



CITY OF CAMAS
PROFESSIONAL SERVICES AGREEMENT

616 NE 4th Avenue
Camas, WA 98607

General Sewer 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 **General Sewer 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 **\$583,298.00** 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

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

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 _____, 2023.

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

GENERAL SEWER PLAN UPDATE

The following Scope of Services has been developed to assist the City of Camas (City) with the update of its General Sewer Plan (GSP). 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 GSP to coincide with the update of the City's Our Camas 2045 Comprehensive Plan. The City recognizes the importance of planning, developing, and maintaining wastewater system facilities that provide reliable and efficient service for existing customers and to serve anticipated growth defined by the Comprehensive Plan. The GSP is designed to meet state, county, and local requirements. The project represents an update of the City's existing GSP (Carollo, 2024) 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 sewer service to meet updated population and economic development projections presented in the updated Comprehensive Plan.

Effort will involve evaluating sewer collection system needs in portions of the City's service area not considered in the existing GSP. Updated flow and load projections will be developed based on new information presented in the Comprehensive Plan update. An updated evaluation of the capacity of wastewater treatment plant (WWTP) capacity utilizing those updated flows and loads, as well as an update/confirmation of condition driven needs to those facilities are included.

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.
- State of Washington Department of Ecology and its staff will be referred to as "Ecology" in this document.
- All meetings will be held on Microsoft Teams, unless otherwise specified.
- All deliverables will be provided in electronic copy (PDF and/or Microsoft Word) transmitted via email or secure file transfer. The City will print and produce all documents as necessary for its use. Consultant will not provide any deliverables in a paper format.
- 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 Flow Projection Tool will be provided in .xlsx format.

- The Consultant will prepare an agenda, presentation materials, and document discussions, including action items and decisions, and meeting minutes for Consultant-led meetings. Meeting notes and related materials will be transmitted electronically in MS Word and/or PDF formats via email.
- 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. 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 GSP 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	Regulations, Policies, and Criteria	Consultant
Chapter 3	Basis of Planning	Consultant
Chapter 4	Existing System	Consultant
Chapter 5	I/I Program	Consultant
Chapter 6	Collection System	Consultant
Chapter 7	Wastewater Treatment Facility	Consultant
Chapter 8	Operations and Maintenance	Consultant
Chapter 9	Capital Improvement Plan	Consultant
Chapter 10	Financial Plan	Consultant with FCS
Appendix A	Approvals	
Appendix B	Agency Comment Letters and Responses	
Appendix C	Demographic Projections	
Appendix D	Flow Monitoring Report	
Appendix E	Hydraulic Model Update and Calibration TM	
Appendix F	I/I Program Reports	

Chapter/Appendix		Lead
Appendix G	Local Limits Program Reports	
Appendix H	Wastewater Treatment Plant Permits	
Appendix I	Wastewater Treatment Engineering Report	
Appendix J	Spill Response Plan	
Appendix K	CIP Project Sheet	
Appendix L	Financial Backup	
Appendix M	O&M APE Examples	

Notes:

CIP - capital improvement program; I/I - infiltration and inflow; O&M - operations and maintenance; TM - technical memorandum

Table 2 Summary of Meetings

Meetings	Title	Type
Meeting No. 1	Kickoff Meeting	Virtual
Meeting No. 2	Policies and Criteria, and Regulatory Considerations and Strategy	Virtual
Meeting No. 3	Flow Monitoring Results & Flow Projections	Virtual
Meeting No. 4	WWTP Flows and Loadings	Virtual
Meeting No. 5	Hydraulic Model Development & Capacity Evaluation	Virtual
Meeting No. 6	Capacity Improvements	Hybrid
Meeting No. 7	Influent and select process characterization sampling and analysis effort	Virtual
Meeting No. 8	Review and confirm capacity analysis findings	Virtual
Meeting No. 9	Alternative development workshop with City and plant operations staff to develop and select liquids and solids process area improvements for evaluation	Hybrid
Meeting No. 10	Alternative evaluation workshop to review technical performance, costs, and non-cost considerations associated for each alternative	Hybrid
Meeting No. 11	CIP Review	Hybrid
Meeting No. 12a, 12b, 12c, 12d	Financial Review	Virtual
Meeting No. 13	City Review Draft	Virtual
Meeting No. 14	Agency Review Meeting	Virtual
	Up to 2 council meetings	Virtual
Project Management	36 Coordination Calls	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	Introduction
Task 300	Regulations, Policies, and Criteria
Task 400	Basis of Planning
Task 500	Existing System
Task 600	I/I Program
Task 700	Collection System
Task 800	Wastewater Treatment Facility
Task 900	Operation and Maintenance
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 GSP 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 GSP 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 - Meeting No. 1- Kickoff Meeting

- Facilitate a meeting to kick off the GSP update, review project management plan and initial data requests.

