▪ To the extent possible, coordinate with other Master Plans CIP development to identify opportunities for joint projects and potential cost savings for implementation | ▪ Draft chapter: Recommended Capital Improvement Plan<br>▪ Financial Plan |
| **8: Water Distribution Systems Model Maintenance and Technical Support** | |
| ▪ Includes model maintenance and technical support for three (3) years including analysis support for up to ten (10) development projects per year<br>▪ It is assumed that the level of effort is limited to the indicated budget for this task, and any further analyses are beyond the scope of the project | ▪ Brief TM for each analysis summarizing hydraulic evaluation, findings, conclusions |
| **9: Coordination and Plan Development** | |
| ▪ Coordination with City staff<br>▪ Attend one (1) City Council meeting<br>▪ Attend up to three (3) public outreach meetings | ▪ Presentation materials (PowerPoint slides) |

# Section 3. References and Experience Summary

In addition to the work that we have done for the City, including the 2008 Water Master Plan and the 2016 General Plan Update, West Yost has prepared water master plans for several other agencies. We invite you to contact our references to learn more about our team's performance on these projects.

| Project | Client | Contact | Delivery Method | Team | Duration |
|---|---|---|---|---|---|
| **2013 Water Master Plan and 2020 Update** | City of Sacramento, CA | Brett Ewart • bewart@cityofsacramento.org • 916.808.1725 | Time and Materials | Charles Duncan, PE; Elizabeth Drayer, PE; Polly Boissevain, PE; Brenda Estrada, PE; Bobby Vera, PE | 2013-Present |
| **Citywide Water System Master Plan Update** | City of Tracy, CA | Steve Bayley • steve.bayley@cityoftracy.org • 209.831.6356 | Time and Materials | Elizabeth Drayer, PE; Amy Kwong, PE; Polly Boissevain, PE; Jim Connell, PE | 2012-Present |
| **2017 Water Master Plan** | City of Modesto, CA | Jim Alves • jalves@modestogov.com • 209.571.5557 | Time and Materials | Charles Duncan, PE; Elizabeth Drayer, PE; Bobby Vera, PE; Amy Kwong, PE; Jim Connell, PE | 2014-2018 |
| **Water Master Plan** | City of Yuba City, CA | Mandeep Chohan • chohanyc@gmail.com • 209.663.9227 | Time and Materials | Polly Boissevain, PE; Dakari Barksdale, PE; Amy Kwong, PE; Jim Connell, PE | 2017-2019 |

# Section 4. Financial Statement

### Performance and Financial Resources

West Yost has provided a financial summary based on our 2019 fiscal year end in a separately sealed envelope with this proposal. As a privately-held, employee-owned company, this information is confidential and proprietary.

### Prior Litigation/Claims

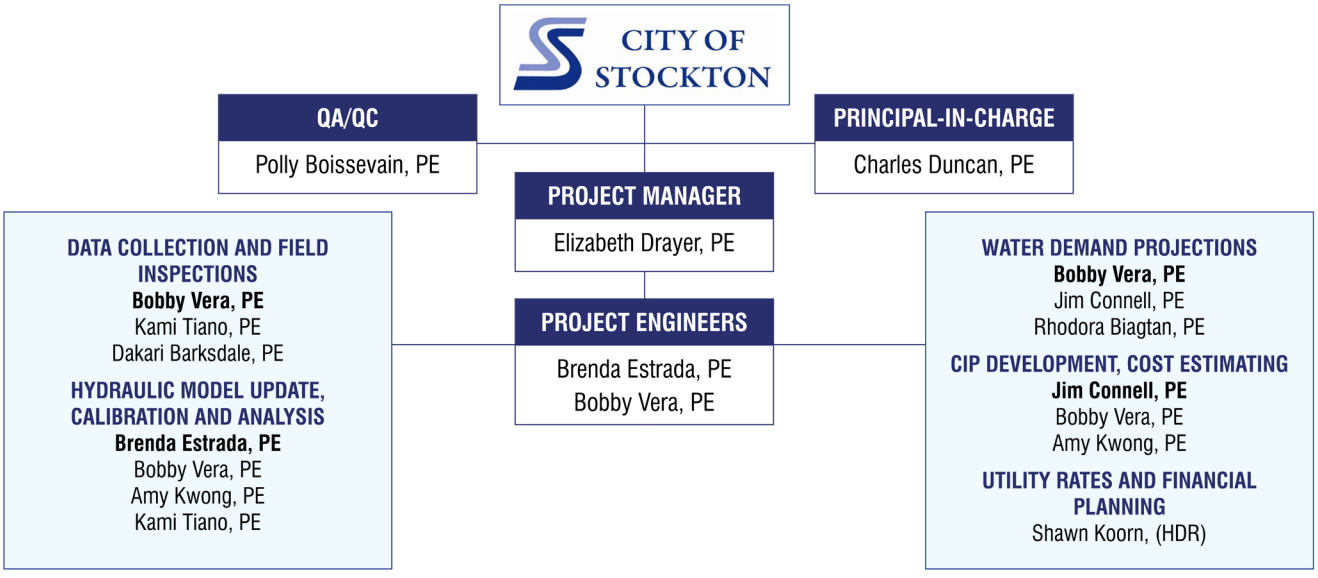
West Yost has had no pending bankruptcy, lien, stop payment notice, judgment, lawsuit, foreclosure, or any similar action filed or resolved in the past five years related to any project contract. West Yost has never been named in a lawsuit associated with one of our design or construction management projects.

# Section 5. Corporate Structure and Organization

West Yost is a privately-held, employee-owned company incorporated in the State of California. West Yost was established in 1990 with a focus exclusively on water, including water supply, wastewater, recycled water, groundwater, and stormwater. Our current company structure is divided across the following business sectors:

**• Water • Infrastructure • Treatment • Program and Procurement Management • Construction Management • • Operational Technology, Cybersecurity, and Resilience •**

Our team is shown in the organizational chart below with full resumes in the Appendix.



# Appendix A: Team Resumes

- Elizabeth Drayer, PE
- Charles Duncan, PE
- Polly Boissevain, PE
- Brenda Estrada, PE
- Bobby Vera, PE
- Kami Tiano, PE
- Dakari Barksdale, PE
- Amy Kwong, PE
- Jim Connell, PE
- Rhodora Biagtan, PE
- Shawn Koorn (HDR)

WEST YOST ASSOCIATES

# Elizabeth Drayer, PE

Elizabeth Drayer specializes in water resources engineering and coordinating multi-discipline projects. She has experience leading water resources planning studies and design projects. She specializes in water supply and infrastructure master planning and has prepared over 20 water and utility master plans, over 15 water supply assessments, and over 20 urban water management plans. She has also prepared many other studies and plans for clients including groundwater studies, drought shortage contingency plans, facility operations plans, emergency operations plans involving the evaluation of existing facilities, evaluation of existing and future demands, identification of system deficiencies, evaluation of alternatives, and development of recommendations for capital improvements. She has prepared preliminary and detailed designs for water supply facilities such as pipelines, pump stations, reservoirs, and canals. Elizabeth is a West Yost Vice President and serves on West Yost's Board of Directors.

## EXPERIENCE

**Stockton District Water Supply and Facilities Master Plan, California Water Service Company, Stockton, CA:** Project Engineer for the preparation of a Water Supply and Facilities Master Plan for the California Water Service Company Stockton District. Tasks included the preparation of a description of the local groundwater resources and recommended integrated water supply plan to optimize the use of available water resources to meet existing and future demands. Also conducted a detailed facility conditions assessment, including desk-top and field assessments of the Stockton District's treated water storage facilities, pumping facilities, and well facilities. The field assessments included visits to over 50 active, inactive, standby well facilities to evaluate physical condition and status of each facility. Prepared a detailed write-up of the assessments including specific findings and recommendations for each of the Stockton District's facilities.

**South Stockton Aqueduct Study, City of Stockton, CA:** Project Engineer on a study that determined a proposed route and pipeline size to convey water from the Stockton East Water District Treatment Plant to the City's south Stockton water system. Responsibilities included determining average day and maximum day water demands based on land use data; selecting an alignment for the pipeline; sizing the pipeline considering existing and future groundwater sources; and preparing a comprehensive report documenting the study.

**Water Demand Study, Zone 7 Water Agency, Livermore, CA:** Project Manager for the preparation of a high-level Water Demand Study for the Zone 7 Water Agency. Zone 7 is a water wholesaler that provides treated water supplies to four retail water agencies in the Tri Valley area of Alameda County, including the City of Pleasanton, California Water Service (Cal Water) Livermore District, City of Livermore and the Dublin San Ramon Services District (DSRSD). Zone 7 is currently in the process of updating its 2016 Water Supply Evaluation which evaluates Zone 7's need and potential available options for future water supplies.

**STAFF TITLE:** Vice President

**YEARS OF EXPERIENCE:** 31

**PROFESSIONAL REGISTRATIONS**

- Professional Civil Engineer, California No. 46872

**EDUCATION**

- MS, Structural Engineering, University of California, Berkeley
- BS, Civil Engineering, University of California, Berkeley

**CERTIFICATIONS**

- Underground Storage Tank Installation
- UC Davis Extension, 32-hour Course, Groundwater Hydrology
- UC Davis Extension, 32-hour Course, Principles of Toxicology

**PROFESSIONAL AFFILIATIONS**

- American Society of Civil Engineers
- American Water Works Association
- Association of California Water Agencies
- WateReuse Association

The purpose of the water demand study is to review and evaluate the retailers' historical and recent water demand trends and develop revised projections for future treated water demands from the retailers considering recent water use trends and recently passed new water conservation legislation (including SB 606 and AB 1668) that will impact future water use. As the new water conservation standards mandated by SB 606 and AB 1668 are yet to be defined, the objective for the water demand study is to establish "bookend" (high and low) future water demand estimates. The findings of the study will inform Zone 7's continuing evaluation of potential future water supply options and be incorporated into Zone 7's 2019 Water Supply Evaluation Update.

**2019 Water Master Plan, City of Sacramento, CA:** Project Manager for the preparation of the City's 2019 Water Master Plan. Tasks include evaluation of existing and future demands, including the impacts of the passages of SB 606 and AB 1668, which will establish urban water use efficiency standards for residential indoor water use, residential outdoor water use, commercial, industrial and institutional outdoor irrigation use, and water losses. The City's existing water supplies will be reviewed, and future potential supplies will be evaluated. A prioritized capital improvement program will be developed to meet the City's needs through buildout of the City's General Plan.

**Water System Master Plan, City of Dixon, CA:** QA/QC reviewer for the preparation of a Water System Master Plan for the City of Dixon. The purpose of the Master Plan was to identify existing water system deficiencies and required water system improvements, based on updated demand estimates and system evaluations, and to formulate a comprehensive Capital Improvement Program (CIP) which meets the needs of the City's existing and future water customers. Tasks included review of evaluation results and findings and review of draft chapters of the Master Plan.

