



Christopher J. Gagliastro, MCPPO
Purchasing Agent

RFP NO. 8282-W5
ISSUANCE DATE: 9/11/24

BUYER: Christopher J. Gagliastro, MCPPO

**AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER
REQUEST FOR PROPOSALS
NOTICE TO PROPOSERS**

RFP TITLE: Engineering Services – Watersheds / DSR - ARPA

REFER TO PAGE 7 FOR PROPOSAL SUBMISSION INFORMATION

General Conditions:

All proposals are subject to the terms, conditions and specifications herein set forth:

1. **Scope: Provide professional engineering services for watershed planning per the attached requirements and specifications City of Worcester Department of Sustainability & Resilience.**
2. A certified check or bid bond made payable to the "City Treasurer, City of Worcester" in the amount of N/A must accompany this proposal. This must be submitted under separate sealed cover marked "Proposal Security." In the case of default, the surety shall be forfeited to the City as liquidated damages.
3. All terms and conditions are applicable to this proposal except the following section(s) which are hereby deleted from this RFP: 4, 27
4. A performance bond in the amount of not applicable will be required. If this proposal is accepted by the City and the Proposer shall fail to contract as set forth in these requirements and to give a bond in the aforementioned amount, within ten (10) days, (not including Sundays, Saturdays, or a legal Holiday) from the date of the mailing of a notice from the City to the Proposer, according to the address given herewith, that the contract is ready for signature, the City may by option determine that the proposer has abandoned the contract and thereupon the proposal and acceptance shall be null and void and the proposal security accompanying this proposal shall become the property of the City as liquidated damages. Performance bond shall be on the City's form only.

Any prospective proposer requesting a change in or interpretation of existing specifications or terms and conditions must do so within 5 days (Saturdays, Sundays, and Legal Holidays excluded) before scheduled proposal opening date. All requests are to be in writing to the Purchasing Division. No changes will be considered nor will any interpretation issued unless request is in our hands within 5 days (Saturdays, Sundays, and Legal Holidays excluded) before scheduled proposal submission date.

Any inquiries related to technical or contractual matters must be submitted in writing to:

**Christopher J. Gagliastro, MCPPO
Purchasing Director
City of Worcester, City Hall
455 Main Street, Room 201
Worcester, MA 01608
gagliastroc@worcesterma.gov**

5. Nothing herein is intended to exclude any responsible Proposer or in any way restrain competition. All responsible Proposers are encouraged to submit proposals. The City encourages participation by Minority and Women Owned Business Enterprises (M/WBE).
6. The following meanings are attached to the defined words when used in this RFP.
 - a) The word "City" means The City of Worcester, Massachusetts.
 - b) The word "Proposer" or "Respondent" means the person, firm or corporation submitting proposal on these specifications or any part thereof.
 - c) The word "Contractor" means the person, firm or corporation with whom the contract is made by carrying out the provisions of these specifications and the contract.
 - d) The words "Firm Price" shall mean a guarantee against price increase during the life of the contract.
7. All proposals and other documents relating to this RFP are subject to the public records provisions of M.G.L. c.30B and shall remain confidential until the time specified in c.30B section 6 (d).
8. All material submitted by vendors becomes the property of the City. The City is under no obligations to return any of the material submitted by a vendor in response to this RFP.
9. Each vendor's proposal must remain in effect for at least 120 days from the deadline for its submission. The City will decide upon acceptance within 120 days of submission.
10. It is understood and agreed that it shall be a material breach of any contract resulting from this RFP for the Contractor to engage in any practice which shall violate any provision of Massachusetts General Laws, Chapter 151B, relative to discrimination in hiring, discharge, compensation, or terms, conditions or privileges of employment because of race, color,

religious creed, national origin, sex, age or ancestry.

11. The City reserves the right to accept or reject any or all proposals submitted and waive informalities and technicalities.
12. The City will review and analyze each proposal and reserve the right to interview selected proposers. The City shall select the proposer, which in the City's opinion, has made the proposal best suited to the needs and goals of the City and its operations and deemed to be in compliance with the terms of this RFP.
13. The Contractor will be required to indemnify and save harmless the City of Worcester for all damages to life and property that may occur due to his or her negligence or that of his or her employees, subcontractors, etc. during the contract derived from this RFP.
14. The Contract Agreement will be drafted by the City's Law Department in compliance with the terms of the RFP and may incorporate the terms of this RFP and of the proposal selected.
15. The Proposer must certify that no official or employee of the City of Worcester, Massachusetts, is pecuniarily interested in this proposal or in the contract which the proposer offers to execute or in expected profits to arise therefrom, unless there has been compliance with the provisions of G.L.C. 43 section 27, and that this proposal is made in good faith without fraud or collusion or connection with any other person submitting a proposal.
16. Any proposal withdrawn after time and date specified, the proposer shall forfeit deposit on proposal as liquidated damages.
17. A vendor conference will be held as follows: n / a
18. The Contractor shall not assign, transfer, sublet, convey or otherwise dispose of any contract which results from this RFP, or its right, title or interest therein or its power to execute the same to any other person, firm, partnership, company or corporation without the previous consent in writing of the City. Should the Contractor attempt any of the above without the written consent of the City, the City reserves the right to declare the Contractor in default and terminate the contract for cause.
19. The Contractor shall obtain and maintain in force at all times during the term of the contract derived from this RFP, insurance coverage pertaining to Public Liability, Property Damage and Worker's Compensation in the following types and amounts:
 - A) PUBLIC LIABILITY INSURANCE - Contractor to supply the City of Worcester with certificates of insurance covering public liability in an amount not less than \$1,000,000.00 to any one person, and not less than \$ 1,000,000.00 on account of one accident.
 - B) PROPERTY DAMAGE INSURANCE - Contractor to supply the City with certificates of insurance covering property damage in an amount not less than \$1,000,000.00 for damages on account of any one accident, and not less than \$ 2,000,000.00 on account of all accidents.

C) COMPENSATION INSURANCE - The Contractor shall furnish the City with certificates showing that all its employees shall be connected with the management operations are protected under worker's compensation insurance policies.

20. The Contractor shall carry Public Liability Insurance with an insurance company satisfactory to the City so as to save the City harmless from any and all claims for damages arising out of bodily injury to or death of any person or persons, and for all claims for damages arising out of injury to or destruction of property caused by accident resulting from the use of implements, equipment or labor used in the performance of the contract or from any neglect, default or omission, or want of proper care, or misconduct on the part of the Contractor or for anyone in his or her employ during the execution of the contract derived from this RFP.
21. Prior to starting on the contract derived from this RFP, the Contractor shall deposit with the Purchasing Division, certificate from the insurer to the effect that the insurance policies required in the above paragraph have been issued to the Contractor. The certificates must be on a form satisfactory to the City.
22. All prices quoted must include inside delivery, and set-up in place F.O.B. destination to pre-designated City of Worcester departments.
23. No special charges will be allowed for rigging, packing, crating, freight, express, or carriage unless specifically stated and included in the vendor's proposal.
24. The award to the successful proposer may be cancelled in the event of vendor nonperformance as may be determined by the City.
25. The successful proposer shall comply with all applicable federal, state and local laws, ordinances, and regulations. The awarded contract shall be governed under the laws of the Commonwealth of Massachusetts.
26. Purchases made by the City are exempt from Federal and Massachusetts state taxes and proposal prices must exclude any such taxes. Tax exemption certificates will be furnished upon request.
27. When the contract is executed, a performance bond, in the full amount of the contract, is required. See paragraph 4. The bond will be of a surety company qualified to do business under the laws of the Commonwealth of Massachusetts. The cost of this bond is the vendor's responsibility. Bonds shall remain in force and effect thru the performance of the contract.
28. Expenditures by the City and authorization to spend for particular purposes are made on fiscal year basis. The City's fiscal year is the twelve-month period ending June 30 of each year. The obligations of the City under any agreement to be reached are subject to the appropriation or authorization of the necessary funds. The City agrees to make reasonable efforts to obtain funding and all necessary authorization.
29. No amendment to the contract shall be effective unless it is in writing and signed by authorized representatives of both parties and is accepted by the City of Worcester.
30. The vendor (and its insurers, if any) shall bear all risk of loss or damage to the equipment

which occurs in transit to the user site. The risk of loss or damage to purchased equipment shall remain with the vendor until the purchase price has been paid and title has passed. The vendor shall also bear the risk of loss or damage to leased or rented equipment during the City of Worcester's possession and use thereof subject, however to such conditions and limitations as may be stated elsewhere in the contract.

31. The vendor shall not assign or in any way transfer any interest in the contract without the prior written consent of the City provided, however, that claims for money due or to become due to vendor from the City may be assigned to a bank, trust company, or other financial institution without such consent so long as notice of such assignment is furnished promptly to the City. Any such assignment shall be expressly made subject to all defenses, setoffs, or counterclaims which would have been available to the City against the vendor in the absence of such assignment.
32. None of the services to be provided by the vendor pursuant to the contract shall be subcontracted or delegated to any other organization, association, individual, corporation, partnership or other such entity without the prior written consent of the City. No subcontract or delegation shall relieve or discharge the vendor from any obligation or liability under the contract except as specifically set forth in the instrument of consent. Any subcontract to which the City has consented shall be attached to the original of the contract on file in the City of Worcester.
33. Neither party will be liable to the other or be deemed to be in breach of the contract for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight, embargoes, and unusually severe weather. If the vendor's failure to perform is caused by the default of the subcontractor, and if such default arises out of causes beyond the reasonable control of both the vendor and the subcontractor, and without the fault or negligence of either of them, the vendor shall not be liable for any excess costs for failure to perform, unless the equipment or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the vendor to meet the required delivery schedule. Dates or times of performance will be extended to the extent of delays excused in this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.
34. The vendor shall provide to the City of Worcester a warranty and a commitment which clearly states that all equipment and services proposed and supplied by the Vendor, and/or its subcontractors, performs as expected and promised by the Vendor.
35. The vendor represents that no person other than bona fide employees working solely for the vendor, have been employed or retained to solicit or secure this agreement upon an arrangement or understanding for a commission, percentage, brokerage fee, gift or any other consideration contingent upon the award or making of this contract. For breach or violation of the representation, the City shall have the right to annul the contract without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage fee or other consideration.

