



REQUEST FOR QUALIFICATIONS
FOR
ENGINEERING SERVICES

associated with
Water System Modeling

Proposal Due Date/Time: July 18, 2024 @ 10:00 A.M.

Released June 6, 2024

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1. General Information

1.1 Purpose

St. Charles Parish water distribution system services all of St. Charles Parish and covers approximately 411 square miles and includes 380 miles of transmission distribution mains. Raw water from the Mississippi River is treated at the East Bank and West Bank Treatment Plants (WTP) and conveyed to the distribution system. In 2022 the Department of Waterworks treated 2.8 billion gallons of drinking water, with an average daily demand of 8.3 million gallons per day (MGD). The Department of Waterworks seeks to select a qualified engineering consultant to develop a water model that will help the Department to plan for future water demand, near and long term capital improvements, fire protection, and rehabilitation.

1.2 Goals and Objectives

The goal of this Request for Qualifications (RFQ) is to provide the St. Charles Parish Department of Waterworks with an experienced engineer that is familiar with the design and development of a water system hydraulic model.

2. Administrative Information

2.1 Term of Contract

The term of any contract resulting from this RFQ will begin on when the Parish issues a Notice to Proceed and will be in place until the completion of the project and the closeout of the grant award.

2.2 Definitions

- A. **Shall, Must or Will** – The terms “shall”, “must” and “will” denote mandatory requirements.
- B. **Should, Can, or May** – The terms “should”, “can”, and “may” denote an advisory or permissible action.
- C. **Consultant** – A firm or individual who is awarded a contract, or Contractor.
- D. **Proposal** – A response to this RFQ.
- E. **Proposer** – A firm or individual who responds to this RFQ.
- F. **RFQ** – Request for Qualifications

2.3 Schedule of Events

<u>Event</u>	<u>Date</u>
RFQ 1 st advertisement	June 6, 2024

Deadline for receipt of written inquiries CST	June 28, 2024 @ 3:00 P.M.
Deadline for Addendum/Response issued for written inquiries	July 5, 2023
Deadline for receipt of proposals CST	July 18, 2024 @ 10:00 A.M.
Proposer Interviews, if applicable	week of August 5, 2024
Notice of Intent to Award issued	August 9, 2024
Contract execution on or about	September 9, 2024

Note: St. Charles Parish reserves the right to amend and/or change this schedule of RFQ events as it deems necessary.

2.4 Proposer Inquiries

Written questions regarding this RFQ or Scope of Services must be submitted to the RFQ Coordinator listed below:

Greg Gorden, Director, Department of Waterworks
ggorden@scpwater.org

Rachelle Johnson, Administrative Assistant, Department of Waterworks
rjohnson@scpwater.org

Please include the following in the subject line of the e-mail: “RFQ – St. Charles Parish Department of Waterworks, Water System Modeling.”

The Parish will consider written inquiries and requests for clarification of the content of this RFQ received from potential Proposers. Written inquiries must be received by 3:00PM CST on the date specified in the Schedule of Events. The Parish reserves the right to modify the RFQ by addendum should a change be identified that is in the best interest of the Parish.

Official responses to all questions submitted by potential Proposers will be e-mailed to each firm recorded by the Parish as receiving this Request for Qualifications Package by the date specified in the schedule of events.

Only the RFQ Coordinator or their designee has the authority to officially respond to a Proposer’s questions on behalf of the Parish. Any communication from any other individuals shall not be binding to the Parish.

3. Proposal General Information

3.1 Minimum Qualifications of Proposer

The firm must have a minimum of five years of experience in providing engineering services for water system modeling. The firm must hold all licenses necessary to legally provide the related services in the State of Louisiana.

The lead Professional must be a licensed Professional with a minimum of 10 years of experience. In addition to the lead Professional, resumes for any key staff who will be responsible for the work should be provided.

Examples of three to five projects of related scope completed by the firm in the local area should be provided.

3.2 Proposal Rejection/RFQ Cancellation

Issuance of this RFQ in no way shall constitute a commitment by the Parish to award a contract. The Parish shall reserve the right to accept or reject, in whole or part, any and all proposals submitted and/or cancel this RFQ if it is determined to be in the best interest of the Parish.

3.3 Addenda

The Parish reserves the right to change the schedule of events or revise any part of the RFQ by issuing an addendum to the RFQ at any time. Addenda, if any, shall be e-mailed to each firm recorded by the Parish as receiving this Request for Qualifications Package.

Any Consultant submitting qualifications must acknowledge the receipt of any and all written Addenda in the cover letter for the proposal.

