Green Bay Metropolitan Sewerage District Request for Proposal

For

Pump Station and Headworks Project

NEW Water, the brand of the Green Bay Metropolitan Sewerage District, is seeking a professional consultant for engineering services to complete an engineering design for the Pump Station and Headworks Project at its Green Bay Facility (GBF) based on the following information, requirements, and criteria.

1. Description of Project

NEW Water has completed a Facility Plan for the Green Bay (GBF) and De Pere (DPF) Wastewater Treatment Plant Facilities. This Facility Plan focused on developing a phased approached in addressing long term needs for the two wastewater treatment facilities to meet its peak flow capacity limitations, operation and maintenance challenges, and address overall aging infrastructure. The phased approach for capital improvement projects identified in the facility plan provides flexibility to affordably meet the changing needs at both facilities. Presently The Facility Plan for the Green Bay and De Pere Facilities lists 10 projects for GBF and 5 projects for the DPF which includes this GBF Pump Station and Headworks Project.

The GBF consists of a liquid treatment train of metro and mill waste pumping, screening, primary clarification, primary sludge grit removal, activated sludge configured for enhanced biological phosphorus removal (EBPR), secondary clarification, and disinfection with sodium hypochlorite and de-chlorination with sodium bisulfite. The solids handling treatment train includes sludge thickening with gravity belt thickeners and gravity thickeners followed by anaerobic digestion, centrifuge dewatering, and ending with solids drying and incineration.

The existing metro and mill waste pumping, screening, and grit removal processes at GBF consists of influent mechanical bar screens (trash racks), dry-pit centrifugal pumps, fine mechanical bar screens with washer/compactors, and primary sludge (PS) grit removal and handling.

Raw wastewater enters the pump station through a 108-inch interceptor sewer that flows to two coarse bar screens with 2-1/2-inch opening and capacity of 110 mgd each. Metro pumping consists of 4 dry-pit centrifugal pumps (3 in service, 1 standby) located in the pump station building with a total capacity (if all 4 pumps are in service) to pump 160 mgd and a firm capacity of 120 mgd. Mill waste pumping consists of 3 dry-pit centrifugal pumps, two with a capacity of 10.9 mgd each and one with a capacity of 6.48 mgd. All pumps are located in the pump station building.

The GBF has four existing influent fine screens with ¹/₄" (6 mm) spacing located in the headworks Building. The existing fine screens have a design capacity with all units in service of 110 mgd. Screening includes two washer compacters and screw conveyors to convey screening to a dumpster.

Grit removal at the GBF consists of six PS pumps, PS grit removal with four TeaCup® Hydrocyclone grit removal systems (sized for 400 gpm continuous flow each) paired with two GritSnail® classifiers. The TeaCup® systems have since been modified to become SlurryCup® systems. Refer to the table below for total weight of screenings and grit remove at the GBF on an annual basis.

	Screenings & Grit Total Weight (lbs)
2018	581,260
2019	471,860
2020	647,520
2021	490,988
2022	480,040

2. Drivers for the Project

Planning Projection and Design Criteria

The original planning period for the GBF Pump Station and Headworks Project is 20 years and the design year is 2045. See "Facility Plan for the Green Bay and De Pere Facilities", and Appendices for Technical Memorandums, for more information. The 2040 flows and loads from the facility plan shall be adjusted to meet the 2045 design year of this project. Components of the GBF Pump Station and Headworks Project are listed below and described in the Facility Plan for the Green Bay and De Pere Facilities.

Primary Project Drivers

- Aging Equipment: Influent pumping and headworks equipment is at the end of its useful life and in need of replacement.
- Operational Challenges:
 - Fine screening facility does not capture a sufficient amount of rags, plastics, and other trash due to hydraulic limitations from elevated flow velocities in the channels.
 - Elevated water level in the channels cause overflow into the two available bypass channels (set to overflow at 110 mgd), which have no screening capability.
 - Existing washer/compactor units plug and have performance issues, especially during high flows.
 - The sludge grit removal system does not adequately remove grit to protect downstream thickening equipment, pumps, and anaerobic digestion.
 - Hydraulic Limitations: Influent pumping and screening equipment have present hydraulic limitations.
 - The 120 mgd firm capacity for influent pumping does not provide sufficient capacity for the projected peak hour flows.
 - The screening facilities' 110 mgd design capacity, is lower than the design flow for the trash racks and the influent pumps.

