



**CITY OF CAMAS**  
**PROFESSIONAL SERVICES AGREEMENT**

616 NE 4th Avenue  
Camas, WA 98607

**Water Systems Plan**

THIS AGREEMENT is entered into between the City of Camas, a municipal corporation, hereinafter referred to as "the City", and **Carollo Engineers, Inc.** hereinafter referred to as the "Consultant", in consideration of the mutual benefits, terms, and conditions hereinafter specified.

1. Project Designation. The Consultant is retained by the City to perform professional services in connection with the project designated as the **Water Systems Plan**.
2. Scope of Services. Consultant agrees to perform the services, identified on Exhibit "A" attached hereto, including the provision of all labor, materials, equipment, supplies and expenses.
3. Time for Performance. Consultant shall perform all services and provide all work product required pursuant to this agreement by no later than **March 31, 2026** unless an extension of such time is granted in writing by the City, or the Agreement is terminated by the City in accordance with Section 18 of this Agreement.
4. Payment. The Consultant shall be paid by the City for completed work and for services rendered for an amount not to exceed \$382,288.00 under this agreement as follows:
  - a. Payment for the work provided by Consultant shall be made as provided on Exhibit "B" attached hereto, provided that the total amount of payment to Consultant shall not exceed the amounts for each task identified in Exhibit "A" (Scope of Services) inclusive of labor, materials, equipment supplies and expenses. Billing rates as identified in Exhibit "C".
  - b. The Consultant may submit vouchers to the City once per month during the progress of the work for payment for project completed to date. Vouchers submitted shall include the Project Number designated by the City and noted on this agreement. Such vouchers will be checked by the City, and upon approval thereof, payment will be made to the Consultant in the amount approved. Payment to the Consultant of partial estimates, final estimates, and retained percentages shall be subject to controlling laws.
  - c. Final payment of any balance due the Consultant of the total contract price earned will be made promptly upon its ascertainment and verification by the City after the completion of the work under this agreement and its acceptance by the City.
  - d. Payment as provided in this section shall be full compensation for work performed, services rendered and for all materials, supplies, equipment and incidentals necessary to complete the work.
  - e. The Consultant's records and accounts pertaining to this agreement are to be kept available for inspection by representatives of the City and of the State of Washington for a period of three (3) years after final payment. Copies shall be made available upon request.

5. Ownership and Use of Documents. All documents, drawings, specifications, electronic copies and other materials produced by the Consultant hereinafter “Work Product” in connection with the services rendered under this Agreement shall be the property of the City whether the project for which they are made is executed or not. The Consultant shall be permitted to retain copies, including reproducible copies, of drawings and specifications for information, reference and use in connection with Consultant's endeavors. The City agrees, to the fullest extent permitted by law, to indemnify and hold the Consultant harmless from any claim, liability or cost (including reasonable attorney’s fees and defense costs) arising or allegedly arising out of any reuse or modification of the Work Product by the City or any person or entity that obtains the Work Product from or through the City.

All work product which may be produced or modified by the Consultant while performing the Services shall belong to the City, upon full payment of all monies owed to the Consultant under this agreement. Upon written notice by the City during the Term of this Agreement or upon the termination or cancellation of this Agreement, the Consultant shall deliver all copies of any such work product remaining in the possession of the Consultant to the City.

6. Compliance with Laws. Consultant shall, in performing the services contemplated by this agreement, faithfully observe and comply with all federal state and local laws, ordinances, and regulations, applicable to the services to be rendered under this agreement. Compliance shall include, but not limited to, 8 CFR Part 274a – Control of Employment of Aliens, § 274a.2 Verification of identity and employment authorization.
7. Indemnification. Consultant shall defend, indemnify and hold the City of Camas, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

However, should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the City, its officers, officials and employees, the Consultant’s liability, hereunder shall be only to the extent of the Consultant’s negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant’s waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

8. Consultant's Liability Insurance.
- a. Insurance Term. The Consultant shall procure and maintain for the duration of this Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.
- b. No Limitation. Consultant’s maintenance of insurance as required by the Agreement shall not be construed to limit the liability of the Consultant to the coverage provided by such insurance, or otherwise limit the City’s recourse to any remedy available at law or in equity.
- c. Minimum Scope of Insurance. Consultant shall obtain insurance of types and coverage described below:
1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000.00 per accident. Automobile Liability insurance covering all owned, non-owned, hired, and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01.

2. Commercial General Liability insurance shall be written with limits no less than \$2,000,000.00 each occurrence, \$2,000,000.00 general aggregate. Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap independent Consultants and personal injury and advertising injury. The Public Entity shall be named as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the work performed for the Public Entity using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.
  3. Professional Liability insurance appropriate to the consultant's profession. Professional Liability insurance shall be written with limits no less than \$2,000,000.00 per claim and \$2,000,000.00 policy aggregate limit.
  4. Workers' Compensation coverage as required by Industrial Insurance laws of the State of Washington.
  5. Verification. Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, showing the City of Camas as a named additional insured, evidencing the Automobile Liability and Commercial General Liability of the Consultant before commencement of the work.
- d. Other Insurance Provision. The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain or be endorsed to contain that they shall be primary insurance as respect to the City. Any Insurance, self-insurance, or self-insured pool coverage maintained by the City shall be excess of the Consultant's insurance and shall not contribute with it.
  - e. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A: VII.
  - f. Verification of Coverage. Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the insurance requirements of the Agreement before commencement of the work.
  - g. Notice of Cancellation. The Consultant shall provide the City with written notice of any policy cancellation within two business days of their receipt of such notice.
  - h. Failure to Maintain Insurance. Failure on the part of the Consultant to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five business days' notice to the Consultant to correct the breach, immediately terminate the Agreement or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Consultant from the City.
9. Independent Consultant. The Consultant and the City agree that the Consultant is an independent Consultant with respect to the services provided pursuant to this agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto.

Neither Consultant nor any employee of Consultant shall be entitled to any benefits accorded City employees by virtue of the services provided under this Agreement. The City shall not be responsible for withholding or otherwise deducting federal income tax or social security or for contributing to the state industrial insurance program, otherwise assuming the duties of an employer with respect to Consultant, or any employee of Consultant.

10. Covenant Against Contingent Fees. The Consultant warrants that he/she has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant, to solicit or secure this contract, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the City shall have the right to annul this contract without liability or, in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
11. Discrimination Prohibited. During the performance of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees to comply with the following laws and regulations:
- Title VI of the Civil Rights Act of 1964  
(42 USC Chapter 21 Subchapter V Section 2000d through 2000d-4a)
  - Federal-aid Highway Act of 1973  
(23 USC Chapter 3 Section 324)
  - Rehabilitation Act of 1973  
(29 USC Chapter 16 Subchapter V Section 794)
  - Age Discrimination Act of 1975  
(42 USC Chapter 76 Section 6101 et seq.)
  - Civil Rights Restoration Act of 1987  
(Public Law 100-259)
  - Americans with Disabilities Act of 1990  
(42 USC Chapter 126 Section 12101 et. seq.)
  - 49 CFR Part 21
  - 23 CFR Part 200
  - RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the Consultant is bound by the provisions of Exhibit "D" attached hereto and by this reference made part of this Agreement and shall include the attached Exhibit "D" in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

12. Confidentiality. The Consultant agrees that all materials containing confidential information received pursuant to this Agreement shall not be disclosed without the City's express written consent. Consultant agrees to provide the City with immediate written notification of any person seeking disclosure of any confidential information obtained for the City. The restrictions on the use and disclosure of the confidential information shall not apply to information which (a) was known to the Consultant before receipt of same from the City; or (b) becomes publicly known other than through the Consultant; or (c) is disclosed pursuant to the requirements of a governmental authority or judicial order, but only to the extent required to comply with the said requirements of the government authority or judicial order.
13. Work Product. All work product, including records, files, documents, plans, computer disks, magnetic media or material which may be produced or modified by the Contractor while performing the Services shall belong to the City, upon full payment of all monies owed to the Contractor under this agreement. Upon written notice by the City during the Term of this Agreement or upon the termination or cancellation of this Agreement, the Contractor shall deliver all copies of any such work product remaining in the possession of the Contractor to the City.
14. Certification Regarding Debarment, Suspension, or Ineligibility and Voluntary Exclusion—  
Primary and Lower Tier Covered Transactions.
- a. The Consultant, defined as the primary participant and its principals, certifies by signing these General Terms and Conditions that to the best of its knowledge and belief that they:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or State department or agency.
  2. Have not within a three-year period preceding this contract, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public or private agreement or transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice;
  3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this section; and
  4. Have not within a three-year period preceding the signing of this contract had one or more public transactions (federal, state, or local) terminated for cause of default.
- b. Where the Consultant is unable to certify to any of the statements in this contract, the Consultant shall attach an explanation to this contract.
  - c. The Consultant agrees by signing this contract that it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the City.
  - d. The Consultant further agrees by signing this contract that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," as follows, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions:

Lower Tier Covered Transactions

1. The lower tier Consultant certifies, by signing this contract that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  2. Where the lower tier Consultant is unable to certify to any of the statements in this contract, such Consultant shall attach an explanation to this contract.
- e. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, person, primary covered transaction, principal, and voluntarily excluded, as used in this section, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the City for assistance in obtaining a copy of these regulations.