3.4 Withdrawal of Proposal

A proposer may withdraw a proposal that has been submitted at any time up to the date and time the proposal is due. To withdraw a proposal, a written request signed by the authorized representative of the Proposer must be submitted via e-mail to the RFQ Coordinator.

3.5 Right to Prohibit Award

In accordance with the provisions of La. R.S. 39:2192, any public entity shall be authorized to reject a proposal from, or not award a contract to, a business in which any individual with an ownership interest of five percent (5%) or more, has been convicted of, or has entered a plea of guilty or nolo contendere to any state felony crime or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950, professional, personal, consulting, and social services procurement under the provisions of

Chapter 16 of this Title, or the Louisiana Procurement Code, under the provisions of Chapter 17 of this Title.

In accordance with the provisions of 2 CFR 200 Appendix II(I), a contract award must not be made to parties (prime contractors and subcontractors) listed on the government wide Excluded Parties List System in the System for Award Management (SAM). Additionally, all parties are required to have a Unique Entity Identifier (UEI) number that is active on www.sam.gov. The UEI number(s) must be active prior to the execution of the contract.

3.6 Waiver of Administrative Informalities

The Parish shall reserve the right, at its sole discretion, to waive minor administrative informalities contained in any proposal.

3.7 Ownership of Proposal

All materials submitted in response to this RFQ shall become the property of the Parish. Selection or rejection of a proposal shall not affect this right.

3.8 Confidential and Proprietary Information

Only information which is in the nature of legitimate trade secrets or non-published financial data shall be deemed proprietary or confidential. Any material within a proposal identified as such must be clearly marked in the proposal and will be handled in accordance with the Louisiana Public Records Act, La. R.S. 44:1 et seq. and applicable rules and regulations. Any proposal marked as confidential or proprietary in its entirety may be rejected without further consideration or recourse.

3.9 Cost of Preparing Proposals

The Parish shall not be liable for any costs incurred by proposers prior to issuance of or entering into a contract. Costs associated with developing the proposal, preparing for oral presentations, and any other expenses incurred by the Proposer in responding to this RFQ shall be entirely the responsibility of the Proposer and shall not be reimbursed in any manner by the Parish.

3.10 Use of Subcontractors

The Parish shall have the right to offer a single contract to a sole prime contractor or multiple contractors. In either case, the awarded contractor(s) shall be responsible for all deliverables specified in the RFQ and proposal, unless specifically excluded in the executed contract. This general requirement notwithstanding, proposers may enter into subcontractor arrangements, however, should acknowledge in their proposal total responsibility for the entire contract.

If the Proposer intends to subcontract for portions of the work, the Proposer shall identify any subcontractor relationships and include specific designations of the tasks to be performed by the

subcontractor. Information required of the Proposer under the terms of this RFQ shall also be required for each subcontractor. The prime contractor shall be the single point of contact for all subcontract work.

Unless provided for in the contract with the Parish, the prime contractor shall not contract with any other party for any of the services herein contracted without the express prior written approval of the Parish.

Should the Proposer change name, ownership, corporate structure, liability status or otherwise legally modify the legal entity status during the contract status, the Proposer shall acknowledge that the original entity will still bear total responsibility for the entire contract should the Parish agree to modify the contract to include the new entity.

3.11 Errors and Omissions in Proposal

The Parish will not be liable for any errors in the proposals. The Parish reserves the right to seek clarification of any proposal for the purpose of identifying and eliminating minor irregularities or informalities.

3.12 Contract Award and Execution

The Parish reserves the right to enter into a contract based on the initial offers received without further discussion of the proposals submitted. The Parish reserves the right to contract for all or a partial list of services offered in the proposals.

The RFQ, including any addenda added, and the selected proposal shall become part of the contract initiated by the Parish.

The selected Proposer would be expected to enter into a contract with standard Parish requirements. In no event shall a proposer submit its own contract terms and conditions as a response to this RFQ. Negotiations may begin with the announcement of the selected Proposer.

3.13 Method of Award

St. Charles Parish reserves the right not to accept any Proposal, or to reject any or all Proposals, and to waive defects or irregularities in a Proposal. In particular, any alteration, erasure or interlineation of the Contract Documents and of the Proposal shall render the accompanying Proposal irregular and subject to rejection by the Parish. Awarding of the contract **will not be based solely on the highest score received following the evaluation** by the Parish. The Parish reserves the right to select any submitted proposal that it deems is in the best interest of St. Charles Parish.

3.14 Notice of Intent to Award

St. Charles Parish shall compile the scores and make a recommendation to the head of the agency on the basis of the responsive and responsible Proposer.

The Parish will notify the successful Proposer and proceed to negotiate terms for final contract. Unsuccessful proposers will be notified in writing accordingly.

