



Engineering Department
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MEMORANDUM

To: Mayor Brian Blad & Pocatello City Councilmembers
From: Skyler Allen, P.E., Senior Engineer & Levi Adams, WPC Superintendent
CC: Jeffrey Mansfield, P.E., Public Works Director
Date: February 27, 2020
Re: Award and Authorization of WPC Facility Planning Study

In accordance with State law regarding hiring for professional engineering services, the City of Pocatello Engineering and WPC departments issued a Request for Proposals, evaluated and scored proposals from six well qualified engineering firms, selected Keller Associates, Inc. as the preferred consultant for this work, and negotiated a scope of work and contract for completion of a new Wastewater Facility Plan for the Pocatello WPC treatment facility.

BACKGROUND

The City of Pocatello WPC treats and disposes of wastewater under a discharge permit. One of the requirements of the current permit is to complete a Facility Planning Study when regulated discharges exceed 80% of permitted values. The Pocatello WPC facility has reached that threshold and needs to complete a new facility plan.

Additionally, major upgrades to the treatment facilities have been made in the past several years including enhanced biological phosphorus removal, filtration, and UV disinfection. With these major improvements in place, an updated projection of treatment facility needs for potential population growth, facility conditions, and regulatory changes is needed. The WPC Facility Plan will build upon and update previous treatment plant master planning efforts. The plan will include at a minimum: evaluation of treatment systems to identify current and projected deficiencies within the various process groups at the facility, evaluate alternatives for biosolids management, consider options for water reuse, develop a biological system model for the wastewater treatment system, and outline a comprehensive Capital Improvements Plan (CIP) for the Pocatello WPCF.

RECOMMENDATION

The Engineering and WPC Departments recommend that the Pocatello City Council approve the proposed contract for professional engineering services with Keller Associates, Inc. in the amount of \$250,000 for the completion of a new wastewater facility plan. Funding for this project is included in the WPC Department FY2020 budget.

AGREEMENT FOR PROFESSIONAL SERVICES

This is an Agreement effective as of _____ ("Effective Date") between the **City of Pocatello** ("Owner") and **Keller Associates, Inc.** ("Consultant").

Owner's Project, of which Consultant's services under this Agreement are a part, is generally identified as follows: **Water Pollution Control Facility – Wastewater Facility Planning Study** ("Project").

The Owner and the Consultant agree to the following Project scope, schedule, and compensation:

SCOPE: Consultant's services under this Agreement are generally identified as follows: See Attachment A.

SCHEDULE: The Agreement shall commence on the above written date. Consultant anticipates completing its services within 10 months as identified in Attachment A.

COMPENSATION:

Basic Services. As compensation for services to be performed by Consultant, the Owner will pay Consultant a lump sum amount of \$216,000 (Two hundred sixteen thousand dollars) as described in Attachment A.

Additional Services. Compensation for performing Additional Services will be pursuant to a mutually agreed upon amendment to this Agreement. For Additional Services related to the project, a Management Reserve up to \$34,000 (Thirty-four thousand dollars) has been established for the project. If authorized, the scope and fee will be adjusted as agreed upon and as described in Attachment A.

In Witness Whereof, the parties hereto have executed this Agreement as of the date first above written. Owner further acknowledges that it has reviewed and accepted the attached Standard Terms and Conditions.

OWNER: CITY OF POCATELLO

CONSULTANT: KELLER ASSOCIATES, INC.:

Signature: _____

Signature: _____

Name: Brian C. Blad

Name: James P. Mullen, PE

Title: Mayor

Title: Vice President

Address: _____

Address: 305 N. 3rd Avenue,
Pocatello, ID 83201

Telephone: _____

Telephone: (208) 238-2146

Date: _____

Date: _____

APPROVED BY LEGAL

Date 2/29/20 Atty By See

Comments _____

STANDARD TERMS AND CONDITIONS

1. **CONTRACT** – This document constitutes the full and complete Agreement between the parties and supersedes all prior negotiations, representations or agreements, whether written or oral. The Agreement may be amended only if both parties specifically agree in writing to such amendment of the Agreement.
2. **INVOICES AND PAYMENT** – Owner will make payment within 30 calendar days of the invoice date. Consultant shall keep accurate records of expenses. If Owner contests an invoice, Owner shall advise the Consultant within 15 days of receipt of invoice of the specific basis for doing so, may withhold only that portion so contested, and shall pay the undisputed portion.

