



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



100

January 10, 2024

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Environmental Services (NHDES) to enter into a contract with FB Environmental Associates, LLC. (VC #167656-B001), Dover, New Hampshire, in the amount of \$199,229 in order to provide cyanobacteria monitoring services related to Lake Waukewan, Meredith, NH, effective upon Governor and Council approval through June 30, 2025. 100% Federal Funds.

Funding is available in the account as follows.

	<u>FY 2024</u>
03-44-44-441018-5564-102-500731	\$199,229
Department of Environmental Services, DWSRF BIL Administration, Contracts for Program Services	

EXPLANATION

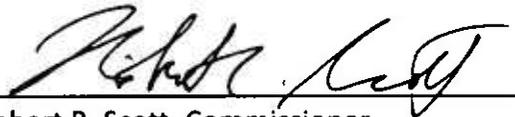
The purpose of the request is to establish a contract for services to monitor for cyanobacteria and to develop a cyanobacteria monitoring plan for Lake Waukewan, a primary source of drinking water for the Town of Meredith. Cyanobacteria can create Harmful Algal Blooms (HABs) that have the potential to impact drinking water treatment processes completed by public water systems and may also generate cyanotoxins that can present risks to human health if consumed in drinking water.

In November (2023), NHDES issued a Request for Proposals (RFP) and received three proposals to complete cyanobacteria monitoring and the development of water quality monitoring plans in surface water bodies used as drinking water sources. Based on the scoring criteria stated in the RFP, and the quality and completeness of the proposals, NHDES selected two proposals from qualified firms to complete water quality monitoring and monitoring plans. This request is to fund one of the proposals involving Lake Waukewan, a primary source of drinking water for the Town of Meredith. This effort will improve the understanding of waterbody dynamics with respect to HABs, and better prepare the municipal public water system to recognize bloom-forming conditions and respond appropriately.

FB Environmental Associates has extensive experience with surface water quality monitoring, including monitoring for cyanobacteria and qualified staff able to deploy monitoring equipment and complete a rigorous analysis of cyanobacteria that will inform the development of a long-term, high-quality monitoring plan. Proposals were reviewed and scored by NHDES staff. See Attachment A for a summary of the scoring of each proposal.

This contract has been approved as to form, substance, and execution by the Office of the Attorney General. In the event that Federal funds no longer become available, General funds will not be requested to support this program.

We respectfully request your approval.



Robert R. Scott, Commissioner

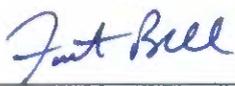
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name Department of Environmental Services		1.2 State Agency Address 29 Hazen Drive, Concord, NH 03302-9500	
1.3 Contractor Name FB Environmental Associates, LLC.		1.4 Contractor Address 383 Central Avenue, Suite 267, Dover, NH 03820	
1.5 Contractor Phone Number 603-838-1456	1.6 Account Unit and Class 03-44-44-441018-5564-102	1.7 Completion Date June 30, 2025	1.8 Price Limitation \$199,229
1.9 Contracting Officer for State Agency Pierce Rigrod, Drinking Water and Groundwater Bureau		1.10 State Agency Telephone Number 603-271-0688	
1.11 Contractor Signature  Date: 1-8-24		1.12 Name and Title of Contractor Signatory Forrest Bell, Owner/Chief Executive Officer	
1.13 State Agency Signature  Date: 1/12/24		1.14 Name and Title of State Agency Signatory Robert R. Scott, Commissioner, Dept. of Environmental Services	
1.15 Approval by the N.H. Department of Administration, Division of Personnel <i>(if applicable)</i> By: _____ Director, On: _____			
1.16 Approval by the Attorney General (Form, Substance and Execution) <i>(if applicable)</i> By:  On: 1/30/2024			
1.17 Approval by the Governor and Executive Council <i>(if applicable)</i> G&C Item number: _____ G&C Meeting Date: _____			

2. SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 (“State”), engages contractor identified in block 1.3 (“Contractor”) to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT B which is incorporated herein by reference (“Services”).

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.13 (“Effective Date”).

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed.

3.3 Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds. In no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds by any state or federal legislative or executive action that reduces, eliminates or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope for Services provided in EXHIBIT B, in whole or in part, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT C which is incorporated herein by reference.