15. Intellectual Property.

- a. Warranty of Non-infringement. Consultant represents and warrants that the Consultant is either the author of all deliverables to be provided under this Agreement or has obtained and holds all rights necessary to carry out this Agreement. Consultant further represents and warrants that the Services to be provided under this Agreement do not and will not infringe any copyright, patent, trademark, trade secret or other intellectual property right of any third party.
- b. Rights in Data. Unless otherwise provided, data which originates from this Agreement shall be a "work for hire" as defined by the U.S. Copyright Act of 1976 and shall be owned by the City. Data shall include, but not be limited to reports, documents, pamphlets, advertisements, books,

magazines, surveys, studies, films, tapes, and sound reproductions. Ownership includes the right to copyright, patent, register, and the ability to transfer these rights.

16. Assignment. The Consultant shall not sublet or assign any of the services covered by this agreement without the express written consent of the City.
17. Non-Waiver. Waiver by the City of any provision of this agreement or any time limitation provided for in this agreement shall not constitute a waiver of any other provision.
18. Conflict of Interest. It is recognized that Consultant may or will be performing professional services during the Term for other parties; however, such performance of other services shall not conflict with or interfere with Consultant's ability to perform the Services. Consultant agrees to resolve any such conflicts of interest in favor of the City. Consultant confirms that Consultant does not have a business interest or a close family relationship with any City officer or employee who was, is, or will be involved in the Consultant's selection, negotiation, drafting, signing, administration, or evaluating the Consultant's performance.
19. City's Right to Terminate Contract. The City shall have the right at its discretion and determination to terminate the contract following ten (10) calendar days written notice. The consultant shall be entitled to payment for work thus far performed and any associated expenses, but only after the city has received to its satisfaction the work completed in connection with the services to be rendered under this agreement.
20. Notices. Notices to the City of Camas shall be sent to the following address:  
Rob Charles  
City of Camas  
616 NE 4th Avenue  
Camas, WA 98607  
PH: 360-817-7003  
EMAIL: [rcharles@cityofcamas.us](mailto:rcharles@cityofcamas.us)

Notices to Consultant shall be sent to the following address:

Matt Huang  
Carollo Engineers, Inc.  
707 SW Washington Street. Suite 500  
Portland, OR 97205  
PH: 503-227-1885  
EMAIL: [mhuang@carollo.com](mailto:mhuang@carollo.com)

21. Integrated Agreement. This Agreement together with attachments or addenda, represents the entire and integrated agreement between the City and the Consultant and supersedes all prior negotiations, representations, or agreements written or oral. This agreement may be amended only by written instrument signed by both City and Consultant. Should any language in any Exhibits to this Agreement conflict with any language in this Agreement, the terms of this Agreement shall prevail. Any provision of this Agreement that is declared invalid, inoperative, null and void, or illegal shall in no way affect or invalidate any other provision hereof and such other provisions shall remain in full force and effect.
22. Arbitration Clause. If requested in writing by either the City or the Consultant, the City and the Consultant shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by first entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, if mutually agreed, the dispute shall be referred to arbitration in the Portland USA&M office in

accordance with the applicable United States Arbitration and Mediation Rules of Arbitration. The arbitrator's decision shall be final and legally binding and judgement be entered thereon.

Each party shall be responsible for its share of the arbitration fees in accordance with the applicable Rules of Arbitration. In the event a party fails to proceed with arbitration, unsuccessfully challenges the arbitrator's award, or fails to comply with the arbitrator's award, the other party is entitled to costs of suit, including reasonable attorney's fee for having to compel arbitration or defend or enforce award.

- 23. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Washington.
- 24. Venue. The venue for any dispute related to this Agreement or for any action to enforce any term of this Agreement shall be Clark County, Washington.
- 25. Remedies Cumulative. Any remedies provided for under the terms of this Agreement are not intended to be exclusive but shall be cumulative with all other remedies available to the City at law or in equity.
- 26. Counterparts. Each individual executing this Agreement on behalf of the City and Consultant represents and warrants that such individual is duly authorized to execute and deliver this Agreement. This Agreement may be executed in any number of counterparts, which counterparts shall collectively constitute the entire Agreement.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

CITY OF CAMAS:

Carollo Engineers, Inc:  
Authorized Representative

By \_\_\_\_\_

By \_\_\_\_\_

Print Name \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

EXHIBIT "A"  
SCOPE OF SERVICES



**EXHIBIT A**  
**CITY OF CAMAS**  
**SCOPE OF SERVICES**

**WATER SYSTEM PLAN UPDATE**

The following Scope of Services has been developed to assist the City of Camas (City) with the update of its Water System Plan (WSP). The objective of this project is to update and review the elements of the WSP documents, in accordance with Washington Administrative Code (WAC) 246-290-100 and State of Washington Department of Health (DOH) regulations. The following tasks under this Scope of Services have been prepared based on Carollo Engineers, Inc.'s (Consultant) and its subconsultant's current understanding of the proposed project, and through discussions with City staff.

**PROJECT BACKGROUND**

The City initiated this WSP update recognizing the importance of planning, developing, and maintaining water system facilities that provide reliable and efficient service for existing customers and to serve anticipated growth. The WSP is designed to meet state, county, and local requirements. The project represents a limited update of the City's existing WSP (Carollo, 2019) to align with recent Comprehensive Plan updates, which extend the land use planning period through 2045. This project will consider system needs in the context of providing water service to meet updated population and economic development projections presented in the updated Comprehensive Plan. Limited additional effort will involve evaluating water system needs in portions of the City's service area not considered in the existing WSP.

**PROJECT ASSUMPTIONS**

- Carollo Engineers, Inc. will be referred to as "Consultant" in this document.
- City of Camas and its staff will be referred to as "City" in this document.
- All meetings will be held on Microsoft Teams, unless otherwise specified.
- Draft chapters will be provided in electronic copy (PDF and/or Microsoft Word) transmitted via email or secure file transfer.
- City comments on draft chapters will be documented in the Project Comment Response Log by the Consultant. The Consultant will prepare responses to address the comments in the Comment Response Log for the City's review and acceptance. Resulting changes will be incorporated in the Draft Agency Review Plan, rather than reissuing a draft chapter at the time. However, revised draft chapters can be produced upon City request.
- Electronic Demand Tool will be provided in .xlsx format.
- The Consultant will prepare an agenda, presentation materials, and document discussions, including action items and decisions, in meeting minutes for Consultant-led meetings.
- Meeting notes and related materials will be transmitted electronically in MS Word and/or PDF formats via email.
- The City will print and produce all documents as necessary for its use. Consultant will not provide any deliverables in a paper format.

- In providing opinions of cost, financial analyses, economic feasibility projections, schedules, and quantity and/or quality estimates for potential projects, the Consultant has no control over cost or price of labor and material; unknown or latent conditions of existing equipment or structures that may affect operation and maintenance costs; competitive bidding procedures and market conditions; time or quality of performance of third parties; quality, type, management, or direction of operating personnel; the incoming water quality and/or quantity; the way the City's plant(s) and/or associated processes are operated and/or maintained; and other economic and operational factors that may materially affect the ultimate project elements, including, but not limited to, cost or schedule. Therefore, the Consultant makes no warranty that the City's actual project costs, financial aspects, economic feasibility, schedules, and/or quantities or quality realized will not vary from the Consultant's opinions, analyses, projections, or estimates.
- The Consultant shall not be responsible for acts and decisions of third parties, including governmental agencies, other than the Consultant's subconsultants, that impact project completion and/or success other than noted elsewhere in this scope of work.
- The City will furnish the Consultant with available studies, reports and other data pertinent to the Consultant's services; obtain or authorize the Consultant to obtain or provide additional reports and data as required; furnish to the Consultant services of others required for the performance of the Consultant's services hereunder, and the Consultant shall be entitled to use and reasonably rely upon all such information and services provided by the City or others in performing the Consultant's services hereunder.
- The WSP update will follow this organization of chapters and meetings as listed in Table 1.