Interest. If payment is not received by the Consultant within 30 calendar days of the invoice date, Owner shall pay interest at a rate of 1½% per month (or the maximum allowable by law, whichever is lower) of the past due amount. Payments will be credited first to interest and then to principal.

Suspension. If the Owner fails to make payments when due, the Consultant may suspend performance of services upon five (5) calendar days' notice to the Owner. Owner agrees to indemnify and hold Consultant harmless from any claim or liability resulting from such suspension.

3. **DOCUMENTS** – All documents prepared or furnished by Consultant are instruments of service, and Consultant retains ownership and property interest (including the copyright and the right of reuse) in such documents. Owner shall have a limited license to use the documents in and for the Project subject to full payment for all services relating to preparation of the documents. The Owner agrees to obtain prior written agreement for any reuse or modifications of the instruments of service, and understands that any unauthorized use of the instruments of service shall be at the Owner's sole risk and without liability to the Consultant.
4. **STANDARD OF CARE** – The standard of care for all professional engineering and related services performed or furnished by the Consultant under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. The Consultant makes no warranties, expressed or implied, under this Agreement or otherwise, in connection with the Consultant's services. Consultant shall exercise usual and customary professional care in its efforts to comply with applicable codes, regulations, laws, rules, ordinances, and such other requirements in effect as of the date of execution of this Agreement.
5. **CHANGES OR DELAYS** – The proposed scope of services, compensation, schedule, and allocation of risks reflect Consultant's understanding of the Project at the date of this Agreement. Costs and schedule commitments shall be subject to renegotiation for changed conditions, unreasonable delays caused by the Owner's failure, independent government agencies, acts of God, or causes beyond the reasonable control of Consultant. Where this occurs, changes in the Agreement shall be negotiated and an equitable adjustment shall be made.
6. **TERMINATION** – The Owner and Consultant may terminate this Agreement in whole or in part at any time by giving 30 days written notice thereof. The Owner shall promptly pay Consultant for all services rendered to the effective date of suspension of services, plus suspension charges, which shall include the cost of assembling documents, personnel and equipment, rescheduling or reassignment, and commitments made to others on the Owner's behalf.
7. **SUSPENSION OF SERVICES** – If the Owner suspends services of the Consultant for any reason for more than thirty days, the Consultant shall be reimbursed for expenses incurred due to suspension of services, including costs associated with rescheduling or reassigning personnel, and commitments made to others on Owner's behalf.
8. **INDEMNITY AND LIMITATION OF LIABILITY** – Owner and Consultant each agree to indemnify and hold the other (including their respective officers, directors, employees, agents, owners, shareholders, members, partners, sub-consultants, subcontractors, and representatives) harmless from and against liability for all claims, losses, damages and expenses, to the extent such claims, losses, damages, or expenses are caused by the indemnifying party's negligent acts, errors or omissions. In the event claims, losses, damages, or expenses are caused by the joint or concurrent negligence of Owner and Consultant, they shall be borne by each party in proportion to its negligence. Neither the Owner nor Consultant shall be liable for incidental, indirect or consequential damages. The Consultant's liability to the Owner and to all construction contractors and subcontractors on the Project, due to the Consultant's negligent acts, errors omissions, or breach of contractual obligations relating to or arising out of the Project shall not exceed the Consultant's total fee.

9. **OPINIONS OF COST** – Consultant’s opinions of probable cost represent Consultant’s judgment as an experienced and qualified design professional. Since Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Owner’s and other contractor’s methods of determining prices, or over competitive bidding or market conditions, the Consultant cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable cost prepared by the Consultant.
10. **CONSTRUCTION PHASE SERVICES** – If Consultant performs any services during the construction phase of the Project, Consultant shall not supervise, direct, or have control over Contractor’s work. Consultant shall not have authority over or responsibility for the construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the work of the Contractor. Consultant does not guarantee the performance of the construction contract by the Contractor and does not assume responsibility for the Contractor’s failure to furnish and perform its work in accordance with the Contract Documents.

11. **MISCELLANEOUS**

Right of Entry: Unless otherwise noted in the scope of work, the Owner shall provide for Consultant’s right to enter the property owned by the Owner and others in order to fulfill the services to be performed hereunder.