**Water Master Plan, City of Livermore, CA:** Project Manager for the preparation of a Water Master Plan for the City of Livermore. Tasks included detailed evaluation of existing and projected future demands, including an evaluation of projected demand rebound following the drought, and evaluation of projected future demand based on planned new developments and development of vacant parcels. Demand projections were coordinated with the City's preparation of its 2015 Urban Water Management Plan and compliance with SBx7-7 per capita water use targets. A recommended Capital Improvement Plan was developed based on identified existing and future water system improvements.

**Water Master Plan, City of Modesto, CA:** Project Engineer for the evaluation of existing and potential future water supplies for the City of Modesto in conjunction with the development of the Water Master Plan. Tasks included evaluation of the availability and reliability of the City's treated surface water supplies purchased from the Modesto Irrigation District and treated at the Modesto Regional Water Treatment Plant, and local groundwater supplies pumped from 110 wells located throughout the City. Evaluation of future water supplies included an evaluation of groundwater quality issues, the feasibility of implementing an aquifer storage and recovery program, and the potential for acquisition of additional surface water supplies. Conjunctive use of the City's available and projected surface water and groundwater supplies was also evaluated with respect to seasonal demand patterns and operational issues.

**Water System Master Plan and Capacity Reserve Fee Study, Dublin San Ramon Services District, Dublin, CA:** Project Manager for the preparation of a Water System Master Plan and Capacity Reserve Fee Study for the District. Tasks included a review and update of the District's system performance criteria; development of potable and recycled water demand projections; update of hydraulic water system models for the potable and recycled water systems; hydraulic analysis of existing and future conditions including 2020, buildout (based on adopted general plans), and ultimate planning horizons; development of a prioritized capital improvement plan; and performance of a water system capacity reserve fee study.

**Water Master Plan Connection Fee Analysis, Dublin San Ramon Services District, Dublin, CA:** Project Engineer for the evaluation of connection fees for the recommended capital improvement program for the District's recommended potable water and recycled water facilities. The evaluation included a facility cost allocation to District service areas, based on the areas deriving benefit from each of the recommended facilities which included new transmission pipelines, pump stations and reservoirs, to assess service area-specific connection fees.

**Water System Master Plan, City of San Bruno, CA:** Project Engineer assisting with facility condition assessments for the City's water system facilities. Tasks included review of existing facility data, test results and maintenance records, development of an assessment checklist and site visits to the City's storage reservoirs, wells and pump stations. During the site visits, the general condition of the facilities was assessed, including structural and mechanical issues, potential site security issues and potential site vulnerabilities. Findings from the facility assessments will be incorporated into a recommended prioritized Capital Improvement Plan (CIP) for the City.

WEST YOST ASSOCIATES

# Charles Duncan, PE

Charles Duncan is President of West Yost Associates. His experience is focused in water resources master planning of water and recycled water systems. His expertise includes the development and use of hydraulic network distribution system models to optimize water systems and associated infrastructure. Charles specializes in model development, calibration, analysis of reservoir outage plans, and analysis of alternative demand and system configuration scenarios, using InfoWater, EPANET, $H_2$ONET, KYPIPE, CYBERNET, and SynerGEE. He has used hydraulic simulation models to analyze water quality constituents to locate, size, and evaluate various water supply sources, reservoirs and elevated storage tanks, wells, booster pump stations, main transmission lines and turn-outs and other points of demand in a distribution system network under various average day, maximum day, peak hour, fire-flow demand, and emergency conditions. In addition, Charles is known for establishing technically feasible and constructible reservoir outage plans and cost-effective capital improvement projects that optimize the system performance based on the results of distribution system model analyses.

## EXPERIENCE

**Water Master Plan Update, City of Stockton, CA:** Project Manager for water master plan required to incorporate a new 2035 General Plan into the City's ongoing capital improvement program. The project included upgrade of the City's existing hydraulic model into a dynamically-verified water system model using $H_2$ONET. The updated model is designed to be used as a tool for building operational flexibility into the City's planned water transmission system, and for planning the future connection between the City's north and south systems. Another key component of this study was to verify and develop unit demand factors for the City of Stockton that were then used to project water demands through general plan buildout in 2035.

**Stockton District Water Supply & Facilities Master Plan, California Water Service Company, Stockton, CA:** Project Manager responsible for staff completing the analysis and writing water supply and facilities master plan and maintaining the project schedule and budget. Work included meeting with multiple parties (City Planning, Cal Water Staff, and County) to define all projected land use, develop unit demand factors, and project water demands expand an existing hydraulic model of the water distribution system, and perform an on-site facilities assessment.

**Urban Water Management Plan Update, City of Stockton, CA:** QA/QC for an update to the City's Urban Water Management Plan by evaluating DWR requirements, reviewing existing plans, requesting needed information from the City, and compiling provided data. Assisted in production of a draft copy for presentation to the public and the City Council.

**STAFF TITLE:** Principal

**YEARS OF EXPERIENCE:** 29

### PROFESSIONAL REGISTRATIONS

- Professional Civil Engineer, California No. 55498
- Professional Civil Engineer, Oregon No. 91819

### EDUCATION

- BS, Civil Engineering, University of Southern California, Los Angeles

### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- American Water Works Association
- Bay Area Water Works Association

### SPECIALIZED TRAINING

- InfoWater
- EPANET
- $H_2$ONET
- $H_2$OMAP
- SynerGEE
- KYPIPE
- CYBERNET
- KYPIPE III

### PUBLICATIONS

- "Unidirectional Flushing Headlines Water Quality Programs," Brenda Estrada & Charles Duncan, AWWA Opflow, June 2016

**South Stockton Water Master Plan Update, City of Stockton, CA:** Updated the previously developed hydraulic model of the City's South Stockton Water System. Reallocated demands and defined and added large users, based on historical meter records, to the model as point demands. Developed two separate operating schemes for the conjunctive use of the groundwater and the incoming surface water supply from a 48-inch diameter South Stockton Aqueduct with multiple turnouts. Results for simulations directed the location and size of future wells in the South Stockton area. Project evaluated existing groundwater resources and historical production to develop a safe yield of the groundwater basin. In addition, this Project also included an update/confirmation of system demand projections, development/confirmation of operational and performance criteria, hydraulic modeling, development of a capital improvement program, a summary of the estimated safe yield of the groundwater basin, and an environmental impact report.

**Hydraulic Model Update and Conversion Project, City of Stockton, CA:** Served as Project Engineer/Chief Hydraulic Modeler. Assisted in the integration of information from the City of Stockton's recently developed Geographical Information System (GIS), previously developed hydraulic models, and City staff knowledge and experience into an updated 5,000 pipeline hydraulic model using the $H_2$ONET modeling software. Defined and added large users to the model as point demands based on historical meter records. Developed two separate operating schemes for the conjunctive use of groundwater and surface water supplies. Added specific logical controls at each of the City's key facilities to allow verification of the model over a 48-hour duration.

**Water Supply Master Plan, City of Sacramento, CA:** Project Manager for the City of Sacramento's (City's) Water Supply Master Plan, an integrated approach for water supply planning focuses on addressing demand management, supply management, and infrastructure master planning. For this project, establishing accurate demands as a baseline for informed decision making includes addressing the challenges associated with limited meter data, tracking demand allocation by land use, and identifying demand off-sets that can shave peaks by taking large non-potable users off the "water grid." The demand management also focuses on conservation. Supply management planning focuses on reliability and sustainability, including development of a water supply portfolio plan that optimizes surface water, groundwater and recycled water. Recycled water opportunities will also be evaluated using the City's GIS and by working with Sacramento County on feasible opportunities.

**Water Master Plan, City of Fresno, CA:** Project Manager for operational hydraulic model development in conjunction with West Yost's preparation of a Water Master Plan for the City of Fresno. The project includes enhancing the recently developed water system model in $H_2$ONET to conduct more detailed hydraulic analyses. These analyses will be used to assess the overall service area configuration and confirm previously identified capital improvement projects. The Master Plan is designed to provide operational flexibility into the existing and planned water transmission system. Tasks include reviewing existing City information; updating, enhancing, calibrating, and validating the City's hydraulic model; establishing performance criteria and evaluating the existing system for current and 2025 buildout conditions; evaluating existing distribution system layout; evaluating pump station and storage requirements for existing and ultimate buildout conditions; evaluating the existing transmission and distribution system; evaluating redundant facilities; and recommending an updated, prioritized capital improvement program.

**Water Master Plan, City of Tracy, CA:** Project Engineer for the development of a comprehensive plan to guide the City of Tracy's future water system expansion and operation. Performed a detailed evaluation of the additional water system facilities required for ultimate buildout of the City's Urban Management Land Use Plan. Responsibilities included development and calibration of a computer model (using both SynerGEE and CYBERNET software) of the existing water distribution system, and expansion of the model to represent the future "backbone" system; evaluation of the water system under various future demand scenarios; identification of required water treatment, storage, and distribution system facilities to meet future demands; and estimation of capital costs of facilities.

**Water Master Plan, City of Ceres, CA:** Technical Lead for Hydraulic Modeling. In response to the California State Department of Public Health, the City of Ceres was required to complete a new Water Master Plan. This plan will include a re-confirmation of the current and anticipated future water demands at buildout, evaluate the reliability of existing groundwater supplies to meet these projected demands, identify the benefits of the proposed TID treated surface water project to help meet existing and/or future demands, and refine the City's existing water system hydraulic model.

WEST YOST ASSOCIATES

# Polly Boissevain, PE

Polly Boissevain is an engineer with professional experience in water resources planning, with extensive experience in distribution system master planning and hydraulic modeling of water systems, both steady-state and transient analysis for closed conduit flow. She has managerial experience for a variety of water resources projects in planning, design, and operations.

## EXPERIENCE

**Senate Bill 7 Support, City of Stockton, CA:** Managing a project to provide technical assistance to the City of Stockton for its Senate Bill 7x-7 compliance strategy. SB 7 requires urban water users to reduce water use by 20 percent by 2020 (20x2020) and is establishing methodologies to evaluate baseline water use and develop 2020 compliance targets. West Yost is providing support to the City to evaluate baseline water use and 2020 targets for compliance using the different methods proposed in the legislation, and is assisting with public hearings to adopt the 20x2020 method and target.

**King City District, Oroville District, Rancho Dominguez District Water Supply and Facilities Master Plans, California Water Service Company, San Jose:** Project Manager of water supply and distribution system master plans for King City District, in southern Monterey County, for Oroville District, in Butte County, and Rancho Dominguez District in Los Angeles county. Master Plan tasks included projecting future demands, assessing water supply options, developing hydraulic models from GIS data, evaluating the distribution systems for existing and future demand scenarios, assessing key distribution system facilities and developing a staged capital improvement program for Cal Water to use in future PUC rate cases.