5.2 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8. The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance

hereof, and shall be the only and the complete compensation to the Contractor for the Services.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 The State’s liability under this Agreement shall be limited to monetary damages not to exceed the total fees paid. The Contractor agrees that it has an adequate remedy at law for any breach of this Agreement by the State and hereby waives any right to specific performance or other equitable remedies against the State.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal employment opportunity laws and the Governor’s order on Respect and Civility in the Workplace, Executive order 2020-01. In addition, if this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all federal executive orders, rules, regulations and statutes, and with any rules, regulations and guidelines as the State or the United States issue to implement these regulations. The Contractor shall also comply with all applicable intellectual property laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of age, sex, sexual orientation, race, color, marital status, physical or mental disability, religious creed, national origin, gender identity, or gender expression, and will take affirmative action to prevent such discrimination, unless exempt by state or federal law. The Contractor shall ensure any subcontractors comply with these nondiscrimination requirements.

6.3 No payments or transfers of value by Contractor or its representatives in connection with this Agreement have or shall be made which have the purpose or effect of public or commercial bribery, or acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of obtaining business.

6.4. The Contractor agrees to permit the State or United States access to any of the Contractor’s books, records and accounts for the purpose of ascertaining compliance with this Agreement and all rules, regulations and orders pertaining to the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 The Contracting Officer specified in block 1.9, or any successor, shall be the State’s point of contact pertaining to this Agreement.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) calendar days from the date of the notice; and if the Event of Default is not timely cured, terminate this Agreement, effective two (2) calendar days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 give the Contractor a written notice specifying the Event of Default and set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, at its sole discretion, terminate the Agreement for any reason, in whole or in part, by thirty (30) calendar days written notice to the Contractor that the State is exercising its option to terminate the Agreement.

9.2 In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall, at the State's discretion, deliver to the Contracting Officer, not later than fifteen (15) calendar days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. In addition, at the State's discretion, the Contractor shall, within fifteen (15) calendar days of notice of early termination, develop and submit to the State a transition plan for Services under the Agreement.

10. PROPERTY OWNERSHIP/DISCLOSURE.

10.1 As used in this Agreement, the word "Property" shall mean all data, information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

10.2 All data and any Property which has been received from the State, or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

10.3 Disclosure of data, information and other records shall be governed by N.H. RSA chapter 91-A and/or other applicable law. Disclosure requires prior written approval of the State.

11. CONTRACTOR'S RELATION TO THE STATE. In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

12.1 Contractor shall provide the State written notice at least fifteen (15) calendar days before any proposed assignment, delegation, or other transfer of any interest in this Agreement. No such assignment, delegation, or other transfer shall be effective without the written consent of the State.

12.2 For purposes of paragraph 12, a Change of Control shall constitute assignment. "Change of Control" means (a) merger, consolidation, or a transaction or series of related transactions in which a third party, together with its affiliates, becomes the direct or indirect owner of fifty percent (50%) or more of the voting shares or similar equity interests, or combined voting power of the Contractor, or (b) the sale of all or substantially all of the assets of the Contractor.

12.3 None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State.

12.4 The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.

13. INDEMNIFICATION. The Contractor shall indemnify, defend, and hold harmless the State, its officers, and employees from and against all actions, claims, damages, demands, judgments, fines, liabilities, losses, and other expenses, including, without limitation, reasonable attorneys' fees, arising out of or relating to this Agreement directly or indirectly arising from death, personal injury, property damage, intellectual property infringement, or other claims asserted against the State, its officers, or employees caused by the acts or omissions of negligence, reckless or willful misconduct, or fraud by the Contractor, its employees, agents, or subcontractors. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the State's sovereign immunity, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 commercial general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate or excess; and

14.1.2 special cause of loss coverage form covering all Property subject to subparagraph 10.2 herein, in an amount not less than 80% of the whole replacement value of the Property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or any successor, a certificate(s) of insurance for all insurance required under this Agreement. At the request of the Contracting Officer, or any successor, the Contractor shall provide certificate(s) of insurance for all renewal(s) of insurance required under this Agreement. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. The Contractor shall furnish the Contracting Officer identified in block 1.9, or any successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. A State's failure to enforce its rights with respect to any single or continuing breach of this Agreement shall not act as a waiver of the right of the State to later enforce any such rights or to enforce any other or any subsequent breach.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no such approval is required under the circumstances pursuant to State law, rule or policy.