Dispute Resolution: Owner or its Contractor agree to notify Consultant of any claims against the Consultant within 10 days of discovery of any allegations, errors or omissions. Should a dispute arise, Owner and Consultant agree to negotiate disputes between them in good faith for a period of 30 calendar days from the date the dispute is raised in writing by either the Owner or Consultant. If the parties fail to resolve the dispute through negotiation, then the dispute shall be decided through non-binding mediation or other mutually agreed alternative dispute resolution technique. Fees and expenses for mediation shall be split equally between the parties. The Owner and Consultant agree non-binding mediation or other mutually acceptable dispute resolution technique shall precede litigation. This Agreement shall be governed by the laws of the State where the Project is located.

Hazardous Environmental Conditions: The scope of Consultant’s services does not include any responsibility for detection, remediation, accidental release, or services relating to waste, oil, asbestos, lead or other hazardous materials, as defined by Federal, State, and local laws or regulations. Consultant is not required to become an arranger, operator, generator, or transporter of hazardous substances, and shall have no responsibility for the discovery, handling, removal, disposal or exposure of persons to hazardous substances of any form.

Consultant Reliance: Consultant shall be entitled to rely, without liability or the need for independent verification, on the accuracy and completeness of any and all information provided by Owner, Owner’s consultants and contractors, information from public records, and information ordinarily or customarily furnished by others, including, but not limited to specialty contractors, manufacturers, suppliers, and publishers of technical standards.

Certifications: Consultant shall not be required to sign any documents that result in Consultant having to certify, warrant, or guarantee the existence of conditions whose existence Consultant cannot ascertain within its services for the Project.

Third Parties: Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, a third party against either the Owner or Consultant. Consultant’s services hereunder are being performed solely for the benefit of the Owner, and no other entity shall have any claim against Consultant because of this Agreement or Consultant’s performance of services hereunder.

Severability & Waiver: In the event any of these Contract Provisions are found to be illegal or otherwise unenforceable, the unenforceable Contract Provisions will be stricken, and those remaining Contract Provisions shall continue in full force and effect. The failure of either party of this Agreement to insist, in any one or more instances, upon the performance of any of the terms, covenants or conditions of this Agreement, shall not be construed as a waiver of such term, covenant or right.

Joint Drafting: The Parties expressly agree that this Agreement was jointly drafted, and that they both had opportunity to negotiate its terms and to obtain the assistance of counsel in reviewing its terms prior to execution. Therefore, this Agreement shall be construed neither against nor in favor of either Party, but shall be construed in a neutral manner.

ATTACHMENT A
CITY OF POCATELLO, IDAHO
WASTEWATER FACILITY PLANNING STUDY
WATER POLLUTION CONTROL FACILITY
SCOPE OF WORK

FEBRUARY 21, 2020

PROJECT DESCRIPTION

This scope of work describes the Basic Services to be completed outlining Keller Associates' ("Consultant") responsibilities and the City of Pocatello's ("Owner") responsibilities to complete the Wastewater Facilities Planning Study (WWFPS) for the Owner's Water Pollution Control Facilities (WPCF). Also described are Additional Services which may be provided upon request by the Owner.

The City of Pocatello is preparing a WWFPS for the WPCF to address several needs including developing a solids management and handling plan, preparing a model to simulate the biological process operations, evaluating process capacities, identifying a capital improvements plan with associated flow and loadings trigger points, and providing solutions to address the needs with the Administration/Controls Building. The study will be developed consistent with the planning guidance established by Idaho Department of Environmental Quality (IDEQ).

The Pocatello WPCF serves a population of approximately 70,000 people and businesses located in the cities of Pocatello and Chubbuck as well as adjacent areas of Bannock County. The WPCF treats a daily average flow of approximately 7 million gallons per day (MGD).

This study will document known conditions, identify deficiencies, and provide a plan to guide the Owner in completing improvements to the WPCF. The WWFPS will identify existing and new facility requirements, evaluate the benefits and costs of improvement alternatives, and make recommendations for future improvements. Below are the identified tasks that will be completed as part of this study. At the conclusion of Tasks 2-8, task summary reports will be provided to the Owner for review and comment. It is anticipated that these reports will be combined to create the draft and final reports, which will be submitted to the Owner.