**Water Master Plan Update, City of Menlo Park, CA:** Project Manager for a comprehensive water master plan update for the City. West Yost prepared a multi-faceted water master plan update for the City. In addition to evaluating the City's water system for its capacity to meet existing demands and future growth, the master plan also included a comprehensive mapping program using hand-held GPS units to map the City's water meters and valves, an assessment of alternative water supplies, including recycled water and gray water, a system-wide condition assessment, using soils information and leak history to prioritize main replacement, a seismic vulnerability assessment to identify improvements to seismically reinforce the system, a water age evaluation to identify and mitigate areas with potential water quality issues, an operations and maintenance review to evaluate existing maintenance programs and staffing, and an advanced meter infrastructure evaluation to assess options to automate the City's meter reading program.

**STAFF TITLE:** Engineering Manager II

**YEARS OF EXPERIENCE:** 36

**PROFESSIONAL REGISTRATIONS**

- Professional Civil Engineer, California No. 36164, Oregon No. 76795

**EDUCATION**

- MS, Civil Engineering, Cornell University
- BS, Civil Engineering, Stanford University

**PROFESSIONAL AFFILIATIONS**

- American Society of Civil Engineers
- American Water Works Association

**Water Master Plan Update, City of Modesto, CA:** Task lead for hydraulic modeling evaluations and Engineer's Report for the City's water system master plan update. Tasks include model calibration using field-collected hydrant test data, model verification through comparisons with field operating data, and system evaluations for existing and future growth scenarios to identify system deficiencies and recommended capital improvements. Updating the City's Engineer's Report, which identifies cost apportionment between existing and future customers. The Engineer's Report will be used by the City for rate and connection fee evaluations.

**Transmission System Planning Update, Zone 7 Water Agency, Livermore, CA:** Project Manager for a master planning update for the Zone 7 Water Agency's transmission system. Zone 7 provides wholesale water deliveries to four agencies in the Livermore-Amador Valley. The Transmission Planning Update project provided a comprehensive update of transmission system needs over the next 30 years. Using a hydraulic model previously developed by the Agency, West Yost provided a peer review and update of the hydraulic model, and prepared hydraulic evaluations for future transmission system deliveries for various conjunctive use supply scenarios that the Agency anticipates. West Yost worked collaboratively with the Agency to prepare the planning update, which documents both the hydraulic evaluations to identify future facility needs, as well as other District-led evaluations to assess ways to improve the flexibility and reliability of the Agency's wholesale transmission system.

**Carmichael Hydraulic Model Update, Carmichael Water District, Carmichael, CA:** Project Manager for a new all-pipe hydraulic model for the Carmichael Water District (District). West Yost updated the model InfoWater's GIS selection tool to pinpoint areas where model pipeline alignments did not match the newly updated GIS pipeline alignments. A a static and extended period calibration was performed to confirm that model predicted results were consistent with SCADA and field collected data. The entire workflow and information used to update the hydraulic model was documented a hydraulic model update report and a modeler's notebook.

**Water Master Plan Update, Contra Costa Water District, Concord, CA:** Project Manager for the District's 2014 Water Master Plan Update. As part of the master plan, West Yost developed a new hydraulic model for the District's treated water service area, built from the District's GIS. Following verification of the model through comparisons with SCADA data to demonstrate that it adequately represents field conditions, the model was used to evaluate existing and future demand scenarios and identify needed capital improvements to address existing deficiencies and meet future growth. A comprehensive capital improvement program was developed to address water system needs. West Yost worked collaboratively with the District to co-write the Water Master Plan report.

**Water System Planning, Engineer's Report, City of Modesto, CA:** Prepared updates to an Engineer's Report for a new Water Rate and Connection Fee Update Study for the City of Modesto. The main elements of the report include: updating current and buildout water demands and design criteria; identifying and justifying capital improvements needed to maintain reliable water service; developing cost estimates and prioritizing improvements; and determining the proportional cost allocation between existing and future users. The report, which addressed a 20-year time horizon, required an update to the City's hydraulic model, and evaluation of the feasibility of the City's participation in the Turlock Irrigation District's Regional Surface Water Supply Project.

**Distribution System Water Master Plan and Rate Study, City of Ceres, CA:** Project Engineer for water distribution system master plan and rate study for the City of Ceres. Overseeing project technical activities, including: Developed water demand projections through buildout of the City's General Plan, evaluated supply alternatives to meet future demands; updated the City's hydraulic model, and evaluated capital improvements needed to reliably meet existing and future City needs. The project also includes a rate study for the City's conversion of residential flat rate accounts to metered accounts.

**Visalia District Water Supply and Facilities Master Plan, California Water Service Company, Visalia, CA:** Project Engineer for the development of a water supply and facilities master plan that addresses a number of water supply planning issues including: future water demands, the balance of overall recharge and discharge in the aquifer, development of alternative supplies, including surface water and recycled water, and an evaluation of changes in the water balance due to conversion from agricultural to urban land uses, etc. The Visalia District is currently 100-percent groundwater, therefore, groundwater was a key element of the master plan assessed. Alternative surface water sources were assessed to complement the current groundwater supplies in order to provide for an integrated sustainable municipal water supply in the future.

WEST YOST ASSOCIATES

# Brenda Estrada, PE

Brenda Estrada has 19 years of experience in hydraulic engineering and modeling. She has worked on a variety of hydraulic models for both existing and proposed water systems using WaterCAD, WaterGEMS, InfoWater, $H_2$ONET, $H_2$OMAP, and EPANET software. She has prepared numerous Water Master Plans for small and large water agencies, including demand projections, supply capacity, and water quality. Brenda's experience also includes extensive work using ArcGIS which includes geo-referencing, querying, creating and editing files and database tables, integrating data tables to geographic locations, converting coordinates, importing and exporting GIS into AutoCAD, and creating exhibit layouts. She also has experience in Urban Water Management Plan and Water Supply Assessments.

## EXPERIENCE

**2000 Urban Water Management Plan Update, City of Stockton, CA:** Prepared an update to the City's Urban Water Management Plan by evaluating DWR requirements, reviewing existing plans, requesting needed information from the City, and compiling provided data. Assisted in production of a draft copy for presentation to the public and the City Council.

**2000 Urban Water Management Plan Update, Stockton East Water District, Stockton, CA:** Prepared an update to the District's Urban Water Management Plan by evaluating DWR requirements, reviewing existing plans, requesting needed information from the District and the District's urban retailers, and compiling data from all sources. She produced a draft report for presentation to the public and the District's Board of Directors for approval. Addressed questions from the public and Board of Directors to produce a final report for submittal to DWR.

**Water Supply Master Plan, City of Sacramento, CA:** Project Engineer for the City of Sacramento's Water Supply Master Plan identified potential supply alternatives to meet current and projected demands. The project produced an infrastructure plan that was economical and flexible enough to accommodate various water supply alternatives available to the City. The project included working with the City and a Water Advisory Group made up of neighboring water purveyors and environmental groups. Sacramento's existing hydraulic model was updated and dynamically calibrated to current conditions to assist in the evaluations. The hydraulic model was used to identify existing areas of deficiencies within the system and recommended infrastructure and operational changes to improve services to the existing system. For the future system evaluation, sixty scenarios were evaluated for various demand and hydrologic conditions. An economic evaluation of the supply alternatives was used to reduce the number of scenarios prior to performing detailed hydraulic model analysis. Additional tasks included review of current and future water storage requirements, recycled water feasibility, and impacts from additional conservation.

**STAFF TITLE:** Principal Engineer I

**YEARS OF EXPERIENCE:** 21

**PROFESSIONAL REGISTRATION**

- Professional Civil Engineer, California No. 67062

**EDUCATION**

- BS, Civil Engineering, University of California, Davis

**PROFESSIONAL AFFILIATIONS**

- American Water Works Association

**PUBLICATIONS**

- "Unidirectional Flushing Headlines Water Quality Programs," Brenda Estrada & Charles Duncan, AWWA Opflow, June 2016

**Treated Water Master Plan Update, Contra Costa Water District, Concord, CA:** GIS Support/Demand Analysis for the development and calibration of an extended period simulation hydraulic model from the District's GIS. As part of the model building process, West Yost worked with the District to standardize model naming conventions and database structure, so that the model is intuitive and comports with District standard conventions and can easily be set up for planned District uses. West Yost also worked with District staff during the model building process, providing hands-on experience with the model development process and developed a standardized modeling notebook that documents model structure, how facilities are modeled, and sources of data used. A complete modeling notebook was provided to the District at project completion as a reference for future use. For the model validation, the model was set up to mimic system operation, and model results were compared with SCADA pressure and flow data from a historical system maximum demand day to validate that the model reproduces operational trends. A key components of the project included an all-pipe hydraulic model.

**Water Master Plan, City of Fresno, CA:** Prepared a Water Master Plan for the City of Fresno using a calibrated and verified hydraulic model. The City of Fresno has over 250 wells in the system plus a surface water supply. The project enhanced the recently developed water system model in $H_2$ONET to conduct more detailed hydraulic analyses. The analyses were used to assess the overall service area configuration and confirm previously identified capital improvement projects. The Master Plan was designed to provide operational flexibility into the existing and planned water transmission system. Tasks included evaluating the existing distribution system layout; evaluating the pump station and storage requirements for existing and ultimate buildout conditions; evaluating the existing transmission and distribution system; evaluating redundant facilities; and recommending an updated, prioritized capital improvement program.

**2015 Water Facilities Master Plan Update, Eastern Municipal Water District, CA:** Project Engineer for a potable water facilities master plan update for the Eastern Municipal Water District. The District serves customers in a 550 square mile area in western Riverside County. The potable water system has five major service areas with a total of 70 pressure zones. The District anticipates significant future growth, with demand projected to increase approximately threefold through buildout of the District's service area. Brenda was lead hydraulic modeler for the master plan update, which identified needed capital facilities to meet future growth. The fast-track nature of the project necessitated managing six modeling teams to evaluate the potable water system needs including a backbone hydraulic model to develop major infrastructure phasing. Project tasks included preparing demand and supply projections, updating the hydraulic model with new facilities not in the GIS, validating the hydraulic model through comparisons with field operation data, preparing hydraulic evaluations to identify deficiencies and needed improvements, developing cost estimates for capital facilities and documenting results in a comprehensive report.

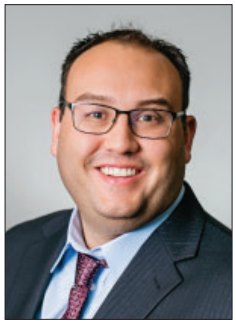
**Water Utility GIS Update, City of Fairfield, CA:** Project Manager providing support in updating the City's water system utilities in GIS. The project involved updating the City's existing GIS to a standardized format using the ESRI Water Utility Network format and customizing to the City's need. The new GIS structure was validated using topology to help facilitate conversion to a hydraulic model. City staff was trained on the new GIS structure and the best management practices to implement as updates to the GIS occur in the future.