19. CHOICE OF LAW AND FORUM.

19.1 This Agreement shall be governed, interpreted and construed in accordance with the laws of the State of New Hampshire except where the Federal supremacy clause requires otherwise. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

19.2 Any actions arising out of this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration, but must, instead, be brought and maintained in the Merrimack County Superior Court of New Hampshire which shall have exclusive jurisdiction thereof.

20. CONFLICTING TERMS. In the event of a conflict between the terms of this P-37 form (as modified in EXHIBIT A) and any other portion of this Agreement including any attachments thereto, the terms of the P-37 (as modified in EXHIBIT A) shall control.

21. THIRD PARTIES. This Agreement is being entered into for the sole benefit of the parties hereto, and nothing herein, express or implied, is intended to or will confer any legal or equitable right, benefit, or remedy of any nature upon any other person.

22. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

23. SPECIAL PROVISIONS. Additional or modifying provisions set forth in the attached EXHIBIT A are incorporated herein by reference.

24. FURTHER ASSURANCES. The Contractor, along with its agents and affiliates, shall, at its own cost and expense, execute any additional documents and take such further actions as may be reasonably required to carry out the provisions of this Agreement and give effect to the transactions contemplated hereby.

25. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

26. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings with respect to the subject matter hereof.

EXHIBIT A
SPECIAL PROVISIONS

Federal Funds paid under this agreement are from a Grant to the State from the United States Environmental Protection Agency, New Hampshire Drinking Water State Revolving Fund under CFDA #66.468. All applicable requirements, regulations, provisions, terms and conditions of this Federal Grant are hereby adopted in full force and effect to the relationship between the New Hampshire Department of Environmental Services (NHDES) and the Grantee.

STATE CYBERSECURITY:

(a) The recipient agrees that when collecting and managing environmental data under this assistance agreement, it will protect the data by following all applicable State law cybersecurity requirements.

(b) (1) EPA must ensure that any connections between the recipient's network or information system and EPA networks used by the recipient to transfer data under this agreement, are secure.

For purposes of this Section, a connection is defined as a dedicated persistent interface between an Agency IT system and an external IT system for the purpose of transferring information. Transitory, user-controlled connections such as website browsing are excluded from this definition.

If the recipient's connections as defined above do not go through the Environmental Information Exchange Network or EPA's Central Data Exchange, the recipient agrees to contact the EPA Project Officer (PO) and work with the designated Regional/Headquarters Information Security Officer to ensure that the connections meet EPA security requirements, including entering into Interconnection Service Agreements as appropriate. This condition does not apply to manual entry of data by the recipient into systems operated and used by EPA's regulatory programs for the submission of reporting and/or compliance data.

(2) The recipient agrees that any sub-awards it makes under this agreement will require the subrecipient to comply with the requirements in (b)(1) if the sub-recipient's network or information system is connected to EPA networks to transfer data to the Agency using systems other than the Environmental Information Exchange Network or EPA's Central Data Exchange. The recipient will be in compliance with this condition: by including this requirement in sub-award agreements; and during subrecipient monitoring deemed necessary by the recipient under 2 CFR 200.331(d), by inquiring whether the subrecipient has contacted the EPA Project Officer. Nothing in this condition requires the recipient to contact the EPA Project Officer on behalf of a subrecipient or to be involved in the negotiation of an Interconnection Service Agreement between the subrecipient and EPA.

Grantee Initials FB
Date 1-8-24

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT:

As required by 2 CFR 200.216, subrecipients, are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Recipients, Subrecipients, and borrowers also may not use federal funds to purchase:

- a. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- b. Telecommunications or video surveillance services provided by such entities or using such equipment.
- c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Consistent with 2 CFR 200.471, costs incurred for telecommunications and video surveillance services or equipment such as phones, internet, video surveillance, and cloud servers are allowable except for the following circumstances:

- a. Obligating or expending funds for covered telecommunications and video surveillance services or equipment or services as described in 2 CFR 200.216 to:
 - (1) Procure or obtain, extend or renew a contract to procure or obtain;
 - (2) Enter into a contract (or extend or renew a contract) to procure; or
 - (3) Obtain the equipment, services, or systems. Certain prohibited equipment, systems, or services, including equipment, systems, or services produced or provided by entities identified in section 889, are recorded in the System for Award Management exclusion list which can be found at <https://www.sam.gov/SAM/pages/public/index.jsf>

Grantee Initials FB
Date 1-8-24

EXHIBIT B
SCOPE OF WORK

The following scope of work will be completed, consistent with and including work described in the proposal submitted by FB Environmental Associates, LLC (FBE) responding to NHDES's request for proposals (RFP) 2024-09, *Cyanobacteria Monitoring and Sampling of Public Water System Surface Sources*. All deliverables associated with the listed objectives below will be provided to NHDES according to the timelines established herein, or as stated in the proposal, with advance notice to NHDES should the timelines need adjustment. Summaries of project activity will be provided to NHDES at least monthly and may be combined with virtual meetings, as necessary. Adjustments to the schedule under this scope must be submitted in writing in advance along with a justification of the change(s).

Generally, the following tasks, as further described in the proposal to NHDES, will be accomplished:

Task 1: Quality Assurance Project Plan (QAPP)

Develop a QAPP for implementing all data collection components of the field work proposed in Task 2. The QAPP will identify all parameters and parties responsible for monitoring, including volunteers, the Lake Winnepesaukee Association (LWA), and the Meredith Water Department. The QAPP will include detailed protocols for primary data collection (grab samples, continuous sondes), lab methods and data analysis/interpretation for response monitoring and be drafted to contain content that is in accordance with USEPA QAPP guidance. NHDES will review and comment on the QAPP and may request revisions or, if satisfactory, forward to USEPA Region 1. Prior to sending it to USEPA, all other required signatures will be included on the draft QAPP. A final QAPP having all listed agency/project signatures is necessary to be provided to NHDES prior to commencement of field monitoring.

Deliverable: Final, signed QAPP.

Task 2: 2024 Monitoring and Lab Analysis

- (a) **Pre-Season Partner Coordination and Equipment Purchases:** In advance of the monitoring season, (before April 1) take all necessary steps to prepare for the season, including:

Coordinate with key stakeholders including volunteers (involved in monitoring described below) and the Town of Meredith to review the proposed monitoring plan as detailed in the QAPP and their role(s) to complete monitoring. Purchase all equipment, including the FluoroQuick Phycocyanin and Chlorophyll-a Dual Channel Fluorometer, Shore Science Basic Observation Buoy, In-Situ Aqua- TROLL700 multiparameter data sonde, etc.), necessary to implement all monitoring.

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For remote satellite and bluetooth connection, the buoy station will be equipped with a battery-powered In-Situ VuLink antenna, and the weather station will be equipped with a solar panel for power of a cell modem (unless AC power connection to the treatment plant is possible for the weather station). Sign up for an annual data plan through the sonde and weather station companies.

Coordinate with the NH Marine Patrol for obtaining a permit for the buoy station and deploy/install the buoy and weather stations in the waterbody (near the intake) and treatment plant, respectively.

- (b) **Volunteer/Public Water System Monitoring:** Between April and November, or as specified in the final QAPP, provide specific guidance, and coordinate sub-weekly visual bloom assessments and use of a fluorometer from key locations (the schedule and locations to be determined in the QAPP) by volunteers and/or the Town of Meredith Water Department. Field locations will be mapped and reported to NHDES in advance of monitoring. Work with the volunteers and/or Town of Meredith Water Department to use available tracking apps such as the Water Reporter or BloomWatch to take photos and visual assessment notes sub-weekly regardless of positive bloom status.

Confirm schedule with VLAP volunteers and/or the Town of Meredith Water Department as to who will employ a fluorometer over the term of the project and provide guidance concerning its use during a bloom, as necessary and described in the final QAPP.

- (c) **Monthly and Bi-Weekly Synoptic Monitoring:**

Complete monthly sampling in April, May, November, and December and biweekly sampling from June to October for a total of 14 events at the southern deep spot and the intake area (two locations) in the waterbody. See parameter information in Table 1.