36. Any contract made by the City in which the Purchasing Agent or any employee of his/her department, the heads of using agencies or any other officer or employee of the City having a part in the placing of such contract is financially interested, directly or indirectly, shall be void.
37. The vendor shall not discriminate against any qualified employee or applicant for employment because of race, color, national origin, ancestry, age, sex, religion or medical handicap. The vendor agrees to comply with all applicable Federal and State Statutes, rules and regulations prohibiting discrimination in employment including: Title VII of the Civil Rights Acts of 1964; The Age Discrimination in Employment Act of 1967; Section 504 of the Rehabilitation Act of 1973; Massachusetts General Laws Chapter 151B, Section 4 (1) and all relevant administrative orders and executive orders.

If a complaint or claim alleging violation by the vendor of such statutes, rules or regulations is presented to the Massachusetts Commission Against Discrimination (MCAD), the vendor agrees to cooperate with MCAD in the investigation and disposition of such complaint or claim.

In the event of vendor noncompliance with the provisions of this section, the City shall impose such sanctions as it deems appropriate, including but limited to:

- 1) Withholding of payments due vendor under the contract until vendor complies.
- 2) Termination or suspension of the contract.

37.1 ARPA Funded Project:

All materials and services under this RFP/Contract must comply with all ARPA funding regulations, including but not limited to, By America Requirements, compliance with the Davis-Bacon Act, payment bonds if the project value exceeds \$ 100,000, and registry with SAM.gov (this will necessitate vendors to have an active federal DUNS number). Further information can be found via this link : [SLFRF Compliance and Reporting Guidance Update 2.1 final \(treasury.gov\)](#).

SUBMISSION OF PROPOSALS

38. Proposals must be submitted in two (2) packages according to the instructions below. The City intends to consider responses in the Technical Proposal evaluation requirements before considering costs. *Therefore, no reference to pricing may be made in the Technical Proposal.*

A sealed package containing **the original, 3 copies, plus 1 PDF copy on USB drive** of the proposal **must** be labeled as follows:

Purchasing Agent, City of Worcester

Engineering Services – Watershed-based Planning / DSR-ARPA – Technical Proposal

**455 Main Street, Room 201
Worcester, MA 01608**

Re: RFP No. 8282-W5

A sealed package containing **the original copy** of the proposal **must** be labeled as follows:

Purchasing Agent, City of Worcester

Engineering Services – Watershed-based Planning / DSR-ARPA – Price Proposal

**455 Main Street, Room 201
Worcester, MA 01608**

Re: RFP No. 8282-W5

PRICE PROPOSAL PAGE IS LOCATED AT END OF SPECIFICATIONS

Proposals must be delivered no later than Wednesday, October 9, 2024 at 10:00 AM LOCAL TIME. *Late submissions will be rejected, regardless of circumstances.* The City is not responsible for submittals not properly marked.

The evaluation and cost proposals will remain confidential until a formal and finalized contract has been executed.

RFP EVALUATION

39. The City of Worcester Purchasing Agent will assign an evaluation team, hereafter referred to as the Selection Committee, to perform a full and complete evaluation of RFP submittals. The Purchasing Agent will ultimately forward a formal recommendation of award to the City Manager who has final award authority.
40. RFP evaluation responses will be evaluated by the Selection Committee based directly upon vendor's response to mandatory and comparative evaluation criteria. Vendors must meet or exceed the mandatory criteria requirements or be rejected as non-responsive.

Comparative criteria will be evaluated by use of four (4) rating categories as set forth by M.G.L. Chapter 30B:

- 1) HIGHLY ADVANTAGEOUS - Vendor's submittal meets all the stated requirements and offers significant performance above the stated requirements.
- 2) ADVANTAGEOUS - Vendor's submittal meets the stated requirements without risk or disadvantage.
- 3) NOT ADVANTAGEOUS - Vendor's submittal contains some risk or disadvantage but is not unacceptable.
- 4) UNACCEPTABLE - Vendor's submittal fails to meet the standards of the stated requirements.

After proposals have been assigned ratings on the basis of each evaluation criterion, a composite rating will be established by the Selection Committee. Submittals will then be ranked based upon finalized composite rating.

41. The Purchasing Agent will identify the most advantageous proposal based upon the rankings of the Selection Committee and an evaluation of the price proposals received. The Purchasing Agent will forward a recommendation for award to the City Manager based upon the most advantageous proposal received considering evaluation rankings and price proposals received.

GIVE FULL NAMES AND RESIDENCES OF ALL PERSONS INTERESTED IN THE FOREGOING PROPOSAL.

(NOTICE: Give first and last name in full; in case of corporations, give corporate name and names of President, Treasurer, and Manager; and in case of firms give names of the individual members)

Name	Address	Zip Code
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_____	_____	_____
_____	_____	_____
_____	_____	_____

KINDLY FURNISH THE FOLLOWING INFORMATION REGARDING BIDDER:

(1)	If an Individual or Proprietorship
Name of Owner:	_____
Business Address:	_____
Zip Code	_____ Telephone No. _____
Email	_____
Home Address	_____
Zip Code	_____ Telephone No. _____

(2)	If a Partnership, Full names and addresses of all partners	
<u>Name</u>	<u>Address</u>	<u>Zip Code</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
Business Address	_____ Zip Code	_____
	Tel. No.	_____

(3) If a Corporation

Full Legal Name: _____

State of Incorporation: _____ Qualified in Massachusetts? Yes _____ No _____

Principal Place of Business _____
Street P.O. Box

City/Town State Zip

Email: _____

Telephone No. _____

Place of Business in Massachusetts _____
Street P.O. Box

City/Town State Zip

Telephone No. _____

GIVE THE FOLLOWING INFORMATION REGARDING SURETY COMPANY

Full Legal Name of Surety Company _____

State of Incorporation _____ Admitted in Massachusetts? Yes _____ No _____

Principal Place of Business _____
Street P.O. Box

City/Town State Zip

Place of Business in Massachusetts _____
Street P.O. Box

City/Town State Zip

Telephone No. _____

NOTE:

The Office of the Attorney General, Washington, D.C. requires the following information on all bid proposals amounting to \$1,000.00 or more.

E.I. Number of bidder _____

This number is regularly used by companies when filing their "EMPLOYER'S FEDERAL TAX RETURN, U.S." Treasury Department Form 941.

AUTHORIZED SIGNATURE OF BIDDER _____

TITLE _____

DATE _____

UNDER MASSACHUSETTS GENERAL LAWS, CHAPTER 30B: SECTION 10, THE FOLLOWING CERTIFICATION MUST BE PROVIDED:

Section 10. A person submitting a bid or a proposal for the procurement or disposal of supplies, or services to any governmental body shall certify in writing, on the bid or proposal, as follows:

"The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals."

(Please Print)

Name of Person Signing Bid

Signature of Person Signing Bid

Company

No award will be made without vendor certification of the above.

- **Proposers must sign and submit the above form with their proposal submission.**

CERTIFICATE OF AUTHORITY

At a duly authorized meeting of the Board of Directors of the _____
held on _____ Directors were present or waived notice,
(name of corporation) (date)
it was voted that _____ of this company be and hereby is
(officer and title)
authorized to execute contracts and bonds in the name and behalf of said company, and affix its Corporate Seal
thereto, and such execution of any contract or bond of obligation in this company's name shall be valid and
binding upon this company.

A TRUE COPY, ATTEST:

[Signed]

[Company Name and Address]

I hereby certify that I am the _____ of the _____
(Title) (Name of Corporation)
that _____ is the duly elected _____
(Name of Officer) (Title)
of said company, and the above vote has not been amended or rescinded and remains in full force and effect
as of the date of this contract.

Signature: _____

Name/Title: _____

Date: _____
(Corporate Seal)

COMMONWEALTH OF MASSACHUSETTS

WORCESTER, SS.

On this ____ day of _____, 2024, before me the undersigned notary public, personally
appeared _____, who proved to me through satisfactory evidence of
identification, which was/were _____, to be the person whose name is signed
on the preceding or attached document, and acknowledged to me he/she signed it voluntarily for its stated
purpose.

Notary Public
My commission expires:

City of Worcester Department of Sustainability and Resilience

Request for Proposals for Watershed-based Planning for three Worcester watersheds

Contents

Request for Proposals for: Watershed Based Planning for three Worcester watersheds.	2
Project Summary:.....	2
Background	2
Deliverables/Tasks	4
Task 1: Project Management and Administration	4
Task 2: Development of a Quality Assurance Project Plan (QAPP) for Field Assessments, Modeling and Analysis for the Watershed Based Plan	6
Task 3 – Public Workshops: Project Engagement.....	7
Task 4 – Existing Data and Information Compilation and Review	8
Task 5 – Perform modeling for lake loading and in-lake responses	9
Task 6 - Determination of Assimilative Capacity and Water Quality Goals	9
Task 7 – Watershed Assessments	10
Task 8 – Strategy for NPS Management Measures.....	11
Task 9 – Watershed-based Plans	13
Task 10 – Public Review and Comment; Completion of Final Plans	13
Task 11: Drainage Assessment of Weasel Brook	14
Annex 1: Schedule and Deliverables.....	16
Annex 2: Watershed Study Areas	20

Request for Proposals for: Watershed Based Planning for three Worcester watersheds.

Project Summary: The Department of Sustainability and Resilience's Lakes and Ponds Program seeks qualified candidates to develop three Watershed Based Plans (WBP) for the Tatnuck Brook Watershed, Mill Brook Watershed, and Lake Quinsigamond Watershed (watershed study areas). The deliverables from the RFP will result in three actionable 9-element Watershed Based Plans (WBP) that meets EPA's requirements for the federal Clean Water Act Section 319 Program. The WBPs will identify pollutant loads and load reduction targets, provide stakeholders with a roadmap to restoration and protection, and make future implementation projects eligible for Section 319 funding. Additionally, where no impairments are identified, the plan will provide a set of practices to ensure that water quality is maintained.