Table 1 Summary of Chapters and Appendices

Chapter/Appendix		Lead
Executive Summary		Consultant
Chapter 1	Introduction	Consultant
Chapter 2	Planning Considerations	Consultant
Chapter 3	Existing System	Consultant
Chapter 4	Operations and Maintenance	Consultant
Chapter 5	Water Requirements	Consultant
Chapter 6	Water Use Efficiency	City
Chapter 7	Water Quality	Consultant
Chapter 8	Water Resources	Consultant with Mott MacDonald
Chapter 9	Water System Analysis	Consultant
Chapter 10	Capital Improvement Plan	Consultant
Chapter 11	Financial Plan	Consultant with FCS
Appendix A	Notice of DNS	City
Appendix B	SEPA Checklist	City
Appendix C	Local Government Consistency Determination Form	City
Appendix D	Agency Comment Letters and Responses	City
Appendix E	Ordinances and Approvals	City

Chapter/Appendix		Lead
Appendix F	Water System Plan Submittal Form	Consultant
Appendix G	DOH Water System Plan Checklist	Consultant
Appendix H	Service Area and Interlocal Agreements	City
Appendix I	Water Facilities Inventory Form	City
Appendix J	Water Rights Self-Assessment Forms	Consultant
Appendix K	Demographic and Demand Forecast	Consultant
Appendix L	Wellhead Protection Plan	City
Appendix M	Water Quality Sampling Procedures and Program	City
Appendix N	Coliform Monitoring Plan	City
Appendix O	Emergency Response Plan	City
Appendix P	Water Shortage Response Plan and Service Reliability	City
Appendix Q	Cross-Connection Control Program	City
Appendix R	Hydraulic Model Development and Calibration TM	Consultant
Appendix S	Standard Construction Specifications for Distribution Mains	City
Appendix T	CIP Cost Estimates	Consultant

Notes:

CIP - capital improvement program; DNS - determination of non-significance; SEPA - State Environmental Policy Act; TM - technical memorandum

Table 2 Summary of Meetings

Meetings	Title	Type
Pre-Plan DOH Meeting	DOH Pre-Meeting	Virtual
Meeting No. 1	Kickoff Meeting	Virtual
Meeting No. 2	Policies and Criteria, Existing System, and Service Area	Virtual
Meeting No. 3	Water Demand Forecasts, Water Use Efficiency, and Conservation	Virtual
Meeting No. 4	Water Management Plan and Hydraulic Model Development	Virtual
Meeting No. 5	Preliminary System Deficiencies	Hybrid
Meeting No. 6	Recommendations Workshop	Virtual
Meeting No. 7	Capital Improvement Plan	Hybrid
Meeting No. 8a, 8b, 8c, and 8d	Financial Review	Virtual
Meeting No. 9	City Review comments	Virtual
Meeting No.10	Agency Review comments	Virtual
	Up to 2 council meetings	In Person
Project Management	36 Coordination Calls (joint with GSP)	Virtual

## TASKS

To meet the objectives of this Scope of Services, the Consultant shall complete the tasks as summarized in Table 3 and discussed in detail in the text that follows.

Table 3 Task Summary

Task Number	Task Name
Task 100	Project Management
Task 200	Planning Considerations
Task 300	Existing System
Task 400	Operations and Maintenance
Task 500	Water Requirements
Task 600	Water Use Efficiency
Task 700	Water Quality
Task 800	Water Resources
Task 900	Water System Analysis
Task 1000	Capital Improvement Plan
Task 1100	Financial Plan
Task 1200	Plan Development

### TASK 100 - PROJECT MANAGEMENT

The purpose of this task is to direct activities within the WSP as assigned by the City and maintain the project within the contracted scope, schedule, and budget. This consists of project administration, monthly invoicing, client and team coordination and quality assurance/quality control review necessary to successfully complete the WSP to the City's expectations. Additionally, the Consultant will develop a Project Management Plan (PMP) and lead the initial team kickoff meeting. This task consists of the following activities:

#### **TASK 100 ACTIVITIES**

##### **Subtask 101 - Monthly Progress Reports and Invoices**

This subtask consists of production and implementation of the project plan, schedule, and budget. Assist the project team members in the implementation of the task items, reviewing the work-in-progress reports. Prepare and submit monthly activity reports showing current project status and identifying key issues or elements of the project that will need to be addressed in the proceeding weeks. An electronic version of the monthly progress reports will be sent to the City for review and approval. This task assumes that no hard copy of the monthly progress reports will be distributed.

##### **Subtask 102 - Project Management Plan**

Prepare a Project Management Plan (PMP) that describes deliverables, plan outline, anticipated meetings, project roles and responsibilities, lists contact information for the project team, describes communications

protocols, quality management, and includes the scope of services, schedule, and budget. Quality Management includes, but is not limited to, the following elements:

- Project Manager overview of all primary documents to verify technical consistency and compliance with contract requirements.
- Organization of the work into logical deliverables with qualified staff for each task assigned to the work.
- Resolution of all review comments summarizing key comments and the manner in which each was addressed in the work.

#### **Subtask 103 - Pre-Plan DOH Meeting**

- Attend DOH Pre-Planning meeting with City staff.

#### **Subtask 104 - Meeting No. 1- Kickoff Meeting**

- Facilitate a kickoff meeting to review project management and initial data requests.

#### **Subtask 105 - Client Coordination**

- Manage the consultant project team to track time and budget, work elements accomplished, work items planned for the next period, manpower, scope changes, time and budget needed to complete the project.
- Create and maintain a working project schedule based on the schedule in the PMP.
- Review project status, including scope, budget, and schedule.
- Bi-Monthly Virtual Status Meeting. Facilitate virtual PM meetings two times per month to review status of project.

#### Task 100 Assumptions

1. The PMP will be updated with full incorporation of review comments after the City review of the draft PMP.
2. The total length of the project is 18 months.
3. City provides required documents for appendices.
4. Thirty-six bi-monthly status meetings will be held over Microsoft Teams.
5. Bi-monthly Status Meetings will be jointly held on the WSP and GSP.

#### Task 100 City Input

1. Team member contact information.
2. Receive, review, and process Consultant invoices in a timely manner.

#### Task 100 Consultant Deliverables

1. Draft WSP outline.
2. Eighteen monthly progress reports and invoices.

#### Task 100 Meetings

1. Pre-Plan DOH Meeting.
2. Meeting No. 1 - Kickoff Meeting.
3. PM Virtual Meetings.

## **TASK 200 - PLANNING CONSIDERATIONS**

The objective of this task is to document the planning considerations that influence the WSP. These include the study area, policies, criteria, and related documents.

### TASK 200 ACTIVITIES

#### **Subtask 201 - Data Request**

Prepare a data request for the required information. The request is expected to consist of updates in the following categories provided by the City since the 2019 WSP:

- Agreements with neighboring jurisdictions.
- Interlocal agreements.
- Review of updated Comprehensive Plan.
- Study area.
- Legislation, regulations, and permits.
- Policies and criteria.

#### **Subtask 202 - Summarize Related Documents**

Review list of City, County, and Regional Planning documents related to the 2019 WSP. Summarize information that is important to the operation of the City's water system. It is expected that this will include the updated Comprehensive Plan.

#### **Subtask 203 - Draft and Final Chapter 1 - Introduction**

Prepare draft Chapter 1 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final plan.

#### **Subtask 204 - Draft and Final Chapter 2 - Planning Considerations**

Prepare draft Chapter 2 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final plan.

#### Task 200 Assumptions

1. No site visit will be performed.
2. City can provide elements listed under Task 201.
3. No hard copy of the chapters will be distributed.

#### Task 200 City Input

1. Requested Data from Task 201.
2. Comments on draft Chapter 1 - Introduction.
3. Comments on draft Chapter 2 - Planning Considerations.

#### Task 200 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 1 - Introduction.
3. Return on cost (ROC) for Chapter 1 - Introduction.

4. Draft Chapter 2 - Planning Considerations.
5. ROC for Chapter 2 - Planning Considerations.

#### Task 200 Meetings

1. None.

### **TASK 300 - EXISTING SYSTEM**

The purpose of this task is to document the City's existing water system, including supply, storage, booster pump stations, interties, treatment, and distribution. This task will develop Chapter 3 - Existing System.

#### **TASK 300 ACTIVITIES**

##### **Subtask 301 - Data Request**

Prepare a data request for the required information. The request is expected to consist of updates to the following since the 2019 WSP:

- Geographic information system (GIS) data for existing facilities, service areas, and inventory.
- Data on pipeline materials and age by linear foot, as available.
- Existing renew and replacement program.
- Summary of improvements completed since the last WSP.
- Data on existing infrastructure (e.g., supply, storage, booster pump stations, interties, and distribution).
- Water Facilities Inventory Form.

##### **Subtask 302 - Review and Update of Existing System**

Review and update Chapter 3 of the 2019 WSP to reflect the latest information and maintain consistency throughout the WSP, including storage, booster pump stations, and treatment. Facilities will be updated, as required, based on information provided by the City.

##### **Subtask 303 - Meeting No. 2 - Policies and Criteria, Existing System and Service Area**

Review and discuss existing policies and criteria, as well as recommendations. Review and update the existing system and service area. Discuss current operations and City concerns during the meeting.

##### **Subtask 304 - Draft and Final Chapter 3 - Existing System**

Prepare draft Chapter 3 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

#### Task 300 Assumptions

1. City will provide pertinent information for missing or updated facility data.

#### Task 300 City Input

1. Requested Data from Task 301.
2. Comments on draft Chapter 3 - Existing System.

### Task 300 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 3 - Existing System.
3. ROC for Chapter 3 - Existing System.