Subtask 104 - Project Management & 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. Meetings to be held in conjunction with the Water System Plan Update.

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 GSP outline.
2. Eighteen monthly progress reports and invoices.

Task 100 Meetings

1. Meeting No. 1 - Kickoff Meeting.
2. PM Virtual Meetings.

TASK 200 - INTRODUCTION

The purpose of this task is to provide an introduction to the GSP documenting the purpose, review and approvals, and direction to pertinent information. The task effort will be documented in Chapter 1 - Introduction.

TASK 200 ACTIVITIES

Subtask 201 - Regulatory Information Reference

Prepare a table that provides reference in the GSP to each regulatory required information in the GSP. The intent of this reference is to aid the agency reviewers in conducting an efficient and thorough review of the GSP.

Subtask 202 - 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.

Task 200 Assumptions

1. None.

Task 200 City Input

1. Comments on draft Chapter 1 - Introduction.

Task 200 Consultant Deliverables

1. Draft Chapter 1 - Introduction.
2. Record of Comment (ROC) for Chapter 1 - Introduction.

Task 200 Meetings

1. None.

TASK 300 - REGULATIONS, POLICIES, AND CRITERIA

The purpose of this task is to update the applicable regulations, policies impacting long-term sewer planning, and define planning criteria from the 2024 GSP. The task effort will be documented in Chapter 2 - Regulations, Policies and Criteria.

TASK 300 ACTIVITIES

Subtask 301 - Applicable Regulations, Considerations and Strategy.

Review and update regulatory requirements presented in Chapter 2 of the 2024 GSP. Include a summary of requirements from the City's Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Permit WA002049. This will include summarizing requirements of the City's updated NPDES Permit (under development for renewal by Ecology at time of drafting this scope of work) if renewed prior to GSP Update commencing.

In the course of Ecology review and approval of the existing GSP, the need for a Tier II evaluation in accordance with Washington Administrative Code (WAC) 173-201A-320 and Publication No. 11-10-073 was identified. It is expected this Tier II evaluation will be submitted by the City during the next cycle of NPDES permit renewal or at the point in time the City determines additional discharge capacity must be permitted.

Prepare an effluent and receiving water desktop analysis to assess the potential for exceedances of water quality objectives under projected future conditions. This analysis will rely on influent, effluent, and receiving water data requested in Task 400 and be conducted in conjunction with WWTP process evaluations described in Task 800. The results/findings of the desktop analysis will be summarized in Chapter 2. A summary addressing the implications of these findings in the context of potential future implications on WWTP unit processes and facilities will be included in Chapter 7.

Subtask 302 - Policies and Criteria

Obtain existing level of service policies, financial policies, planning criteria, and design standards from the City. Review policies and criteria and make recommendations for additional or revised criteria and service area goals that best fit the needs of the City. Confirm the design storm used for the capacity evaluation. Review current and potential future design standards for the sewer system, including design depth to pipe diameter (d/D) standards. Criteria will include allowable pipeline d/D values during peak flows, minimum velocities, minimum/maximum slope, and pumping requirements.

Subtask 303 - Meeting No.2 - Policies and Criteria & Regulatory Considerations and Strategy

Facilitate a meeting to review City policies and criteria. This will include discussion of possible future implications for WWTP processes and facilities and outline alternatives which will be considered in Task 800

Subtask 304 - Draft and Final Chapter 2 - Policies and Criteria

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 GSP.

Task 300 Assumptions

1. City will provide pertinent information for missing or updated facility data.
2. Desktop analysis of reasonable potential will be conducted utilizing publicly available (Ecology) tools.

Task 300 City Input

1. Comments on draft Chapter 2 - Policies and Criteria.

Task 300 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 2 - Policies and Criteria.
3. ROC for Chapter 2 - Policies and Criteria.

Task 300 Meetings

1. Meeting No. 2 - Policies and Criteria and Regulatory Considerations and Strategy.

TASK 400 - BASIS OF PLANNING

The purpose of this task is to update the planning criteria and all planning assumptions for use in evaluation of the wastewater collection system, from the 2024 GSP. The planning area assumed for this GSP includes the current utility services boundary and the North Shore expansion area. The task efforts will be documented in Chapter 3 - Basis of Planning.