TASK 1: PROJECT MANAGEMENT AND MEETINGS

Consultant Responsibilities:

Provide general project management including:

- 1.1 General Project Management. Prepare monthly invoices, track project schedule, and develop progress reports and perform general project and subconsultant coordination.
- 1.2 Kickoff Meeting. Participate in the project Kickoff Meeting. The objectives of this meeting will include reviewing the Facility Plan scope, budget, schedule, planning criteria, and Owner goals. Data needs and coordination efforts will also be reviewed and requested. Consultant will provide three engineers in person and others will participate remotely. It is anticipated that this meeting will last approximately two hours.
- 1.3 Project Workshops. Conduct project review meetings/workshops. It is anticipated that three review workshops will be conducted. Consultant will provide two engineers in person for the first workshop and three engineers in person for the second and third workshops. Other consultant team members will

participate remotely via video conference. It is anticipated that each workshop will last approximately two hours. The first workshop will discuss existing and future conditions and identify remaining needs not identified in the Kickoff Meeting. The second workshop will focus on discussing alternatives. The third workshop will be a discussion of the preferred alternatives and how that is to be laid out in the Capital Improvements Plan (CIP). Consultant will compile meeting notes from each workshop and distribute to Owner.

Owner Responsibilities:

- Invite Owner staff and stakeholders that the Owner would like to attend the review meetings.
- Review and provide comment (if any) to WWFPS deliverables.

Assumptions:

- Project management budget assumes a project schedule of twelve months.
- Project is being funded by the following entities: The Owner. It is anticipated that state or federal grants/loans are not part of the funding of this project.

Deliverables:

- Meeting agendas and meeting notes.
- Monthly invoices and progress reports combined from all consultants.

TASK 2: DATA COLLECTION AND WPCF CONDITION ASSESSMENT

The purpose of this task is to complete a review of the existing facilities and document the condition and expected life of the facilities. In addition, document historical WPCF data, gain access to SCADA information, and gather previous studies, record drawings, and facility information and performance data.

Consultant Responsibilities:

- 2.1 Information Requests. Issue request(s) for information to the Owner that will include previous studies, Discharge Monitoring Reports (DMR's), record drawings, maintenance records, as well as other facility information and performance/sampling data. It is anticipated that information requests will also include information and data needed for subsequent modeling efforts, biosolids treatment, staffing, and CIP development purposes. It is expected that up to three rounds of information requests will be performed.
- 2.2 Onsite Interviews. Complete onsite interviews with Owner staff. Consultant will provide up to four engineers for onsite interviews with Owner staff. This effort is assumed to be part of a one-day, on-site evaluation with notes taken and compiled into the Task 2 Summary Report.
- 2.3 Condition Assessment. As part of the one-day on-site evaluation in Subtask 2.2, Consultant will perform (non-invasive) visual condition assessment of existing facilities with Owner personnel. Owner personnel will identify and provide a list of known issues. Consultant will take notes and photos to document identified issues. Purpose of this task is to assess the condition of the major WPCF facilities and identify and document known or readily observable performance or condition concerns.
- 2.4 Administrative/Controls Building Evaluation. Work with Owner personnel to evaluate the existing Administration/Controls Building layout and identify staff and concepts and criteria that should be included in the future planning for a new Administration/Controls Building. A basic rendering and conceptual floor plan for the new facility will be assembled with input from the Owner.
- 2.5 Summary Report. Consultant will prepare an eight to twelve-page summary report for Owner comments that documents the general conditions of the facilities at the WPCF including Administration/Controls Building needs.

Owner Responsibilities:

- Provide available information about the system including record drawings, previous reports, maintenance records, DMR's (in spreadsheet format), sampling and performance data and other information as requested by Consultant.
- Provide operations staff to assist in condition assessment and documentation.
- Provide a list of known facility issues and planned improvements.
- Review and comment on draft documents in a timely manner.
- Provide New Operations Building expectations including square footage, layout, offices, server room, etc.

Assumptions:

- Site assessment is limited to visual observations and is not intended to be a comprehensive inspection. Consultant will not enter confined spaces. Structural and electrical engineering reviews are not included in the scope of work and could be completed as an additional service.
- Consultant is entitled to rely on the information and data provided by the Owner or obtained from generally acceptable sources within the industry without the need to independently verify the accuracy or completeness.

Deliverables:

- Task Summary Report summarizing current conditions of the WPCF.
- Requests for Information.