The following 14 field monitoring events will be conducted or as specified in the final QAPP:

Eight (8) sampling events: Sampling in May (1 of 1), June (1 out of 2), July (1 out of 2), August (1 out of 2), September (1 out of 2), October (2 out of 2), and December (1 of 1), excluding VLAP volunteer sampling:

- I. Collect Secchi disk transparency readings and dissolved oxygen, temperature, and conductivity profiles at both sites using a YSI Pro Solo meter.
- II. Collect a continuous profile of the deep spot using the sonde for temperature, conductivity, pH, turbidity, chlorophyll-a, and phycocyanin.

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- III. From the integrated epilimnetic core (mid-meta) from both sites and a mid-hypolimnion grab at the deep spot site, collect samples for analysis of the following parameters: total phosphorus, total dissolved phosphorus, orthophosphate, total nitrogen, total dissolved nitrogen, ammonium, dissolved organic carbon, chlorophyll-a, anions/cations (nitrate, sulfate, chloride, sodium, potassium, magnesium, and calcium), iron, and manganese, to be analyzed at the NH Department of Health and Human Services' Public Health Lab (PHL), University of New Hampshire (UNH) Lakes Lay Monitoring Program (LLMP), and/or UNH Water Quality Analysis Laboratory (WQAL) as listed in Table 1.
- IV. From the integrated epilimnetic core (mid-meta) at both sites, collect samples for phytoplankton analysis by Water Resource Services, Inc.
- V. From the integrated epilimnetic core (mid-meta) at both sites, collect samples for chlorophyll-a analysis by NHDES VLAP or UNH LLMP.
- VI. From the integrated epilimnetic core (mid-meta) at both sites and the raw and finished water (paired), collect samples for cyanobacteria speciation and enumeration using an AmScope Portable LED Monocular Student Compound Microscope (40X-1000X Magnification) with digital eyepiece camera; phycocyanin concentration using a FluoroQuick Phycocyanin and Chlorophyll-a Dual Channel Fluorometer Kit, and four cyanotoxins of concern (microcystin, cylindrospermopsin, anatoxin-a, and saxitoxin) using a Eurofins Abraxis AbraScan Handheld Test Strip Reader.
- VII. From a net tow from the surface to mid-meta, collect samples for zooplankton analysis by Water Resource Services, Inc.

Six (6) Sampling events: Sampling in April (1 of 1), June (1 out of 2), July (1 out of 2), August (1 out of 2), September (1 out of 2), and November (1 of 1) with VLAP volunteer sampling:

- I. Repeat monitoring as described in 2(c)(I-VII) above except for the following modifications:
 - a. The deep spot samples for phytoplankton will be provided to NHDES VLAP for analysis, while the intake samples for phytoplankton will be sent for analysis at Water Resource Services, Inc.
 - b. Chlorophyll-a samples collected at the deep spot will be analyzed by NHDES VLAP while the intake may be analyzed by NHDES VLAP or UNH LLMP.

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(d) Continuous Monitoring via Buoy, Data Sonde, Weather Station Deployment (maintenance and support):

Coordinate with necessary partners for authorization to deploy buoy, weather station and data sonde. Assemble, calibrate, and deploy the buoy and weather station in the waterbody and treatment plant per the manufacturers' specifications and confirm all equipment is operational and functioning properly to collect all parameters noted in Table 1.

FBE will deploy the data sonde to an area proximate to the raw water intake at the treatment plant prior to April 1 or as soon as the QAPP is finalized or equipment arrives, whichever is sooner.

Provide continued support to the Town of Meredith Water Department to properly download the software to Town of Meredith Water Department computers, establish a user account, connect the devices, and train staff on accessing and viewing the data.

(e) Deep Spot Station Monitoring (internal phosphorous loading):

- I. From August through October, perform four sample events to collect metalimnetic and hypolimnetic grab samples at 3-meter depth increments at the deep spot for analysis of total phosphorus, total dissolved phosphorus, and orthophosphate to assess internal phosphorus loading. From the integrated epilimnetic core (mid-meta), a subset of samples will be sent out for picocyanobacteria and cyanotoxin analyses (number of cyanotoxin samples dependent on 2024 bloom conditions; bloom samples will take priority).