TASK 400 ACTIVITIES

Subtask 401 - Data Request

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

- ADS flow monitoring data and historical pump run time data at Pump Stations.
- Updates to population and employment projections since the last GSP.
- Lift station flow data (if available).
- Major industrial discharges.
- WWTP influent and effluent flow monitoring data for the preceding 5 years. (See also Task 800, which includes an influent wastewater characterization sampling effort and focused process sampling internal to the plant to provide additional data).
- Most recent WWTP receiving water data (assumed to be data used to inform the required reasonable potential analysis for the City's recent NPDES permit renewal application).
- Results and report summarizing the findings of the City's most recent WWTP outfall evaluation as required by the existing NPDES permit.
- Available data characterizing industrial wastewater discharged to the WWTP (see also Subtask 404).
- Pertinent WWTP record drawings and basis of design reports.
- Spreadsheets utilized for the most recent NPDES permit renewal to assess reasonable potential.
- Additional information includes level of service policies, planning criteria, design standards, and financial data from the City.

A summary will be prepared identifying any informational gaps. Consultant will coordinate with City's project manager to resolve.

Subtask 402 - Service Area Boundaries

Update the City's service area boundaries to be considered in the GSP for the existing system service area ("Existing"), the 20-year timeframe ("20-Year"), and the ultimate ("Build-out") planning periods. City to review and confirm the service area boundaries.

Subtask 403 - Demographic Analysis

Update the service area and land use maps from the 2024 GSP, using geographic information system (GIS) data. Review current population, land use, and zoning to establish the historical demographics and to develop future demographics for the service area. Establish land use data per basin for the existing system service area ("Existing"), the 20-year timeframe ("20-Year"), and the ultimate ("Build-out") planning periods. Demographics within the 20-Year timeframe will be based on the Water System Plan Update.

Subtask 404 - Industrial Flows and Loads

The City's largest connections, potential large scale industrial flows and loads and future wholesale water customers will be evaluated and projected separately and added to other projected system flows and loads. The industrial flow and load projections will be updated from the 2024 GSP and be consistent with the WSP industrial demand projections.

Subtask 405 - Review Flow Monitoring Report

The City will contract directly with ADS to conduct flow monitoring for the STEP system and the North Shore of the gravity collection system. Flow monitoring basins and statistics will be provided in an email to ADS. ADS will provide raw data and a full report on flow and I/I analysis for each metered basin. This data will be verified by the Consultant and used for flow development and model calibration. The flow monitoring program will take place in the winter of 2024/2025 and is anticipated to capture dry and wet weather flows, including storm events required to meet calibration standards. Four or fewer flow meters will be used. Flow monitoring will be performed at one location on the STEP system, one location in the North Shore, and the two gravity pipes upstream of the treatment plant.

Subtask 406 - Flow Projections

Flow projections are based on demographic assumptions and the data obtained from flow monitoring. The flow projections from the 2024 GSP will be updated as a part of this subtask, as follows:

- **Flow Data Review.** Compare base sanitary flows estimated from existing land use to dry weather flow calculated through the flow monitoring for each basin. Existing land use and currently served areas will be used to estimate flow factors in gallons per acre per land use category. The flow factors will be customized to match the observed existing average dry weather flow (ADWF) and will be used to develop flow projections. Pump Station runtime data and City pump-down curves will be used to proportion ADWF throughout basins, where available.
- **Base Flow Projections.** Develop base sanitary flows for three planning periods: existing conditions, 20-year, and build-out scenarios.
- **Infiltration and Inflow Projections.** Estimate I/I flow rates for each sewer basin based on current and future land use and area specific I/I factors. Developed I/I flow rates will be compared to I/I flow rate estimates per monitored basin. Develop I/I flow rates for new areas to be added to the system.
- **Flow Projections.** Future flows, including base flows, I/I, and industrial point flows, will be projected based on service area growth. Future flows will be assessed for each sewer and pump station basin for the selected planning periods.

Subtask 407 - WWTP Wastewater Flows and Loadings

Consultant shall review historic ammonia, pH, fecal coliform, biochemical oxygen demand (BOD) and total suspended solids (TSS) wastewater load contributing to the wastewater treatment plant. Unit loading factors will be developed using existing flow and population data provided by the City to provide a basis for projected future loading within the service area. The unit loading factors will be established on an equivalent residential units (ERU) basis for both residential and employment units. It is anticipated different loading factors will be developed for STEP and gravity customers. Based on population projections provided by the City, project flows and loads for the planning period that will require treatment at the facility. Load projections will be summarized by basin and at the facility. Resulting flow and load projections will be used in Task 800 to evaluate WWTP capacity implications.