### Task 300 Meetings

1. Meeting No. 2 - Policies and Criteria, Existing System and Service Area.

## **TASK 400 - OPERATIONS AND MAINTENANCE**

The purpose of this task is to review, update, and evaluate the City's Operations and Maintenance (O&M) Program and document in Chapter 4 - Operations and Maintenance of the WSP.

### **TASK 400 ACTIVITIES**

#### **Subtask 401 - Data Request**

Prepare a data request for the required information. The request is expected to consist of the following updates since the 2019 WSP:

- Any updates to the City's standard plans, in PDF format; and specifications, in MS Word. It is assumed the City will provide its standard plans and specifications for inclusion in the WSP.
- Any updates to the City's Cross-Connection Control Program.
- Any updates to the City's Water Shortage Response Plan and Service Reliability, if available.

#### **Subtask 402 - Review O&M Analysis**

Review O&M analysis to identify deficiencies and recommendations from the 2019 WSP. Summarize and update as necessary the current operations and maintenance programs. Programs may include Operator certificates and training, lead free, routine, and preventive maintenance, Cross Connection Control Program, and Public Notification Plan/Procedures. O&M analysis will include a description of how O&M will be impacted by per- and polyfluoroalkyl substances (PFAS) removal facilities. Review current operation and maintenance program in relation to state and national water operation standards, including American Water Works Association (AWWA) G200-09 Standards. Propose recommendations and develop CIPs, if needed, based on the review.

#### **Subtask 403 - Draft and Final Chapter 4 - Operations and Maintenance**

Prepare draft Chapter 4 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

### Task 400 Assumptions

1. City can provide elements listed under Task 401.
2. A detailed evaluation of City O&M programs will not be conducted.
3. City will provide existing design and construction standards as needed to be included in an Appendix.

### Task 400 City Input

1. Requested Data from Task 401.
2. Comments on draft Chapter 4 - Operations and Maintenance.



### Task 400 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 4 - Operations and Maintenance.
3. ROC for Chapter 4 - Operations and Maintenance.

### Task 400 Meetings

1. None.

## **TASK 500 - WATER REQUIREMENTS**

The purpose of this task is to perform a demographic and demand analysis to predict current and future demands within the City's retail water service area (RWSA). Five-year, 10-year, 20-year, and build-out planning horizons will be evaluated using the best available information. This task will develop Chapter 5 - Water Requirements of the WSP.

### **TASK 500 ACTIVITIES**

#### **Subtask 501 - Data Request**

Prepare a data request for the required information. The request is expected to consist of the following updates since the 2019 WSP:

- Growth rates by customer class through the end of the water supply planning horizon. The rates should be consistent with regional planning and population and employment projections on a transportation analysis zones (TAZ) basis.
- Historical connection and water use information by customer class for the past 5 years, since the 2019 WSP.
- Historical Production from each source for the past 5 years, since the 2019 WSP, including annual volume and maximum day production.
- Updates to largest customer locations on a map and annual consumption by customer class.
- Accounted-for Non-Revenue Water for the past 5 years, since the 2019 WSP.
- Identify infill capacity and areas of redevelopment. Specific emphasis will be placed on those areas with a high potential for large scale residential or commercial development, as well as new industrial customers.
- GIS Data: Updates to land use and zoning data, vacant and re-developable land, TAZ boundaries.

#### **Subtask 502 - Demographic Projections Review and Update**

Demographic projections will be reviewed and updated to project the future growth in customers. Projections will use data from Clark County and the City to calculate rates of growth for each TAZ and each pressure zone. High, low, and average number of accounts will be prepared for the 5-year, 10-year, and 20-year, and build-out by pressure zone, if sufficient data is available. Accounts per acre will be developed based on existing densities.

#### **Subtask 503 - Demand Projections Review and Update**

Demand projections will be for the 5-year, 10-year, 20-year, and build-out planning horizons. Demand projections will include the following:

- Evaluate impact of climate change on demand trends based on results of local climate models.

- Develop the historical average day demands (ADD) and maximum day demands (MDD), the accounted-for-revenue water uses, estimated water loss and leakage planning values, and establish equivalent residential unit (ERU) values for the different customer classes.
- Estimate the future ADD and MDD water demand for each pressure zone based on the demographic projections and historical ERU demand. Estimates of the future water demand will be determined. The range will be based on the statistical variation in the historical ERU demand, leakage values, conservation goals, and the high and low ranges of the demographic projection and the effects of climate change. The City's largest connections, potential large scale industrial demands and future wholesale water customers will be evaluated and projected separately and added to other projected system demands. Peak hour demand (PHD) will be calculated using City specific peaking factors.

Demand projections will be provided to the City in an excel database demand projecting and loading tool.

#### **Subtask 504 - Meeting No. 3 - Water Demand Forecast, Water Use Efficiency, and Conservation**

Review demographic analysis and demand projection results. Confirm allocation of demand across customer classes and pressure zones. Review Water Use Efficiency (WUE) program and conservation volumes.

#### **Subtask 505 - Draft and Final Chapter 5 - Water Requirements**

Prepare draft Chapter 5 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

##### Task 500 Assumptions

1. The City will provide most current information from ongoing Comprehensive Plan update.
2. The City will provide data request for data available from 2019 WSP to present.
3. Demographic projections will update projections from 2019 WSP.

##### Task 500 City Input

1. Requested Data from Task 501.
2. Comments on draft Chapter 5 - Water Requirements.

##### Task 500 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 5 - Water Requirements.
3. ROC for Chapter 5 - Water Requirements.
4. Electronic demand tool.

##### Task 500 Meetings

1. Meeting No. 3 - Water Demand Forecast, Water Use Efficiency, and Conservation.

### **TASK 600 - WATER USE EFFICIENCY**

The City will lead the Water Use Efficiency Chapter, which summarizes the WUE program, estimate the water savings from measures in the past 6 years, and project future conservation water demand. The City will author Chapter 6 - Water Use Efficiency of the. The City will summarize the existing and future WUE

program, including program measures, effectiveness, costs, and benefits. The Consultant will develop future demand projections with the WUE program and review and format Chapter 6. The WUE work efforts will be presented as part of Meeting No. 4 - Water Demand Forecast, Water Use Efficiency, and Conservation.

## **TASK 600 ACTIVITIES**

### **Subtask 601 - Data Request**

Prepare a data request for the required information. The request is expected to consist of the following items if they have been updated since the 2019 WSP:

- Historical Word Document of Chapter 6 - Water Use Efficiency.
- Electronic version of figures and large tables.
- Conservation goals.
- Water Use Efficiency Public Meeting Minutes.

### **Subtask 602 - Review Future Conservation Water Demand**

Review conservation demands (both MDD and ADD) based on the established conservation goals provided by the City from the 2019 WSP. MDD and ADD conservation demands will be developed in the same demand years used in demand projections. Demands will be transmitted electronically to the City.

### **Subtask 603 - Final Chapter 6 - Water Use Efficiency**

Review draft Chapter 6 and provide comments. Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

#### Task 600 Assumptions

1. City can provide elements listed under Task 601.

#### Task 600 City Input

1. Requested Data from Task 601.
2. Draft Chapter 6 - Water Use Efficiency.

#### Task 600 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Comments on Draft Chapter 6 - Water Use Efficiency.
3. Final Chapter 6 - Water Use Efficiency.

#### Task 600 Meetings

1. None.

## **TASK 700 - WATER QUALITY**

The purpose of this task is to summarize the water quality regulations and reporting requirements, evaluate water quality against the regulations, summarize any water quality violations, and recommend improvements if necessary to meet anticipated or future water quality regulations. This task will develop Chapter 7 - Water Quality of the Plan. The water quality work efforts will be presented as part of Meeting No. 4 - Water Demand Forecast, Water Use Efficiency, and Conservation.

## **TASK 700 ACTIVITIES**

### **Subtask 701 - Data Request**

Prepare a data request for the required information. The request is expected to consist of updates since the 2019 WSP for the following:

- Water Quality Monitoring Plan.
- Summary of water quality test results, including data from well water, treated water, and the distribution system.
- Testing Waivers.

### **Subtask 702 - Water Quality Summary**

Summarize the City's water quality programs and activities. Identify key requirements of applicable water quality regulations.

### **Subtask 703 - Water Quality Analysis**

Review draft Chapter 6 and provide comments. Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

### **Subtask 704 - Draft and Final Chapter 7 - Water Quality**

Prepare draft Chapter 7 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

#### **Task 700 Assumptions**

1. This task does not include review or update of the City's Water Quality Monitoring Plan and other water quality programs and plans.
2. This task does not include a blending study between surface water and groundwater.

#### **Task 700 City Input**

1. Requested Data from Task 701.
2. Comments on draft Chapter 7 - Water Quality.

#### **Task 700 Consultant Deliverables**

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 7 - Water Quality.
3. Final Chapter 7 - Water Quality.