The proposals received (except for that information appropriately designated as confidential in accordance with La. R.S. 44:1 *et seq.*), selection memorandum, list of criteria used with the weight assigned each criteria, scores of each proposal considered along with a summary of scores, and a narrative justifying selection shall be made available, upon request, to all interested parties after the “Notice of Intent to Award” letter has been issued.

The award of a contract shall be subject to the approval of the Parish Council.

3.15 Payment

Contractor requests for payments or invoices should be submitted at pre-negotiated milestones.

The Contractor shall submit invoices to the Parish for payment no more than once a month. These invoices shall summarize the percent complete of each milestone for which charges are billed. Each invoice amount due will be the percent complete for the period less any previous payments.

Payments will be made to the Contractor after review and approval by the Parish. All payments will be made within 30 days of the submission of a complete invoice.

3.16 Code of Ethics

Proposers shall be responsible for determining that there will be no conflict or violation of the Louisiana Ethics Code if their company is awarded the contract. The Louisiana Board of Ethics shall be the only entity which can officially rule on ethics issues.

3.17 Civil Rights Compliance

Contractor agrees not to discriminate in its employment practices, and will render services under this contract without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran status, political affiliation, disability, or age in any matter relating to employment. Any act of discrimination committed by Contractor, or failure to comply with these statutory obligations when applicable shall be grounds for termination of this contract.

See the Compliance Provisions for Federally Assisted Professional Services Contracts in Attachment I for specific applicable guidelines.

3.18 Corporate Requirements

If the Contractor is a corporation not incorporated under the laws of the State of Louisiana, the Contractor shall have obtained a certificate of authority pursuant to La. R.S. 12:301-302 from the Louisiana's Secretary of State. If the Contractor is a for-profit corporation whose stock is not publicly traded, the Contractor shall ensure that a disclosure of ownership form has been properly filed with the Louisiana's Secretary of State.

A certified copy of a board resolution granting authority to submit the proposal and sign a contract if selected should be submitted if Proposer is a corporation. The copy of the proposal with original signatures will be retained for incorporation in any contract resulting from this RFQ.

4. Proposal Response Instructions

4.1 Proposal Submittal

Firms or individuals who are interested in providing the services requested under this RFQ **must** submit a proposal containing the mandatory information specified in this section. The fully completed proposal with original signatures by an authorized representative **must** be received in hard copy (printed) version on or before 10:00AM local time on the date specified in the Schedule of Events. Central Bidding, fax or e-mail submissions are not acceptable. Proposers mailing their proposals should allow sufficient mail delivery time to ensure receipt of their proposal by the time specified.

The proposal package must be delivered at the proposer's expense to:

***St. Charles Parish Department of Waterworks
P.O. Box 108 or 301 Third Street
Luling, LA 70070***

All responses should be sealed and the outside of the envelope marked: "**RFQ – St. Charles Parish Department of Waterworks – Engineering Services for Water System Modeling.**"

The responsibility solely lies with each proposer to ensure their proposal is delivered at the specified place and prior to the deadline for submission. Proposals received after the deadline will not be considered.

4.2 Proposals

Proposals should be submitted as specified in Section 4.3, and should include enough information including, at a minimum, response date, proposer contact name and telephone number, and the stipulation that the proposal is valid for a time period of at least 90 days from the date of submission. This section should also include a summary of the Proposer's qualifications and ability to meet the Parish's overall requirements.

4.3 Proposal Response Format

Proposers are to submit proposals in a concise, orderly fashion that includes complete, appropriate comment, documentation, and submittals to address the RFQ requirements. In an effort to reduce waste, proposals should be printed double-sided on letter-sized paper (8.5" x 11") in 12-point font with 1" margins. With the exception of resumes submitted, proposals should not exceed **20 pages** (10 sheets of paper). Proposals may be bound using binder clips or binder combs only.

4.3.1 Technical Proposal

All proposals should follow the following format:

- a. **Cover Letter:** A cover letter on the Proposer's official letterhead that should explain the intent of the Proposer. The cover letter should also acknowledge receipt of any Addenda to the RFQ package that may be issued by the Parish.
- b. **Executive Summary:** This section serves to introduce the scope of the proposal. It shall include information including the Proposer contact name and telephone number. It shall include the stipulation that the proposal is valid for a time period of at least 90 calendar days from the date of submission. This section should also include a brief summary of the firm's qualifications, and ability to meet the program's overall requirements.
- c. **Company Background and Experience:** The Proposer should give a brief description of its company including brief history, corporate or organizational structure, number of years in business, volume of business including projects similar to that proposed and reserve capacity to provide engineering services to the Parish. The proposer should provide a description of its corporate resources that would be available to support this project, such as facilities, tools, or auxiliary staff who have unique qualifications and experience.