Pump Station: Process/Mechanical

- Metro and Mill Pumping Includes replacement of all metro and mill pumps to meet required design flows, suction and discharge piping, flow control gates, valves and flow meters.
 - Evaluate number of pumps and pump sizes to meet both high and low flow conditions.
 - Evaluate pumping capacity and turndown at various wetwell elevations to optimize pumping hydraulic efficiency.
 - Evaluate feasibility to install all pumps with same impeller rotation direction to minimize spare parts.
 - o Study to evaluate pump starter options (e.g. variable frequency drives, eddy current drives, etc.).
 - Evaluate number of pumps which could be started and operated if power is lost with existing diesel and natural/biogas generators.
 - Inspect metro and mill wetwell structures and equipment to evaluate the need for structural or equipment repairs or improvements.
- Study relocating discharge of plant drain piping and automatic sampling to simplify NEW Water's

customer billing practices. Relocation of plant drain piping may require new wetwell and approximately 10 mgd pumping system.

- Replace building dewatering pumps, valves, piping, controls, etc.
- Replace building sump pumps, piping, valves, controls, etc. and address system plugging issues.
- Identify changes to wetwell spray water system for more effective operation.

Pump Station: Structural/HVAC

- Replace building elevator.
- Improve cold weather inlet isolation for air handling units to prevent freezing.
- Evaluate hot water supply and return piping, valves, pumps, and heaters for replacement or removal.
- Replace stairs that are corroded near the bottom of the drywell.

Pump Station: Electrical/Controls

- Electrical gear and controls shall be moved to its own room or new building.
 - Replacement of all electrical gear (i.e. transformers, switchgear, distribution centers, MCCs, panelboards, motor starters, etc.).
 - Evaluate condition of power feed lines (i.e. Line 135 and Line 137) from the primary sub-station to pump station transformers and to pump station switchgear.
 - Main building transformers P1 and P2 on Lines 135 and 137 shall be replaced.
 - Evaluate installing another redundant feed line from the compressor sub-station to the pump station.
 - Replace switchgear emergency battery backup system and add emergency shower and eye wash station.
 - Add a quick connection for portable generator hook up.
 - o Replacement of all controls infrastructure (i.e. redundant PLCs, HMIs, SCADA computer, etc.)
- Replace process equipment local control stations.

Headworks: Process/Mechanical

- Replacement of all process equipment and appurtenances in the headworks building (i.e. flow control gates, fine mechanical screens, conveyors, screenings washing/compacting, grit removal, grit classifiers, actuators, valves, piping (except new TEF line), flow meters, instrumentation, etc.).
 - Evaluate alternative screening and grit removal technologies.
 - Increase fine screening capacity, this may require adding mechanical screens to the two bypass channels and modifications to the channels to facilitate screen installation and operation.
- Evaluate capacity needs and replacement of primary clarifier scum pumps, valves, flow meters, and piping.
 - o Evaluation of degritted sludge pumping system capacity to sludge and scum handling.
- Addition of a fourth forcemain for conveying primary scum to scum handling.
- Evaluation of hydraulic profile from pump station to primary clarifiers.
 - At flows above 40 mgd headworks influent flow control gates flood when one channel is isolated.
 - See Attachment C Facility Plan GBF North Hydraulic Model
- Replace heated pressure washing cleaning system.

Headworks: Structural/HVAC

- Replace all exterior manway and overhead doors
 - o This item does not include the two large overhead doors on the building's east side.
- Channel expansion joint replacement

• Replace all headworks HVAC equipment, piping, and appurtenances.

Headworks: Electrical/Controls

- Electrical gear and controls shall be moved to new room or building.
 - o Replacement of all electrical gear (i.e. transformers, MCCs, panelboards, motor starters, etc.).
 - o Improvements to controls infrastructure
 - Replacement of process equipment control panels, SCADA Computer, etc.
 - Add remote I/O racks for new process equipment from existing headworks PLC.
- Replace process equipment local control stations.