#### **Task 700 Meetings**

1. None.

## **TASK 800 - WATER RESOURCES**

The purpose of this task is to review and update the current and future water resources to identify potential deficiencies and proposed improvements. Evaluations will consider current water rights, Water Resources Inventory Areas (WRIA), and coordinated regional water system plans. This task will develop Chapter 8 - Water Resources of the Plan.

## **TASK 800 ACTIVITIES**

### **Subtask 801 - Data Request**

Prepare a data request for the required information. The request is expected to consist of the following if updated since the 2019 WSP:

- Existing water rights certificates/permits and pending water rights applications.
- Existing well pump tests, surface water diversion capacity, and other evaluations and/or characterizations of supply capacity.
- Known limitations in supply transmission or treatment capacity.
- Electronic information for the City's existing monitoring wells and sampling protocol.
- Information required by Mott MacDonald for updating the Wellhead Protection Report.
- Source Water Protection Plan.

### **Subtask 802 - Water Supply Summary**

Review and summarize the existing sources of supply for the City's RWSA, including all surface water, groundwater, and interties. The "ability to pump" of each source will include an evaluation of capacity, water rights, treatment capacity, auxiliary power, and other limitations. Identify the criticality of each source.

### **Subtask 803 - Water Rights Assessment**

Review and summarize water right permits, claims, certificates, and pending water right applications and change applications from 2019 WSP. Update DOH Water Rights Self-Assessment Tables 1, 2, and 3 for the existing, 5-year, 10-year, and 20-year planning years, respectively.

### **Subtask 804 - Water Supply Analysis**

Review and summarize the City's ability to provide water supply in accordance with the City's confirmed reliability and supply criteria for the 10-, 20-year, and build-out projected demands within the whole system. Additional supplies or improvements will be identified and summarized, as needed. Summarize the City's water supply strategy plan and recommend program modifications, if needed, to meet all system demands for the planning period.

### **Subtask 805 - Wellhead Protection Program Update**

Review and update City's Wellhead Protection Plan from 2019 WSP to maintain compliance with all requirements of the State of Washington's wellhead protection rules. Work will be performed by Mott MacDonald and will include the following:

- Wellhead Protection Capture Zone Delineations. Mott MacDonald previously modeled the City's wellhead capture zones at full build-out conditions (i.e., total water rights) for the lower Washougal well field area and do not anticipate the need for any updates to the delineations in the 2015 WSP, and therefore were not included in the budget.
- Assess Environmental Threats and Risk Reduction Strategies. Inventory and map potential and confirmed contaminant sources within the delineated capture zone areas using current data contained within Ecology Environmental Information Management (EIM) database system. Evaluate and rank potential risks to the City's supply sources and assess management strategies that can be employed to minimize risk.

- Prepare Contingency Supply Plans. Prepare a contingency supply plan that considers the potential loss of the City's largest supply source due to groundwater contamination including options to use interties from the Cities of Vancouver and Washougal and use of the Camas surface water diversions on Boulder and Jones creeks.
- Prepare Notification Letters. Prepare notification letters that will need to be sent to hazardous waste handlers, first responders, and regulatory agencies as required by WAC 246-290-135. The letters will include maps showing the locations of the wellhead protection capture zones, transportation corridors where spills might be of concern, and waste storage and handling sites. It is assumed that the City will transmit the letters using their letterhead. Electronic versions of the documents and mailing lists will be provided to the City for their transmittal. Copies of the letters will be provided for inclusion in the WSP.
- Provide Assistance with Steigerwald Wellfield Supply Options and Analysis. Mott MacDonald will assist with integrating information from the Steigerwald water supply work that we have completed to date as needed for the 2015 WSP. Up to 2 days of staff time have been included in the budget.
- Prepare Wellhead Protection Plan Summary Report. Prepare a letter report which summarizes the findings of Subtasks 1 through 5. The document will serve as an appendix to the City's WSP document which will be submitted to DOH.
- Mott MacDonald Project Management. Conduct internal communication and management of personnel in accomplishing the project tasks. Mott MacDonald will communicate regularly with City staff and other project team members to keep them informed on project status and will solicit input, as needed. Mott MacDonald will prepare and submit invoices on a monthly basis.

#### **Subtask 806 - Draft and Final Chapter 8 - Water Resources**

Prepare draft Chapter 8 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

##### Task 800 Assumptions

1. The City will provide assumptions on future sources and quantities of supply.
2. City staff will field-verify hazard sites.
3. No sensitivity analyses have been budgeted.

##### Task 800 City Input

1. Requested Data from Task 801.
2. Comments on draft Chapter 8 - Water Resources.

##### Task 800 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Wellhead Protection Plan Report Update.
3. Draft Chapter 8 - Water Resources.
4. Final Chapter 8 - Water Resources.

##### Task 800 Meetings

1. None.

## **TASK 900 - WATER SYSTEM ANALYSIS**

The purpose of this task is to convert the City's model to InfoWater Pro and recalibrate it to current conditions. The model will then be used to evaluate the distribution system. Improvements will be developed for identified deficiencies. Improvements identified in other tasks will be incorporated into the model, as appropriate, to determine the effect of comprehensive improvements. Identified improvements will be reviewed as part of Meeting No. 9 - Capital Improvements.

### **TASK 900 ACTIVITIES**

#### **Subtask 901 - Data Request**

- Prepare a data request for the required information. The request is expected to consist of the following:
  - » Potential future supplies or interties, including locations.
  - » Potential location for future storage facilities.
  - » Supervisory control and data acquisition (SCADA) data for diurnal curve development and calibration.
  - » As-builts or list of new projects to be added to the hydraulic model.

#### **Subtask 902 - Updated Hydraulic Profile**

Update the previous hydraulic profile according to data provided in the hydraulic model. Prepare a hydraulic profile figure for review by City.

#### **Subtask 903 - Storage Analysis**

Identify the storage volume required for each pressure zone based on the established storage criteria for equalizing, fire flow, operational and standby volumes. The storage analysis will be performed for the 6-, 10-, and 20-year projected demands. If storage deficiencies are identified, additional storage volume requirements will be identified by pressure zone and capacity. Potential storage size and location specifically identified by the City will be utilized if future storage needs are identified.

#### **Subtask 904 - Pump Station Analysis**

Identify the pumping capacity requirements per City specified criteria. Compare requirements to current pump station capacity to identify any deficiencies for the 10- and 20-year projected demand scenarios. Required upgrades, modifications, or operational changes will be recommended, as necessary.

#### **Subtask 905 - Perform Hydrant Flow Tests**

Consultant will provide up to 10 pressure loggers to be used for hydrant flow testing at up to 10 locations. Consultant will identify hydrants to be tested and develop a calibration plan to summarize activities. City staff will install pressure loggers at predetermined locations. Consultant will accompany City staff during flow testing and will read and record flow hydrant flows and pressures. All residual hydrant pressure results will be measured by pressure loggers in addition to manual pressure readings by City staff and recorded by Consultant staff. City will provide hydrant pitot tubes and diffusers. Flow testing will be documented in a Hydrant Flow Testing TM.

#### **Subtask 906 - Update Hydraulic Model**

Convert the City's Hydraulic model from InfoWater to InfoWater Pro. Apply demand distribution to the model based on meter locations and demand factors for each customer class. Projected demands for the

largest customers will be applied directly to each customer location. The demands will include the current year for model calibration, as well as the 5-year, 10-year, and 20-year ADD and MDD for planning. Custom diurnal patterns will be developed by service area utilizing historical representative SCADA data.

#### **Subtask 907 - Calibrate Hydraulic Model**

Calibrate the model using hydrant flow test data provided by Consultant. Up to 10 hydrant tests will be used for calibration. Consultant will work with the City to determine the appropriate hydrant sites; it is assumed no more than 10 sites will be considered. Verify appropriate model settings and parameters (such as tank levels, pump curves, etc.) using data provided by City, including SCADA information. Calibrate the hydraulic model according to M32 guidelines. Calibrate the model for a 24-hour extended period simulation scenario and 10 steady state conditions. SCADA data will be provided by the City and will be used for calibration.

#### **Subtask 908 - Meeting No.4 - Water Management Plan and Hydraulic Model Development**

Review and summarize the existing sources of supply for the City's RWSA, including all surface water, groundwater, and interties. The "ability to pump" of each source will include an evaluation of capacity, water rights, treatment capacity, auxiliary power, and other limitations. Identify the criticality of each source. This meeting will also present the results of the model development and calibration efforts.

#### **Subtask 909 - Draft and Final TM 1 - Hydraulic Model Development and Calibration TM**

Prepare draft TM 1 - Hydraulic Model Development and Calibration for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

#### **Subtask 910 - Fire and System Pressure Analysis**

Using the hydraulic model, perform steady state analysis of the system evaluating fire flow and system pressures per DOH regulations and guidelines based on the City's water system criteria. Identify improvements to address deficiencies under the MDD plus fire flow simulations and the peak hour simulations for the 5-year, 10-year, and 20-year scenarios. The model will also be used to identify minimum system pressures and velocities during peak hour demands. Operational changes will be recommended in addition to physical improvements. The system analysis will focus on distribution capacity deficiencies for pressure, velocity, and flow. The analysis will be conducted for both supply scenarios.