Background

The City of Worcester Lakes and Ponds Program works to manage the City's surface waters to protect their designated uses. Since 2016, it has monitored and managed a growing number of lakes for nutrient loading, sedimentation, invasive species, bacteria, and cyanobacteria. In addition to a 5-year dataset collected with a Department of Environmental Protection (DEP)-approved Quality Assurance Project Plan (QAPP) on the largest waterbodies, the Program staffs the Worcester Cyanobacteria Monitoring Collaborative (WCMC), a group of volunteer community scientists that collects water quality samples on a twice monthly basis from 18 of Worcester's lakes and ponds. Using these data, the Lakes and Ponds Program creates management plans to address ecosystem and public health concerns, through in-lake treatments, the installation of structural BMPs, and public education. In 2021, the Lakes and Ponds Program was moved to the Department of Sustainability and Resilience, and the vision of the program was expanded to include the protection of the other non-recreational ecosystem services that the City's lakes and ponds provide. Up to this point, however, no assessment of the state of these services has been performed.

Tatnuck Brook Watershed and Beaver Brook subwatershed have multiple impoundments that provide immense recreational and ecosystem services. They include Cooks Pond, Patch Reservoir, Patch Pond, Coes Reservoir, and Coes Pond. In the Draft Massachusetts Integrated List of Waters for the Clean Water Act 2022 Reporting Cycle, Tatnuck Brook itself is listed as a Category 5, or a "Water requiring a TMDL". It is currently listed as impaired for Fanwort, Flow Regime Modification, Benthic Macroinvertebrates, *E. Coli*, and Sedimentation/Siltation. Of the multiple impoundments on Tatnuck Brook, Coes Reservoir has been listed as Category 4c, for Eurasian Water Milfoil and Water Chestnut. Despite this, multiple of these waterbodies have seen cyanobacteria blooms over the last five years, confirmed by both the Lakes and Ponds Program and WCMC, and requiring the closure of public beaches. Results from the monitoring program have also suggested that there are higher than previously known concentrations of phosphorus. In addition, the beach at Coes Reservoir occasionally needs to be closed for *E. coli* bacteria indicator exceedances. See Figure 1 in Annex 2.

Mill Brook Watershed impoundments include Indian Lake, Little Indian Lake, and Salisbury Pond. Ararat Brook, a Cold Water Fish Resource, forms the headwaters of Mill Brook Watershed and is the primary inflow to Indian Lake. Designated as a "Great Pond" under Chapter 91, Indian Lake is an important recreational resource boasting public access at two City-owned swimming beaches and a public boat

ramp. Indian Lake has been listed as Category 4c for Eurasian Milfoil, (*Myriophyllum spicatum*), dissolved oxygen, harmful algal blooms, and nutrient/eutrophication biological indicators. Indian Lake has a history of cyanobacteria blooms, which have required the closure of public beaches and boat ramps. In 2023, the City commenced use of a dosing station to disperse polyaluminum chloride to Indian Lake at its Ararat Brook inlet as a cyanobacteria prevention measure. The outlet of Indian Lake becomes an unnamed tributary colloquially known as "Mill Brook". The Brook is listed as a Category 5, or a "Water requiring a TMDL". It is currently listed as impaired for debris, physical substrate habitat alterations, ammonia, un-ionized, chloride, E. coli, fecal coliform, flocculant masses, metals, nutrient/eutrophication biological indicators, odor, oil and grease, other organics, scum/foam, sedimentation/siltation, trash, and turbidity. After a portion flowing underground, Mill Brook flows through Salisbury Pond, a small waterbody surrounded by public parkland. Though not listed in the integrated list of waters, Salisbury Pond faces challenges including invasive water chestnut and sedimentation. Mill Brook flows roughly 3.5 miles underground before it enters the Blackstone River. See Figure 2 in Annex 2.

Lake Quinsigamond is a naturally formed, 4-mile long, 475-acre lake between eastern Worcester and western Shrewsbury, with Grafton to the south. Through Flint Pond, it discharges into the Quinsigamond River, ultimately joining the Blackstone River. Lake Quinsigamond is renowned as a major recreational and environmental asset, hosting rowing, sailing, swimming, fishing, water skiing, jet skiing, and other motorized and non-motorized boating. The Massachusetts Department of Conservation and Recreation (DCR) manages two parks with bathing beaches on the Worcester side of the lake, and the Town of Shrewsbury manages a boat ramp on the eastern shore. With a maximum depth of 85 ft, its depths provide a refuge for cold water fish species, though seasonal anoxia threatens the viability of these populations. Management of the lake is overseen by the Lake Quinsigamond Commission in collaboration with the City of Worcester, the Town of Shrewsbury, and the Town of Grafton. Lake Quinsigamond is listed as category 5 "Waters requiring a TMDL" for phosphorous, and is impaired for algae, dissolved oxygen, and non-native aquatic plants including curly-leaf pondweed, Eurasian milfoil, fanwort, and water chestnut. Fed by tributaries and stormwater originating from Worcester, Shrewsbury, Grafton and West Boylston, water quality is heavily influenced by surrounding land use. Notably, two major tributaries are listed as category 5; Poor Farm Brook (dewatering, aquatic plants, E. coli, temperature) and Coal Mine Brook (fish kills, e. coli, fish bioassessments, sedimentation/siltation, temperature). See Figure 3 in Annex 2.

While the Lakes and Ponds Program currently responds to cyanobacteria, fecal bacteria, and invasive plants at the lake level using short-term management strategies such as in-lake treatments and mechanical harvesting, a more holistic plan is necessary to efficiently address challenges at the watershed level, as well as preserve water quality in the impoundments that are not currently impaired. For this reason, the City is requesting a qualified contractor to assess and create a nine-element Watershed-based Plan for each the Tatnuck Brook, Mill Brook, and Lake Quinsigamond watersheds. These plans will serve to identify kinds and sources of impairments, create and/or update target loading goals for phosphorus, propose a list of specific structural and non-structural projects to reach these goals, produce recommendations on how to measure progress towards these goals in the context of the current Lakes and Ponds Monitoring Program, and identify potential funding sources.

The nine elements that must be included in an EPA-approved Watershed Based Plan are identified below.

- a. An identification of the causes and sources of pollution that will need to be controlled to achieve the load reductions estimated to fix the impairment, and to achieve any other watershed goals identified in the watershed-based plan.
- b. An estimate of the load reductions expected for the management measures described.
- c. A description of the NPS management measures that will need to be implemented to achieve the estimated load reductions (include a map or detailed description).
- d. An estimate of the amounts of technical and financial assistance needed, and/or the sources and authorities that will be relied on, to implement this plan.
- e. An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the NPS management measures that will be implemented.
- f. An expedited schedule for implementing NPS management measures identified.
- g. A description of interim, measurable milestones for determining whether NPS management measures or other controls are being implemented.
- h. Criteria to determine whether loading reductions are being achieved over time, and if progress is being made towards attaining water quality standards and, if not, the criteria to determine if this plan, or a related TMDL, needs to be revised.
- i. A monitoring component to evaluate the effectiveness of the implementation efforts over time.

The Contractor shall be in contact with the City of Worcester (COW) throughout development of the WBP, and the final plan must be reviewed by MassDEP.

Overall project requirement – translation services: The Contractor is required to provide translation services to people with communication disabilities as well as those with limited English proficiency, as requested by expected attendees of the required public workshops (Task 3), and any other public forums that may be part of this project. The Contractor will also assist with coordinating accurate translation of printed or online documents associated with this project.

Deliverables/Tasks

Task 0: Work Plan and Budget Development

The Contractor shall prepare a detailed work plan and timeline following the award of the contract. The Contractor's response shall include a description of all assumptions and contingencies made by the Contractor, a proposed schedule including a list of deliverables with due dates and schedule for deliverables, an estimated budget, and special reporting requirements (if any). The Contractor's response shall include a description of proposed staff and the number of hours and labor classifications proposed for each task.

Task 0 Deliverables:

- Draft Workplan and Budget
- Monthly progress and financial reports

Task 1: Project Management and Administration

This Task includes subtasks related to administration, management, and coordination of the project.

Correspondence (emails, reports, etc.) shall be addressed and directed to the Project Manager – Katie Liming, City of Worcester Lakes and Ponds Program Coordinator. The Project Manager will share correspondence with stakeholders, as appropriate, or direct the Contractor to do so.

Provisions for Deliverables are generally set forth in the Contract. The Project Manager intends to provide any and all formal reports produced under this contract for public dissemination, in whole or in derivative documents, as appropriate.

The Contractor shall provide draft versions of any spreadsheets, calculations or reports. COW and its stakeholders will review and comment on draft deliverables / submittals. The Contractor shall incorporate any such comments into a final version(s). For reports, the Contractor shall use standard computer software (e.g., Adobe Acrobat, MS Word, MS Excel, MS PowerPoint). All other software (e.g., computer models) shall utilize publicly-available non-proprietary code. In addition, software application files, if delivered to the Government, shall conform with Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794(d)). Refer to <http://www.section508.gov/>.

Subtask 1A. Short Kick-off Logistics Teleconference

The Contractor shall initiate a project kick-off teleconference. For this short discussion, COW and the contractor will discuss project goals and logistics regarding the general way that the project will be expected to progress.

Within a week following this teleconference, the Contractor shall summarize their understanding of the project kick-off teleconference (e.g., action items; scheduling adjustments; discussions) and transmit these by email to COW.

Subtask 1A Deliverables:

- Kick-off Logistics teleconference
- Kick-off Logistics teleconference summary (including action items, scheduling adjustments, etc.) within one (1) week of kickoff teleconference

Subtask 1B. Project Content Kick-off Teleconference

The Contractor shall initiate a project content kick-off teleconference. For this discussion, COW and the Contractor will involve selected stakeholders including the Tatnuck Brook Watershed Association (TBWA), Indian Lake Watershed Association (ILWA), Lake Quinsigamond Watershed Association (LQWA), Lake Quinsigamond Commission (LQC), and/or other key stakeholder groups to discuss project flow, goals, and participation of a core group of stakeholders.