Items for Both Pump Station and Headworks

- Demolition of unused piping and conduit that has previously been abandoned (e.g. 200° wash water piping).
- Cleaning building's exterior
- Paint building's interior
- Increase Wi-Fi reliability and relocate or add cameras to address operational and security concerns
- Improve bathrooms and corresponding supporting equipment (e.g. hot water heaters, etc.).
- Replace building roof drains and floor drains, replace exposed drain piping, and evaluate drain piping prone to plugging.
- Relocate or replace lighting based on process equipment layout.
- Replace gas detection systems except for pump station drywell.
- Condition and capacity assessment to determine if hoists and traveling bridge cranes should be repaired or replaced.
- Assess condition of two 48" metro forcemains and 36" mill waste between pump station and headworks.
- Evaluate capacity needs and replacement of service water and potable water piping back to watermains.
- Replace existing level transmitters and evaluate alternative technologies.
 - Replace corroded level transmitter control air piping and electrical conduit.
- Evaluate innovative infrastructure improvements to help increase electrical efficiency and energy reduction.
- Add sump pumps to high voltage manholes
- Replacement of wastewater automatic composite samplers and sample tubing.
- Evaluate control air piping for replacement.

3. Scope of Services

The Scope of Services to be provided by the Consultant under this proposal is as follows:

A. Project Management

The Consultant shall support NEW Water by managing the project to coordinate work efforts of all design disciplines, monitor the project budget and schedule, and keep NEW Water informed of project progress and issues necessary for the success of the project. The following activities shall be performed:

1. Meetings:

The Consultant shall provide meeting agendas and materials which may require NW's review before meetings to facilitate meeting discussions. Within one week following the meetings, a summary of meeting discussions and decisions made will be sent to NW.

2. Project Kickoff Meeting

The Consultant shall conduct a kick-off meeting with NEW Water, including review of the following items:

- Project objectives Consultant shall conduct a team project goals and objectives session for the
 purpose of ensuring all project team members understand the project goals and objectives. Include
 both NEW Water and Consultant project expectations for the project in the goals and objectives.
- NEW Water preferences relative to the following: equipment selection, utilization of existing facilities, materials of construction, and design standards.
- Factors critical to project success and the associated tasks
- Roles and responsibilities of NEW Water and the Consultant project team members
- Project schedule/key milestones Meet with NEW Water staff as required to coordinate the engineering, preliminary and final design, and schedule tasks of the project. Changes to the schedule should be documented by the Consultant, as well as the basis for schedule revisions.
- Data and information needs
- 3. Workshops/Meetings

The number of workshop/meetings is estimated at 34 as listed below:

- Kickoff Workshop 1
- Pre-Design Meeting 1
- Hydraulic Profile Meeting 1
- Mechanical Equipment Selection Meeting 2
- Equipment Procurement Analysis Workshop 1
- Plant Control Requirements Meeting 3
- Plant Drain Piping Relocation Meeting 1
- Metro Pumping Capacity and Configuration Meeting 1
- Metro Pump Drive Selection Meeting 1
- Metro Wetwell, Metro Forcemain, Mill Wetwell and Mill Forcemain Inspection Results Meeting 1
- Pump Station Electrical Feeder Evaluation Meeting 1
- Electrical Energy and Energy Reduction Alternatives Workshop 1
- Safety Systems Meeting 1
- Design Report Workshop 1
- Preliminary Design Workshop (30%) 1
- Pump Station and Headworks Electrical Gear Location Meeting 1
- Pre-Final Design Workshop (60%) 1
- Construction Sequencing Schedule and Constructability Review Workshop 2
- Final Design Workshop (90%) 1
- Other 10 (as needed for project)

Note - Workshops are estimated to last a maximum of 4 hours and are on site. Meeting are estimated to last a maximum of 2 hours and are web-based.

4. Project Coordination

For the duration of the project, the Consultant's Project Manager will have at a minimum, monthly calls with NEW Water's Project Manager to update NEW Water on project progress and identify any issues for

resolution. A summary of the monthly meeting discussions and decisions made shall be provided by the Consultant.

Coordinate with NEW Water's consultant AFF Research to coordinate the Bidding Documents and General Conditions to ensure compliance with Disadvantage Business Enterprise requirements for the project.

Coordinate with Wisconsin Focus on Energy to identify potential funding available from the Focus on Energy program. Provide documentation as required by Focus on Energy to substantiate any electrical savings achieved by replacement of the equipment, pumping, or piping systems.