TASK 3: PLANNING CRITERIA*Consultant Responsibilities:*

- 3.1 Population Projections. Summarize 20-year population projections based on census data, Bannock Transportation Planning Organization (BTPO), and information provided by the Owner.
- 3.2 Flow Estimates. Review wastewater generation data for the period of 2015-2020 and identify flows and loadings trends, evaluate seasonal variations in wastewater generation, and develop existing design flows and loads. Consultant will develop 5-year, 10-year, and 20-year flow and loading projections for average, maximum month, peak day, and peak hour conditions for flow, BOD, TSS, ammonia, total phosphorus, and ortho-phosphorus through the planning horizon as appropriate for the specific constituent.
- 3.3 Summary Report. Provide a three to four-page written summary report documenting anticipated future conditions.

Owner Responsibilities:

- Provide available population projection information, current and permitted significant industrial discharges, and anticipated industrial changes that may impact flows and loadings.
- Provide input on population projections developed for the 20-year planning periods.
- Complete additional wastewater quality testing that may be requested by the Consultant.
- Review and comment on draft documents in a timely manner.

Assumptions:

- Planning criteria will not be changed once established unless the resulting additional work is completed as an additional service.

Deliverables:

- Task Summary Report of planning criteria, including future wastewater loading projections.

TASK 4: REGULATORY EVALUATION*Consultant Responsibilities:*

- 4.1 Regulatory Requirements. Review and summarize current, pending and anticipated future regulatory requirements and planning criteria that may influence operation, maintenance, and capital improvements of the existing wastewater treatment system. This evaluation will be a high-level review without direct communication with Idaho Department of Environmental Quality (IDEQ), EPA or other regulatory agencies. The evaluation is expected to focus on the existing NPDES permit, pending IPDES permit, and local TMDLs. Consultant will rely on Owner communications and existing public information on the future of regulatory requirements which could impact the future IPDES permit. Consultant will provide a high-level review and write up of the available options and associated conceptual costs for temperature reduction in order to meet potential future temperature discharge limits as identified herein for inclusion in the summary report and facility plan.
- 4.2 Discharge Permit Compliance. Consultant will evaluate the performance of the WPCF with respect to the NPDES permit limits, note any violation issues and challenges in meeting the existing permit with the existing WPCF. In addition, based on communications with the Owner and public available information, Consultant will make assumptions on the future IPDES permit (which is currently with IDEQ) and the challenges in meeting the upcoming limits. This information will be used in the capacity evaluations in other tasks.
- 4.3 TMDL Review. Review existing TMDL and coordinate with Owner to identify future impacts to permit limits. This will include reviews of the TMDL summaries and discussions with the Owner's environmental staff.
- 4.4 Summary Report. Provide an approximately five-page written report documenting the anticipated permitting and regulatory evaluation information identified.

Owner Responsibilities:

- Provide information and communications with regulatory agencies regarding permitting and TMDL information.
- Review and comment on draft documents in a timely manner.

Deliverables:

- Draft report for Owner comments documenting the anticipated permitting and regulatory evaluation.

TASK 5: WPCF LIQUIDS STREAM CAPACITY EVALUATION

The purpose of this task is to assess the capacity of the WPCF. Computer models will be developed to simulate existing and future facility flows and loads which will allow Consultant to provide recommendations for process improvements and identify biological and hydraulic capacities of the various units within the WPCF.

Consultant Responsibilities:

- 5.1 Biological Model. Develop a biological model utilizing BioWin software by EnviroSim to simulate the performance of the WPCF biological treatment system with an appropriate level of accuracy needed for planning and operational purposes. Consultant will provide a Sampling and Analysis Plan (SAP) for Owner review including a list of sampling locations, parameters to be sampled, and frequency of sampling. The objective of this effort is to simulate the performance of the WPCF with an appropriate level of accuracy. Once the model has been calibrated, plant performance can then be simulated with future (20-year) flows and loadings to assess treatment bottlenecks for identification of alternatives and future improvements. The Owner will provide all sampling information for the modeling and associated calibration.

Once the BioWin model is developed and calibrated, Consultant will provide the biological model to Owner along with optional training of one full day of onsite training and 16 hours of follow on assistance as requested by Owner for a lump sum fee of \$9,000. The training is not part of the base fee indicated below.