**Hydraulic Model Update, Citrus Heights Water District:** Project Engineer in charge of assisting District in troubleshooting the interface and relationship between the District's GIS geodatabase and the hydraulic model. West Yost is updating the water distribution system hydraulic model to a fully-validated Extended Period Simulation operational and planning tool. Tasks have included working with District staff to troubleshoot GIS integration issues encountered in updating the model to match the District's water system geodatabase and developing diurnal curves based on SCADA data to represent maximum day demand patterns and minimum day use patterns. West Yost will perform an extended period calibration and validation of the model and will perform hydrant flow testing.

**Water Master Plan for Anatolia, AKT Development, Sacramento County, CA:** Prepared a Water Master Plan for the Anatolia Project Area located in the Sunridge Specific Plan Area of Sacramento County. The Master Plan included developing a hydraulic model using $H_2$ONET software to analyze proposed infrastructure. Preparation of the model involved developing demands for the proposed 751-acre project using County standards, allocating demands in the model based on land use, determining pipe diameters needed to satisfy County design criteria, and recommending location and use of pressure reducing stations to meet County design criteria. The results from the hydraulic model were used to determine recommendations for the project area water infrastructure.

WEST YOST ASSOCIATES

# Bobby Vera, PE



Bobby Vera is a civil engineer specializing in water resources, water supply and facilities planning, and wastewater collection system master planning. He is proficient in a variety of hydraulic modeling (pressure and gravity systems) and Geographical Information System (GIS) software. Bobby also has experience in water facilities design of groundwater wells, storage and pumping stations, hydraulic transient analyses and sizing and design of surge mitigation devices (hydropneumatic tanks, air-vacuum valves, etc.). Bobby primarily supports clients throughout California and Oregon.

## EXPERIENCE

**Water Master Plan, City of Modesto, CA:** Project Engineer responsible for updating the City's hydraulic model, updating performance criteria, and performing system hydraulic evaluations. Updated the hydraulic model through a thorough review of City's latest GIS and available as-built drawings. Performed hydraulic model calibration (using steady state hydrant test simulations) and verification (using extended period simulations and comparing to City's SCADA and data collected by hydrant pressure recorders) of the newly updated hydraulic model. Performed existing and buildout water system hydraulic evaluations using the newly updated, calibrated and verified hydraulic model. Results from the existing and buildout water system evaluations will be used to develop a comprehensive capital improvement program.

**Water System Master Plan, City of Menlo Park, CA:** Project Engineer responsible for managing the comprehensive update to the City's GIS by managing field teams with GPS Trimble unit to collect and collect data from various city assets; overseeing the conversion GPS collected points into an ArcGIS geodatabase; and overseeing the geo-processing the topology and connectivity of each feature (e.g., pipelines valves, hydrant meters, etc.). Directed the hydraulic model build, using the newly developed and field-verified GIS information; calibration (using steady state hydrant test simulations); and subsequent existing and buildout system hydraulic evaluations. Results from the existing and buildout water system evaluations will be used to develop a comprehensive capital improvement program. Directed a specialize hydraulic model training session at the completion of the project to inform City staff how to best leverage their hydraulic model.

**Water System Master Plan, City of Hayward, CA:** Staff Engineer responsible for developing a water master plan and hydraulic model to recommend and prioritize capital improvement projects for a 25-year planning horizon. Tasks included reviewing water system facilities data and developing a hydraulic model to evaluate the City's existing and future water systems. Specialized evaluations included a review of the City's standard operating procedures, an assessment of potentially using the City's emergency groundwater wells for potable water supply, and the development of a Sustainability Plan. Results from the existing and

**STAFF TITLE:** Senior Engineer I

**YEARS OF EXPERIENCE:** 9

### PROFESSIONAL REGISTRATION

- Professional Civil Engineer, California No. 83500
- Grade II Water Distribution System Operator, California No. 48180

### EDUCATION

- MS, Engineering Science, Civil & Water Resource Engineering, University of the Pacific, Stockton, California
- BS (*cum laude*), Civil Engineering, University of the Pacific, Stockton, California
- Water Education Foundation Water Leader, Class of 2017

### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- American Water Works Association
- Sacramento Area Water Works Association
- California Water Environment Association
- Northern California Pipe Users Group

future water system evaluations were used to develop a comprehensive capital improvement program. Hydraulic model development included both static calibration using field data collected from hydrant tests and dynamic verification using a 24-hour period simulation.

**Water System Master Plan, City of San Bruno, CA:** Staff Engineer responsible for developing a water system master plan and hydraulic model to recommend and prioritize capital improvement projects for a 20-year planning horizon. Tasks included conducting a facility assessment of the City's tanks, wells, and pump stations; reviewing water system facilities data; and developing a hydraulic model to evaluate the City's existing and future water systems. Results from the existing and future water system evaluations were used to develop a comprehensive capital improvement program. Hydraulic model development included calibration using field data collected from hydrant tests.

**Water Master Plan Update, City of Lathrop, CA:** Staff Engineer assisting with hydraulic modeling using WaterCAD. The project included evaluating existing system performance and water demand projections for SB x7-7 compliance to reduce per capita water use by 20 percent by 2020 (20x2020). The City relies on a mix of local groundwater and surface water supplies and the local groundwater basin was in overdraft, with water quality issues, increasing salts, and naturally occurring arsenic. West Yost refined the City's water supply strategy to include supplemental groundwater wells and identify infrastructure needed to blend groundwater and treated surface water supplies to defer the need for further groundwater treatment. Hydraulic modeling was used to evaluate the distribution system infrastructure, identify cost-effective improvements, and develop a future system analysis for capital improvement projects.

**On-Call Water System Hydraulic Modeling, City of Modesto, CA:** Project Engineer and Manager responsible for providing and directing on-call hydraulic modeling support for City Staff. Initial tasks generally included the evaluation of various operational changes to the City's water supply facilities and development of capital and operation improvements to mitigate deficiencies. Moving forward, similar evaluations are anticipated, in additional to the evaluation of development impact analysis and routine updates to the hydraulic model.

**Carmichael Hydraulic Model Update, Carmichael Water District, Carmichael, CA:** Staff Engineer and Modeler for hydraulic model update. Bobby assisted in the calibration of the hydraulic model by developing C-factor hydrant tests, deploying Hydrant Pressure Recorders in strategic locations to collect pressure information, and assisting in the static and steady state calibration using the field collected data of the District's hydraulic model. The hydraulic model was calibrated to be within 2 psi of field recorded data, and was subsequently used for operational analyses.

**Hydraulic Model Update and City-Wide Fire Flow Analysis, City of Ceres, CA:** Project Engineer responsible for leading the update of the City's water system hydraulic model for use in evaluating fire flow capacity throughout the City. The City's hydraulic model had not been updated since the 2011 Water Master Plan. Water demands have dropped significantly since then, and the City has made transmission/distribution improvements, abandoned some previously used wells, and constructed/equipped new wells. Bobby reviewed GIS and as-builts of new facilities, updated the hydraulic model to reflect recently constructed facilities and reallocation of water demands, and re-evaluating fire flow capacity of the distribution system. The study included a re-prioritized list of projects to identify deficient areas and capital cost estimates associated with proposed projects to assist the City in developing an updated capital improvement plan.

**Hydraulic Evaluation of North Ceres and Walnut Manor, City of Ceres, CA:** Project Engineer for the preparation of an evaluation to determine the impact to the City of Ceres if the North Ceres and Walnut Manor areas (served by others) were incorporated into the City's water distribution system. Tasks included merging the North Ceres and Walnut Manor areas into the City's existing hydraulic model, evaluating the City's distribution system with and without the incorporation of these facilities, evaluation of water quality at the existing groundwater facilities within the North Ceres and Walnut Manor, and development of capital improvement estimates.

**Hydraulic Evaluations of Proposed Developments, City of Hayward, CA:** Project Engineer and Manager responsible for performing and directing evaluations to determine the ability of the City's water system infrastructure to serve various proposed developments (Maple and Main, Mission Crossings, Mission Seniors, Campways, Downtown Specific Plan). Based on the results of the hydraulic simulations, infrastructure recommendations were identified to meet proposes water demands.

WEST YOST ASSOCIATES

# Kambria Tiano, PE

Kambria Tiano is a registered civil engineer with a focus in the planning and design of water, recycled water, and stormwater projects. Her experience includes master planning of water and recycled water systems, preparing unidirectional flushing (UDF) plans, modeling of pressurized and open channel hydraulics, analyzing watershed hydrology, and designing civil and utility improvements. Kambria is proficient with ArcGIS and AutoCAD Civil 3D, and has developed models using InfoWater, InfoWater UDF, HEC-RAS, and StormCAD.

## EXPERIENCE

**Downtown Area Hydraulic Evaluation, City of Roseville, CA:** Project Engineer responsible for updating the hydraulic model and evaluating the fire flow availability within the City's downtown area. Significant pipeline improvements had been installed since the 2007 model update based on previously recommended capital improvements identified to alleviate fire flow deficiencies. The evaluation evaluated the fire flow availability within the City's downtown area, including the backbone pipeline improvements, and recommended and prioritized the capital improvement projects required to address the deficiencies. Results were delivered in an interactive GIS map package.

**Water Supply Assessment for AT Dublin Development Project, Dublin San Ramon Services District, Dublin, CA:** Project Engineer responsible for preparing a Water Supply Assessment (WSA) that conforms to the requirements SB 610 and SB 221 for the proposed AT Dublin development project. The WSA evaluated the projected potable and recycled water demands for AT Dublin and assessed whether adequate DSRSD water supplies are available to serve the project under normal, single dry, and multiple dry year conditions. The WSA was adopted by the DSRSD Board of Directors and will be included in AT Dublin's Draft EIR.

**GIS and Hydraulic Modeling On-Call Services, City of Fairfield, CA:** Project Engineer managing a three year on-call contract to update and maintain the City's GIS and hydraulic model. GIS updates are to be performed monthly and will follow an organized structure, as defined in a flowchart developed for the project. Hydraulic model updates are to be conducted annually, with additional modeling evaluations to be conducted on an as-requested basis.

**Water and Sewer Capacity Evaluation for AT Dublin Development Project, Dublin San Ramon Services District, Dublin, CA:** Project Engineer responsible for evaluating the hydraulic impacts of the proposed AT Dublin development project on DSRSD's potable and recycled water systems. The evaluation investigated the adequacy of the existing system's pumping and storage capacity to serve the Proposed Project and identified hydraulic deficiencies with the proposed pipeline diameters under fire flow conditions. The findings and recommendations were outlined in a technical memorandum.