Coordinate with any sub-consultant that the Consultant feels necessary to complete any of the tasks outlined in the RFP. The level of effort and expenses for any sub-consultant shall be included in the Consultants' Proposal.

5. Invoices/Progress Reports

The Consultant shall prepare and submit invoices and progress reports on a monthly basis. The monthly invoices shall be itemized by task and shall indicate individuals' hours for each task performed during the billing period. Supporting documentation for expenses incurred shall be included with the invoice.

The progress reports will be in letter format and summarize activities completed to date, financial and schedule status, and identify any potential problems, critical issues, and planned corrective actions. NEW Water's and Consultant's project managers will review the progress reports and invoices on a monthly basis.

6. Project Quality Management

The Consultant shall implement proven QA/QC measures throughout the project. Consultant shall describe their QA/QC plan in the Proposal.

The Consultant shall develop a QA/QC form that documents that QA/QC review has been completed on any document prior to submittal to NEW Water. A draft of the QA/QC form shall be submitted to NW for review. The QA/QC form shall be included with all deliverables and at a minimum, shall include the following information:

- Document title
- Document author
- Draft # and date
- QA/QC reviewer
- Date of QA/QC review with reviewer initials
- Verification that NEW Water comments have been addressed. Consultant shall provide a memorandum describing actions taken to address NEW Water comments
- 7. Document Management System

The Consultant's document management system shall be used for communication and collaboration among all team members including NEW Water staff. This system shall be the center for housing all information for managing all correspondence and documents. This document management system shall be accessible to NEW Water for retrieving and submitting documents.

The Consultant shall coordinate with NEW Water's IT Department to determine format for turning over final electronic documents upon project completion and closeout.

At the end of the project an electronic copy of the document management system information shall be turned over to NEW Water.

8. Project Deliverables

All project deliverables shall be submitted as an electronic copy in native format and Portable Document Format (PDF), unless otherwise indicated.

- Meeting Agendas
- Meeting Review Materials
- Meeting Minutes
- Project Goals, Objectives and Decisions Made Spreadsheet
- QA/QC Form
- Invoices/Progress reports
- Design, Bid, and Conformed Documents As required below:
- B. General Requirements

The Consultant shall prepare preliminary design documents, final design documents, and bid documents.

- Contract Documents shall be based on the Standard General Conditions of the Construction Contract as prepared by the Engineers Joint Contract Documents Committee, latest edition.
- Technical Specifications shall incorporate NEW Water standards and preferences and will be organized consistent with the CSI 50-division format.
 - o Equipment tag numbers shall adhere to NEW Water's standards.
- Drawings shall be distributed to NEW Water in AutoCAD and the Consultant's standard title block and drafting standards. Full-size drawing shall be 22"x34" format and half size drawings shall be 11"x17" format.
- NEW Water will make available to the Consultant any available PDF or TIF files of the existing
 facilities in NEW Water's possession that may be used for producing drawings necessary to convey
 the extent of the work of the project.
- C. Engineering Design

NEW Water requires Pump Station and Headworks Project improvements to meet capacity with increased flexibility and redundancy for the next 20 years. The consultant shall review the existing facilities and the "Facility Plan for the Green Bay and De Pere Facilities" in preparing the design for facilities. Refer to Attachment A – NEW Water Design Guidance document for recommended guidelines and standards for design submittals. Consultant shall provide separate estimated capital cost to improvements related to mill pumping to support project funding defined by NEW Water's tripartite agreements with mills.

Task 1 – Preliminary Design

To assess improvements, the following steps are recommended:

- Review studies, reports and other material provided by NEW Water:
- Technical Memorandum 2.1 Flows and Loads Projections
- o Technical Memorandum 2.2 NEW Water Model Development and Calibration Hydraulics
- o Technical Memorandum 4.1 Screening and Grit Management