Within a week following this teleconference, the Contractor shall summarize their understanding of the project kick-off teleconference (e.g., action items; scheduling adjustments; discussions) and transmit these by email to the COW Project Team Leader.

Subtask 1A Deliverables:

- Kick-off Project Content teleconference
- Kick-off Project Content teleconference summary (incl. action items, scheduling adjustments, etc.) within one (1) week of kickoff teleconference

Subtask 1C. Monthly Teleconferences

Following the kick-off teleconference, the Contractor shall schedule monthly conference calls (as needed) to keep the Project Team updated as to the status of the project. The Project Team will invite

TBWA, ILWA, LQWA, LQC, or other stakeholders to participate in the teleconferences as appropriate for the meeting's agenda.

The Contractor shall briefly summarize their understanding of each conference call (e.g., action items; scheduling adjustments; discussions) and transmit these by email to the Project Team Leader.

Subtask 1C Deliverables:

- Monthly Teleconference Calls
- Monthly Teleconference Call Summaries within one (1) week of monthly teleconference

Task 2: Development of a Quality Assurance Project Plan (QAPP) for Field Assessments, Modeling and Analysis for the Watershed Based Plan

This Task Order does not call for the collection of new water quality data. However, the project does include the collection and assessment of environmental data through data compilation, windshield surveys, stream walks or other shoreline surveys, and pollutant loading and response modeling. For this reason, the Contractor shall develop a Quality Assurance Project Plan (QAPP) for the project pertaining to the collection, analysis or manipulation of watershed assessment data and use of secondary data that will be compiled from previous studies. Example QAPPs will be provided to the Contractor prior to QAPP development.

The QAPP will address data collection and evaluation for the following activities:

- Watershed Assessment
 - A Citizen's Guide to Volunteer Lake Watershed Surveys: How to Conduct a Nonpoint Source Phosphorus Survey, Maine Department of Environmental Protection (<https://www.maine.gov/dep/land/watershed/materials.html>)
- Watershed pollutant loading and in-lake response modelling
 - Lake Loading Response Model (LLRM), Watershed Treatment Model (WTM), or similar
- BMP site-scale load reduction estimates such as Simple, or the Residential Loading Model

Pertinent EPA QAPP guidance and models include:

- General:
 - EPA Quality Assurance Project Plan Development Tool, <https://www.epa.gov/quality/quality-assurance-project-plan-development-tool>
 - EPA Guidance for Quality Assurance Project Plans (EPA QA/G-5), December 2002, EPA/240/R-02/009, <https://www.epa.gov/quality/guidance-quality-assurance-project-plans-epa-qag-5>
 - EPA Guidance for Quality Assurance Project Plans for Modeling EPA QA/G-5M, <https://www.epa.gov/quality/guidance-quality-assurance-project-plans-modeling-epa-qag-5m>
- Use of Secondary Data:
 - EPA New England QAPP Guidance for Projects Using Secondary Data, <https://www.epa.gov/sites/production/files/2015-06/documents/EPANESecondaryDataGuidance.pdf>
- EPA New England templates and checklist for model applications in the TMDL program:
 - EPA New England Draft Generic Modeling Quality Assurance Project Plan and Quality Assurance Checklist, <https://www.epa.gov/quality/design-and-implementation-new-tools-quality-assurance-modeling>

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 2 Deliverables:

- Draft QAPP for watershed assessments, and loading and response models, for submittal to MassDEP.
- Final QAPP, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of MassDEP's comments.

Task 3 – Public Workshops: Project Engagement

The Contractor shall develop and implement hybrid workshops for the public for the purposes of explaining and soliciting input on the development of each watershed-based plan. The Contractor shall conduct one (1) public workshop for each watershed (total of 3 workshops) with the stakeholder entities identified below and including COW. The Contractor shall be responsible for all meeting logistics (including in-person and virtual participation options), the meeting agenda, presentations, and a meeting summary. In preparation for the meeting, the Contractor shall prepare a presentation that outlines the concepts for the development of the watershed-based plans. At the meeting, the Contractor shall also request input from the public on their goals and interests for the plan. The engagement workshops should be designed to consider designated Environmental Justice communities as key audiences.

Key stakeholders that the Contractor may invite to the workshops include, but are not limited to, the following:

- Representatives from the City of Worcester (City Council or Mayor, City Manager's Office, Department of Public Works and Parks, Conservation Commission, Planning & Zoning, Inspectional Services, etc.)
- Hassanamisco Nipmuc Nation
- Tatnuck Brook Watershed Association
- Smith's Pond Corporation
- Friends of Patch Reservoir
- Indian Lake Watershed Association
- Friends of Institute Park
- Lake Quinsigamond Watershed Association
- Lake Quinsigamond Commission
- Blackstone River Coalition
- Blackstone Headwaters Coalition
- Blackstone Watershed Collaborative
- Greater Worcester Land Trust
- Worcester Cyanobacteria Monitoring Collaborative (WCMC)
- Local business owners
- Worcester State University
- Clark University

- Holy Cross University
- Worcester Polytechnic Institute
- Assumption University
- University of Massachusetts
- Massachusetts Department of Environmental Protection
- Central Massachusetts Regional Planning Commission
- Upper Blackstone Clean Water
- Town of Shrewsbury
- Town of Grafton
- Concerned residents and community scientists

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 3 Deliverables:

- Draft plans for the development and execution of the public/virtual workshops and draft presentations (e.g., PowerPoint) that outline the concepts for the WBP development.
- Provide draft workshop plans and presentations to the project team for review and comment.
- Final workshop plan and presentation documents, submitted in an unlocked word processor or PowerPoint electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of COW's comments.
- Public/virtual workshop to solicit and collect additional information identified by the public
- Draft written summary of the virtual or in-person, public meeting within one (1) week of workshop.
- Final meeting summary submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within one (1) week of receipt of COW's comments.

Task 4 – Existing Data and Information Compilation and Review

The Contractor shall compile existing water quality data and reports for each watershed study area to be used to inform the watershed planning process. The use of data will be in compliance with the approved QAPP. Sources of watershed data may include, but are not limited to: The COW Lakes and Ponds Program Water Quality Monitoring Program, Worcester State University, the Worcester Cyanobacteria Monitoring Collaborative, Clark University, Worcester Polytechnic Institute, MassDEP Environmental Monitoring Database, and the Blackstone River Coalition. Other sources of information may include the City of Worcester Stormwater Management Plan and Integrated Water Resources Management Plan. Any existing TMDLs should be referenced and considered alongside any more recent data or information.

For all written deliverables for this task, the Contractor shall submit draft documents to MassDEP, shall incorporate comments from MassDEP, and shall submit the final document to MassDEP for approval.

Task 4 Deliverables:

- Provide draft list of materials to MassDEP, COW, and selected stakeholders for review and comment.
- Finalize list of information and resources that will be used to develop the watershed-based plan within two (2) weeks of receipt of COW and/or MassDEP's comments.

Task 5 – Perform modeling for lake loading and in-lake responses

The Contractor shall estimate nutrient and/or pollutant loading and waterbody response using the Lake Loading Response Model, Watershed Treatment Model, or similar methodology as defined in the water quality modeling section of the QAPP. The exact methodology to be used may be determined by the Contractor, but must receive prior approval from the Project Team and be documented in the MassDEP-approved project QAPP (see Task 2 regarding QAPP development). Loading and response modeling shall be completed for each watershed study area. This task may include using data compiled in Task 4 to update previously completed loading estimates. This task may also include loading estimates for 2035 based on climate change projections for precipitation.

The goal of lake loading modeling is to estimate pollutant loads (internal and watershed) to the waterbodies and predict the in-lake response to the modeled loads to the lake. The modeling output will be used to set numeric water quality targets (e.g., in-lake pollutant concentration) for determining acceptable loads to the lake(s). To populate and run the model, the Contractor will need to acquire certain information and data including land use data for the watershed, pollutant loading coefficients for land uses, watershed, and lake characteristic data (area, depth, flushing rate, etc.), existing and historic lake water quality data, atmospheric deposition rates, applicable designated uses/water quality standards, and other information as determined.

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 5 Deliverables:

- Draft Watershed Modeling Technical Memorandum
- Provide draft Watershed Modeling Memorandum to COW. COW will share with MassDEP, and other selected stakeholders for review.
- Revise draft Modeling Memo and model as needed to complete and submit the Final Watershed Modeling Memorandum document, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within three (3) weeks of receipt of COW's comments.

Task 6 - Determination of Assimilative Capacity and Water Quality Goals

The Contractor shall complete an assimilative capacity analysis for phosphorus in each of the impoundments in each watershed study area, which will include calculations of total assimilative capacity, reserve assimilative capacity, and remaining assimilative capacity. The exact methodology to be used may be determined by the Contractor, but must receive prior approval from the Project Team and be documented in the MassDEP-approved project QAPP (see Task 2 regarding QAPP development). The results from the water quality data compilation and assimilative capacity analysis will help inform the process of establishing the water quality goals for each waterbody and the pollutant load reductions needed to meet the water quality goals.

The Contractor shall identify likely members from among the stakeholder groups, including MassDEP, and convene a water quality advisory group, coordinate and conduct meetings for the purpose of developing water quality goals for each impoundment, and identifying any other impairments that the waterway may have.

The Contractor shall use the completed work products from modeling and goal setting to determine the phosphorus load limitations or reductions that would be needed to achieve or maintain the water quality goals through future watershed conditions.

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 6 Deliverables:

- Draft Assimilative Capacity Technical Memorandum
- Provide draft Assimilative Capacity Memorandum to COW, MassDEP, and selected stakeholders for review.
- Draft memorandum documenting the methodology and selected stakeholder group for arriving at the water quality goal.
- Documentation of WQ advisory group meeting attendance, and outcomes from meetings
- Final Technical Memorandum document including Assimilative capacity analysis and goal setting outcomes, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of COW's comments.