**STAFF TITLE:** Associate Engineer II

**YEARS OF EXPERIENCE:** 5

**PROFESSIONAL REGISTRATIONS**

- Professional Civil Engineer, California No. 84129

**EDUCATION**

- MS, Civil and Environmental Engineering, Stanford University
- BS (*Summa Cum Laude* and With Honors), Civil Engineering, California Polytechnic State University, San Luis Obispo

**PROFESSIONAL AFFILIATIONS**

- American Society of Civil Engineers
- Society of Women Engineers

**North Davis Meadows Water System, Yolo County, CA:** Project Engineer responsible for sizing the potable water pipelines required to serve the North Davis Meadows (NDM) community from the City of Davis water system. The recommendations that resulted from the hydraulic evaluation balanced adequate pipe volume turnover (during average day demand conditions) with large head losses that would be incurred during fire flow conditions. Results were presented in a technical memorandum.

**Hydraulic Model Development, City of Fairfield, CA:** Project Engineer responsible for developing, calibrating, and verifying the City's potable water hydraulic model. The City's water system serves 10 pressure zones and includes 368 miles of transmission and distribution system pipelines, 2 water treatment plants, 14 pump stations, and 13 storage reservoirs. Model development responsibilities included importing the City's pipelines and facilities into InfoWater using the City's existing GIS and record drawings, reviewing and updating the network connectivity with input from City staff, and allocating existing demands using historical meter data. Calibration and verification tasks included conducting 23 hydrant tests for static model calibration and deploying 22 hydrant pressure recorders to collect data for use in dynamic verification of the model over a 24-hour period simulation. Two additional 24-hour period simulations were verified using historical SCADA data to evaluate historical minimum and maximum day demand conditions. Facility information was documented in a "Modeler's Notebook" for future reference.

**Hydraulic Evaluation of Abandoning Railroad Crossing Pipelines, City of Roseville, CA:** Project Engineer responsible for evaluating the feasibility of abandoning four pipelines crossing railroad tracks in the City. The analysis required a hydraulic evaluation of the existing and proposed conditions, as well as recommendations for three alternative improvements that would mitigate the deficiencies incurred by the proposed the pipeline abandonments.

**On-Call Hydraulic Water System Modeling, City of Santa Rosa, CA:** Staff Engineer for hydraulic modeling analyses requested by the City. Evaluations performed have included: verifying flows obtained in hydrant tests performed by the City; reviewing capital improvement projects previously identified in the City's Water Master Plan; and proposing alternatives to improve existing fire flow deficiencies.

**Water System Fire Flow Improvement Project, South Tahoe Public Utility District, CA:** Staff Engineer responsible for evaluating the existing fire flow availability across the District's 31 pressure zones. The pressure zones were grouped into 12 fire flow zones based on water supply source. Project responsibilities involved updating the existing conditions to include newly installed hydrants, evaluating the existing fire flow conditions, recommending prioritized improvements to ameliorate existing fire flow deficiencies in the system, and developing a preliminary planning-level cost estimate to assist the District in budgeting for the recommended improvements.

**Flushing Program Evaluation Support, City of Woodland, CA:** Staff Engineer and Task Manager providing unidirectional flushing (UDF) modeling support at two pilot areas to aid in the development of a Flushing Standard Operating Procedure (SOP). The City hired consultants to develop the SOP after discolored potable water surfaced in the system following the change in water source from groundwater to treated surface water. Project responsibilities included reviewing and updating the hydraulic model to reflect the new source, hydraulic modeling of the two unidirectional flushing pilot areas using InfoWater UDF (for a total of 12,290 feet of pipeline flushed), preparing map books that outline valve and hydrant operations (for each loop being flushed), and attending the pilot flushing demonstrations over two days.

**On-Call Hydraulic Modeling Support, City of Napa, CA:** Staff Engineer responsible for allocating existing demands in the City's hydraulic model and evaluating the system response to upgrading a booster pump station. The City requested West Yost provide a peer review of the existing hydraulic model, update demands to match the current allocation, and investigate a proposed upgrade that aims to improve pressures in and provide adequate fire flow to a zone with insufficient existing fire flow availability.

**InfoWater Training, Dublin San Ramon Services District, Dublin, CA:** Staff Engineer responsible for producing an InfoWater Training Manual that caters to the District's hydraulic model. The training manual was delivered to DSRSD with the updated hydraulic model and the completed Water System Master Plan, with the intention of aiding the District in future model maintenance. Responsibilities included creating InfoWater training modules, providing a simplified hydraulic model to be used for training purposes, and assisting attendees during the one-day training workshop.

**Transmission System Planning Update, Zone 7 Water Agency, Livermore, CA:** Staff Engineer responsible for reviewing existing water system facilities and compiling system performance criteria. The Transmission System Planning Update was completed by West Yost to ensure Zone 7's ability to provide an adequate level of service to customers through buildout.

WEST YOST ASSOCIATES

# Dakari Barksdale, PE

Dakari is a registered civil engineer with a focus on hydraulic modeling of steady-state and transient scenarios, master planning, condition assessment, asset management, infrastructure design, and master planning for water, wastewater, and stormwater systems. Dakari also has experience with the following software: ArcGIS, AutoCAD, Microsoft Excel, Microsoft Access, InfoWater, InfoSurge, H2OMap, and XPSWMM.

**STAFF TITLE:** Associate Engineer II

**YEARS OF EXPERIENCE:** 5

**PROFESSIONAL REGISTRATIONS**

- Professional Civil Engineer, California No. 87542

**EDUCATION AND CERTIFICATION**

- MS, Water Resource Engineering, University of California, Davis
- BS, BioResource and Agricultural Engineering, California Polytechnic State University, San Luis Obispo
- NASSCO Pipeline Assessment Certification Program, Certification No. 07002982

## EXPERIENCE

**Water Facilities Master Plan Update, Eastern Municipal Water District, Perris, CA:** Staff Engineer and Modeler for updated Water Facilities Master Plan. The Water Facilities Master Plan identifies capital improvement needs for the potable water distribution system through buildout of the District's system. West Yost evaluated the water system using modeling scenarios and identified capital improvement projects were identified and summarized in a capital improvement plan. Dakari used the modeling program, InfoWater, to perform evaluations of future maximum day demand extended period simulation scenarios and fire flow scenarios and provided a deliverable of prioritized capital projects. He completed planning-level cost estimates for over 400 pipeline, valve, tank, and pump station projects with a combined total of roughly two billion dollars. All costs were adjusted to match the latest Engineering News-Record Construction Cost Index (ENR CCI) available at the time of the project.

**Water and Sewer Master Plan Update, City of Livermore, CA:** Staff Engineer assisting with the hydraulic model update for the City of Livermore's Water Master Plan and Sewer Master Plan. Helped develop and implement hydrant testing plan used for model calibration. Analyzed existing and future water system deficiencies. Created figures and tables to display existing and proposed water system facilities and deficiencies.

**Water Master Plan Update, City of Menlo Park, CA:** Staff Engineer and Modeler for a comprehensive water master plan update for the City. West Yost is preparing a multi-faceted water master plan update for the City. In addition to evaluating the City's water system for its capacity to meet existing demands and future growth, the master plan also includes a comprehensive mapping program using hand-held GPS units to map the City's water meters and valves, an assessment of alternative water supplies, including recycled water and gray water, a system-wide condition assessment, using soils information and leak history to prioritize main replacement, a seismic vulnerability assessment to identify improvements to seismically reinforce the system, an operations and maintenance review to evaluate existing maintenance programs and staffing, and an advanced meter infrastructure evaluation to assess options to automate the City's meter reading program. Dakari lead a field team in collecting GPS coordinates of the City's water features, estimated the cost of implementing a recycled water system, performed fire flow, water quality, and normal operational modeling to locate system deficiencies and provide recommendations, prepared the capital improvement program, and assisted with preparation of the Master Plan report.

**Water Master Plan Update, City of Dixon, CA:** Staff Engineer for water master plan update for the City. Master plan update included GIS map update, hydraulic model update, existing water system analysis and asset management plan, and development of capital improvement program. Dakari evaluated the existing water system developed a capital improvement program. He provided cost estimates for a 41 million dollar capital improvement program that included pipeline, well, booster pump station, and tank projects. All costs were adjusted to match the latest Engineering News-Record Construction Cost Index (ENR CCI) available at the time of the project.

**Water Master Plan Update, City of Yuba City, CA:** Staff Engineer assisting with the hydraulic model update and CIP development. Dakari performed hydrant testing, analyzed the historical indoor and outdoor water demands to estimate future potable and non-potable demands, assisted in developing an asset management plan, helped develop a capital improvement plan based on deficiencies that were evaluated in the updated hydraulic model and/or based on potential for failure as determined by the asset management plan.

**General Plan Update, City of Ceres, CA:** Staff Engineer for general plan update which included existing conditions evaluation, land use alternatives evaluation, infrastructure and financing plan assistance, and CEQA support. Dakari produced cost estimates for transmission, supply and storage projects required based on four land use alternatives. Proposed facility improvement projects for total over 110 million dollars for each of the four land use alternatives. All costs were adjusted to match the latest Engineering News-Record Construction Cost Index (ENR CCI) available at the time the project was being done.

**Carmichael Hydraulic Model Update, Carmichael Water District, Carmichael, CA:** Staff Engineer and Modeler for hydraulic model update. Built model, allocated demands, set-up and led hydrant testing, provided data analysis of SCADA data, helped develop figures and chapters for report.

**Citrus Heights Hydraulic Model Update, Citrus Heights Water District, Citrus Heights, CA:** Staff Engineer and Modeler for hydraulic model update. He allocated demands, set-up a hydrant test plan, and helped develop figures and chapters for the report.

**Millbrae General Plan Update, City of Millbrae, CA:** Staff Engineer for the development of a general plan update. Dakari performed research to help develop the water, stormwater and wastewater sections of the general plan update and produced figures.

**Placer County Water Agency Cost Estimate for Amoruso Ranch Specific Plan, City of Roseville, CA:** Staff Engineer for specific plan cost estimate. Dakari provided a detailed cost estimate for a booster pump station upgrade. The nearly four million dollar cost estimate included specific pump, mechanical, electrical, building, site work, and pipeline costs. All costs were adjusted to match the latest Engineering News-Record Construction Cost Index (ENR CCI) available at the time the project was being done.

**Pump Station Asset Management Plan, City of Fairfield, CA:** Staff Engineer for water pump station assessments which included inspections of the City's 18 water pump stations and development of a customized asset management database using condition and performance information gathered during field investigations. Created a registry of the assets at each pump station and used the registry to analyze the risk of asset failure on each pump station and to identify and prioritize repairs. He assisted in the development of an asset management plan. The plan assessed each pump station's overall system performance for the preparation of an optimized rehabilitation and replacement program.