(f) Bloom Response Monitoring:

- I. Establish a clear written protocol for volunteer notifications to allow rapid response to collect data during a bloom event. Directly notify NHDES's Drinking Water and Groundwater Bureau and Town of Meredith Water Department of an active bloom by contacting emergency contacts, as necessary.
- II. Determine when and where to sample for cyanotoxin and complete picocyanobacteria analysis based upon historical data and data collected during the term of the project. Bloom response monitoring will be prioritized first to occur within a distance from the intake that may affect drinking water quality at the Town of Meredith's water treatment plant. Sampling inside this area will include paired samples (raw and finished water). Sampling outside the intake area may be done on a case-by-case basis to characterize blooms (location, genus, toxicity, size/severity, duration) occurring in the lake.
- III. During an active bloom, visual assessments, will be conducted daily by volunteers and during synoptic sampling by FBE. All attempts will be made to sample the onset, peak,

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and conclusion of the bloom at the deep spot, intake area, and treatment plant (finished water), when appropriate. FBE will rely on: 1) communication by volunteers for any visual indications of blooms; 2) peaks in phycocyanin/chlorophyll-a concentrations measured by the sonde deployed at the intake (setting thresholds in the software to send out a warning to FBE and the Town of Meredith Water Department) or when the sonde is used to collect a vertical profile at the deep spot during synoptic sampling visits; and/or 3) changes in water quality conditions at the water treatment plant (odor, turbidity, pH, shortened filter run times or other indicators identified in USEPA guidance) relevant changes in water treatment conducted by the Meredith Water Department.

- IV. Bloom threshold values (onset, peak, conclusion) will be based on monitored parameters and calculated to define the onset, peak and conclusion of bloom conditions as determined through this project and historic data if available. Monitoring under bloom conditions will attempt three field monitoring events, collecting samples to characterize the onset, peak, and conclusion of each bloom event. Alternatively, the three sample events may be completed over three separate, more ephemeral bloom events.
- V. Samples with elevated phycocyanin concentrations and/or detectable levels of cyanotoxins via AbraScan will be sent to a laboratory for confirmation of cyanotoxins as well as picocyanobacteria analysis. Elevated phycocyanin concentrations will be at first determined by general ranges but will then be refined to more site-specific thresholds based on the fluorometer data. Statistical approach to complete this analysis will be described in the final QAPP.
- VI. Complete up to 12 samples for ELISA analysis for five toxins of concern (microcystin, cylindrospermopsin, anatoxin-a, saxitoxin, and BMAA), as well as qPCR sequencing and metabarcoding of picocyanobacteria.
- VII. Provide photographs collected and/or posted through Bloomwatch or other apps and summarize and evaluate fluorometric results obtained from volunteers during non-bloom and bloom events as discussed in Task 2(a).

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Table 1
Full List of Monitoring Parameters

CHEMICAL/BIOLOGICAL ANALYTES	Units	Abbrev.	Lab/Equipment
Total Phosphorus	µg/L	TP	DHHS-PHL
Total Dissolved Phosphorus	µg/L	TDP	DHHS-PHL
Phosphate	µg/L	PO4	DHHS-PHL
Total Nitrogen	mg/L	TN	UNH LLMP
Total Dissolved Nitrogen	mg/L	TDN	UNH WQAL
Ammonium	µg/L	NH4	UNH WQAL
Dissolved Organic Carbon	mg/L	DOC	UNH WQAL
Chlorophyll-a	µg/L	CHLA	UNH LLMP or NHDES VLAP
Nitrate, sulfate, chloride, sodium, potassium, magnesium, calcium	mg/L	NO3, SO4, Cl, Na, K, Mg, Ca	UNH WQAL
Iron	mg/L	Fe	EAI or DHHS-PHL
Manganese	mg/L	Mn	EAI or DHHS-PHL
Temperature	°C	Temp	AquaTROLL700
Specific conductivity	µS/cm	SpecCond	AquaTROLL700
pH	no units	pH	AquaTROLL700
Turbidity	NTU	Turb	AquaTROLL700
Chlorophyll-a	RFU	CHLA	AquaTROLL700
Phycocyanin	RFU	PC	AquaTROLL700
Phytoplankton	cell count by species	PHYTO	NHDES VLAP or WRS
Zooplankton	count by species	ZOO	WRS
Cyanobacteria	cell count by species	CYANO	LWA
Phycocyanin	RFU	PC	FluoroQuick Phycocyanin and Chlorophyll-a Dual Channel Fluorometer
Microcystin	ng/L	MC	ABRAXIS ABRASCAN
Cylindrospermopsin	ng/L	CYL	ABRAXIS ABRASCAN
Anatoxin-a	ng/L	ANA	ABRAXIS ABRASCAN
Saxitoxin	ng/L	SAX	ABRAXIS ABRASCAN
Microcystin	ng/L	MC	ELISA by Bigelow
Cylindrospermopsin	ng/L	CYL	ELISA by Bigelow
Anatoxin-a	ng/L	ANA	ELISA by Bigelow
Saxitoxin	ng/L	SAX	ELISA by Bigelow
BMAA	ng/L	BMAA	ELISA by Bigelow
Picocyanobacteria	ng/L, cell count	PICO	qPCR, metabarcoding by Bigelow Lab