Task 7 – Watershed Assessments

For the WBP, the Contractor shall use existing environmental information and information obtained from watershed visits, and consultation with local knowledgeable parties (e.g., Lake Association, etc.), to identify causes and sources of NPS-related water quality impairments or threats to water quality (see bulleted list below). The Contractor is not expected to collect any new water quality data for this task.

However, they shall perform qualitative field assessments following the methodology of the State of Maine DEP's *A Citizen's Guide to Volunteer Lake Watershed Surveys*

(<https://www.maine.gov/dep/land/watershed/materials.html>) or similar method. The exact methodology to be used may be determined by the Contractor, but must receive prior approval from the Project Team and be documented in the MassDEP-approved project QAPP (see Task 2 regarding QAPP development). While it will not be possible to identify every potential pollutant source, the Contractor shall use the available information to prioritize the locations within the watershed where mitigation will have the most direct benefit to the lake. The number of sites identified shall, at minimum, be sufficient that remediation of their combined contribution of phosphorus loads would result in achievement of the water quality goals for each lake and impoundment the watershed study areas. The Contractor should also identify gaps in data needed for thorough assessment and make recommendations for future data collection to inform future assessment.

Potential nutrient sources that should be evaluated include but are not limited to:

- Municipal, state, commercial, residential practices for maintaining playing fields, turf grass, lawns and related;
- Municipal, state, and commercial housekeeping practices regarding road maintenance, street sweeping, leaf disposal, salt storage, salt application, etc.

- Municipal and private maintenance of gravel roads including but not limited to maintaining ditch lines, culverts, and erosion reduction practices.
- Municipal, state, and private maintenance of sanitary and drain sewer infrastructure
- Public areas near watercourses that are popular for dog walking where proper disposal of pet waste may be a concern;
- Grassy areas adjacent to waterbodies where waterfowl congregate and where there are inadequate riparian buffers; and
- Eroding riparian and shoreline areas.

All information for the Watershed Assessment shall be compiled in a Watershed Assessment Technical Memorandum. Data for the memorandum shall be compiled in geodatabase.

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 7 Deliverables:

- Draft Watershed Assessment Technical Memorandum prepared consistent with the QAPP identified in Task 2
- Provide draft Watershed Assessment Technical Memorandum to COW and selected stakeholders for review.
- Geospatial Database with environmental data compiled for the Watershed Assessment Technical Memorandum
- Final Watershed Assessment Technical Memorandum document, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of COW's comments.
- Provide recommendations for future data collection.

Task 8 – Strategy for NPS Management Measures

The Contractor shall use information gathered during prior Tasks, data provided by COW and information obtained through the public outreach process to develop a strategy for structural and non-structural NPS management measures intended to reduce nutrient and pollutant loading sufficiently to achieve the plan's water quality goals.

The Contractor shall produce preliminary conceptual designs for 10-15 sites in each watershed study area, within City of Worcester limits and typically located on public property. Exceptional sites located on private property may be considered upon consultation with COW. These conceptual plan sites will be selected in coordination with COW and must be capable of being adapted to the additional locations in the watershed, and be suitable to serve as demonstration sites that would serve to encourage stakeholders to implement similar management measures in the watershed.

The NPS Management Strategy should include the following elements:

- (a) Impairment
 - i. (Included in other tasks)
- (b) Load Reduction

- i. (Included in other tasks)
- (c) Management Measures
 - i. A list of recommended NPS management measures that would be most effective at reducing nutrient loads in each watershed study area. The NPS management measures should be structural, site-specific NPS management measures (e.g., construction projects such as rain gardens, catch basin filters, etc.) and general, basin-wide non-structural management measures (e.g., street sweeping, leaf pickup) as well as education and outreach programs (e.g., outreach on pet waste pick-up, etc.).
 - ii. Evaluation of the anticipated load reductions and costs associated with each NPS management measure. This evaluation shall include identifying the specific locations where structural management measures could be installed. Evaluation of the load reduction attributable to the proposed BMP shall be estimated by Simple, RLM, or other methodology as detailed in the approved project QAPP.
 - iii. Evaluation of the estimated implementation priority for the identified BMPs. The evaluation shall be reviewed and approved by the Project Team, and will result in a table of best management practices which are prioritized by cost-per-unit of phosphorus load reduction, with consideration also given to feasibility and ease of implementation. The number of sites identified shall, at minimum, be sufficient that remediation of their combined contribution of phosphorus loads would result in achievement of the water quality goal in each of the waterways.
 - iv. High-level plan for monitoring and evaluating the long-term success of each type of management measure.
 - v. Preliminary conceptual designs for structural NPS management measures for at least 10 of the identified sites in each watershed study area. These conceptual plan sites will be selected in coordination with COW and must be capable of being adapted to the additional locations in the watershed, and be suitable to serve as demonstration sites that would serve to encourage stakeholders to implement similar management measures in the watershed.
- (d) Technical and Financial Assistance
 - i. Estimate the financial and technical assistance needed to implement the entire plan, including long-term operation and maintenance of management measures, monitoring, and evaluation activities.
 - ii. Identification of potential partners and funding sources necessary to implement NPS management measures identified in the plan.
- (e) Public Education and Outreach
 - i. Develop outreach, education, and participatory opportunities which support the development and implementation of the watershed plan and its goals. These opportunities should be designed with consideration of designated Environmental Justice communities as key audiences.
- (f) Schedule
 - i. A recommended schedule for implementation and interim milestones for determining if NPS management measures are being implemented.
- (g) Milestones

- i. Provide a description of interim, measurable milestones for determining whether NPS management measures or other controls are being implemented.
- (h) Performance
 - i. Develop criteria to determine whether loading reductions are being achieved over time, and if progress is being made towards attaining water quality standards, and if not, the criteria to determine if this plan or a related TMDL needs to be revised.
- (i) Monitoring
 - i. Recommendations for future monitoring that will allow for evaluation of the plan's effectiveness over time including review of current monitoring strategy and recommendations for alterations to that strategy.

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments, and shall submit the final document to COW for approval.

Task 8 Deliverables:

- Draft Technical Memorandum on Strategy for NPS Management Measures in each watershed study area to reduce phosphorus loading sufficiently to eliminate water quality impairments and achieve water quality goals in each watershed study area due to NPS causes and sources. Management Measures should be organized in a table or other format that may serve as an easy reference for stakeholders.
- Submit draft technical memo to COW and selected stakeholders for review and comment.
- Final Technical Memorandum on the Strategy for NPS Management Measures in each watershed study area, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within four (4) weeks of receipt of COW's comments.

Task 9 – Watershed-based Plans

The Contractor shall use the work products completed in the prior project tasks to assemble an EPA-approvable 9-element Watershed-based Plan for each watershed study area. The WBP shall include a table that verifies that the nine elements required for an EPA approved watershed-based plan have been provided and identifies where these elements are located in the watershed plan document.

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 9 Deliverables:

- Draft Watershed-based Plan (WBP) for each watershed study area
- Submit draft watershed-based plan to COW and selected stakeholders for review and comment.

Task 10 – Public Review and Comment; Completion of Final Plans

The Contractor shall develop and conduct a public hybrid meeting in collaboration with COW to present each draft WBP to the public for the purposes of education and to solicit public input and comments (a total of three public meetings, one for each watershed). The Contractor shall be responsible for all meeting logistics, distributing the draft documents to stakeholders, the meeting agenda, presentations, and a meeting summary. The Contractor shall also prepare a response to comments document, addressing public comments on the WBP and make changes to the WBP as indicated by COW to create the final version of the Watershed Based Plan.

For all written deliverables for this task, the Contractor shall submit draft documents to COW, shall incorporate comments from COW, and shall submit the final document to COW for approval.

Task 10 Deliverables:

- Draft plan for the development and execution of the public meeting and public comment period for the Draft Watershed-based Plan (WBP) for each watershed study area.
- Submit draft public meeting plan to COW and selected stakeholders for review and comment.
- Final meeting plan document, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of COW's comments.
- Final presentation, submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of COW's comments.
- Public Meeting to solicit comments on the Draft WBP for each watershed study area
- Draft written summary of the public meeting within one (1) week of meeting
- Final meeting summary, submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within one (1) week of receipt of COW's comments.
- Draft document summarizing responses to comments from the public on the Draft WBP for each watershed study area.
- Final response to comments document, submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format, within two (2) weeks of receipt of COW's comments.
- The Contractor shall incorporate stakeholder and COW comments into the final WBP for the each watershed study area (see Task 9).

Task 11: Drainage Assessment of Weasel Brook

The Contractor shall conduct a drainage survey assessment of Weasel Brook and its open channel flow, inlets, outlets, and culverts as pertains to drainage and flooding and the overall drainage and surface flow of a site. The assessment will include the contributions of stormwater discharge to the brook from the infrastructure in the study area (see Figure 4 in Annex 2). The assessment will focus on the area of Weasel Brook north of Ararat Street and Brooks Street and south of Pullman Street. The assessment is intended to build off the work conducted under the Weasel Brook Floodplain Analysis prepared by BETA Group, Inc, and Drainage Master Plan prepared by Weston & Sampson.

The Contractor will identify flooding risks of the site and make recommendations for infrastructural solutions to mitigate flooding. The Contractor will produce preliminary designs for three flooding mitigation measures.

Subtasks include:

Subtask 11a: Mapping current drainage and flow. The Contractor will compile background information and existing data related to the site history and current drainage and surface water flow. This may include GIS mapping/spatial analysis and to establish current conditions and field assessments to verify

information. This will also include measuring the flow of Weasel Brook on at least one dry weather and two wet weather (2 inches or more per 24 hours) occasions to provide input to the model.

Subtask 11b: Modeling analysis. Using an industry-standard modeling methodology, the Contractor will model system performance under different flooding and precipitation scenarios, including NOAA Atlas 14 precipitation frequency estimates and projected future year 2070 precipitation under climate change. This task may build off the H&H modeling done by Weston & Sampson in the Drainage Master Plan using PCSWMM.

Subtask 11c: Recommendations for site improvements. The Contractor will make recommendations for projects to improve drainage at the site and mitigate identified issues. Recommended measures may include improvements to stormwater or sewer infrastructure, culvert improvements, wetland restoration, grading, or other projects. In consultation with the COW, the Contractor will create preliminary designs for three flooding mitigation projects.