#### **Subtask 911 - Meeting No. 5 - Preliminary System Deficiencies**

Facilitate a meeting to review the results from the pumping, storage, and fire and pressure analyses. Discuss potential improvement projects.

#### **Subtask 912 - Meeting No. 6 - Recommendations Workshop**

Facilitate a meeting to review the recommendations for inclusion in the City's CIP.

#### **Subtask 913 - Draft and Final Chapter 9 - System Analysis**

Prepare draft Chapter 9 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.



### Task 900 Assumptions

1. The City and Consultant will conduct hydrant flow testing to support model calibrations. Field testing is anticipated to last up to 6 days (an average of five hydrant tests per day).
2. Consultant will provide up to 10 pressure loggers. City will provide the rest of the equipment, including pitot tubes, diffusers for hydrants and any needed equipment to operate hydrants.
3. Hydrant flow testing will be performed in the summer of 2024.
4. The City will provide SCADA data for extended period simulations (EPS) calibration.

### Task 900 City Input

1. Requested Data from Task 901.
2. Comments on draft TM 1 - Hydraulic Model Development and Calibration.
3. Comments on draft Chapter 9 - System Analysis.

### Task 900 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft TM 1 - Hydraulic Model Development and Calibration.
3. Final TM 1 - Hydraulic Model Development and Calibration.
4. Draft Chapter 9 - System Analysis.
5. Final Chapter 9 - System Analysis.
6. Hydrant Flow Testing TM.

### Task 900 Meetings

1. Meeting No.4 - Water Management Plan and Hydraulic Model Development.
2. Meeting No.5 - Preliminary System Deficiencies.
3. Meeting No.6 - Recommendations Workshop.

## **TASK 1000 - CAPITAL IMPROVEMENTS**

This Task will review and update the recommended improvements for the sources of supply, storage, distribution and transmission, and pressure zones outlined in the 2019 WSP. Total project costs will be developed for each recommended improvement and ranked by priority. This task will develop Chapter 10 - Capital Improvement for the Plan.

### **TASK 1000 ACTIVITIES**

#### **Subtask 1001 - Cost Estimates**

Update project cost for pipe replacement, pump station, reservoir, treatment, and other improvement projects from 2019 WSP. Summarize the recommended system improvements for the 5-year, 10-year, and 20-year terms. Costs will be presented in current dollars and represents an American Association of Cost Engineering (AACE) Class V estimate.

### **Subtask 1002 - Project Prioritization**

Review project prioritization criteria from 2019 WSP. Prioritize all projects into 5-year, 10-year, and 20-year schedules based on evaluation during the WSP. Projects not identified in the WSP will be identified by the City and included for prioritization during this task.

### **Subtask 1003 - Meeting No. 7 - Capital Improvements**

Prepare a data request for the required information. The request is expected to consist of the following.

### **Subtask 1004 - Electronic CIP**

Review CIP projects and develop project prioritization. Review and confirm all CIP project costs.

### **Subtask 1005 - Draft and Final Chapter 10 - Capital Improvement Plan**

Prepare draft Chapter 10 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

#### Task 1000 Assumptions

1. City provides bid costs of recent projects, if available.

#### Task 1000 City Input

1. Requested Data from Task 1001.
2. Comments on draft Chapter 10 - Capital Improvement Plan.

#### Task 1000 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 10 - Capital Improvement Plan.
3. Final Chapter 10 - Capital Improvement Plan.
4. Electronic CIP.

#### Task 1000 Meetings

1. Meeting No.7 - Capital Improvements

## **TASK 1100 - FINANCIAL**

The purpose of this task is to review and update Chapter 11 - Financial Plan, which will be conducted by FCS. Chapter 11 will identify the total cost of providing water service, assure that the utility improvement schedule will be implemented, and assist in establishing adequate fees for service. The financial program will be coordinated with the CIP.

### **TASK 1100 ACTIVITIES**

#### **Subtask 1101 - Data Collection and Validation**

Prepare an initial data request identifying financial and operational documents pertinent to the performance of the study. The Consultant will provide the CIP and relevant draft WSP chapters. Review, analyze, and validate data as necessary for use in formulating the technical analysis. Follow up with requests for any additional items or explanations, as necessary.

### **Subtask 1102 - Historical Financial Performance Review**

Review and document the financial operations (revenue and expenses) and financial condition (assets and liabilities) of the water utility for the previous 6-year period. Summarize noteworthy financial trends.

### **Subtask 1103 - Fiscal Policy Review**

Review the City's current fiscal policies for operating and capital reserves, system reinvestment funding, debt management, and debt service coverage.

### **Subtask 1104 - Capital Financing Plan**

Evaluate capital funding options and develop a capital financing plan for the 6-, 10-, and 20-year CIPs. The analysis will include a forecast of capital funding needs, borrowing requirements, and associated cash flows and cash balances over the study period. Evaluate and recommend an appropriate balance of funding from cash, system development charges (SDC), bonds, low interest loans and/or other available funding sources. Depending upon preliminary results, FCS will work closely with the Consultant and the City to perform sensitivity analyses for alternative scheduling of capital projects in order to smooth customer rate impacts. The budget provides for up to three scenarios.

### **Subtask 1105 - Operating Forecast**

The City's current water operating budgets will be used as the baseline for forecasting ongoing O&M costs, debt service, and other financial obligations of the water utility over the 6-year and 20-year study periods. Incorporate engineering planning growth forecasts and establish economic factors for cost escalation. Integrate additional O&M expenses, if any, resulting from the CIP and any other known changes in operational requirements.

### **Subtask 1106 - Revenue Needs Assessment**

Integrate fiscal policies, capital financing impacts and the operating forecast, and develop an operating cash flow projection for the 6-year and 20-year study periods. Compare forecasted financial requirements against forecasted revenue under existing rates to determine annual and cumulative revenue adjustments needed to ensure financial sustainability over time.

### **Subtask 1107 - Rate Forecast and Affordability Test**

Develop a rate forecast for the 6-year period. Apply annual rate adjustments to the City's existing water rate structures "across-the-board" to each rate class and rate charge (fixed and variable). Note: this scope does not include changes to the City's existing water rate structure. The Financial Chapter will include a narrative discussion of potential rate structure enhancements, if necessary. Perform an affordability test as an indication of a residential customer's ability to pay the existing and forecasted rates. This includes an analysis and comparison of the water system's existing and forecasted average residential bills to 2.5 percent of the median household income. This test will be conducted for the 6-year and 20-year study periods.

### **Subtask 1108 - Meeting No. 8 - Financial Review**

Review results over four remote meetings before finalizing the Financial Chapter. Meeting will be attended by FCS and Carollo.

### **Subtask 1109 - Draft and Final Chapter 11 - Financial Plan**

Prepare draft Chapter 11 for City's review and approval. City comments and Consultant responses will be tracked in the Comment Response Log. Comments on this chapter will be incorporated into the final WSP.

#### Task 1100 Assumptions

1. City can provide elements listed under Task 1101.
2. This scope does not include changes to the City's existing water rate structure.

#### Task 1100 City Input

1. Requested Data from Task 1101.
2. Comments on draft Chapter 11 - Financial Plan.

#### Task 1100 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 11 - Financial Plan.
3. Final Chapter 11 - Financial Plan.

#### Task 1100 Meetings

1. Meeting No. 8a, 8b, 8c, 8d - Financial Review.

## **TASK 1200 - PLAN DEVELOPMENT**

The purpose of this task is to integrate comments on the WSP into a clear and comprehensive Water System Plan document. The City Draft Plan will be prepared, including an Executive Summary. This task also includes incorporating comments and developing the Agency Review Draft Plan and Final Plan.

### **TASK 1200 ACTIVITIES**

#### **Subtask 1201 - Executive Summary**

Prepare an executive summary, summarizing each element of the Water System Plan.

#### **Subtask 1202 - City Draft Plan**

Prepare Cover Sheet, Table of Contents, and Executive Summary. Compile Chapters and develop Appendices. Prepare one PDF of City draft document for City staff review the City's water quality programs and activities. Identify key requirements of applicable water quality regulations.

#### **Subtask 1203 - Meeting No. 9 - City Review Comments**

Meet with City to discuss comments on draft document. Incorporate comments to be included into Agency Draft Plan.

#### **Subtask 1204 - Agency Draft Plan**

Incorporate City comments into an Agency Draft plan to be submitted for agency review. An electronic PDF will be developed for City reproduction and distribution of plan to agencies and adjacent purveyors.

### **Subtask 1205 - Meeting No. 10 - Agency Review Comments**

Meet with Agency to discuss comments on draft document. Incorporate comments to be included into Final Plan.