This section should provide a detailed discussion of the proposer's prior experience in working on similar projects. Proposers should describe their experience in

corporate/governmental entities of comparable size and diversity with references from previous clients including names and telephone numbers.

If subcontractors will be employed, the proposer should provide the same information regarding the subcontractor(s) as is requested for the proposer.

- d. Proposed Project Staff:** The Proposer should provide detailed information about the experience and qualifications of the Proposer's assigned personnel considered key to the success of the project. The proposer should identify the number of staff positions it will provide and whether or not these are current employees of the Proposer.

The information should include education, training, technical experience, functional experience, specific dates and names of employers, relevant and related work experience, past and present projects with dates and responsibilities and any applicable licenses and certifications. This should also specifically include the role and responsibilities of each person on this project, their planned level of effort, their anticipated duration of involvement, and their on-site availability. Contractor should also demonstrate the ability to expand staff capacity quickly for unaddressed needs.

If a subcontractor will be used, Proposer should clearly identify any subcontractor arrangements and should provide information about the qualifications and experience of any key personnel the Proposer expects to use from the subcontractor.

Provide resumes for all assigned personnel. Where vacancies exist, provide detailed job descriptions. Resumes and job descriptions will not be counted in the 20-page limit.

- e. Approach and Methodology:** Proposals should include enough information to satisfy evaluators that the Proposer has the appropriate experience, knowledge and qualifications to perform the scope of services as described herein. Proposers should respond to all requested areas.

The Proposer should:

1. Provide information to indicate the Proposer understands the nature of the project and how its proposal will best meet the needs of the Parish.
2. Define a functional approach in providing the services.
3. Define a functional approach in identifying the tasks necessary to meet requirements.
4. Describe the approach to Project Management and Quality Assurance.

5. Provide a proposed Project Work Plan that reflects the approach and methodology, tasks and services to be performed, deliverables, timetables, and staffing.
6. Provide an explanation of any additional tasks to be performed which are deemed necessary by the Proposer for successful project completion; explanation of deviation from and/or deletion of any tasks listed in the Scope of Services.
7. Have the ability to develop programmatic strategies, goals and objectives.

4.3.2 Certification Statement

The proposer **must** sign and submit the Certification Statement shown in Attachment II.

4.3.3 Subcontractors

Persons who are not full-time employees of the Proposer shall be considered as subcontractors. All subcontractors necessary to conduct the work should be identified as specified in 3.10 Use of Subcontractors, including the percentage of project to be accomplished. For each subcontractor, the Proposer should include letters of agreement to undertake their portion of proposed work.

4.3.4 Insurance Requirements

Contractor's Insurance: All Certificates of Insurance shall be furnished to the Parish within five days after execution of the contract. Certificates of Insurance shall be fully executed by officers of the Insurance Company written or countersigned by an authorized Louisiana State agency.

All certificates of insurance shall provide that insurance not be cancelled without ten (10) days prior written notice to the Parish. The Parish may examine all policies.

Contractor shall indemnify and hold harmless the Parish against any and all claims, demands, suits or judgements for sums of money to any party for loss of life or injury or damages to person or property growing out of, resulting from or by reason of any negligent act by the Contractor, its agents, servants or employees, while engaged upon or in connection with the services required or performed hereunder.

For all purposes under Louisiana law, the principals of the Contract shall be recognized as the statutory employer of all contract employees as provided in La. R.S. 23:1061.

Compensation Insurance: Before any work is commenced, the Contractor shall maintain during the life of the contract, Workers' Compensation Insurance for all of the Contractor's employees employed at the site of this project. In case any work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all the latter's employees, unless such employees are

covered by the protection afforded by the Contractor. In case any class of employees engaged in work under the contract at the site of the project is not protected under the Worker's Compensation Statute, the Contractor shall provide for any such employees, and shall further provide or cause any and all subcontractors to provide Employer's Liability Insurance for the protection of such employees not protected by the Worker's Compensation Statute.

Commercial General Liability Insurance: The Contractor shall maintain during the life of the Contract such Commercial General Liability Insurance which shall protect him, the Parish, and any subcontractor during the performance of work covered by the contract from claims or damages for personal injury, including accidental death, as well as for claims for property damages, which may arise from operation under the Contract, whether such operations be by himself or a subcontractor, or by anyone directly or indirectly employed by either of them, or in such a manner as to impose liability to the Parish. Such insurance shall name the Parish as additional insured for claims arising from or as the result of the operations of the Contractor or his subcontractors. In the absence of specific regulations/provisions, the amount of coverage shall be as follows: Commercial General Liability Insurance, including bodily injury, property damage and contractual liability, with combined single limits of no less than \$1,000,000.