Task 11 Deliverables:

- Drainage/flooding risk survey assessment
- Preliminary construction specifications/designs for three flooding mitigation projects

Annex 1: Schedule and Deliverables

The project schedule is outlined below in Table 1. A notice to proceed (NTP) from the Project Team Leader will be provided to the Contractor prior to conducting any tasks under this agreement.

It is anticipated in the proposed project schedule that some Tasks may be completed concurrently with other Tasks.

COW understands and presumes the Contractor may propose a different schedule based on its understanding of the work scope.

TASK	DELIVERABLE	DATE DUE TO COW
Task 0: Work plan and Budget Development	Work plan and budget	Within two (2) weeks of NTP
	Progress and financial reports	Monthly
Task 1: Project Management and Administration	Kick-off teleconference between the Contractor and COW	Within four (4) weeks of NTP issuance
Subtask 1A: Short Kickoff Logistics Teleconference	Logistics Kick-off teleconference summary	Within one (1) week of Logistics kick-off Teleconference
Subtask 1B: Kickoff Project Content Teleconference	Content Kick-off teleconference summary	Within one (1) week of Content kick-off Teleconference
Subtask 1C: Teleconference Call	Teleconference Calls	Monthly, as needed
	Teleconference Summary	Within one (1) week of each Teleconference
Task 2: Development of a Quality Assurance Project Plan (QAPP) for Watershed Assessments, Modeling and Analysis	Draft QAPP	Within two (2) months of NTP issuance
	Revised QAPP, addressing comments from COW and MassDEP	Within two (2) weeks of receipt of comments
Task 3: Public Workshop: Project Outreach	Provide draft plan for the development and execution of the public/virtual workshop and draft PowerPoint presentations that outline the concepts for the WBP development to the project team for review and comment.	Within three (3) months of contract issuance

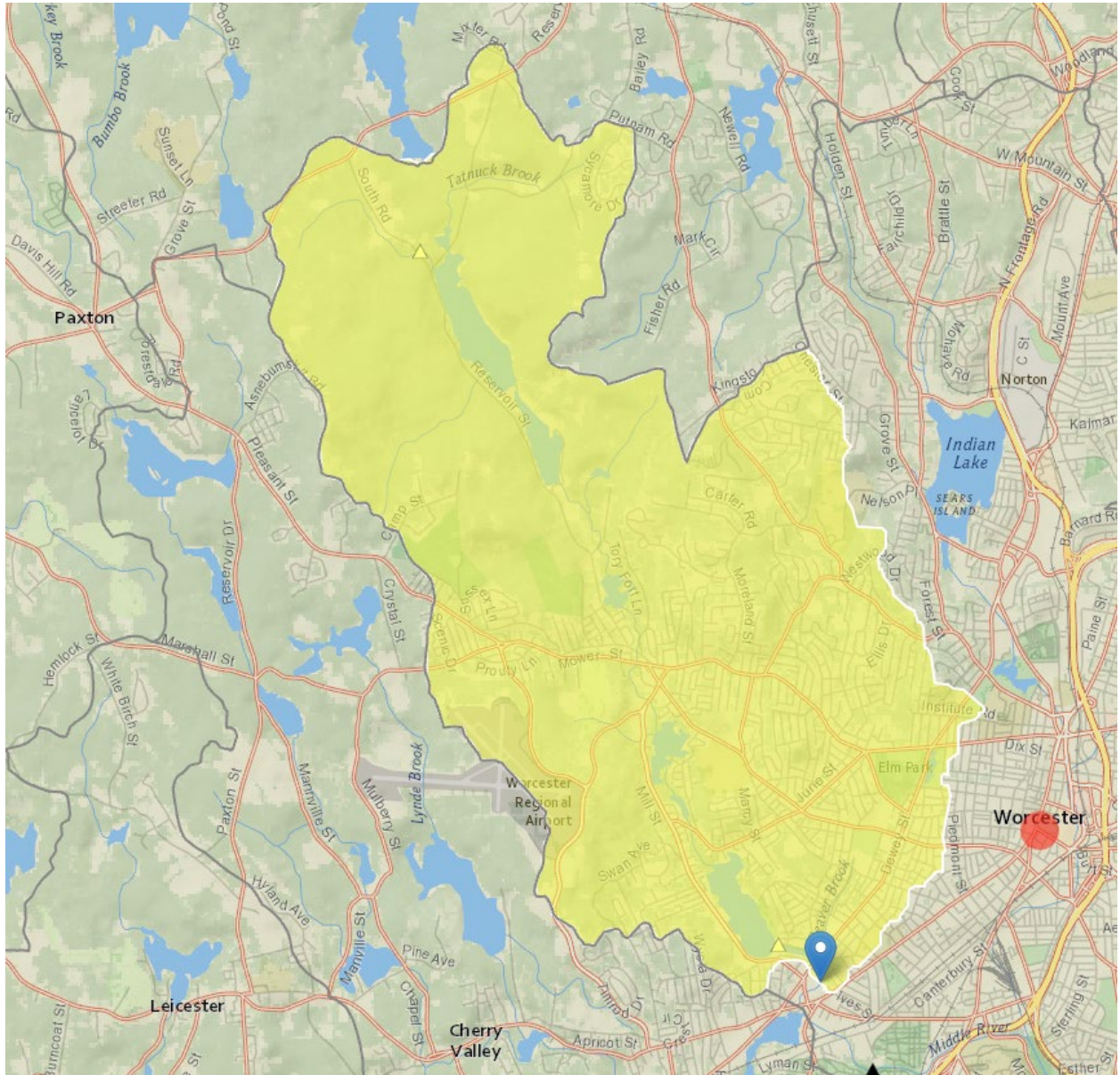
TASK	DELIVERABLE	DATE DUE TO COW
	Final workshop plan and presentation documents, submitted in an unlocked word processor or PowerPoint electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within two (2) weeks of receipt of COW comments
	Conduct the Public/virtual Workshop to solicit and collect additional information identified by the public; draft written summary of the public meeting	Meeting Within one (1) month of approval. Summary within one (1) week of the public workshop
	Final meeting summary submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within one (1) week of receipt of COW comments.
Task 4: Existing Data and Information Compilation and Review	Provide draft list of materials to COW, and selected stakeholders for review and comment and provide copies of any of the listed materials if requested by COW.	Within three (3) months of contract issuance
	Finalize list of information and resources that will be used to develop the watershed- based plan.	Within two (2) weeks of receipt of comments
Task 5: Perform modeling for lake loading and in-lake response	Provide draft Watershed Modeling Memorandum to COW, including the completed model's Excel spreadsheets. COW will share with MassDEP, and other selected stakeholders for review.	Within five (5) months of contract issuance
	Revise draft Modeling Memo and model as needed to complete and submit the Final Watershed Modeling Memorandum document, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within three (3) weeks of receipt of comments
Task 6: Determination of Assimilative Capacity and Water Quality Goals	Provide draft Assimilative Capacity Memorandum to COW and selected stakeholders for review.	Within six (6) months of contract issuance
	Draft memorandum documenting the methodology and selected stakeholder group for arriving at the water quality goal.	Within six (6) months of contract issuance
	Documentation of WQ advisory group meeting attendance, and outcomes from meetings	Meeting within seven (7) months of TO issuance. Documentation within two (2) weeks of goal setting meeting.

TASK	DELIVERABLE	DATE DUE TO COW
	Final Technical Memorandum document including assimilative capacity analysis and goal setting outcomes, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within two (2) weeks of receipt of COW's comments.
Task 7: Watershed Assessments	Provide draft Watershed Assessment Technical Memorandum to COW, DEP, and selected stakeholders for review.	Within eight (8) months of TO issuance
	Geospatial Database with environmental data compiled for the Watershed Assessment Technical Memorandum	Within eight (8) months of TO issuance
	Final Watershed Assessment Technical Memorandum document, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within two (2) weeks of receipt of COW's comments on memo and geospatial database.
Task 8: Strategy for NPS Management Measures	Submit Draft Technical Memorandum on Strategy for NPS Management Measures to COW, DEP, and selected stakeholders for review and comment.	Within ten (10) months of TO issuance
	Final Technical Memorandum on the Strategy for NPS Management Measures, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within four (4) weeks of receipt of COW's comments
Task 9: Watershed-based Plan	Submit Draft Watershed-based Plan (WBP) to COW, DEP, and selected stakeholders for review and comment.	Within twelve (12) months of TO issuance
Task 10: Public Review and Comment for the Watershed-based Plans; Completion of Final Plan	Submit a draft plan for the development and execution of the public/virtual meeting and public comment period for the Draft Watershed-based Plan (WBP) to COW, DEP, and selected stakeholders for review and comment.	Within thirteen (13) months of TO issuance
	Final meeting plan document, submitted in an unlocked word processor electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format	Within two (2) weeks of receipt of COW's comments.
	Final presentation, submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Presentation documents within two (2) weeks of receipt of COW's comments. Meeting within fifteen (15) months of TO issuance.

TASK	DELIVERABLE	DATE DUE TO COW
	Draft of a written summary of the public meeting.	Within one (1) week of meeting
	Final meeting summary, submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format.	Within one (1) week of receipt of COW's comments.
	Final response to comments document, submitted in an unlocked, electronic file in a Microsoft compatible format and any associated charts, figures, tables and images in unlocked electronic files in a Microsoft compatible format. The Contractor shall incorporate these comments into the final WBP.	Within sixteen (16) months of TO issuance.
Task 11: Weasel Brook Drainage Assessment	Submit a draft drainage/flooding risk survey assessment for COW review and comment.	Within three (3) months of TO issuance.
	Final drainage/flooding risk survey assessment.	Within four (4) months of TO issuance.
	Submit draft preliminary construction specifications/designs for three flooding mitigation projects for COW review and comment.	Within five (5) months of TO issuance.
	Final preliminary construction specifications/designs for three flooding mitigation projects.	Within six (6) months of TO issuance.