**Winslow Street Development Evaluation, City of Redwood City, CA:** Staff Engineer and Modeler for an evaluation of the City's existing water system to meet demands with the addition of the Winslow Street Development project. Dakari identified capital improvement projects needed for the potable water distribution system to meet existing demands and fire flow demands based on the City's criteria.

**Hydraulic Model Update and Calibration, Alameda County Water District, Fremont, CA:** Project engineer assigned with updating, calibrating, and validating Alameda County Water District's (ACWD) hydraulic model. Dakari updated pipelines and facilities from GIS and as-builts, created and edited rule-based controls and simple controls and managed a $250,000 of the total $349,000 budget. ACWD delivers approximately 39 million gallons of water per day to approximately 336,000 people by means of over 850 miles of pipes in a 105 square mile service area.

**Hospitality Place Evaluation, Eastern Municipal Water District, Perris, CA:** Staff Engineer and Modeler for an evaluation of the District's existing water system to meet demands with the addition of the Winslow Street Development project. Dakari identified capital improvement projects needed for the potable water distribution system to meet existing demands and fire flow demands based on the City's criteria.

WEST YOST ASSOCIATES

# Amy Kwong, PE

Amy Kwong is a water resources engineer with a focus in water master planning, water supply and facilities planning, hydraulic modeling, and the design of water system infrastructure. She has contributed to the development of many water master plans throughout California.

## EXPERIENCE

**Water Master Plan Update, City of Stockton, CA:** Staff Engineer responsible for the dynamic verification of the updated hydraulic model as well as the analysis of the existing and future system requirements, identification of necessary capital improvements, and estimation of improvement costs. Project also included an update of the "Modeler's Notebook." Additional work on the model included analysis of a drought condition to assist the City on prioritizing well improvements.

**Stockton District Water Supply and Facilities Master Plan, California Water Service Company, Stockton, CA:** Staff Engineer responsible for adding nodes, junctions, pipelines, and facilities into the hydraulic model. Work also included spatially locating existing demands using meter data and then allocating these demands into the model. Performed static calibration and dynamic verification of the model as well as the analysis of the existing and future systems. Responsible for identification of necessary capital improvements and estimation of improvement costs. Also provided assistance on analyzing the condition of the current groundwater supply. Project also included update of the "Modeler's Notebook".

**2035 General Plan Update, City of Stockton, CA:** Assisted with spatial analysis of land use data using GIS and water demand calculations to update the Water Master Plan.

**Water Master Plan, City of Healdsburg, CA:** Project Manager responsible for leading the development of the City's Water Master Plan update. The update process included the development and calibration of a new hydraulic model to represent the City's water system. Improvement projects identified from the hydraulic model evaluations were used to develop a comprehensive and prioritized capital improvement plan to address deficiencies in the City's existing water system.

**Water Master Plan, City of Modesto, CA:** Project Engineer responsible for developing the City's buildout water demand projections and updating the water demands in the hydraulic model. Directed and performed QA/QC on the hydraulic model calibration (using steady state hydrant test simulations) and verification (using extended period simulations) as well as the existing and buildout water system hydraulic evaluations. Results from the existing and buildout water system evaluations will be used to develop a comprehensive capital improvement program.

**STAFF TITLE:** Principal Engineer I

**YEARS OF EXPERIENCE:** 13

### PROFESSIONAL REGISTRATIONS

- Professional Civil Engineer, California No. 73213

### EDUCATION

- MS, Civil and Environmental Engineering, Stanford University, Stanford, CA
- BS, Civil and Environmental Engineering, San Jose State University, San Jose, CA

### PROFESSIONAL AFFILIATIONS

- American Water Works Association
- American Society of Civil Engineers
- Bay Area Water Works Association
- Water Education Foundation, 2013 Water Leaders Class

**Citywide Water System Master Plan, City of Tracy, CA:** Project Engineer responsible for developing and analyzing unit water demand factors to project future water demands based on the City's adopted General Plan land uses. Additional tasks included updating the City's existing potable water system hydraulic model and developing a new recycled water system model to be used for analyzing future water demands and subsequently identify required backbone infrastructure to serve buildout of the adopted General Plan. Improvement projects identified from the hydraulic model evaluations were used to develop a comprehensive capital improvement plan. An additional Operations Guide was developed after the Citywide Water Master Plan to provide City operations staff with a document outlining the recommended water system operational strategies during typical winter and summer demand periods. The Operations Guide also evaluated the impacts to the existing water system from proposed near-term infrastructure improvements.

**Water System Master Plan, City of Hayward, CA:** Project Engineer responsible for developing a water master plan and hydraulic model to recommend and prioritize capital improvement projects for a 25-year planning horizon. Tasks included reviewing water system facilities data and developing a hydraulic model to evaluate the City's existing and future water systems. Specialized evaluations included a review of the City's standard operating procedures, an assessment of potentially using the City's emergency groundwater wells for potable water supply, and the development of a Sustainability Plan. Results from the existing and future water system evaluations were used to develop a comprehensive capital improvement program. Hydraulic model development included both static calibration using field data collected from hydrant tests and dynamic verification using a 24-hour period simulation.

**Water System Master Plan, City of San Bruno, CA:** Project Engineer responsible for developing a water system master plan and hydraulic model to recommend and prioritize capital improvement projects for a 20-year planning horizon. Tasks included conducting a facility assessment of the City's tanks, wells, and pump stations; reviewing water system facilities data; and developing a hydraulic model to evaluate the City's existing and future water systems. Results from the existing and future water system evaluations were used to develop a comprehensive capital improvement program. Hydraulic model development included calibration using field data collected from hydrant tests.

**Water Facilities Master Plan Update, Eastern Municipal Water District, Perris, CA:** Project Engineer responsible for the hydraulic evaluation of the San Jacinto Valley service area. Project tasks included updating the hydraulic model with new facilities not in the GIS, validating the hydraulic model through comparisons with field operating data, preparing hydraulic evaluations to identify deficiencies and needed improvements, developing cost estimates for capital facilities and documenting results of the master plan in a comprehensive report.

**Water Master Plan Update, City of Santa Rosa, CA:** Project Engineer responsible for the development of the City's Water Master Plan Update. Tasks included directing the development of future water demands and update of the City's hydraulic model.

**Marysville District Water Master Plan, California Water Service Company, Marysville, CA:** Staff Engineer responsible for performing a peer review of the District's existing hydraulic model, and developing the District's water supply plan to focus on the reliability of existing groundwater supplies and to review other potential water supply sources (e.g., surface water and recycled water). Also assisted with inventorying and assessing system facilities for condition and capacity.

**Water Master Plan, City of Ceres, CA:** Staff Engineer responsible for developing and analyzing unit water demand factors to project future (near-term and buildout) water demands based on the City's adopted General Plan land uses. Subsequent task includes identifying required backbone infrastructure to serve projected near-term and buildout water demands by updating and using the City's existing hydraulic model. Improvement projects identified from the hydraulic model evaluations were used to develop a comprehensive capital improvement plan.

**Water System Master Plan and Capacity Reserve Fee Study, Dublin San Ramon Services District, Dublin, CA:** Project Engineer responsible for the development of potable and recycled water demand projections. Additional tasks included development of specific tools to allow District staff to easily update water demand projections in the hydraulic model and training for District staff on using the hydraulic model and demand projection tools.

**Campus Infrastructure Master Plan, University of California at Berkeley, CA:** Project Engineer responsible for developing an updated comprehensive evaluation of the Central Campus water system infrastructure and recommending a prioritized plan for water system infrastructure improvements to support current and future needs on UC Berkeley's Central Campus.

WEST YOST ASSOCIATES

# Jim Connell, PE

Jim Connell is a civil engineer with a focus in water and sewer master planning and design, including condition assessments, flow monitoring, computer modeling, rehabilitation planning, cost estimating, and capital improvement program development. He has extensive experience in planning and design of municipal infrastructure systems and has completed successful designs for a variety of facilities, including major expansion, rehabilitation, and new construction at a number of water and wastewater treatment plants in California and New England. His assignments have included project management and engineering for water and wastewater system master planning, inflow and infiltration studies, and remedial design. Other design experience includes water, sanitary wastewater, and industrial wastewater treatment systems; gravity sewers; storm water collection; potable water distribution and storage; and, water, wastewater and industrial wastewater pump stations. Other experience includes developing sanitary wastewater, storm water, and water distribution system models; and developing water system unidirectional flushing programs.

**STAFF TITLE:** Principal Engineer II

**YEARS OF EXPERIENCE:** 29

**PROFESSIONAL REGISTRATION**

- Professional Civil Engineer, California No. 63052

**EDUCATION**

- MS, Civil Engineering, University of Wyoming, Laramie, WY
- BS, Civil Engineering, Worcester Polytechnic Institute, Worcester, MA

## EXPERIENCE

**South Stockton Aqueduct Predesign Report, City of Stockton, CA:** Prepared a detailed alignment study and developed design criteria for a 28,000 lineal-foot, 42-inch diameter transmission main to convey potable water from the Stockton East Water District surface water treatment plant to the South Stockton service area. Work included developing operational and design criteria, recommending the appropriate aqueduct diameter, determining the optimal aqueduct alignment and connections to the distribution system, describing the alignment utility and property issues, discussing the likely right-of-way crossing methods such as horizontal boring and microtunneling, and working with pipeline installers to develop an expected project cost.

**Review of Drinking Water Fluoridation, City of Stockton, CA:** Conducted extensive literature review investigating the arguments for and against fluoridation of drinking water. Prepared cost estimates to provide fluoridation at a surface water treatment plant and over twenty municipal wells. Prepared a newsletter and PowerPoint presentation and delivered to City Council.

**Folsom Water Master Plan 2005 Update, City of Folsom, CA:** Updated the City's Water System Master Plan to account for greatly increased population growth and revised water demand factors. Work includes reviewing and analyzing the operation of the existing facilities, updating the City water distribution system hydraulic model according to the latest City-developed base map, projecting the intermediate and build-out water demands, analyzing the water system component's ability to meet the current and immediate future demands, preparing a capital improvement program to ensure that the water system components would be able to meet future demands, and conducting technical reviews of water treatment plant expansion recommendations.

**Tahoe City Water Master Plan, Tahoe City Public Utility District, Tahoe City, CA:** Developed a Water System Master Plan to enable the Tahoe City Public Utility District to meet the water needs of its customers. Work included building and calibrating the water distribution hydraulic model for the District's three main distribution systems, determining system deficiencies, developing recommended upgrades, and developing a phased approach for a draft Capital Improvement Program to implement the recommended upgrades. Final project will include completion of the draft Water System Master Plan for District review, incorporating District comments on the draft Capital Improvement Program.