Subtask 408 - Meeting No. 3 - Flow Monitoring Results and Flow Projections

Facilitate a meeting to review the flow monitoring results and flow projections with the City. Confirm flow projections are consistent with City understanding of the current and future system. Flows will be summarized by basin and at the facility.

Subtask 409 - Meeting No. 4 - WWTP Flows and Loadings

Facilitate a meeting to review the WWTP flow and loading analysis findings with the City. Confirm flows and loadings are consistent with City understanding for the current facility and discuss implications of projections for future conditions.

Subtask 410 - Draft and Final Chapter 3 - Basis of Planning

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 GSP.

Task 400 Assumptions

1. Flow monitoring will be performed at two locations on STEP system, one location in the North Shore, and the two gravity pipes upstream of the treatment plant.
2. Previously identified loading factors previously identified for large industries will be used and not reexamined.

Task 400 City Input

1. Requested Data from Task 401.
2. Comments on draft Chapter 3 - Basis of Planning.

Task 400 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 3 - Basis of Planning.
3. ROC for Chapter 3 - Basis of Planning.

Task 400 Meetings

1. Meeting No. 3 - Flow Monitoring Results and Flow Projections.
2. Meeting No. 4 - WWTP Flows and Loadings.

TASK 500 - EXISTING SYSTEM

The purpose of this task is to update the Existing System Chapter from the 2024 GSP.

TASK 500 ACTIVITIES

Subtask 501 - Data Request

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

- As-builts of STEP system.
- As-builts of North Shore Area.

Subtask 502 - Study Area

Update and incorporate study area information in Chapter 4 - Existing System.

Subtask 503 - Existing System

Review the components of major sewer collectors and pump stations using data from the City's GIS, available pipe database, discussions with staff, and previous studies. Incorporate information from the City's 2024 GSP. Subtasks include the following:

- Update chapter text, tables, and figures summarizing the City's collection and conveyance system. Summarize the boundaries of sewer service basins and pump station basins (if different). Provide descriptions for each of the City's sewage pump stations, and force mains. Provide total length of pipe based on diameter and material, if available.
- Summarize improvements to the City's wastewater collection system that have been completed since the 2024 GSP, based on discussions with City Staff.
- Develop figures for the GSP of the existing system infrastructure using the City's GIS data.

Subtask 504 - Draft and Final Chapter 4 - Existing System

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 GSP.

Task 500 Assumptions

1. None.

Task 500 City Input

1. Requested Data from Task 501.
2. Comments on draft Chapter 4 - Existing System.

Task 500 Consultant Deliverables

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

Task 500 Meetings

1. None.

TASK 600 - I/I PROGRAM

The purpose of this task is to update the City's I/I Program. Future I/I rates with and without the I/I Program will be estimated for use in the Collection System evaluation.

Subtask 601 - Summarize Existing I/I Program

Summarize the existing I/I Program from City provided annual reports. Tabulate City I/I projects by year and I/I reduction. Create a map of historical I/I projects, if data is available. Identify future activities to be conducted by the I/I Program. Draft Chapter 5 - I/I Program.

Subtask 602 - Draft and Final Chapter 5 - I/I Program

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 GSP.

Task 600 Assumptions

1. None.

Task 600 City Input

1. Requested Data from Task 601.
2. Comments on draft Chapter 5 - I/I Program.

Task 600 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 5 - I/I Program.
3. ROC for Chapter 5 - I/I Program.

Task 600 Meetings

1. None.

TASK 700 - COLLECTION SYSTEM

The purpose of this task is to update the existing and future capacity evaluation, update system deficiencies, and revise recommendations to resolve deficiencies. Recommended projects will be included in the CIP.

Subtask 701 - Hydraulic Model Update and Calibration

The City's gravity collection system model will be combined with the STEP system model and converted from DHI's Mike Urban to DHI's 2024 MIKE+. Piping and pumping will be reviewed and updated on the model with a focus on expanding the extents to the North Shore and the STEP system. Model extents will include:

- STEP System: Major STEP force mains and pump stations. The flows will be added to the model geographically by mini-basin for the existing, projected 20-year and build-out conditions.
- Gravity System: The model will include all pipes greater than 6 inches. The flows will be added to the model geographically by mini-basin for the existing projected 20-year and build-out conditions.
- North Shore: Constructed and planned North Shore Sewer infrastructure based on prior City effort.
- The flows will be added to the model geographically by mini-basin for the existing, projected 20-year and build-out conditions.