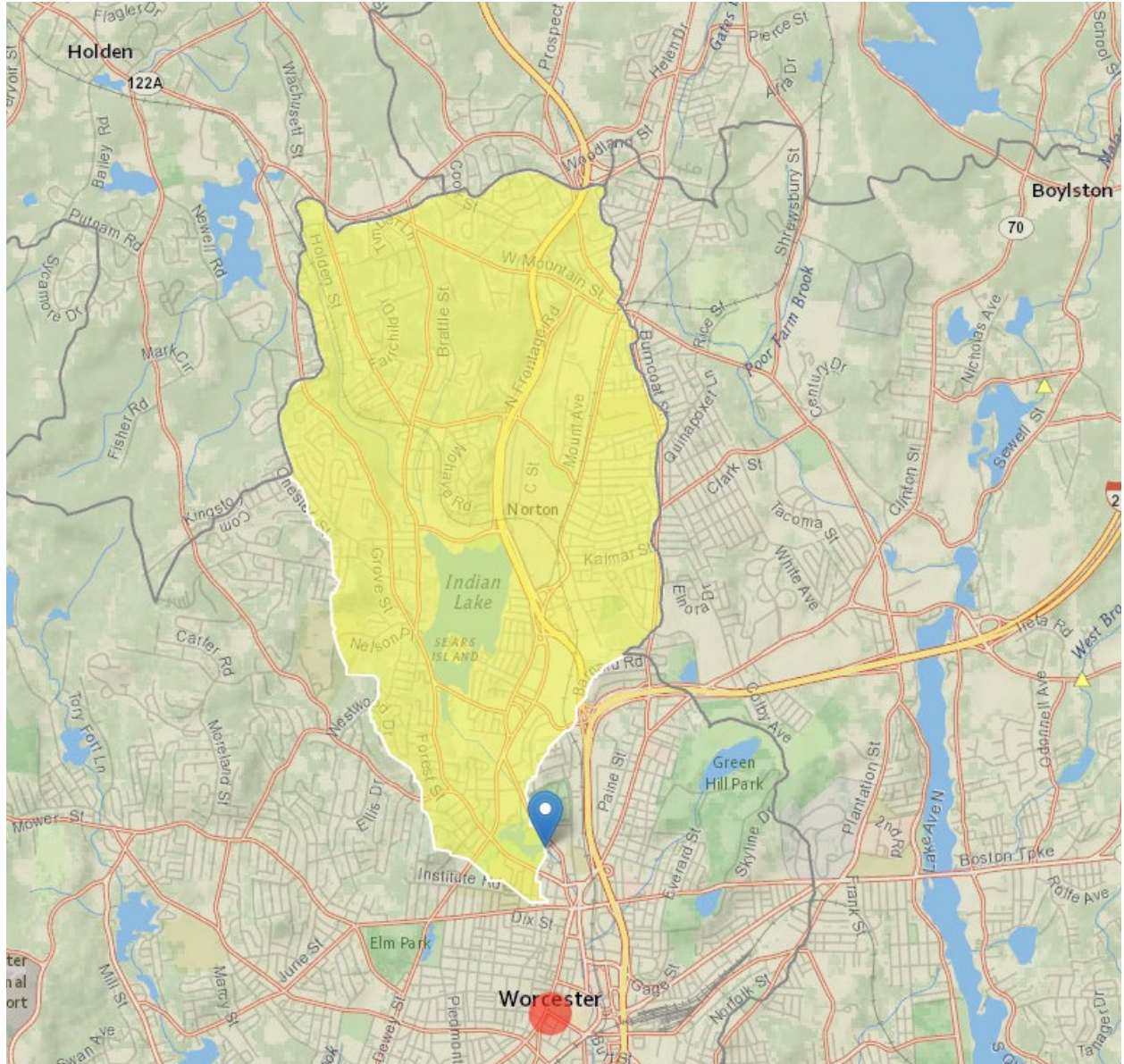
Annex 2: Watershed Study Areas

Figure 1: Tatnuck Brook Watershed study area, with Beaver Brook subwatershed



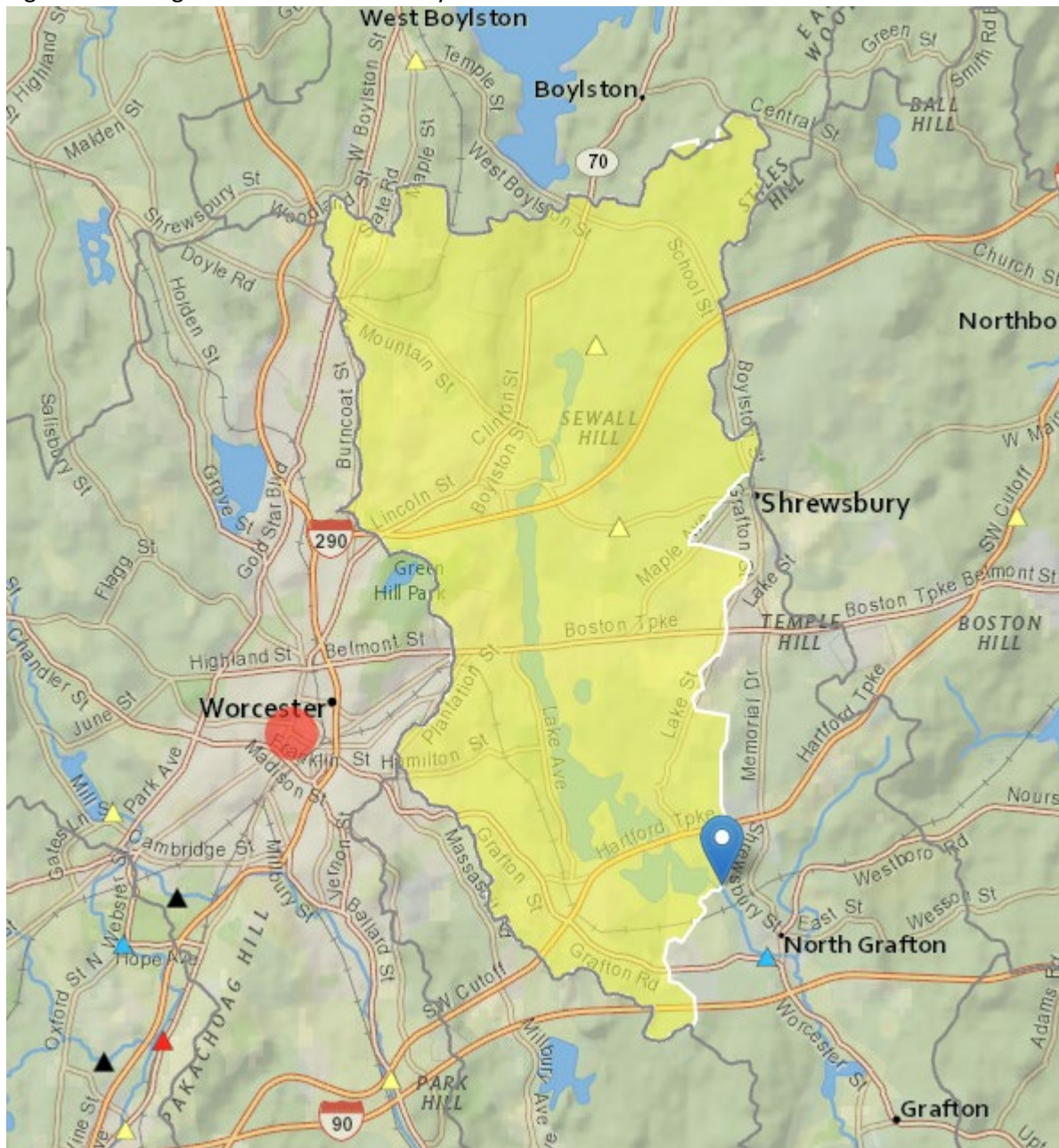
Source: USGS StreamStats dashboard, basin delineation.

Figure 2: Mill Brook Watershed Study Area



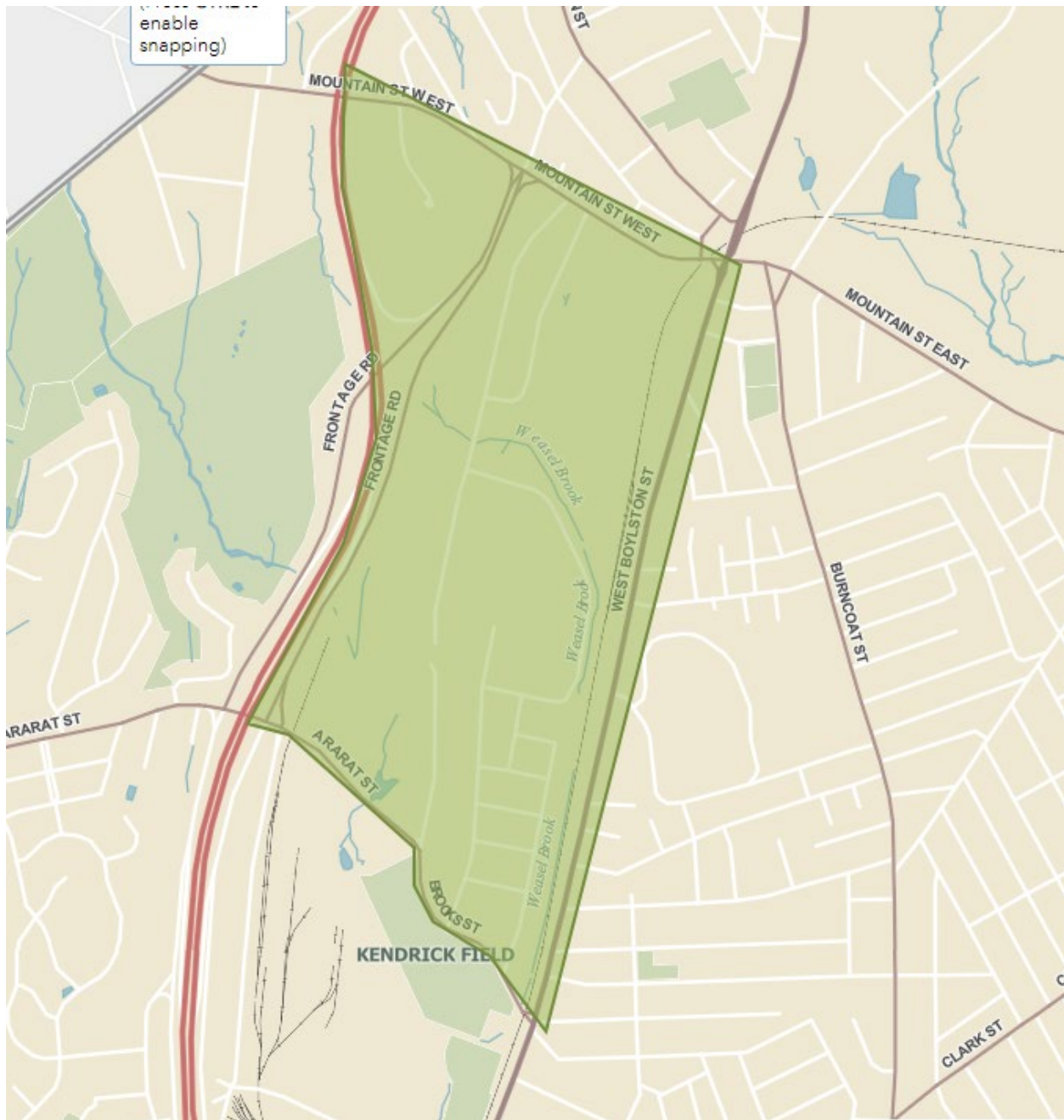
Source: USGS StreamStats dashboard, basin delineation.