**Water Master Plan Hydraulic Model Verification, City of Fresno, CA:** Managed the water distribution system hydraulic computer calibration and verification tasks. Work included developing a "C" factor testing protocol and a Hydrant Pressure Recorder testing protocol, evaluating the data from the tests and recommending adjustments to the City's model. When the calibration and verification process was complete, the hydraulic computer model was able to replicate field observations accurately.

**Water Master Plan, Tahoe City Public Utility District, CA:** Developed a Water System Master Plan to enable the Tahoe City Public Utility District to meet the water needs of its customers. Work included building and calibrating the water distribution hydraulic model for the District's three main distribution systems, determining system deficiencies, developing recommended upgrades, and developing a phased approach for a draft Capital Improvement Program to implement the recommended upgrades. Final project will include completion of the draft Water System Master Plan for District review, incorporating District comments on the draft Capital Improvement Program.

**Emergency Water Supply Options Evaluation, Yuba City, CA:** Project Engineer for emergency water supply project. For much of its history Yuba City used groundwater as a primary water supply source. The groundwater quality was marginally acceptable. With the lowering of the maximum contaminant level for arsenic, some of the groundwater wells would require treatment for continued use as a water supply. The City constructed a surface water treatment plant and now provides surface water for all of its potable water demands. The City hired West Yost to investigate emergency water supply options to continue serving potable water to City water customers in the event of a catastrophic failure of the surface water system. West Yost prepared land-use based water demand projections at various stages of supply interruption and recommended a plan to refurbish a select group of groundwater wells for emergency use.

**Dixon General Plan Update, Dyett & Bhatia, Dixon, CA:** Project Engineer to prepare a summary technical memorandum of the existing and proposed potable water infrastructure to serve buildout of the City of Dixon General Plan. The City of Dixon is updating its General Plan and requires a review of the current City infrastructure and a description of the needed infrastructure expansions that would be needed to serve buildout of the General Plan. West Yost prepared the potable water, sanitary sewer, and storm drain infrastructure technical memoranda.

**Water Supply Assessments for Vineyards at Sand Creek and Aviano Farms, City of Antioch, CA:** Prepared Water Supply Assessments (WSAs) in conformance with Senate Bill (SB) 610 to document the availability of water supply for the Vineyards at Sand Creek and Aviano Farms projects. Both projects are primarily residential projects to be developed in the Sand Creek Focus Area, located in the southwest portion of the City of Antioch. Work included comparing water supply and demand information and preparing the SB 610 WSA document. Work also included updating the City's existing water distribution system hydraulic model and recommending water distribution pipeline diameters and alignments to serve potable water demand and fire flows throughout the proposed developments.

**Water Metering Economic Feasibility Study, Tahoe City Public Utility District, Tahoe City, CA:** Conducted a Water Metering Economic Feasibility Study to evaluate common water-use metering practices and to recommend a course of action for implementing a metering program. Work included gathering information regarding water metering and meter-reading practices and comparing the capital and operating costs of each system; identifying common water rate practices including meter charges, commodity rates, conservation rates, and seasonal rates; developing a recommended meter program implementation time-line; and, describing other water utilities' metering programs and experiences.

**Tahoe City Water Capacity Analysis, Bliss State Park, Tahoe City Public Utility District, Tahoe City, CA:** Conducted a study to determine if the Tahoe City Public Utility District had sufficient capacity to serve the Bliss State Park water demands. Work included modifying the District's water system hydraulic model to extend to the Park; determining the Park water demands based on historical records; analyzing the District's water production, storage, and delivery capacity; investigating several upgrade scenarios using the hydraulic model; and, making recommendations based on the study findings.

WEST YOST ASSOCIATES

# Rhodora N. Biagtan, PE

Rhodora N. Biagtan is a civil engineer with a focus in water resources planning and utilities industry. She is an experienced manager who specializes in resource and operations planning, contracts, budgeting, personnel, regulatory compliance, development permitting and construction, and capacity fee development. She successfully managed programs to ensure compliance with regulatory requirements in water conservation, backflow prevention, pollution prevention, and recycled water use. She previously worked for Dublin San Ramon Services District (DSRSD), where she managed the Planning and Permitting Division as a Principal Engineer Supervisor, and directed the Engineering Department as Interim Engineering Services Manager.

## EXPERIENCE

**Interim Engineering Services Manager, Dublin San Ramon Services District, Dublin, CA:** As Interim Engineering Services Manager, Rhodora provided oversight on major engineering programs including Capital Improvement, Water Resources Planning, Utilities Planning, Development Permitting, Asset Management, GIS/Mapping, Recycled Water Program, Environmental Compliance, Backflow Prevention, and Water Conservation. She managed twenty employees, an annual operating budget of over $4.1 million, and a two-year Capital Improvement Program Budget of over $15 million.

Rhodora ensured the execution of the DSRSD Strategic Plan objectives and tasks for the department, and prepared, administered and controlled the department budget. As District Engineer, she implemented DSRSD's facilities Master Plans and Capital Improvement Program for the expansion and rehabilitation of the its infrastructure, including potable water, recycled water, and sanitary sewer facilities. She ensured that the DSRSD District Code of Ordinances and Standard Procedures and Specifications were followed. She represented the District in interagency collaboration with external agencies, fostering cooperative working relationships with regional intergovernmental and regulatory agencies including the Cities of Dublin, Pleasanton, and Livermore, Zone 7 Water Agency, and East Bay Municipal Service District (EBMUD), and the San Francisco Bay Area Regional Water Resources Control Board.

In response to the unprecedented 2014 drought, where 80% of DSRSD's water supply source became unavailable, she coordinated with the operations manager and regional water agencies to implement mandatory water conservation measures. Under her purview, her department obtained the permit for state's first residential recycled water fill station program, developing a new user permitting and monitoring program for it. The effort resulted in more than 3,500 users and effort received regional and national attention, promoted recycled water and water conservation, and received numerous awards and recognition. The program was

**STAFF TITLE:** Principal Engineer II

**YEARS OF EXPERIENCE:** 25

### PROFESSIONAL REGISTRATIONS

- Professional Civil Engineer, California No. C59371

### EDUCATION

- MS, Civil & Environmental Engineering, University of California, Davis
- MBA, Natural Resource Management, Graduate School of Management, University of California, Davis
- BS, Civil Engineering and Materials Science & Engineering, University of California, Davis

### PROFESSIONAL AFFILIATIONS

- WateReuse California – Northern California Chapter Board of Trustee Representative
- California Water Environment Association
- Bay Area Water Works Association

duplicated in communities throughout California. She collaborated with Bay Area agencies to successfully obtain $2 million of Integrated Regional Water Management Proposition 84 Implementation Grant funding for an emergency drought project to expand the recycled water distribution system to established areas of DSRSD.

To mitigate future water shortages for the agency, she managed the preparation of DSRSD's plan for long-term alternative water supply sources and updated its water supply policy.

**Water Resources and Facilities Master Planning:** She managed preparation of service demand projections, urban water management plans, and water and wastewater facilities master plans throughout the continued expansion of the DSRSD service area. She coordinated with other divisions to project service demands and ensure that major facilities are in place to provide services to new development. She collaborated with the financial department to prepare fee and rate studies to ensure that major facilities are funded and sufficient revenues are budgeted. She coordinated with the field operations department to address existing customer service and infrastructure concerns.

**Development Projects:** Rhodora managed the review and permitting of proposed water and wastewater systems for conformance with the agency's standard specifications and ensured that appropriate fees were collected. With 90 to 100 active, permitted development projects at any time, she coordinated construction activities between development projects, and imposed conditions of approvals as needed. To minimize construction conflicts and costs and meet service demands in a timely manner, she negotiated and administered agreements with developers that ensured coordinated installation of major infrastructure in new developments. When needed, Rhodora managed the preparation of SB 610 Water Supply Assessment and SB 221 Water Supply Verification for development projects.

**Recycled Water Program:** Rhodora was responsible for the implementation of the agency's recycled water program. In collaboration with the agency's legal counsel, she prepared updates to the agency's District Code of Ordinances to integrate recycled water requirements, a new enterprise for the agency at the time, and incorporate current legislation and regulations. She updated the agency's standard specifications to incorporate recycled water requirements and developed the agency's recycled water use guidelines. She led the expansion of the agency's recycled water distribution system and was a technical resource for updates to its Title 22 Engineering Report. She managed the permitting of new connections and monitoring of over 300 recycled water users to ensure conformance to regulatory requirements.

**Agency Representative in the Joint Tri-Valley Potable Reuse Technical Feasibility Study, Dublin San Ramon Services District, Dublin, CA:** Rhodora represented the agency as part of a project management committee to develop a regional potable reuse feasibility study to improve water supply reliability and local control in the Livermore-Amador Valley. The project management committee monitored the project budget and schedule, procured the consultant, and provided direction for the consultant. The study required collaboration and consensus amongst the agencies and their representatives, who had varying priorities and criteria. Rhodora monitored the study as it progressed, providing comments representing the interest of her agency while maintaining a cooperative and collaborative relationship with other committee members. The project was completed to the satisfaction of all the agencies and additional studies are pending.

**Grandview Potable Water Master Plan for New Master Planned Community in West Sacramento:** Rhodora managed the preparation of a potable water master plan for a proposed 21,000-home master planned community in western Sacramento. She worked with staff hydraulic modeler to develop and size a potable water distribution system, including tanks, pump stations, and pipelines, that would provide adequate fire flow and service demand. She reviewed potential surface water and groundwater sources, sited a centralized surface water treatment plant and groundwater wells. The report has been finalized to the satisfaction of the property owner and is ready for submittal to Sacramento County as part of the project's specific plan submission.

# Shawn Koorn

## Utility Rates and Finance Lead

Shawn Koorn is an Associate Vice President and Professional Associate with HDR. He provides financial planning, cost-benefit analysis and economic review towards development of rate and cost of service studies for wastewater, water, stormwater, electric, and solid waste, utilities. This information is communicated utilizing technical abilities and presentation skills in a clear and concise manner.

Shawn's experience involves all analytical aspects of the utility financial planning process. Shawn is a highly capable and strives to understands the finer technical issues involved with each project, as well as the broader economic issues that today's public and private utilities are facing. He marries these two understandings to deliver optimal studies for his client's.

Shawn also has extensive experience with regulatory filings before public service commissions. He has recently developed testimony to support water and sewer rate studies before two different public service commissions. His experience and knowledge of "generally accepted" rate setting techniques allows him to develop excellent testimony to support his client's position.

Shawn is a co-instructor for the AWWA Financial Management Seminar. This three day seminar discusses the theories and methodologies used to establish cost-based rates. Shawn is a co-author of the AWWA M54 Manual and has presented numerous papers on financial planning and rate setting topics for utilities.