Licensed and Non-Licensed Motor Vehicle: The Contractor shall maintain during the life of the Contract, Business Automobile Liability Insurance in an amount not less than combined single limits of \$1,000,000 per occurrence for bodily injury/property damage. Such insurance shall cover the use of any non-licensed motor vehicles engaged in operations within the terms of the Contract on the site of the work to be performed thereunder, unless such coverage is included in insurance elsewhere specified.

Subcontractor's Insurance: The Contractor shall require that any and all subcontractors, which are not protected under the Contractor's own insurance policies, take and maintain insurance of the same nature and in the same amounts as required of the Contractor.

Errors and Omissions: It will be the Contractor's responsibility to maintain Errors and Omissions coverage with limits of \$1,000,000. This Errors and Omissions coverage must be maintained throughout the period of this contract.

4.4 Number of Copies of Proposal

Five hard copies and one electronic copy of the Proposal are to be submitted to the physical address specified. At least one hard copy of the proposal shall contain original signatures of those company officials or agents duly authorized to sign proposals or contracts on behalf of the organization. If necessary, one redacted electronic copy of the proposal should accompany the

submission. Proposals should be stamped or identified as original, copy, or redacted. A certified copy of a board resolution granting such authority should be submitted if proposer is a corporation. The copy of the proposal with original signatures will be retained for incorporation in any contract resulting from this RFQ.

Failure to submit all information requested may result in the Parish requiring prompt submission of missing information and/or giving a lower score in the evaluation of the proposal; however, failure to submit mandatory information **shall** cause the Proposal to be disqualified.

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PART II: SCOPE OF SERVICES

5. Scope of Services

5.1 Overview

The St. Charles Parish water distribution system services all of St. Charles Parish and covers approximately 411 square miles and includes 380 miles of transmission and distribution mains. Raw water from the Mississippi River is treated at the East Bank and West Bank Water Treatment Plants (WTP) and conveyed to the distribution system. In 2022 the Department of Waterworks treated 2.8 billion gallons of drinking water, with an average daily demand of 8.3 million gallons per day (MGD). The Department of Waterworks seeks to select a qualified engineering consultant to develop a water model that will help the Department to plan for future water demand, near and long term capital improvements, fire protection, and rehabilitation.

5.2 Scope Tasks

TASK NO. 1 - DATA COLLECTION & ANALYSIS (BASE SERVICES)

1A. Data Request and Collection

CONSULTANT will collect any required data for the model to aid in model development. The projected data request will include the following:

1. GIS and/or similar information with appropriate locations of future developments, including equivalent dwelling unit (EDU) counts.
2. Construction drawings and/or schematics for ongoing and future transmission mains.
3. Developer plans and proposed projects.
4. Land use and zoning maps.
5. SCADA logs for the last 12 months for major system components (i.e., distribution pressure, tank levels, pump run speeds, etc.).
6. Current hydraulic model.
7. Customer billing data for the last 12 months.
8. Monthly Operating Reports (MORs) for the last 12 months.
9. Current GIS shapefiles for all potable water system components (i.e., water mains, fire hydrants, valves, etc.).
10. Pump curves for all active pumps.
11. Record drawings for all transmission lines, ground and elevated storage tanks, booster stations, etc.
12. Parish's Water Master Plan;
13. Water Main Replacement Plans;
14. Scada Improvements; and
15. Water Quality Data

1B. Data Review and Consolidation

Once the data is obtained, CONSULTANT will consolidate and organize the data to aid in the development of population and potable water demand projections and hydraulic modeling scenario

demands. CONSULTANT should also identify any deficiencies in the data and any alternative data sources that could supplement data gaps.

1C. Population and Potable Water Demand Projections

CONSULTANT will develop potable water demand projections for the incorporated area of the PARISH as follows:

a. Existing Water Demand Evaluation

CONSULTANT will review existing potable water demands provided by the Parish through customer meter billing data and MORs. It is assumed that billing data and MORs will include at least one (1) year of the most recent data available. CONSULTANT will perform a desktop water balance audit between customer billing data and MOR data. Discrepancies between the two data sets will be presented to the Parish prior to integration within the model.

b. Potable Water Demand Projections

CONSULTANT will develop water demand projections through 1) population-based and 2) meter-based methods. Projections will be reviewed with the Parish prior to developing final future water demand projections.

c. Future Water Demand Projections

CONSULTANT will develop potable water demand projections (if so requested by the Owner) based on information obtained from data collection efforts for the following planning periods: 1) existing conditions, 2) near term (1 – 3 years), 3) short term (5 years), 4) long term (10 – 20 years), and 5) full build-out. These demand projections will help the Waterworks Department to know what areas will require future capital projects to sustain the expected growth in specific areas of the Parish.