- 5.2 Hydraulic Model. Develop a hydraulic model to evaluate the hydraulic capacity of the WPCF with the objective to identify process hydraulic capacity and possible hydraulic bottlenecks. Consultant will evaluate pipe sizing, pump sizing, and process sizing for hydraulic capacity. Consultant will assume pumps are operating at design point and valving is either fully open or fully closed unless identified otherwise by Owner.
- 5.3 Capacity Assessment. Consultant will provide biological system capacity assessment and hydraulic capacity assessment to accommodate existing and future (20 year) flows and loads. This information will be used to identify future improvement triggers. Findings will be incorporated into the summary report.
- 5.4 Summary Report. Provide an eight to ten-page summary report for Owner comments that documents the findings of biological and hydraulic models. Report will contain operational recommendations and biological and hydraulic capacities for major facilities at the WPCF.

Owner Responsibilities:

- Complete sampling and analysis as requested by Consultant and provide results to Consultant. If needed, Owner staff will collect and preserve samples for analysis by an outside laboratory.
- Provide operational setpoints and theory of operation of the WPCF.
- Provide input and review operational model scenarios.
- Provide online access to Owner's SCADA software so Consultant can obtain historical and real time information on facility operations for model calibration.
- Purchase biological modeling software package recommended by Consultant for Owner's use. Consultant has software for its use in developing the biological model and hydraulic model.
- Provide performance data for various equipment as requested.

Assumptions:

- If additional field work is required for calibration of the biological or hydraulic models, these services can be completed as an additional service.
- Calibration of biological models are often more complicated than initially expected, Consultant as assumed 90 hours for the development, coordination, and calibration of this model.

Deliverables:

- Provide the biological model to the Owner.
- Provide summary report documenting operational conditions, hydraulic capacities, and recommendations for improved operations based on model results.

TASK 6: BIOSOLIDS HANDLING AND DISPOSAL EVALUATION

Consultant Responsibilities:

- 6.1 Biosolids Projections. Use biological model to identify current biosolids production and future (20 year) biosolids production projections. This information will be used to assess existing capacity and identify future improvement triggers when capacity will be exceeded.
- 6.2 Regulatory Requirements. Review and summarize current, pending and anticipated future regulatory requirements and planning criteria that may influence operation, maintenance, and capital improvements of the biosolids handling and disposal.
- 6.3 Biosolids Treatment. Evaluate and provide alternatives for biosolids treatment improvements to manage current and future (20-year) solids production. This evaluation will focus on digestion retrofits and location, as well as the type and sizing of digestion expansion for the planning period. This evaluation will be limited to three upgrade alternatives.
- 6.4 Biosolids Handling. Evaluate and provide alternatives for biosolids dewatering improvements to manage current and future (20-year) solids production. Up to three dewatering alternatives will be evaluated. Alternatives will be selected with Owner input and could include additional lagoon capacity, solids

dewatering, continued Class B land application (liquid and solid), and additional treatment to produce Class A Biosolids.

- 6.5 Biosolids Disposal. Provide conceptual evaluation and write up of disposal alternatives. Alternatives include continued Class B land application (liquid and solid) and Class A biosolids reuse (composting). This task does not include a market analysis for disposal options.
- 6.6 Summary Report. Consultant will provide an eight to twelve-page summary report for Owner comments documenting biosolids projections, regulatory requirements, and recommendations for treatment, handling and disposal.

Owner Responsibilities:

- Review and comment on draft documents in a timely manner.
- Provide information regarding the current and future biosolids generation not related to the flows and loadings predictions and biological model.

Assumptions:

- Any contacts regarding potential biosolids reuse customers will be conducted by Owner staff.

Deliverables:

- Summary report documenting biosolids projections, regulatory requirements, and recommendations for handling and disposal.

TASK 7: ALTERNATIVES IDENTIFICATION AND SELECTION

The purpose of this task is to document alternatives and recommended improvements where deficiencies have been identified. An evaluation of alternatives is expected for Biological Nutrient Removal (BNR) improvements, biosolids handling options, future discharge options, and the Administration/Controls Building improvements.