Model calibration will entail the following:

- Calibration will focus on a quantitative approach based on the recommendations for hydraulic model verification contained in the "Code of Practice for the Hydraulic Modeling of Sewer Systems," version 3.001, published by the Wastewater Planning Group, a section of the Chartered Institution of

Water and Environmental Management and the Consultant's expertise. These recommended calibration criteria include, but are not limited to, the following:

- » The comparison period between observed and modeled events should last until flow has substantially returned to winter dry weather flow.
 - » Observed and modeled hydrographs should meet the criteria for at least two out of three events.
 - » The peak flow should be in the range +25 percent to -10 percent.
 - » The volume of flow should be in the range of +20 percent to -10 percent.
- The existing dry and wet weather flows as described in a previous task will be calibrated based upon the flow monitoring data, and rainfall data provided by the flow monitoring program as well as additional data available from the City's supervisory control and data acquisition (SCADA) system for up to 3 meter locations in the collection system. Existing flow depths and velocities will also be checked and calibrated.
 - Calibrate the model to dry weather flow conditions. Flow monitoring data will provide custom hourly diurnal curves that establish the daily flow patterns for each metering basin. Model parameters will be adjusted, as needed, to best match the flow monitoring and SCADA data. It is assumed that the City will provide SCADA data in electronic format.
 - Calibrate the model for wet weather conditions. Rainfall information will aid in developing the required rainfall-derived infiltration/inflow (RDI/I) estimations that enter the collection system during a storm event. It is recommended that the use of a single calibration period incorporating a number of independent rainfall events should be considered whenever possible. Model results will be reviewed and adjusted, as needed, to best match the flow monitoring, rainfall, and SCADA data.
 - The flows from any unmetered basins will be assumed to be unchanged since the previous model calibration.

Subtask 702 - Capacity Evaluation

Perform a hydraulic capacity analysis under the design storm for each basin using the calibrated model, and projected peak flow rates and system expansion developed in Task 200. The analysis will be performed for existing, 20 year, and build-out scenarios only, and will assist in identifying any system deficiencies and improvements required to resolve deficiencies. Subtasks include the following:

- Review related reports and studies for related capacity analyses and recommendations.
- Estimate the available capacity of each basin given existing infrastructure while meeting all performance criteria.
- Develop a future hydraulic modeling scenario that evaluates the impact of wastewater flows associated with future growth, as well as redevelopment projects on the collection system. Maps will be developed showing current and future deficiencies.
- Review and document resulting capacity deficiencies for 20-year and build-out conditions. Use the hydraulic model to confirm the sizing of the backbone facilities to serve the North Shore.
- Evaluate the capacities of the pump stations in the hydraulic model for their ability to convey peak flows under firm capacity for existing and 20-year and build-out conditions. Pump stations not in the hydraulic model are assumed to have sufficient capacity.
- Update capacity deficiencies based on City field investigations or additional information, as needed.

Subtask 703 - Meeting No. 5 - Hydraulic Model Development & Capacity Evaluation

Facilitate a meeting to review the hydraulic model development and resolve outstanding questions. City staff will confirm known deficiencies and identify any areas for additional City lead investigation (field visit, reference as-builts, etc.).

Subtask 704 - Draft and Final TM 1 - Hydraulic Model Update and Calibration

Prepare draft TM 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 GSP.

Subtask 705 - Capacity Improvements

Develop infrastructure recommendations to resolve deficiencies. Improvements will be sized for meeting build-out conditions and City criteria.

Subtask 706 - Meeting No. 6 - Capacity Improvements

Facilitate a workshop to review capacity related collection system improvements. Highlight recommended improvements on system maps for discussion with City staff.

Subtask 707 - Draft and Final Chapter 6 - Collection System

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 GSP.

Task 700 Assumptions

1. No remaining useful life (RUL) analysis will be performed.
2. Model calibration will focus on the STEP system and North Shore. The remainder of the system is considered calibrated from the 2024 GSP.
3. All portions of the collection system: gravity, STEP, and North Shore will be included in the hydraulic model.

Task 700 City Input

1. Requested Data from Task 701.
2. Comments on draft TM 1 - Hydraulic Model Update and Calibration.
3. Comments on draft Chapter 6 - Collection System.

Task 700 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft TM 1 - Hydraulic Model Update and Calibration.
3. ROC for TM 1 - Hydraulic Model Update and Calibration.
4. Draft Chapter 6 - Collection System.
5. ROC for Chapter 6 - Collection System.