Deliverable: Data that is collected in the field, analyzed by laboratories, will be quality controlled in accordance with the project QAPP. During field collection, data will be reviewed to ensure accuracy to identify sampling/equipment errors prior to submitting data to NHDES in electronic format every

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other month (data delivery scheduled for May 2024, July 2024, September 2024, November 2024, and January 2025). Upload data to the NHDES EMD in accordance with NHDES data rules and procedures. A map showing the identifiers of all stations/monitoring locations will be provided.

Task 3: Source Water Assessment – Cyanobacteria Bloom Risk

A source water assessment with a focus on the potential and frequency of cyanobacteria blooms creating a risk to the quality of raw and finished water will be completed. The risk to public health will be evaluated in terms of available health thresholds. The source water assessment report will be developed in two stages: an initial draft assessment at the beginning of the project will be completed to include the first and second bullets below and the final assessment following receipt of 2024 monitoring data will be completed for all four bullets below. An outline for the full assessment report will be provided to NHDES for comment, along with the submittal of items under (a) and (b).

- (a) Summary of historical and 2024 water quality data and bloom records including data from other sources outside of the NHDES EMD (e.g., UNH). This will include a characterization of the type(s), nature/severity/location of blooms and cyanotoxins known to have occurred;
- (b) Statistical analysis (including graphs/charts) of historical water quality and available weather data to assess seasonal phytoplankton dynamics, water quality changes, and conditions (i.e., driving factors) that may support/indicate cyanobacteria blooms and cyanotoxin production.
- (c) Update and summarize phosphorus source load estimates originally determined through previous modeling as part of watershed management plan development. The risk assessment will use the more robust data collected in 2024 to refine the internal phosphorus loading estimates and update the Lake Loading Response Model (LLRM);
- (d) The methods, results, and primary conclusions of the source water assessment will be summarized in a report along with all supporting data analysis.

Deliverable: A Source Water Assessment report focused on cyanobacteria bloom risk and potential to impact the quality of source water and finished water used as drinking water.

Task 4: Project Partner Communications and Coordination

- (a) An advisory committee will be formed and comprised of project partners to discuss the project over the term of the project. The primary purpose of the committee is to discuss/reinforce the monitoring goals and public health objectives, discuss project status, detail urgent response to blooms, and address unforeseen issues that may arise. A list of the

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names and organizations of the committee will be provided to NHDES along with a proposed schedule in advance of the meetings, and post-meeting minutes. Up to three in-person meetings will be coordinated and held over the term of the project.

Deliverable: An advance schedule of up to three in-person meetings. An agenda, attachments/shared materials, minutes, and list of attendees at each meeting will be provided.

Task 5: Cyanobacteria Monitoring and Response Plan

- (a) Drawing upon a comprehensive literature review, published monitoring guidance, and the work done in Tasks 1-4, a sustainable cyanobacteria monitoring and response plan will be developed. The plan will be reviewed by NHDES and partners to receive comments and updated to reflect those comments. The plan will include the following:
- I. A long-term monitoring and response strategy for tracking and responding to cyanobacteria blooms in the waterbody and in the raw and finished waters of the treatment plant. The monitoring strategy will integrate with existing monitoring efforts and reasonably meet available technical and financial assistance for the long-term sustainability of the program strategy;
 - II. Articulate an approach to establish numeric thresholds for relevant screening parameters including those being collected over the term of the project that (individually or as a group) indicate a possible toxigenic bloom(s) that warrant transition to a bloom response;
 - III. The plan will detail the bloom response protocol under various scenarios, including the ultimate scenario of cyanotoxins detected in finished drinking water, all of which will cover public communication strategy, thresholds for public notifications and water shut-offs, and contingency plans;
 - IV. Identification of key town staff, volunteers, and other relevant parties in carrying out the plan under a time-bound schedule. The plan will detail the chain-of-communication among these parties which will be formalized and refined to reflect agreed upon implementation of the plan.