- Identify process configurations
- Review facility flows to check recent plant data for any potential changes and adjustment to 2045 design year. Utilize final flow numbers for each configuration, along with operational parameter ranges and equipment duty points.
- Evaluate equipment solutions to provide required capacity, flexibility and redundancy.
- Confirm data for design and construction.
- Evaluate electrical and HVAC requirements along with equipment control strategies to meet standards and codes for rated spaces.
- Evaluate timing for all aspects in purchasing and delivery of major equipment and make recommendations on equipment procurement approach.
 - An amendment to the Consultant's contract may be negotiated in the event procurement of major equipment is implemented.
- Develop recommendations for metro pumping capacity and configuration to meet current and future hydraulic capacity needs.
- Develop recommendations for grit removal capacity and configuration.
- Develop recommendations for fine screening and screenings washing capacity and configuration.
- Decision on pump drive alternatives for metro pumping control.
- Meet with NEW Water's team to discuss equipment selection, operational and maintenance requirements including staff requirements and system preferences, and prioritize project needs.
- Review electrical requirements for equipment, availability, and impacts of power usage in buildings electrical rooms.
 - Verify on-site generator capabilities and configuration for starting and sustaining load from critical equipment related to pump station and headworks.
 - Evaluate current and future fiber optic wiring needs in project area.
- Review headworks area for any structural and architectural issues within building including channels, I-beams, catwalks, grading, ventilation, doors and windows
- Evaluate ability of mechanical screens to be installed in two existing screening bypass channels.
- Review pump station for any structural and architectural issues within building including wetwells,Ibeams, catwalks, grading, ventilation, doors and windows
- Condition and capacity assessment report and recommendations for project area hoists and traveling bridge cranes.
- Review energy usage to identify potential funding from Focus on Energy
- Review of safety systems (e.g. gas monitoring, rated space requirements, eye washes, etc.)
- Outline project control systems required for operation and integration for construction documents and plant SCADA system.
 - o Investigate benefits of implementing Rockwell ThinManager thin client management software.
 - Conform to Attachment B NEW Water's SCADA Standards for Packaged Systems.
- Condition assessment report and recommendations for metro and mill waste wetwell structures and equipment.
- Review plant drain flows and plant drain piping relocation options.
 - Include major task line item in final proposal to install new plant drain pump station (approximate capacity of 10 mgd).
- Review electrical gear building or room layout options.
 - Include major task line item in final proposal to construct new electrical building for pump station and headworks electrical gear.
- Condition assessment report and recommendations for pump station power feed lines 135 and 137.
 - Include major task line item in final proposal to replace existing redundant power feed lines back to the sub-station and add an additional feed line from the compressor sub-station.
- Condition assessment report and recommendations for metro and mill forcemains.

- o Include major task line item in final proposal to replace existing metro and mill forcemains.
- Recommendations for potential electrical efficiency and energy reduction infrastructure improvements. Recommendations shall include equipment price, estimated installation costs, estimated operation and maintenance costs, payback period, performance criteria and/or other criteria as determined.
 - Include major task line item in final proposal for the design and implementation of electrical efficiency and energy reduction infrastructure improvements.
- Develop recommendations on the critical design aspects indicated above for the project.
- Submit design calculations for facilities.
- Submit final decisions made for design for NEW Water final review and approval.

Task 2. - Mechanical Equipment

- Consultant to setup site visits for NEW Water staff to see potential equipment in operation and discuss equipment operation and maintenance with plant site staff. It is recommended, but not required that the Consultant attend equipment site visits.
- Equipment Analysis Report The equipment analysis report shall include appropriate selection criteria which may include: equipment price, estimated installation costs, estimated operation and maintenance costs, performance criteria and/or other criteria as determined. List the manufacturer's models determining the pros and cons for each manufacturer. Provide a short list of recommended manufacturers and models.
- Equipment Planning Consultant shall consider the timing for all aspects in purchasing or selection of the equipment, including timing and schedule for delivery of equipment for construction contract, and make a recommendation on approach for project construction completion.
- Meet with NEW Water staff to address issues and reach decisions regarding equipment selection and its impact on construction.

Task 3 – Basis of Design Report

For Task 1 and 2 provide a basis of design report for project design. It is recommended that this
report comply with Attachment A – NEW Water Design Guidance document. This basis of design
report should include all decisions made. As project progresses the design report should be updated
with changes to the design. A final design report should be submitted with the final contract
documents.

Task 4 - Final Design Requirements

- Coordinate design plans and specifications, including with any sub-consultants, to ensure all processes are compatible, integrated, and meet all performance requirements.
- Incorporate staff operational requirements and system preferences into contract documents.
- Review substation for utilizing existing electrical systems, available power for new systems, and
 provide additional power sources in the future. Perform a preliminary electrical load analysis for all
 proposed equipment. Configure electrical equipment required to power processes and for services
 to the critical systems operations. Include improvements recommended as a result of the pump
 station electrical feeder and transformer evaluation.
- Incorporate improvements to relocate electrical switchgear, transformers, MCCs, etc. to a discrete electrical room(s) or building.
- Proposed improvements shall be designed to facilitate and not preclude future odor control improvements.