## Firm/Location

HDR/Bellevue, WA

## Education

BS, Managerial Economics, Central Washington University

BS, Business Administration-Finance, Central Washington University

## Years Experience

20 years

## Benefits to the City

- Shawn has developed rate and fee analyses for the City since 2007.
- Shawn has worked on numerous water and sewer system plans and is experienced incorporating financial plans into the overall Plan document.
- Shawn has developed rates and fees across the U.S. and Canada and brings that experience to each project.
- Shawn has provided expert witness testimony before regulatory commissions for rate cases. As a result he makes sure that each analysis is tailored to the utilities specific needs and meets generally accepted methodologies.

**Education**

B.S., Business Administration-Finance Central Washington University

B.S., Managerial Economics, Central Washington University

**Professional Association**

American Water Works Association, Member

American Public Power Association/Northwest, Member

Washington Finance Officers Association – Education Committee Member

**Expertise**

Utility Rates/Cost of Service

Financial Planning

Capital Planning

Cost-Benefit Analyses

**Years with HDR**

19 Years

## Key Experience

**City of Stockton, Water Rate and Surface Water Supply Fee Study, Stockton, CA.**

*Project Manager.* For over 12 years, HDR has been assisting the City of Stockton Municipal Utilities Department with the establishment of water rates and fees. Shawn led the development of the initial water rate study in 2007, and completed in 2009. This included the funding of the Delta Water Supply Project (DWSP) and a set of rates to fund the operating and capital needs over the next five year period. This study also included the development of the DWSP surface water supply fee. This fee funded the growth and expansion component of the DWSP. The rates and fees developed in the study were adopted by the City Council In 2016, Shawn led the development of the water rate study update. This included the next five year rate setting period. A key aspect of this update was the implementation of drought rates. These rates maintain revenue stability for the City during reduced consumption periods, water supply emergencies, and State mandated consumption reductions. The results of the study were presented to the Water Advisory Group, Council Water Committee, and finally the public and City Council. The proposed rates were approved and adopted by the City Council. .

**City of Stockton, Wastewater Rate Study, Stockton, CA.**

*Project Manager.* Shawn led the development of the 2010 and 2018 wastewater rate studies for the City. Key to both studies was the planning of future capital improvements and replacements of the City's wastewater collection and treatment systems. Shawn worked with City staff to review and develop the overall revenue requirement for the wastewater utility to determine sufficient revenues to fully fund future operating and capital needs, including funding of future annual debt service payments related to funding major infrastructure improvements at the wastewater treatment plant. The results of the study were presented to the Water Advisory Group, Council Water Committee, and the public at several different meetings throughout the development of the study to gain policy input. Final wastewater rates were developed

**City of Folsom, Water and Wastewater Rate Study, Folsom, CA.**

*Project Manager.* For over 15 years, HDR has assisted the City with the development of water rates and fees. The rate studies have focused on the development of a funding plan for necessary capital improvements for each utility. The most recent rate study, completed in 2019, provided a transition to appropriate capital funding and revenue levels to support the operating and capital needs of each utility. Shawn was the Project Manager for the most recent study and worked collaboratively with utility department staff as well as other City departments. The preliminary results of the study were presented to the Utility Advisory Committee for review and discussion. Based on the Committee recommendations, final proposed water and wastewater rates were developed and presented to the City Council for adoption.

**Dublin San Ramon Services District, Water and Wastewater Rate and Fee Studies, Dublin, CA.**

*Project Manager.* Shawn has been assisting the District in the review and development of local and regional wastewater rates, water rates, and water capacity reserve fees since 2003. Over that time, Shawn has developed the technical analysis to support water and sewer rates as well as been the project manager for the studies in the recent 10 years. Most recently, Shawn has been assisting the District in the development of the water capacity reserve fee. This study provides the basis for the fee charged to new customers connecting to the system. These fees are based on the value of the capacity in the existing system as well as future projects related to expansion of the system to meet new customer demands.

EXHIBIT 1

WEST YOST ASSOCIATES

EXHIBIT 1

WEST YOST ASSOCIATES

February 6, 2020

City Clerk
City of Stockton
425 North El Dorado Street
Stockton, CA 95202-1997

SUBJECT: Water Master Plan Update for the City of Stockton (M20006/PUR 19-052)
Fee Proposal

West Yost Associates (West Yost) will prepare the City of Stockton Water Master Plan Update based on the proposed Scope of Work described in our February 6, 2020 proposal for a not-to-exceed fee of $777,000. This budget includes $688,100 for the basic scope of services for the tasks listed in the City's Request for Proposal, including three years of model maintenance and technical support, and $88,900 for proposed optional tasks which are described in Section 2 of our proposal. Attachment A provides a summary of the estimated level of effort and proposed budget on a task-by-task basis.

Work will be billed on a time-and-materials basis in accordance with our 2020 Billing Rate Schedule (Attachment B). If additional budget is required to complete work associated with this assignment, West Yost will not perform work in excess of the budgeted amount without the City's written authorization.

We look forward to the opportunity to discuss our proposal further with the City and negotiate the final scope and costs to meet the City's needs. Please contact either Elizabeth at (925) 461-6793 or myself at (530) 792-3220 if you have any questions regarding our proposal, or would like additional information.

Sincerely,

WEST YOST ASSOCIATES

Charles T. Duncan, PE
President and CEO

CTD:ETD

Attachment A: Estimated Level of Effort and Budget for the City of Stockton Water Master Plan Update
Attachment B: West Yost 2020 Billing Rate Schedule

2020 Research Park Drive, Suite 100 Davis, CA 95618 Phone 530 756-5905 Fax 530 756-5991 westyost.com

**Estimated Level of Effort and Budget for the City of Stockton Water Master Plan Update**

| Task | Estimated Level of Effort, hours | Budget, dollars |
|---|---|---|
| **Basic Scope of Services** | | |
| Task 1. Project Management | 187 | 52,800 |
| Task 2. Review City Policies and Existing Documents | 214 | 47,400 |
| Task 3. Goals, Strategies, and Priorities | 46 | 10,000 |
| Task 4. Data Collection and Analysis | 684 | 145,900[a] |
| Task 5. Water Distribution Hydraulic Model | 481 | 106,800 |
| Task 6. Draft and Final Water Master Plan Update | 272 | 65,700 |
| Task 7. Financial Analysis | 54 | 56,700[b] |
| Task 8. Water Distribution Systems Model Maintenance and Technical Support | | |
| Year 1 | [c] | 60,000 |
| Year 2 | [c] | 61,800 |
| Year 3 | [c] | 63,600 |
| Task 9. Coordination and Plan Development | 58 | 17,400 |
| **Total (Basic Scope of Services)** | **1,996** | **$688,100** |
| **Optional Tasks** | | |
| Modeler's Notebook | 55 | 12,300 |
| Near-Term System Evaluation | 98 | 20,600 |
| Extended Period Simulation (EPS) Verification | 208 | 45,600 |
| Stand-Alone Executive Summary (Water Master Plan Update only) | 53 | 10,400 |
| **Total (Optional Tasks)** | **414** | **$88,900** |
| **Grand Total (Basic Scope of Services and Optional Tasks)** | **2,410** | **$777,000** |

(a) Budget shown includes direct costs of $6,000 for hydrant testing activities.

(b) Hours shown are those for West Yost. Task budget shown includes West Yost budget plus HDR budget of $38,550 plus 10% subconsultant markup.

(c) Assumes three years of model maintenance and technical support and includes up to ten (10) analyses each year to evaluate new development projects. Assumes a $10,000 allowance (approximately 40 – 50 hours) for model maintenance and technical support in the first year (2021), which is escalated 3% per year for the second and third years. Assumes a $5,000 allowance (approximately 20 – 25 hours) for each development analysis in the first year (a total of $50,000 for ten analyses), which is escalated 3% per year for the second and third years. Note that the required effort for analysis of new development projects can vary widely depending on the complexity of the project and additional budget may be required depending on the complexity and number of analyses requested.

WEST YOST ASSOCIATES

# 2020 Billing Rate Schedule

(Effective January 1, 2020 through December 31, 2020) *

| POSITIONS | LABOR CHARGES (DOLLARS PER HR) |
|---|---|
| **ENGINEERING** | |
| Principal/Vice President | $298 |
| Engineering/Scientist/Geologist Manager I / II | $283 / $295 |
| Principal Engineer/Scientist/Geologist I / II | $257 / $272 |
| Senior Engineer/Scientist/Geologist I / II | $230 / $241 |
| Associate Engineer/Scientist/Geologist I / II | $198 / $212 |
| Engineer/Scientist/Geologist I / II | $160 / $185 |
| Engineering Aide | $92 |
| Administrative I / II / III / IV | $81 / $102 / $123 / $135 |
| **ENGINEERING TECHNOLOGY** | |
| Engineering Tech Manager I / II | $291 / $294 |
| Principal Tech Specialist I / II | $268 / $279 |
| Senior Tech Specialist I / II | $245 / $256 |
| Senior GIS Analyst | $224 |
| GIS Analyst | $211 |
| Technical Specialist I / II / III / IV | $156 / $178 / $200 / $223 |
| Cross Connection Specialist I / II / III / IV | $117 / $127 / $143 / $159 |
| CAD Manager | $178 |
| CAD Designer I / II | $138 / $155 |
| **CONSTRUCTION MANAGEMENT** | |
| Senior Construction Manager | $289 |
| Construction Manager I / II / III / IV | $174 / $186 / $198 / $251 |
| Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1) | $152 / $169 / $188 / $196 |
| Apprentice Inspector | $138 |
| CM Administrative I / II | $74 / $99 |
| Field Services | $196 |

- Hourly rates include Technology and Communication charges such as general and CAD computer, software, telephone, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside Services such as vendor reproductions, prints, shipping, and major West Yost reproduction efforts, as well as Engineering Supplies, etc. will be billed at actual cost plus 15%.
- Mileage will be billed at the current Federal Rate and Travel will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness, research, technical review, analysis, preparation and meetings billed at 150% of standard hourly rates. Expert witness testimony and depositions billed at 200% of standard hourly rates.
- A Finance Charge of 1.5% per month (an Annual Rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

* This schedule is updated annually

WEST YOST ASSOCIATES

# 2020 Billing Rate Schedule (continued)

(Effective January 1, 2020 through December 31, 2020) *

## Equipment Charges

| EQUIPMENT | BILLING RATES |
|---|---|
| Gas Detector | $80/day |
| Hydrant Pressure Gauge | $10/day |
| Hydrant Pressure Recorder, Standard | $40/day |
| Hydrant Pressure Recorder, Impulse (Transient) | $55/day |
| Trimble GPS – Geo 7x | $220/day |
| Vehicle | $10/hour |
| Water Flow Probe Meter | $20/day |
| Water Quality Multimeter | $185/day |
| Well Sounder | $30/day |

* This schedule is updated annually