Should the Consultant identify the need for additional data prior to moving on to other task order phases to bolster the hydraulic model, it may be necessary to move forward with additional field collection prior to modeling.

TASK NO. 2 – HYDRAULIC MODELING (BASE SERVICES)

2A. HYDRAULIC MODEL

CONSULTANT will perform hydraulic modeling of the PARISH's existing and future finished water distribution system with regard to the impacts of projected system growth and changes in operation and/or capacity. The model will be run for the following scenarios: 1) existing conditions, 2) near term (1 – 3 years), 3) short term (5 years), 4) long term (10 – 20 years), and 5) full build-out. The hydraulic modeling effort will be focused on identifying transmission mains that may need to be upsized to handle future flow increases. Bentley WaterGEMS software will be used.

a. Hydraulic Model Extents

The existing water distribution system limits will be discussed with St. Charles Parish Waterworks personnel to ensure that the area and limits of St. Charles Parish are properly defined in the model. This also includes any additional supplemental connection lines with other Parishes

(if applicable) to supply water to other Parishes or bring in water from other Parishes during periods of emergency. The model will include all storage tanks and booster stations as well which contribute to the overall pressures seen by the system.

b. Update Current Hydraulic Model

CONSULTANT will coordinate with the PARISH's GIS division and will utilize the PARISH's current hydraulic model created using Bentley's WaterGEMS/CAD software and other information provided by the PARISH (e.g., GIS information, record drawings, maps, reports, etc.) in the data collection and analysis task (Task No. 1) to update pipelines in the model. Existing facility data relevant to the model (e.g., pump curves) will be verified and updated with available data. Additional GIS and data verification may be necessary.

1. Compare current model to the PARISH GIS data.
2. Prepare map of comparison and meet with PARISH to review and update current model.
3. Verify existing major facilities (e.g., pump curves, storage tank elevations, etc.) within the current model.
4. Extract the current hydraulic model controls and meet with PARISH operators to confirm the model controls match the existing conditions.
5. Update/verify current diurnal curve pattern applied in the hydraulic model. Utilize available SCADA data for the water treatment plant, interconnects, and storage tanks to evaluate a system-wide 25-hr diurnal curve pattern to apply to the demands for an extended period simulation (EPS).

c. Potable Water Demand Allocation

CONSULTANT will integrate customer meters and associated demands into the hydraulic model using the LoadBuilder tool within Bentley WaterGEMS.

d. Diurnal Curve Development

CONSULTANT will review the billing data and create a typical diurnal pattern for the system to be applied in extended period modeling. One diurnal pattern will be created for the entire system. CONSULTANT will analyze the billing data provided and calculate a max day demand and peaking factor specific to the Parish's system. This peaking factor and associated max day demand will be incorporated into the model in a separate steady state scenario.

TASK NO. 3 – FIELD TESTING & MODEL CALIBRATION (BASE SERVICES)

3A. FIELD TESTING & MODEL CALIBRATION

CONSULTANT will utilize information either from previous tasks, additional data to calibrate the hydraulic model, or testing data provided by the Owner. This includes:

a. Steady State Calibration

CONSULTANT will Steady state calibration will be performed using field-collected pressure recorder data, fire flow information, historic SCADA data (tank levels, pump run times, pump flows, etc.) to compare against model predicted values. Adjustments to pump operation, pipeline C-factors, valve positions, and other system components will be performed as needed.

b. Extended Period Calibration

Extended period calibration will utilize the steady state calibration scenario as a base for the extended period calibration process while incorporating:

1. Representative pump control logic for the WTP high service pumps and in-system booster pump stations based on operator interviews, review of available historic data, and field investigation.
2. Adjustments to pump operating logic will be made based on iterative modeling runs to correlate historic tank levels to in-model results.

c. Additional Field Flow Data Collection

This phase would include the implementation and placement of insertion meters for additional data input into the model or for the placement of strategic DMA boundaries (if requested by the Owner because of need).

d. Fire Hydrant Testing

Monitoring/testing at various different fire hydrant locations will be carried out by the Parish to aid in calibration of the model. Should additional data loggers be needed from CONSULTANT, this would be considered an additional service requiring further cost development. This testing and its results will help in CONSULTANT developing and recommending later flushing protocols.