- Prepare design plans, specifications and programming functional descriptions for all SCADA components and devices. Include integration of new facilities into plant SCADA system.
- Submit final design calculations and operational costs for new facilities, including potential costs for energy, chemicals, and O&M materials/supplies for system operation.
- Incorporate selected renewable energy or energy efficiency alternatives selected.
- Incorporate improvements recommended as a result of wetwell and forcemain inspection report.
- Incorporate selected improvements related to plant drain piping relocation review.
- Provide a final list of equipment tag numbers including but not limited to all new and existing equipment tag numbers. The documents shall be provided in both native format and Portable Document Format (PDF).

Task 5 Engineering Design

Preliminary design (30% level of design):

The Consultant shall prepare a 30% preliminary design of the proposed facilities and submit to NEW Water for review and comment. It is recommended that the 30% preliminary design submittal comply with Attachment A - NEW Water Design Guidance document.

The Consultant shall provide electronic copies of the 30% Preliminary Design Documents to NEW Water. The documents shall be provided in both native format and Portable Document Format (PDF).

The Consultant shall conduct a Preliminary 30% Design Review Workshop. The intent of the workshop will be to review progress to date, discuss design issues, and solicit comments and input from NEW Water.

Design (60% level of design):

The Consultant shall prepare a 60% design of the proposed facilities and submit to NEW Water for review and comment. The 60% design shall incorporate mutually agreed upon changes to the project design resulting from comments and input obtained from the 30% Preliminary Design Review Workshop. It is recommended that the 60% preliminary design submittal comply with Attachment A – NEW Water Design Guidance document.

The Consultant shall provide electronic copies of the 60% Design Documents to NEW Water. The documents shall be provided in both native format and in Portable Document Format (PDF).

The Consultant shall conduct a 60% Design Review Workshop. The intent of the workshop will be to review progress to date and solicit comments and input from NEW Water.

Final review design (90% level of design):

The 90% final review design shall incorporate mutually agreed upon changes to the final design resulting from NEW Water review comments and input obtained from the 60% Design Workshop into a set of final review documents (specifications, drawings and project manual). It is recommended that the 90% preliminary design submittal comply with Attachment A – NEW Water Design Guidance document.

The Consultant shall provide electronic copies of the 90% Final Review Design Documents to NEW Water for a final review. The documents shall be provided in both native format and in Portable Document Format (PDF).

The Consultant shall conduct a Final 90% Design Review Workshop. The intent of the workshop will be to review progress to date and confirm mutually agreed upon changes to the final design have been incorporated.

It is anticipated that this project will receive funding through the Clean Water Fund Program (CWFP). Although NEW Water will be responsible to complete the CWFP loan application, Consultant shall assist NEW Water by:

- Preparing a Parallel Cost Estimate and Endangered Resources Review Request for submitting to the Wisconsin Department of Natural Resources with 90% review documents submittal to the DNR. The Consultant shall also support NEW Water in obtaining approval of the Parallel Cost Estimate.
- Preparing and providing NEW Water project cost breakdowns per the project cost categories in the Project Information Section of the CWFP loan application. The project cost breakdowns shall be based on the final Engineer's Opinion of Probable Cost.
- Preparing and submitting to NEW Water a completed and signed copy of the CWFP Cost & Effectiveness Certification.
- D. Construction Sequencing Schedule and Constructability Review

During review of the 60 and 90 percent complete design submittals the Consultant shall prepare a construction schedule and perform a constructability and operability review.

The schedule shall establish construction sequences and constraints for implementing and coordinating the construction activities to meet plant operational requirements and maintain permit compliance during construction. Sequencing schedule shall include all required coordination for construction flow control strategy, commissioning of new systems, startup, training, functional testing, 14-day continuous operational test, permit testing requirements, SCADA programming, existing plant operations and shut down, and maintenance manufacturer equipment testing. If necessary, to keep critical operations in service, either provide temporary services in the design or require contractor to provide temporary services to critical systems. The schedule shall also evaluate equipment lead times and the contractor's ability to meet contract dates.