### **Subtask 1206 - Final Plan**

Consultant will review agency review letters for incorporation into the Final Plan. Delivery of the Final Plan will include one electronic PDF.

#### Task 1200 Assumptions

1. The City provides required documents for appendices, including acceptance ordinances.
2. It is anticipated that City will distribute the WSP to DOH, county agencies, and adjacent purveyors review for approval. The City will collect public and agency review comments and deliver to Consultant. City will develop written responses received during agency review process.
3. Plans will be delivered via electronic PDF.

#### Task 1200 City Input

1. City comments.
2. Public and Agency review comments.

#### Task 1200 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Executive Summary.
3. City Draft Plan - PDF.
4. Agency Draft Plan - PDF.
5. Final Plan - PDF

#### Task 1200 Meetings

1. Meeting No. 9 - City Review Comments.
2. Meeting No. 10 - Agency Review Comments.

EXHIBIT "B"  
COSTS FOR SCOPE OF SERVICES

CITY OF Camas  
Water System Plan  
LEVEL OF EFFORT

4076 00

1-Aug-24

TASK / DESCRIPTION	PERSONNEL											Total Hours	Carroll Labor Cost	COSTS					Total Direct Charges	PECE	TOTAL COST	
	Jude Grounds	Matt Huang	Jill Kjellson	Ali Leeds	Aurelie Nabonnand	Max Mozer	Connor Mancosky	Madeleine LaPorte	Kevin Christensen/ Varies	Varies				FCS	Mott McDonald	Total Subconsultant Cost	Total Subconsultant Markup 5%	Total Subconsultant Cost with Markup				
	PIC	PM	APM	Principal Professional - Water Quality	QA/QC	Professional - Modeler	Project Professional - Water Quality	Staff Engineer	GIS/Graphics	DP												
<b>Task 100 - Project Management</b>	9	29	45	0	4	27	0	0	0	22	136	\$ 30,373	\$ -	\$ 15,628	\$ 15,628	\$ 782	\$ 16,410	\$ -	\$ 15,80	\$ 2,149	\$ 48,938	
101 Monthly Progress Report and Invoice		3	18							16	39	\$ 7,187	\$ -	\$ 5,255	\$ 5,255	\$ 263	\$ 5,518	\$ -	\$ 616	\$ -	\$ 13,331	
102 Project Management Plan			1							4	5	\$ 705	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 79	\$ -	\$ 784
103 Pre-Plan DQH Meeting		4	4			1					9	\$ 2,249	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142	\$ -	\$ 2,391
104 Meeting No. 1 - Kick-off Meeting		4	4			8					16	\$ 3,656	\$ -	\$ 3,533	\$ 177	\$ 3,710	\$ -	\$ 253	\$ -	\$ -	\$ 7,619	
105 Client and Team Coordination	9	18	18		4	18					67	\$ 16,572	\$ -	\$ 6,840	\$ 6,840	\$ 342	\$ 7,182	\$ -	\$ 1,059	\$ -	\$ 24,813	
<b>Task 200 - Planning Considerations</b>	0	2	4	0	3	13	0	14	5	12	53	\$ 9,296	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 837	\$ -	\$ 10,133	
201 Data Request			1			1		2			4	\$ 768	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63	\$ -	\$ 831
202 Summarize Related Documents			1			2		4			7	\$ 1,299	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 111	\$ -	\$ 1,410
203 Draft and Final Chapter 1 - Introduction		1	1		1	4		4	1	4	16	\$ 2,833	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 253	\$ -	\$ 3,086
204 Draft and Final Chapter 2 - Planning Considerations		1	1		2	6		4	4	8	26	\$ 4,396	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 411	\$ -	\$ 4,807
<b>Task 300 - Existing System</b>	0	2	4	0	3	15	0	12	6	8	50	\$ 9,852	\$ 4,925	\$ 4,925	\$ 247	\$ 5,172	\$ -	\$ 790	\$ -	\$ 790	\$ 15,014	
301 Data Request						1		2			3	\$ 531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ -	\$ 578
302 Review and Update Existing System						4		2	4		10	\$ 1,742	\$ 1,930	\$ 1,930	\$ 97	\$ 2,027	\$ -	\$ 158	\$ -	\$ -	\$ 3,927	
303 Meeting No. 2 - Policies and Criteria, Existing System, and Service Area		1	2		1	8					12	\$ 2,594	\$ 780	\$ 780	\$ 39	\$ 819	\$ -	\$ 190	\$ -	\$ -	\$ 3,603	
304 Draft and Final Chapter 3 - Existing System		1	2		2	2		8	2	8	25	\$ 4,185	\$ 2,215	\$ 2,215	\$ 111	\$ 2,326	\$ -	\$ 395	\$ -	\$ -	\$ 6,906	
<b>Task 400 - Operations and Maintenance</b>	0	1	3	0	2	13	0	14	0	8	41	\$ 7,319	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 648	\$ -	\$ 7,967	
401 Data Request						1		2			3	\$ 531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ -	\$ 578
402 Review O&M Analysis						6		6			13	\$ 2,433	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 205	\$ -	\$ 2,638
403 Draft and Final Chapter 4 - Operations and Maintenance		1	2		2	6		6		8	25	\$ 4,355	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 395	\$ -	\$ 4,750
<b>Task 500 - Water Requirements</b>	0	7	6	0	5	29	0	54	12	9	122	\$ 22,148	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,928	\$ -	\$ 24,076	
501 Data Request						1		2			3	\$ 531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ -	\$ 578
502 Demographic Projections Review and Update		1				4		12	4		21	\$ 3,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 332	\$ -	\$ 3,999
503 Demand Projections Review and Update		1			2	8		24	4		39	\$ 6,925	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 616	\$ -	\$ 7,541
504 Meeting No. 3 - Water Demand Forecast, Water Use Efficiency, and Conservation		4	4		1	8		8		1	26	\$ 5,330	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 411	\$ -	\$ 5,741
505 Draft and Final Chapter 5 - Water Requirements		1	2		2	8		8	4	8	33	\$ 5,695	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 521	\$ -	\$ 6,216
<b>Task 600 - Water Use Efficiency</b>	0	3	8	0	2	3	0	18	0	6	40	\$ 7,470	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 632	\$ -	\$ 8,102	
601 Data Request						1		2			3	\$ 531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ -	\$ 578
602 Review Future Conservation Water Demand		2	4		2	2		8			16	\$ 3,220	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 253	\$ -	\$ 3,473
602 Final Chapter 6 - Water Use Efficiency		1	4		2			8		6	21	\$ 3,719	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 332	\$ -	\$ 4,051
<b>Task 700 - Water Quality</b>	0	1	1	9	2	0	64	0	0	8	85	\$ 18,093	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,343	\$ -	\$ 19,436	
701 Data Request						1		1			5	\$ 1,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 79	\$ -	\$ 1,210
702 Water Quality Summary						2		24			26	\$ 5,886	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 411	\$ -	\$ 6,097
703 Water Quality Analysis						2		24			26	\$ 5,886	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 411	\$ -	\$ 6,097
704 Draft and Final Chapter 7 - Water Quality		1	1	4	2			12		8	28	\$ 5,590	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 442	\$ -	\$ 6,032
<b>Task 800 - Water Resources</b>	0	7	7	4	2	13	0	22	2	8	65	\$ 12,641	\$ 26,160	\$ 26,160	\$ 1,308	\$ 27,468	\$ -	\$ 1,027	\$ -	\$ 1,027	\$ 41,136	
801 Data Request						1		2			3	\$ 531	\$ 2,260	\$ 2,260	\$ 113	\$ 2,373	\$ -	\$ 47	\$ -	\$ -	\$ 2,951	
802 Water Supply Summary			2			4		4			6	\$ 1,134	\$ 1,705	\$ 1,705	\$ 85	\$ 1,790	\$ -	\$ 95	\$ -	\$ -	\$ 3,019	
803 Water Rights Assessment			2			2		4			4	\$ 876	\$ 2,515	\$ 2,515	\$ 126	\$ 2,641	\$ -	\$ 63	\$ -	\$ -	\$ 3,580	
804 Water Supply Analysis		2	2			4		8			16	\$ 3,148	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 253	\$ 3,401	
805 Wellhead Protection Program Update		1	1			2		2			4	\$ 914	\$ 12,920	\$ 12,920	\$ 646	\$ 13,566	\$ -	\$ 63	\$ -	\$ -	\$ 14,543	
806 Draft and Final Chapter 8 - Water Resources		4	4	4	2	4		8	2	8	32	\$ 6,038	\$ 6,760	\$ 6,760	\$ 338	\$ 7,098	\$ -	\$ 506	\$ -	\$ -	\$ 13,642	
<b>Task 900 - Water System Analysis</b>	1	31	35	0	13	143	0	164	48	29	464	\$ 86,703	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,200	\$ 7,331	\$ 97,234	
901 Data Request						1		2			3	\$ 531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ -	\$ 578
902 Updated Hydraulic Profile			1			4		4		8	17	\$ 2,637	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 269	\$ -	\$ 2,906
903 Storage Analysis		2	1			6		4	2		15	\$ 2,957	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 237	\$ -	\$ 3,194
904 Pump Station Analysis		2	1			6		4	2		15	\$ 2,957	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 237	\$ -	\$ 3,194
905 Perform Hydrant Flow Tests		1	4			36		60	12		113	\$ 20,183	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000	\$ 1,785	\$ -	\$ 23,968	
906 Update Hydraulic Model		4	2		2	12		16	8		44	\$ 8,316	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 695	\$ -	\$ 9,011	
907 Calibrate Hydraulic Model		6	2		1	24		36	2		71	\$ 13,429	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,122	\$ -	\$ 14,551	
908 Meeting No. 4 - Water Management Plan & Hydraulic Model Development	1	2	6		2	8		8	2	1	22	\$ 4,785	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 348	\$ -	\$ 5,133	
909 Draft and Final TM 1 - Hydraulic Model Development and Calibration TM		2	4		2	6		6	4	8	32	\$ 5,712	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 506	\$ -	\$ 6,218	
910 Fire and System Pressure Analysis		2	2			12		16	8		40	\$ 7,292	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 632	\$ -	\$ 7,924	
911 Meeting No. 5 - Preliminary System Deficiencies		4	6		2	12		8	2	2	28	\$ 5,946	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200	\$ 442	\$ -	\$ 7,588	
912 Meeting No. 6 - Recommendations Workshop		2	4		2	8		8	2	2	28	\$ 5,438	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 442	\$ -	\$ 5,880	
913 Draft and Final Chapter 9 - System Analysis		4	2		2	8		8	4	8	36	\$ 6,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 589	\$ -	\$ 7,089	
<b>Task 1000 - Capital Improvements</b>	0	13	12	0	5	28	0	50	20	9	137	\$ 25,575	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200	\$ 2,165	\$ 28,940	
1001 Cost Estimates		1	1			2		8			12	\$ 2,234	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 190	\$ -	\$ 2,424
1002 Project Prioritization		2	1			4		8			15	\$ 2,911	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 237	\$ -	\$ 3,148
1003 Meeting No. 7 - Capital Improvements		6	6		1	8		8	2	1	32	\$ 6,658	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200	\$ 506	\$ -	\$ 8,364	
1004 Electronic CIP		2	2			8		24	16		54	\$ 9,498	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 853	\$ -	\$ 10,351	
1005 Draft and Final Chapter 10 - Capital Improvement Plan		2	2		2	6		2	2	8	24	\$ 4,274	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 379	\$ -	\$ 4,653	
<b>Task 1100 - Financial</b>	0	6	12	0	2	18	0	12	4	8	62	\$ 12,110	\$ 23,535	\$ 23,535	\$ 1,633	\$ 25,168	\$ -	\$ 980	\$ -	\$ 980	\$ 38,258	
1101 Data Collection and Validation						2		4			6	\$ 1,062	\$ 1,720	\$ 1,720	\$ 316	\$ 2,036	\$ -	\$ 95	\$ -	\$ -	\$ 3,193	
1102 Historical Financial Performance Review						0		0			0											