CONSULTANT will meet with the Parish as required throughout the calibration efforts to provide a summary of the calibration process and make necessary adjustments for Parish buy-in and full accuracy prior to proceeding with developing the demand scenarios.

e. Develop Demand Scenarios

Demand scenarios will be developed with the input of the Owner, but the scenarios expected for development are for the following: 1) existing conditions, 2) near term (1 – 3 years), 3) short term (5 years), 4) long term (10 – 20 years), and 5) full build-out conditions. These conditions will be assessed for each scenario:

1. Average day demands.
2. Maximum day demands.
3. Maximum day demands + fire flow demands.

f. Hydraulic Modeling Summary

CONSULTANT will summarize key hydraulic modeling findings and will develop water main hydraulic requirements for planning periods mentioned above. This summary will include storage tank requirements for different scenarios, recommended flushing procedures, and will identify areas with high/low pressures and low fire flow pressures.

TASK NO. 4 – MODELING TECHNICAL MEMORANDUM (BASE SERVICES)

CONSULTANT will document the entire modeling process used, the data collected, the assumptions made, and the results of the hydraulic model construction update, any billing integration, and calibration in a technical memorandum to be submitted to the Parish. With this document, the Owner can input

additional data into the model without the Engineer (should they so choose) utilizing the same basic assumptions and can also historically document assumptions for any future model caretakers.

TASK NO. 5 – MODEL TRAINING (BASE SERVICES)

CONSULTANT will offer model training within WaterCAD/WaterGems to any officials that the Parish would like to have trained in the operation of the model. These sessions would extend to basic operations, such as changing line sizes within certain areas, changing pumps at certain stations, adding additional flow demands on certain lines (to check for the effects of new subdivisions and developments), opening and closing valves to determine overall system effects during maintenance, opening certain hydrants to determine pressure effects, etc.

CONSULTANT will demonstrate how the model should be renamed during these additional run scenarios by the Parish to ensure that the Parish does not negatively affect the integrity of the model. To prevent such a scenario from occurring, CONSULTANT will always have the latest copy of the model saved on its server should the Parish need help in reverting to previous versions of the model.

Should additional detailed training be desired or required, CONSULTANT can provide this training as well to develop additional line segment additions, pump station additions, tank additions, etc, within the framework of the existing model.

TASK NO. 6 – WATER QUALITY MODELING & CALIBRATION (BASE SERVICES)

6A. WATER QUALITY CALIBRATION

CONSULTANT will calibrate model for the water quality parameters with field data provided by water quality tests initiated by the Owner and various points recommended by CONSULTANT within the system.

6B. WATER QUALITY MODELING

CONSULTANT will utilize information provided by the client from water quality testing and collected data to perform water quality modeling related to water age, water quality, chlorine decay rates, and chlorine residuals to model these for all of the developed flow scenarios. CONSULTANT will identify problem areas related to high water age and will consider aspects of directional flow control and system expansion in looping configuration recommendations to reduce residence time.

TASK NO. 7 – HYDRAULIC MODELING OPTIMIZATION (BASE SERVICES)

CONSULTANT will offer additional hydraulic modeling for case-by-case requests (if requested by Parish) to aid in determining overall effects on the various model planning periods for new developments, newly identified “problem” areas for the Parish due to poor tank exchanges, new developments, low and/or high pressures, etc. These optimization services can also be extended as QA/QC reviews on existing modeling efforts and changes conducted by designated Parish personnel on the CONSULTANT calibrated model.

TASK NO. 8 – WATER MAIN LOSS INVESTIGATION & REPLACEMENT PLANNING (SUPPLEMENTAL SERVICES)

CONSULTANT will offer these planning services if requested by the Parish. These services would generally consist of the following:

8A. WATER MAIN REPLACEMENT PLANNING

CONSULTANT will provide the following water main replacement planning services:

- ❖ Development of a scoring system for likelihood of failure (LOF) for various components within the Parish water system. The Parish would have full input on the development of such scoring system;
- ❖ Relative ranking of LOF for the various water transmission lines within the Parish;
- ❖ Conduct a Consequence of Failure (COF) run on the model for various LOF rankings;
- ❖ Compile a COF scoring for the listed LOFs;
- ❖ Develop an overall risk assessment for identified lines based on both LOF and COF;
- ❖ Summarize LOFs, COFs, and risk assessments so that Parish can plan short and long term improvements to improve their water system;

Although not specifically mentioned, a Capital Improvements Plan (CIP) can be provided should the Parish wish to have such a document. Since not originally included in the request, this can be a separate task order.

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PART III: EVALUATION AND SELECTION

6. Evaluation and Selection

Proposals will be evaluated by representatives of St. Charles Parish based upon the selection criteria provided herein. The Parish reserves the right to reject any and all proposals.

6.1 Proposal Review Committee

The evaluation of proposals will be conducted by St. Charles Parish, which will determine the proposal most responsive or most advantageous to the Parish, taking into consideration the evaluation factors set forth in this RFQ. Committee members will be designated by the St. Charles Parish Administration.