Consultant Responsibilities:

- 7.1 BNR Optimization Alternatives. Provide alternatives and recommendations for process and operational modifications to improve the BNR capabilities of the WPCF. These alternatives could include operational, retrofit, or expansion alternatives. Up to three alternatives will be provided.
- 7.2 Biosolids Alternatives. As identified in Task 6.
- 7.3 Beneficial Reuse. Evaluate and provide concept level writeup to evaluate alternatives for beneficial reuse. Beneficial reuse alternatives will include land application for agricultural irrigation on approximately 300 acres of City owned land, a high level writeup and values for 100% land application, a modest evaluation of aquifer recharge, as well as a short summary discussion from previous residential reuse studies. Alternatives will include concept level costs and descriptions that include the benefits and drawbacks of each alternative.
- 7.4 Other Facilities. Alternatives and recommendations will be provided for other facilities that include the septic haul dump station, blowers, grit basins, and biogas generators. A brief discussion of alternatives and recommended improvements for these facilities will be provided.
- 7.5 Alternative Evaluation. Develop alternatives to meet current and future needs of the WPCF. Each alternative will be evaluated utilizing a cost benefit analysis (capital and O&M costs) with qualitative risks and future benefits identified.
- 7.6 Staffing Analysis. Consultant will coordinate with the Owner on existing staff and identify additional staffing needs associated with the alternatives identified. The staffing analysis will be based upon current staffing, future automation plans and additional staffing needs with expected future improvements.
- 7.7 Owner Prioritization. Consultant will work with Owner staff in reviewing the recommendations and selecting the preferred alternative and timing for recommended improvements based upon the capacity limits and flow and loads timing established in previous tasks. This information will be incorporated into the Capital Improvement Plan (CIP).

- 7.8 Trigger Development. Consultant will use the information gathered previously and develop a spreadsheet tool that identifies when the various process should be upgraded based on the results of the capacity evaluation. These triggers will be organized in two different tables, one that shows flow and loads with the other table organized by process area.
- 7.9 Summary Report. Consultant will not provide a summary report for this task as the information will be presented in final document.

Owner Responsibilities:

- Review and comment as alternatives are identified and developed. Work with Consultant to determine the preferred alternative for recommended improvement.
- Participate and provide facilities for workshop meeting. Provide public notices in local newspaper, if required.
- Provide number of EDUs within the wastewater system.

Deliverables:

- None

TASK 8: FACILITY PLAN AND CAPITAL IMPROVEMENTS PLAN DEVELOPMENT

The purpose of this task is to bring the recommendations together in a capital improvements plan (CIP) for the Owner to utilize. The CIP will include estimated scheduling, planning level opinions of probable costs.

Consultant Responsibilities:

- 8.1 Cost Estimates. Provide Class 5 Cost Estimates/opinions of probable costs and description for each of the project packages.
- 8.2 CIP Development. Develop a CIP that identifies and prioritizes the projects to be completed. Scheduling will be based on short term (0-5 years), mid-range (5-10 years), and long term (10-20 years) recommended improvements. Trigger points developed in Task 7 will be identified and referenced within the CIP.
- 8.3 Project Packaging. Identify a group or groups of projects that make sense based on timing, need, and impact to the WPCF.
- 8.4 Cost Impact. Basic funding options and user rate impacts will be summarized. Simple monthly increase per EDU per million dollars of improvement will be calculated based on number of EDUs and anticipated funding mechanisms. Owner will coordinate actual costs with City's financial rate consultant to determine how rates will be modified, if needed. The scope of this planning effort does not include a review of the City's operating expenses, revenues, or connection fees.
- 8.5 Draft Report. Compile a final draft report that includes the findings and recommendations from previous tasks. Appendices will be created that include pertinent supporting documentation.
- 8.6 Final Report. Owner review comments from the draft report will be incorporated into a final planning document ready for submission to the reviewing agency if deemed appropriate by the Owner.
- 8.7 Final Presentation. A final presentation will be provided by the Consultant to the City Council.

Owner Responsibilities:

- Provide feedback on CIP development to prioritize identified improvements.
- Review and comment on the CIP. Work with Consultant to determine the scope, schedule, and budget for the recommended improvements.

Deliverables:

- Four paper copies and one electronic copy (PDF) of the draft report.
- Four paper copies and one electronic copy (PDF) of the final report.
- One electronic copy (PDF) of the final presentation.

TASK 9: MANAGEMENT RESERVE

From time to time the Owner may have additional tasks related to the project or additional tasks may be encountered that are not identified in this scope of work. For these instances, a time and material budget is established in order for Consultant to complete the additional services. A Management Reserve in the amount of **\$40,000** is incorporated into this agreement to allow Owner's Public Works Director to authorize Additional Services if needed. The scope, schedule and budget for such items will be agreed upon in writing through an executed task order prior to incorporation into the work.

ADDITIONAL SERVICES (not included in the scope of work)

Additional Services: The Consultant will be available to perform additional services above and beyond the scope of this project as requested by the Owner. Payment for additional services will be negotiated on a lump sum or an hourly rate basis in accordance with the Consultant's current Title Code Billing Rates.