EXHIBIT "C"  
BILLING RATES



## CONSULTANT BILLING RATES

### CITY OF CAMAS

#### 2025 WATER SYSTEM PLAN AND GENERAL SEWER PLAN

Carollo Engineers, Inc. billing rates and other direct expenses are defined in the tables below. These rates are for calendar years 2024 and projected through 2026. If the contract is extended beyond December 31, 2026, Carollo Engineers, Inc., reserves the right to modify the rates on an annual basis.

Project Role	Hourly Rate		
	2024	2025	2026
Senior Advisor/SME	\$295.00	\$310.00	\$325.00
Project Manager	\$262.00	\$275.00	\$289.00
Principal Professional	\$262.00	\$275.00	\$289.00
Senior Professional	\$226.00	\$237.00	\$249.00
Project Professional	\$204.00	\$214.00	\$225.00
Professional	\$191.00	\$201.00	\$211.00
Staff Professional	\$157.00	\$165.00	\$173.00
Senior Technician	\$159.00	\$167.00	\$175.00
Assistant Professional	\$149.00	\$156.00	\$164.00
Technician	\$145.00	\$152.00	\$160.00
Document Processing	\$111.00	\$117.00	\$123.00

Expense			
Project Equipment Computer Expense (PECE)	\$15.00/hr	\$15.80/hr	\$16.60/hr
Travel and Subsistence	At cost		
Mileage at IRS Reimbursement Rate	\$0.67 per mile effective January 1, 2024		
Subconsultant	Cost + 10%		
Other Direct Cost	Cost + 10%		

**EXHIBIT “D”**  
**TITLE VI ASSURANCES**

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees, and successors in interest agree as follows:

1. **Compliance with Regulations:** The CONSULTANT shall comply with the Regulations relative to non-discrimination in federally assisted programs of the AGENCY, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the “REGULATIONS”), which are herein incorporated by reference and made a part of this AGREEMENT.
2. **Equal Opportunity Employer:** The CONSULTANT, In all services, programs, activities, hiring, and employment made possible by or resulting from this Agreement or any subcontract, there shall be no discrimination by Consultant or its selection and retention of sub-consultants, including procurement of materials and leases of equipment, of any level, or any of those entities employees, agents, sub-consultants, or representatives against any person because of sex, age (except minimum age and retirement provisions), race, color, religion, creed, national origin, marital status, or the presence of any disability, including sensory, mental or physical handicaps, unless based upon a bona fide occupational qualification in relationship to hiring and employment. This requirement shall apply, but not be limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Consultant shall comply with and shall not violate any of the terms of Chapter 49.60 RCW, Title VI of the Civil Rights Act of 1964, the Americans With Disabilities Act, Section 504 of the Rehabilitation Act of 1973, 49 CFR Part 21, 21.5 and 26, or any other applicable federal, state, or local law or regulation regarding non-discrimination.
3. **Solicitations for Sub-consultants, Including Procurement of Materials and Equipment:** In all solicitations either by competitive bidding or negotiations made by the CONSULTANT for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-consultant or supplier shall be notified by the CONSULTANT of the CONSULTANT’s obligations under this AGREEMENT and the REGULATIONS relative to non-discrimination of the grounds of race, color, sex, or national origin.
4. **Information and Report:** The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by AGENCY, STATE or the Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the AGENCY, STATE or FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Non-compliance:** In the event of the CONSULTANT’s non-compliance with the non-discrimination provisions of this AGREEMENT, the AGENCY shall impose such AGREEMENT sanctions as it, the STATE or the FHWA may determine to be appropriate, including, but not limited to:
  - Withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies, and/or;
  - Cancellation, termination, or suspension of the AGREEMENT, in whole or in part.
6. **Incorporation of Provisions:** The CONSULTANT shall include the provisions of paragraphs (1) through (5) in every sub-contract, including procurement of materials and leases of equipment,

unless exempt by the REGULATIONS, or directives issued pursuant thereto. The CONSULTANT shall take such action with respect to any sub-consultant or procurement as the AGENCY, STATE, or FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a sub-consultant or supplier as a result of such direction, the CONSULTANT may request the AGENCY and the STATE enter into such litigation to protect the interests of the AGENCY and the STATE and, in addition, the CONSULTANT may request the United States enter into such litigation to protect the interests of the United States.

The United States Department of Transportation  
Appendix A of the  
Standard Title VI/ Non-Discrimination Assurances  
DOT Order No. 1050.2A

During the performance of this contract, the Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees as follows:

1. **Compliance with Regulations:** The Consultant (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The Consultant, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, disability, income-level, or Limited English Proficiency (LEP) in the selection and retention of subConsultants, including procurements of materials and leases of equipment. The Consultant will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 C.F.R. Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the Consultant for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subConsultant or supplier will be notified by the Consultant of the Consultant's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, sex, Age, disability, income-level or LEP.
4. **Information and Reports:** The Consultant will provide all information and reports required by the Acts, the Regulations and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations and instructions. Where any information required of a Consultant is in the exclusive possession of another who fails or refuses to furnish the information, the Consultant will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Consultant's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the Consultant under the contract until the Consultant complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.

**Incorporation of Provisions:** The Consultant will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Consultant will take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Consultant becomes involved in, or is threatened with litigation by a subConsultant, or supplier because of such direction, the Consultant may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the Consultant may request the United States to enter into the litigation to protect the interests of the United States.

The United States Department of Transportation  
Appendix E of the  
Standard Title VI/ Non-Discrimination Assurances  
DOT Order No. 1050.2A

During the performance of this contract, the Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the “Consultant”) agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat.252), prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, prohibits discrimination on the basis of disability; and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123, as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and Consultants, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations 49 C.F.R. parts 37 and 38.
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).