6.2 Administrative and Mandatory Screening

All proposals will be reviewed by St. Charles Parish to determine compliance with administrative and mandatory requirements as specified in this RFQ. Firms must meet the minimum qualifications and mandatory requirements in order to be considered. Proposals found not to be compliant will be rejected from further consideration.

6.3 Clarification of Proposals

The Parish reserves the right to seek clarification of any proposal for the purpose of identifying and eliminating minor irregularities or informalities.

6.4 Evaluation and Review

Proposals that pass the preliminary screening and mandatory requirements will be evaluated on information provided in the proposal. Proposals will be evaluated on the basis of written materials only. Sufficient information must be included in the response to ensure that the correct amount of points are assigned to each category. Incomplete or incorrect information may result in a lower score. Projects provided without previous clients' contact information will not be

awarded points for experience. All responses should pertain to in-house expertise, not subcontract expertise.

A very low rating in any of the categories will be sufficient cause for rejection of the proposal. Any application that does not meet minimum standards will not be reviewed further.

The evaluation will be conducted according to the following:

Criteria	Maximum Score
Company Background and Experience	40
Proposed Project Staff Qualifications, Resumes	35
Approach and Methodology	25
Total Possible Points	100

6.5 Interviews

Interviews may be conducted at the Parish’s discretion or in the event of a tie. Proposers invited to interview should be prepared to demonstrate their proposed methodology and how this methodology has been used for program implementation and to provide solutions for other clients. Commitments made by the Proposer at the interview, if any, will be considered binding.

6.6 Proposal Criteria Definitions

This section provides details for each of the factors listed in Section 6.4 for Proposal Evaluation Criteria.

6.6.1 Company Background and Experience

The Proposer will be evaluated on past experience with engineering services related to water system modeling. St. Charles Parish will review the Proposer’s overview of its experience rendering services similar to those included in this RFQ.

Please provide a table of water system models developed for public water systems, year of projects, and point of contact with phone numbers.

St. Charles Parish will evaluate the Proposer's past performance qualifications and references; and will also review the past performance qualification for each subcontractor proposed.

6.6.2 Proposed Project Staff Qualifications, Resumes

St. Charles Parish will assess the quality of the resumes of the staff supplied in the proposal. The Proposer's proof of capacity to perform the scope of work will include a showing of an adequate staff including: engineers with the capacity to design mechanical, civil, structural and electrical components, inspectors, administrative support, etc. Adequacy can be demonstrated by quantifying the positions needed based on projected volume and timeline in the approach and methodology. Staff should be capable of all facets of project management. If subcontractors will be used, the resumes from the subcontractors will also be reviewed.

6.6.3 Approach and Methodology

St. Charles Parish will evaluate the Proposer's overall approach and methodology for providing the services and satisfying the requirements of the RFQ. The items that will be evaluated include:

Approach – Organizational characteristics and project management

- Project Organization (including identification and role of subcontractors)
- Organizational Chart
- Quality Assurance
- Subcontractor Management

Methodology – Implementation

- Evidence that approach reflects sufficient knowledge, experience and capacity to meet and/or exceed the specific needs of St. Charles Parish concerning the scope of this RFQ.
- Demonstrated understanding of Scope of Services.
- Ability to coordinate effectively with the Parish, property owners, contractors, grant agency/agencies, etc.
- Strategies and tactics to be used to complete tasks and services efficiently and effectively in the most cost effective and timesaving manner.
- Completeness in addressing the full spectrum of required staffing services.

**ATTACHMENT I
CERTIFICATION STATEMENT**

The undersigned hereby acknowledges she/he has read and understands all requirements and specifications of the Request for Qualifications (RFQ).

OFFICIAL CONTACT: The Parish requests that the Respondent designate one person to receive all documents and the method in which the documents are best delivered. The Respondent should identify the Contact name and fill in the information below: (Print Clearly)

- A. Official Contact Name: _____
- B. E-mail Address: _____
- C. Phone Number with area code: (____) _____
- D. US Mailing Address: _____

Respondent certifies that the above information is true and grants permission to the Parish to contact the above named person or otherwise verify the information provided.

By its submission of this proposal and authorized signature below, Respondent certifies that:

1. The information contained in its response to this RFQ is accurate.
2. Respondent shall comply with each of the mandatory requirements listed in the RFQ and will meet or exceed the functional and technical requirements specified therein.
3. Respondent shall accept the procedures, evaluation criteria, mandatory contract terms and conditions, and all other administrative requirements set forth in this RFQ.

Authorized Signature _____ **Date** _____

Typed or Printed Name: _____

Title _____ Company Name _____

Address: _____

City _____ State _____ Zip: _____