The constructability review shall ensure that proposed facilities are constructible and reasonably laid out for operations and maintenance activities and that no items are presented that will require extraordinary cost or difficulty to operate and maintain. The constructability review will be done by senior staff experienced in the design, bid, and construction of wastewater treatment facilities. The operability review will be done by senior staff certified and experienced in the operation of similar wastewater treatment facilities.

E. Regulatory Review

The Consultant shall also submit the 90% Final Review Design Documents to the Wisconsin Department of Natural Resources (WDNR) and other regulatory agencies as required for review and approval.

The Consultant shall provide paper and/or electronic copies of the 90% Final Review Design Documents to the regulatory agencies as required by the reviewing agency. Any fees for review of the documents will be paid for by NEW Water.

F. Contractor Prequalification

The Consultant will develop documents to pre-qualify General, Mechanical, Electrical and System Control Contractors. The prequalification documents will incorporate minimum requirements and criteria to meet prequalification requirements.

The Consultant will provide information and clarification to prospective contractors during the prequalification approval process and assist NEW Water in the review of the prequalification submittals. The Consultant shall prepare a letter for rejected contractors citing the reasons for rejection of the contractor. The Consultant shall also provide a letter of recommendation to NEW Water for prequalified contractors for bidding. Approved prequalified contractors will be listed in the bidding documents.

G. Bidding Phase Services

The Consultant shall respond to comments received from NEW Water, WDNR, and other regulatory agency reviews. The Consultant shall incorporate changes required to the 90% final review design and prepare a set of Bid Documents (drawings and project manual).

The Consultant shall prepare the Advertisement for Bids to be issued by NEW Water.

The Consultant shall provide copies of the Bid Documents to NEW Water. The Bid Documents shall be submitted as both paper copies and electronic copies in both native format and Portable Document Format (PDF).

- Bid Documents for NEW Water 1 copy of full size (22"x34") drawings, 4 copies of reduced size (11"x17") drawings, and 5 copies of the project manual
- Bid Documents for the Consultant as required by the Consultant
- Addenda 1 copy of any addenda prepared by the Consultant, including 1 copy of full size (22"x34") drawings and 1 copy of reduced size (11"x17") drawings

The Consultant shall provide prospective bidders with Bid Documents either as an electronic download or as a hard copy for a fee. The Consultant shall maintain a listing of all prospective bidders.

The Consultant shall conduct a pre-bid conference and site walk through of the GBF facilities. The Consultant shall prepare the agenda, preside at, and issue minutes of the pre-bid conference.

The Consultant shall receive and respond to questions concerning the project from prospective bidders. The Consultant shall issue addenda as necessary to interpret, clarify or expand the Bid Documents.

The Consultant shall attend the bid opening; prepare bid tabulation sheets; final Engineer's Opinion of Probable Cost, evaluate bids; check references of the selected bidder; consult with NEW Water regarding acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime Contractor; and, submit a written recommendation to NEW Water regarding the award of a contract.

H. Conformed Documents

The Consultant shall prepare Conformed Documents for Construction that incorporates addenda items into the Contract Documents for use as official documents to be distributed to NEW Water, the Contractor and the Consultant.

Deliverables: The Conformed Documents shall be submitted as both paper copies and electronic copies in both native format and Portable Document Format (PDF).

- Conformed Documents for NEW Water 1 copy of full size (22"x34") drawings, 4 copies of reduced size (11"x17") drawings and 5 copies of the project manual
- Conformed Documents for the Contractor 2 copies of full size (22"x34") drawings, 3 copies of reduced size (11"x17") drawings, and 5 copies of the project manual or as specified in the project manual
- Conformed Documents for the Consultant as required by the Consultant

4. Proposal Format Requirements

Technical and Qualification Proposal Layout:

- A. Firm Qualifications (5 pages maximum)
 - 1. Prime consultant and sub-consultant qualifications.