Task 700 Meetings

1. Meeting No. 5 - Hydraulic Model Development & Capacity Evaluation.
2. Meeting No. 6 - Capacity Improvements.

TASK 800 - WASTEWATER TREATMENT FACILITY

The purpose of this task is to define the condition and capacities of the WWTP's unit processes and facilities which directly impact the ability of the City to treat wastewater generated within their existing and expected future service area boundaries thereby managing the quality of effluent discharged to the Columbia River.

To inform the unit process analysis, additional information is required regarding the characteristics of existing wastewater influent received at the WWTP. This will be addressed through development and execution of a sampling and analysis plan in collaboration with City staff. This plan is also expected to include sampling at critical locations within the facility to provide additional detail regarding specific unit process performance. City staff will execute the plan with guidance from the Consultant. In addition, the Consultant will conduct a desktop reasonable potential analysis using the most recent effluent and receiving water information available (assumed to be data supporting the recent NPDES permit renewal application submitted to Ecology). The desktop reasonable potential analysis (RPA) will suggest potential limitations on future discharges from the WWTP that could impact plant capacity and composition of unit processes. A summary addressing the implications of these findings in the context of potential future implications on WWTP unit processes and facilities will be included in Chapter 7.

To address identified capacity and condition deficiencies, an alternatives analysis of the most viable improvement options will be conducted. Recommended projects and/or studies will be included in the CIP.

Subtask 801 - WWTP Historical Operations

Summarize WWTP historical operations based on a review of data provided by the City in Task 400, input provided to the Consultant by City staff and information contained in the 2024 GSP.

Subtask 802 - Influent and Select Process Characterization Testing Plan

Consultant will develop a wastewater characterization test plan to facilitate characterization of plant influent. This plan will incorporate limited sampling and analysis of selection locations within the liquid process as determined in collaboration with City staff. The City will execute this plan and provide data to the Consultant. Data will be used to calibrate the model developed in Subtask 804.

Subtask 803 - Meeting No. 7

Facilitate a workshop to review influent and selection process characterization sampling and analysis efforts.

Subtask 804 - WWTP Capacity Analysis

The objective of this Subtask is to determine the capacity of the existing treatment plant assuming: 1) current NPDES permit requirements, 2) current flow and loading conditions, and 3) projected future flow and loading conditions. A unit process analysis will be completed to identify shortfalls in plant capacity that will prevent the City from reliably treating and disposing of projected flow and loads at the end of the planning period (2045). A hydraulic analysis of the plant and river outfall utilizing Hydraulix® software will also be conducted. Activities associated with this task include:

- Evaluate process, design, and operational data for the facility liquids and solids treatment trains.

- Plan for and conduct tours of the facility to discuss operational protocols and data with City and operations staff. While on site, interview operations staff to identify operational issues and document any additional condition or capacity concerns not documented in the recent GSP (2024).
- Develop a calibrated a steady state biological wastewater treatment process model (e.g., Biowin) and use it to characterize the current performance of the City's WWTP during dry and wet weather seasons.
- Utilizing record documentation (drawings and basis of design reports, to the extent available) and data provided by the City, characterize performance of solids handling and treatment processes and equipment, as well as other mechanical elements of the WWTP liquid stream not included in Biowin model.
- Develop solids mass balance for facility.
- Evaluate hydraulic capacity of treatment plant elements and effluent outfall utilizing Hydraulix®.
- Develop one-page schematic of each process area that illustrates key equipment and overall unit process capacity.

Subtask 805 - Meeting No. 8

Facilitate a workshop to review and confirm capacity analysis findings.

Subtask 806 - WWTP Condition

Consultant will rely on information contained in the 2024 GSP summarizing the condition assessment completed as part of that effort and any additional information provided by City staff to identify WWTP condition related deficiencies. This information will be updated and used to inform the alternatives analysis to be conducted in Subtask 808.

Subtask 807 - Desktop Reasonable Potential Analysis

Utilizing data on effluent receiving water provided by the City in Task 401, the Consultant will perform a desktop analysis of reasonable potential for the future condition defined as 2045 (or the year identified as the endpoint for the planning period of this GSP study). Desktop analysis will be completed consistent with requirements for Tier II evaluation in accordance with WAC 173-201A-320 and Publication No. 11-10-073. This scope assumes the analysis will be limited to identification of potential capacity or process implications of reasonable potential suggested in results of the analysis. Analysis will be completed using Ecology tools that agency makes publicly available.