- One full day of biological model training and 16 hours of follow-up assistance as requested by Owner for a lump sum fee of \$9,000.
- Biological modeling efforts over 90 hours as identified in Task 5 Assumptions.
- Funding support (bond election or judicial confirmation).
- Policy development study (Connection fees, user rates, etc.).
- Laboratory testing services and operations support.
- Public outreach or stakeholder outreach support.
- Concept level design services.
- Energy efficiency evaluations.
- System resiliency evaluation, vulnerability assessment, and emergency response planning.
- Facility Control and SCADA Evaluation of Pre-Treatment Program.
- Environmental Information Document or associated environmental investigations and field work
- User rate analysis, including evaluation of individual rate structures, cost-of-service evaluations, and connection fee studies. Also, evaluation of short-lived assets, preservation measures, and development of annual replacement budgets.
- A Workshop that involves the entire team to discuss model findings and results.
- Other architectural and personnel needs analysis and facility evaluations such as Laboratory, Maintenance, Storage Buildings or others.
- Structural and Electrical engineering facility reviews.
- Additional presentations to City Council or others.
- Permit negotiations.

SCHEDULE

Consultant anticipates the following project schedule. The number of days associated with each of the tasks are approximate and assume timely delivery of requested information. Each task schedule follows the previous task unless otherwise specified. For example, Task 2b is scheduled to be completed 20 days after Task 2a is completed.

Task	Schedule	Comments
Task 2a – Data Collection	20 Days	Provide RFI to Owner within 10 days from receiving Notice to Proceed from the Owner. Owner to provide response within 10 days of receipt of RFI.
Task 2b – Review of Current Conditions	20 days	A review of the current conditions will be completed within 20 days from receiving requested information from the Owner.
Task 3 – Planning Criteria	30 days	Planning criteria will be completed within 30 days after receiving Owner comments from Task 2 summary report.
Task 4 – Permit Evaluation	20 days	Permit evaluation will be completed within 20 days after receiving Owner comments from Task 3 summary report.
Task 5 – Liquids Stream Capacity Evaluation	60 days	Not a consecutive task. Capacity evaluation will be completed within 60 days after receiving complete, validated sampling data.
Task 6 – Biosolids Handling and Disposal Evaluation	30 days	Biosolids handling and disposal evaluation will be completed within 30 days after receiving Owner comments from Task 5 draft report.
Task 7 – Alternative Identification & Selection	75 days	Alternative identification will be completed within 75 days after receiving Owner comments from Task 6 draft report.
Task 8 – Facility Plan & CIP Development (Draft Facility Plan and CIP)	75 days	Facility plan and CIP will be completed, and a draft report submitted to the Owner within 75 days after receiving Owner comments regarding alternatives.
Task 8 – Facility Plan & CIP Development (Final Facility Plan)	30 days	Final report will be submitted to Agency within 30 days after receiving Owner comments from draft report.
Task 9 – Management Reserve	TBD days	To be completed within a duration that will be determined as additional tasks outside of the existing scope are given to the Consultant near the end of the study phase.

COMPENSATION

Compensation for engineering services will be by lump sum method in the amount shown below. A summary of the fees for the project are presented below. The budget includes costs for direct labor, indirect labor, overhead, reimbursable expenses, equipment, travel, per diem, and fixed fees.

Task	Type	Amount
Task 1 – Project Management and Meetings	LS	\$36,000
Task 2 – Data Collection and WPCF Condition Assessment	LS	\$28,200
Task 3 – Planning Criteria	LS	\$9,500
Task 4 – Regulatory Evaluation	LS	\$7,900
Task 5 – WPCF Liquids Stream Capacity Evaluation	LS	\$49,200
Task 6 – Biosolids Handling and Disposal Evaluation	LS	\$28,200
Task 7 – Alternatives Identification and Selection	LS	\$26,300
Task 8 – Facility Plan and Capital Improvements Plan Development	LS	\$30,700
Subtotal		\$216,000
Task 9 – Management Reserve	LS or T&M	\$34,000
Total Cost		\$250,000

LS = Lump Sum T&M = Time & Materials

Task 10: Pre-Design of Selected Improvements (TBD)

Task 11: Design of Selected Improvements (TBD)

Task 12: Construction Management Services for Selected Improvements (TBD)