Deliverable: Final Cyanobacteria Monitoring and Response Plan (electronic form). The plan will be drafted with partner input and address comments from NHDES.

EXHIBIT C
METHOD OF PAYMENT

All services shall be performed to the satisfaction of NHDES before payment is made. All payments shall be made upon receipt and approval of stated outputs and upon receipt of the associated invoice per the tentative schedule noted in the table below. Transfer of funds between contracted tasks that are substitutive will require Governor and Council approval.

Number/Description	Amount (\$)
Task 1: Quality Assurance Project Plan (QAPP) <i>Draft QAPP (90%) – March 2024</i> <i>Final QAPP (10%) – April 2024</i>	\$11,330
Task 2: 2024 Field Monitoring and lab analysis <i>Pre-season equipment purchases & prep & deployment (40%) – April 2024</i> <i>Data collection, quality control, EMD (12%) – May 2024</i> <i>Data collection, quality control, EMD (12%) – July 2024</i> <i>Data collection, quality control, EMD (12%) – September 2024</i> <i>Data collection, quality control, EMD (12%) – November 2024</i> <i>Data collection, quality control, EMD (12%) – January 2025</i>	\$147,335
Task 3: Source Water Assessment – Cyanobacteria Bloom Risk <i>Initial data summary (10%) – June 2024</i> <i>Draft SWA (85%) – March 2025</i> <i>Final SWA (5%) – May 2025</i>	\$22,282
Task 4: Project Partner Communications and Coordination <i>Meeting #1 (33%) – April 2024</i> <i>Meeting #2 (33%) – October 2024</i> <i>Meeting #3 (33%) – February 2025</i>	\$4,354
Task 5: Cyanobacteria Monitoring and Response Plan <i>Literature review summary (55%) – August 2024</i> <i>Draft Plan (40%) – April 2025</i> <i>Final Plan (5%) – June 2025</i>	\$13,928
TOTAL:	\$199,229

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CERTIFICATE OF AUTHORITY

I, Forrest Bell, hereby certify that I am the sole owner and manager of FB Environmental Associates, LLC, a limited liability company under RSA 304-B, a limited liability professional partnership under RSA 304-D, or a limited liability company under RSA 304-C.

I certify that I am authorized to bind the partnership or LLC. I further certify that it is understood that the State of New Hampshire will rely on this certificate as evidence that the person listed above currently occupies the position indicated and that they have full authority to bind the partnership or LLC and that this authorization shall remain valid for thirty (30) days from the date of this Corporate Resolution.

Dated: 1/8/2024

Attest: Forrest Bell
Signature

Title: Owner/Manager/CEO

State of New Hampshire

Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that FB ENVIRONMENTAL ASSOCIATES, LLC is a Maine Limited Liability Company registered to transact business in New Hampshire on March 31, 2010. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 628434

Certificate Number: 0006364359



IN TESTIMONY WHEREOF,
I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 28th day of December A.D. 2023.

A handwritten signature in black ink, appearing to read "David M. Scanlan".

David M. Scanlan
Secretary of State

**Attachment A
Cyanobacteria Monitoring and Sampling of Public Water System Surface Sources Proposal Rankings**

Rankings for Firms Responding to Request for Proposals

Applicant	Project Location	Award Amount	Notes	Score
GZA GeoEnvironmental, Inc.	Portsmouth	\$ 79,652	Approved	176
FB Environmental	Meredith	\$ 199,229	Approved	158
Eastern Research Group, Inc.	Salem	\$ 191,967	Not Approved	140

Review Team Members

Name	Title	Bureau	Years of Service
Pierce Rigrod	Supervisor	Drinking Water and Groundwater Bureau	19
Liz Pelonzi	Environmentalist III	Drinking Water and Groundwater Bureau	4