Subtask 808 - Alternative Analysis

The objective of this task is to identify, develop, and evaluate alternatives by process area that will maximize the use of existing assets at the WWTP and provide flexibility to meet potential future regulatory requirements. Activities associated with this task include:

- Based on basis of planning information developed in previous chapters, identify at conceptual level potential liquid and solids treatment process area alternative options for further evaluation. These will be organized and presented by process area based on deficiencies identified in Subtask 804.
- Document workshop results, decisions, and action items in meeting minutes.
- For up to two alternatives for each process area, perform the following activities:
 - » Consider process area layout requirements.

- » Compare hydraulic requirements to existing hydraulic profile and where necessary, perform hydraulic modeling between process units to identify required hydraulic improvements.
- » Define resulting dry and wet weather flow and loading capacities.
- » Review anticipated performance of the improvements.
- » Develop planning-level capital and life cycle costs.
- » Develop preliminary review of non-cost factors. (e.g., process reliability, permitting, flexibility and water quality considerations).

Subtask 809 – Meeting No. 9

Alternative development workshop with City and plant operations staff to develop and select liquids and solids process area improvements for evaluation.

Subtask 810 – Meeting No. 10

Alternative evaluation workshop to review technical performance, costs, and non-cost considerations associated for each alternative.

Subtask 811 - Draft and Final Chapter 7 - Wastewater Treatment Facility

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 GSP.

Task 800 Assumptions

1. City provides bid costs of recent projects, if available, as one source for development of planning level costs for use in alternatives analysis.
2. City conducts influent characterization and select process sampling and analysis.
3. The City's most recent GSP (2024, Carollo) includes a summary of an assessment of unit process and facility condition conducted in 2019. That summary identifies certain condition related deficiencies for significant unit process/operation facilities. This GSP update will rely on the findings of that condition assessment.
4. Capacity evaluation will be based on criteria contained in the 2023 version of the Orange Book (Ecology).
5. For desktop analysis described in Subtask 807, future effluent concentrations for constituents not currently regulated in the City's NPDES permit (no existing effluent limitations or prohibitions) will be assumed to increase proportional to flow based on projections thereof developed in Task 400.
6. Approaches to process improvements to address findings of the desktop analysis (Task 805) involving constituents currently without limits or prohibitions in the City's NPDES permit.

Task 800 City Input

1. Requested Data from Task 401.
2. Comments on draft Chapter 7 - Wastewater Treatment Facility.

Task 800 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 7 - Wastewater Treatment Facility.
3. Final Chapter 7 - Wastewater Treatment Facility.

Task 800 Meetings

4. Meeting No. 7 - Facilitate a meeting to discuss scope of and responsibilities for an influent wastewater and select process characterization sampling and analysis effort.
5. Meeting No. 8 - Facilitate a meeting to review and confirm capacity analysis findings.
6. Meeting No. 9 - Prepare for and conduct an alternative development workshop with City and plant operations staff to develop and select liquids and solids process area improvements for evaluation. These could include:
 - a. Operational and/or process modifications to maximize existing secondary capacity.
 - b. Process improvements/additions to meet projected flow and load conditions.
 - c. Process improvements/additions to meet potential future regulatory requirements.
7. Meeting No. 10 - Prepare for and conduct alternative evaluation workshop to review technical performance, costs, and non-cost considerations associated for each alternative. As part of the meeting, select preferred improvement alternatives and discuss spreadsheet tool to be developed in Task 1000.

TASK 900 - OPERATIONS AND MAINTENANCE

The purpose of this task is to document the City's I/I Program. Future I/I rates with and without the I/I Program will be estimated for use in the Collection System evaluation.

Subtask 901 - Data Request

Data required to summarize and evaluate the City's current O&M program will be requested. Data may include:

- Organization structure.
- Staffing levels and positions.
- Summary of ongoing maintenance activities and operational tasks.
- Current O&M funding.
- Planned or future O&M programs.
- Record keeping procedures.
- Sewer main age and material.

Subtask 902 - Summarize and Evaluate O&M Programs and Problem Areas

Update the City's O&M program, including both preventative and corrective maintenance. This includes the planned and scheduled activities, such as treatment plant preventative maintenance, biosolids management, lift station inspection and maintenance, manhole inspection and maintenance, video inspection, root cutting, grease removal, and hydraulic line cleaning. Summarize O&M problem areas based on City provided data, such accumulation of solids or access issues. Maps will be prepared to aid in the review of O&M problem areas. Summarize customer-oriented programs, such as fats, oils, and grease (FOG), and the City's procedure to address suggestions/complaints. This task assumes the City will provide written materials for use in summarizing the existing O&M Program. The task assumes the Consultant will not prepare new summaries or documentation.