- 2. Similar relevant project experience with reference contact information.
- 3. Past NEW Water project performance.
- B. Project Approach (15 pages maximum)
 - 1. Project understanding.
 - 2. Scope of the services proposed by your firm for execution of the project.
 - 3. Description of the project approach (project plan).
 - 4. Description of QA/QC Plan.
- C. Project Schedule (2 pages, 11x17)
 - 1. Project milestones and completion dates.
 - 2. Workshops and meetings.
 - 3. Submittals to NEW Water.
 - 4. Submittals to WDNR and other government agencies.
- D. Project Team/Personnel. (5 pages maximum)
 - 1. Provide an organizational chart depicting the project team.
 - 2. Identify key personnel, including project directors/managers and discipline of lead personnel.
 - 3. Indicate location(s) where work will be conducted.
- E. Level of Effort (2 pages, 11x17)
 - A. A spreadsheet listing of all major tasks.
 - 1. List of all proposed personnel by task; key personnel by name and additional personnel by title.
 - 2. Estimated Level of Effort for each proposed project participant by task.
 - 3. Level of effort shall reflect the tasks outlined in the RFP.
 - 4. Identification of sub-consultant's involvement by task.
 - 5. Estimated number of drawings broken down by disciple, including general drawings, P&IDs, structural, mechanical, electrical, plumbing, HVAC, demolition, civil and other drawings as required.
 - B. No hourly rate or compensation costs shall be included with this item.
- F. Appendix/resumes
 - 1. Provide resumes of key personnel to be assigned to the project. Resumes shall be a maximum of 2 pages for the project manager, design manager and lead engineers. Resumes for the remainder of the team shall be a maximum of 1 page.

Compensation Proposal. (2 pages, 11x17)

- A. Add total costs associated with the proposal to the level of effort spreadsheet indicated above.
 - 1. Estimated level of effort and hourly billing rate for each proposed project participant by task.
 - 2. Itemization of consultant and sub-consultant's expenses.
 - 3. Subtotal cost of each major task and each participant within each major task.
 - 4. Total cost of each participant for all tasks and grand total of all costs.

5. Proposal Submission and Schedule

A complete proposal package shall consist of one (1) portable flash drive with the Technical and Qualification Proposal and Compensation Proposal in separate files. Electronic copies in Portable Document Format (PDF) of the Technical and Qualification Proposal and a separate Compensation Proposal shall be furnished.

Proposals shall be addressed to:

William Angoli, Project Manager NEW Water (Green Bay Metropolitan Sewerage District) 2231 N. Quincy Street Green Bay, WI 54302 <u>wangoli@newwater.us</u> (920) 438-1033

All questions must be submitted electronically via e-mail to William Angoli at <u>wangoli@newwater.us</u> by October 6, 2023 at 4:00 p.m., local time.

Proposals must be received at the address above by no later than 2:00 p.m., local time on October 19, 2023.

6. Selection Process

NEW Water will initially evaluate the proposals utilizing the proposal evaluation criteria presented below (except compensation proposal) to determine thoroughness of the proposal. Virtual interviews may be conducted if NEW Water decides they are appropriate.

If necessary the proposers will be contacted to schedule a virtual interview to further evaluate the proposer in the following categories: Project Manager/Key Personnel; Overall Qualification of Firm/Team; and Project Approach.

After completing the technical evaluation, compensation proposals of only qualified proposals will be opened. There will be no required number of compensation proposals opened.

Following selection of the highest rated Proposer, a letter will be sent to all Proposers informing them of selection and the date of anticipated NEW Water Commission meeting to award the contract. NEW Water will negotiate contractual terms, level of effort, and scope of services with the highest rated Proposer and, upon successful negotiations, an award recommendation will be made to NEW Water Commission. Contract award will be made to the Proposer whose proposal best complies with the RFP and will be the most advantageous to NEW Water, as indicated by the final score based upon evaluation of both technical and compensation proposals.

Proposals will be evaluated based on weighted non-monetary and monetary criteria including:

- Firm Qualifications, 15%
- Project Approach, 30%
- Schedule, 10%
- Project Team/Personnel, 25%
- Compensation, 20%

7. Contract

Terms of the formal contract will be negotiated between NEW Water and the selected Consultant. NEW Water anticipates that the scope of work and level of effort described in proposals will be refined enough through NEW Water/Consultant discussions such that a mutually acceptable project scope, level of effort, and cost can be developed.

NEW Water anticipates that a "Labor and Expenses" with a cost ceiling contract format will be utilized and the contract will be completed by December 31, 2025. Award of design contract is anticipated in December 2023.