Conceptually evaluate the ability of existing O&M programs to address problem areas within the short-term and long-term planning horizons with City staff in a workshop. Propose updated or new programs, if necessary, to address problem areas within the planning period. The purpose of this task is to aid the City in establishing the quantity of work needed and subsequent cost of the ongoing O&M programs. A detailed evaluation of individual programs is not envisioned in this task.

Subtask 903 - Draft and Final Chapter 8 - Operations and Maintenance

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 GSP.

Task 900 Assumptions

1. None.

Task 900 City Input

1. Requested Data from Task 901.
2. Comments on draft Chapter 8 - Operations and Maintenance.

Task 900 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 8 - Operations and Maintenance.
3. Final Chapter 8 - Operations and Maintenance.

Task 900 Meetings

1. None.

TASK 1000 - CAPITAL IMPROVEMENTS

This Task will summarize the recommended improvements for the collection system, outlined in the previous tasks. Total project costs will be developed for each recommended improvement and ranked by priority. This task will develop Chapter 9 - Capital Improvement for the GSP.

TASK 1000 ACTIVITIES

Subtask 1001 - Cost Estimates

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

Subtask 1002 - Project Prioritization

Schedule identified projects for the three planning periods: existing, 20-year, and Build-out conditions. A summary table will present all CIP projects, year for construction, and estimated costs, and will be organized according to a recommended phasing plan. Maps will also be developed showing recommended future system pipes and facilities. Maps will include recommended projects color-coded by CIP phase and annotated with project identification numbers.

Subtask 1003 - Meeting No. 11 - Capital Improvements

Facilitate a meeting to review the CIP.

Subtask 1004 - Electronic CIP

Develop an electronic CIP spreadsheet tool to include a full sheet on each project and a summary CIP for all projects. Project costs and timing will be linked such that City staff may revise costs and timing and the CIP will automatically be updated.

Subtask 1005 - Draft and Final Chapter 9 - Capital Improvement Plan

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 GSP.

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 9 - Capital Improvement Plan.

Task 1000 Consultant Deliverables

1. Meeting Agendas, Materials, and Minutes.
2. Draft Chapter 9 - Capital Improvement Plan.
3. Final Chapter 9 - Capital Improvement Plan.
4. Electronic CIP.

Task 1000 Meetings

1. Meeting No.11 - 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 sewer 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 GSP 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 sewer 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 sewer operating budgets will be used as the baseline for forecasting ongoing O&M costs, debt service, and other financial obligations of the sewer 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 sewer 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 sewer 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 sewer 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. 12 - 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 10 - 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 GSP.

Task 1100 Assumptions

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

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.12a, 12b, 12c, 12d - Financial Review.

TASK 1200 - GSP DEVELOPMENT

The purpose of this task is to integrate comments on the GSP into a clear and comprehensive General Sewer Plan document. The City Draft Plan will be prepared, including an Executive Summary. This task includes assisting the City to coordinate plan review from Ecology. Under this task, the Consultant will assist the City with a public commenting period. Comments received from the public review meetings, adjacent sewer providers, Clark County, and Ecology will be incorporated into the updated plan for City Council's approval and adoption.

TASK 1200 ACTIVITIES

Subtask 1201 - Executive Summary

Prepare an executive summary, summarizing each element of the General Sewer Plan.

Subtask 1202 - City Draft Plan

The plan will be developed as a City review draft and reviewed by City staff. Under this task, the plan will be prepared incorporating the previous chapters according to the summary table above.

Subtask 1203 - Meeting No. 13 - City Review Comments

Meet with City to discuss comments of 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. The City will submit Agency Review Draft to adjacent sewer providers, Clark County, and Ecology. Eight notebook binders, one camera-ready set, and one PDF will be developed for City reproduction and distribution of plan to agencies and adjacent purveyors.

Subtask 1205 - Meeting No. 14 - 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 professional engineer (PE)-stamped original notebook binder, one PE-stamped original camera-ready set, seven PE-stamped reproduction notebook binders, one PDF, and all electronic files.

Task 1200 Assumptions

1. The City provides required documents for appendices, including acceptance ordinances.
2. City will collect public and agency review comments and deliver to Consultant. City will develop written responses received during Agency Review process.

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 - One PDF.
4. Agency Draft Plan - Eight notebook binder, one camera-ready, and one PDF.
5. Final Plan - Eight notebook binder, one camera-ready, and one PDF

Task 1200 Meetings

1. Meeting No. 13 - City Review Comments.
2. Meeting No. 14 - Agency Review Comments.

EXHIBIT "B"
COSTS FOR SCOPE OF SERVICES

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).