Figure 3: Quinsigamond Watershed Study Area



Source: USGS StreamStats dashboard, basin delineation.

Figure 4: Weasel Brook Drainage Assessment study area



Source: City of Worcester GIS

Proposal Requirements

The Consultant's Technical Proposal shall include/address the following items:

- 1) Narrative and referenced sample work products describing:
 - A. Qualifications of the key team member/s assigned to the project (resumes);
 - B. Proposed approach to meeting the deliverables (if outsourcing specific tasks, fully explain the approach and experience of those staff);
 - C. Demonstrated experience (with applicable sample work products as applicable) of:
 - i. writing nine-element watershed-based plans accepted by MassDEP and outlining projects meeting the eligibility criteria for Clean Water Act section 319 nonpoint source pollution implementation funds;
 - ii. developing and performing work utilizing a Quality Assurance Project Plan (QAPP);
 - iii. successful public facilitation that brought diverse stakeholders to an agreement on complex topics and goals' prioritization, where there may have been differing opinions;
 - iv. in-depth research and analytical capabilities to inform decision-making process, including ability to translate the research data in clear and concise terms;
 - v. modeling pollutant loading and in-lake response with an industry-standard methodology;
 - vi. calculating assimilative capacity for phosphorus in waterbodies using an industry-standard methodology;
 - vii. successful public engagement and communication to diverse communities using a variety of methods and ability to communicate complex topics in accessible way; developing and disseminating outreach materials customized to different audiences;
 - viii. ability to design and plan stormwater Best Management Practices projects; and
 - ix. ability to anticipate and resolve potential challenges related to strategic planning and community engagement tasks.
- 2) Hours and Schedule:
 - A. Estimated time commitment (hours) broken out by Tasks and sub-Tasks;
 - B. Schedule of deliverables.
- 3) References: At least three (3) references and associated project summary where similar services have been completed. The list should include the contact name, address, and phone numbers of the client contact person.
- 4) Compliance with federal procurement requirements: Provide your firm's Unique Entity Identifier or proof of registration on sam.gov.
- 5) Other: Provide any additional information about your firm that is relevant to this RFP that you believe will assist the City in making its selection.
- 6) No Conflict of Interest: Please disclose any current (within the last 3 years) business, financial, personal or other types of relationships which may pose a conflict of interest. Further, each bidder shall certify by its bid to the invitation that it currently does not and will not, for the full

term of any agreement with the City, receive any financial benefit or remuneration from a company involved in such activities, whether directly or indirectly.

Additional submission information:

- Each proposal will be reviewed for completeness, and incomplete submissions may be rejected without further consideration. A proposal will be considered complete if all requested sections and information are included in the proper order.
- Respondents shall use the prescribed format to indicate their experience and qualifications and describe their approach to providing the consulting services, as described.
- The City assumes no liability for and will not reimburse any costs incurred by any contractor (whether or not selected) in developing responses to this RFP.
- Submission of a proposal shall be deemed permission to the Selection Committee to make inquiries concerning the Respondent to any persons or firms deemed appropriate by the Selection Committee, including any named subcontractors.

Assumptions

The Blackstone River Coalition has applied for a Section 319 grant from MassDEP to create a watershed-based plan for Cooks Pond and Patch Reservoir, located within the Tatnuck Brook Watershed. If awarded, the Contractor will be expected to conduct contract tasks in coordination with this project and build off its progress, rather than duplicating effort. The award announcement is expected in late fall 2024. For the purpose of this RFP, bidders should assume that the grant application is NOT awarded and proposals should accurately reflect the cost of developing a watershed-based plan for the entire Tatnuck Brook watershed.

Minimum Qualifications

The respondents must:

- 1) Have submitted all the items listed in the Proposal Requirements, above.
- 2) Have a minimum of three (3) years of combined previous experience related to assessing nonpoint source pollution and writing watershed-based plans to manage nonpoint source pollution;
- 3) Have demonstrated experience in community outreach, marketing and education.

Comparative Evaluation Criteria

All responsive proposals will be evaluated in the following areas based on comparative evaluation criteria for Highly Advantageous (HA), Advantageous (A), or Not Advantageous (NA).

Feedback gained from references may impact the rating in any applicable category:

1. Experience & Qualifications of Project Team	
HA	Respondent's submission demonstrates superior training, educational background and work experience appropriate to the work described herein and all key work personnel demonstrate direct recent experience of producing three (3) or more watershed-based plans.
A	Respondent's submission demonstrates adequate training, educational background and work experience appropriate to the work described herein and all key work personnel demonstrates experience of producing two watershed-based plans.
NA	Respondent's submission demonstrates some training, educational background and work experience appropriate to the work described herein and key work personnel demonstrate experience of producing one completed watershed-based plan.
2. Demonstrated ability to develop and perform work utilizing a Quality Assurance Project Plan (QAPP).	
HA	Proposal demonstrates extensive experience (5+ examples) of QAPPs developed by the respondent, and extensive experience (7+ examples) of projects performing work utilizing a QAPP.
A	Proposal demonstrates good experience (2-4 examples) of QAPPs developed by the respondent, and good experience (2-6 examples) of projects performing work utilizing a QAPP.
NA	Proposal demonstrates some experience (1 example) of QAPPs developed by the respondent, and some experience (1 example) of projects performing work utilizing a QAPP.
3. Demonstrated public facilitation experience to diverse communities using variety of information delivery and input gathering approaches.	
HA	Proposal demonstrates extensive experience (5 + years) facilitating public meetings and community planning exercises that achieved bringing diverse stakeholders to an agreement on complex topics and goals' prioritization, where there may have been differing opinions.
A	Proposal demonstrates good experience (2-4 years) facilitating public meetings and community planning exercises.
NA	Proposal demonstrates some experience (< 2 years) facilitating public meetings and community planning exercises.
4. Demonstrated in-depth research and analytical capabilities to inform decision-making process, including ability to distill the research data and translate it in clear and concise terms.	
HA	Proposal provides superior evidence of in-depth research as well as analytical capabilities, along with concise and clear writing capabilities related to conducted research and analysis.
A	Proposal provides adequate evidence of respondent's research and analytical capabilities and acceptable writing capabilities.
NA	Proposal demonstrates some experience with research, analytical, and writing capabilities, but gaps in research are apparent or errors are present.

5. Demonstrated experience modeling pollutant loading and in-lake response with an industry-standard methodology.	
HA	Proposal demonstrates extensive experience (5+ examples) of projects modeling lake loading of nutrients and/or pollutants and waterbody response.
A	Proposal demonstrates good experience (2-4 examples) of projects modeling lake loading of nutrients and/or pollutants and waterbody response.
NA	Proposal demonstrates some experience (1 example) of projects modeling lake loading of nutrients and/or pollutants and waterbody response.
6. Demonstrated experience calculating assimilative capacity for phosphorus in waterbodies using an industry-standard methodology.	
HA	Proposal demonstrates extensive experience (5+ examples) of projects determining assimilative capacity of phosphorus.
A	Proposal demonstrates good experience (2-4 examples) of projects determining assimilative capacity of phosphorus.
NA	Proposal demonstrates some experience (1 example) of projects determining assimilative capacity of phosphorus.
7. Demonstrated successful public engagement and communication experience to diverse communities.	
HA	Proposal demonstrates superior knowledge of public engagement and communication methods and excellent examples of outreach materials done in the past relevant to watershed planning, with broad applicability to the City, such as example of engaging with diverse groups, ability to communicate complex topics in accessible way, and developing and disseminating outreach materials customized to different audiences.
A	Proposal demonstrates adequate knowledge of public engagement and communication methods and good examples of outreach materials done in the past on general water quality issues, but not specific to watershed planning.
NA	Proposal demonstrates some knowledge of public engagement and communication methods with limited examples of outreach materials done in the past on issues unrelated to watershed planning.
8. Demonstrated successful design, planning, and implementation of stormwater Best Management Practices (BMPs)	
HA	Proposal demonstrates extensive experience (5 + years) in designing, planning, implementing, and monitoring stormwater BMPs, with verified reductions in nonpoint source pollution.
A	Proposal demonstrates good experience (2-4 years) in designing, planning, and implementing stormwater BMPs.
NA	Proposal demonstrates some experience (1 year) in designing, planning, and implementing stormwater BMPs.
9. Demonstrated knowledge, experience and ability to anticipate and resolve potential challenges related to strategic planning and community engagement tasks.	
HA	Proposal demonstrates superior knowledge, experience and ability to anticipate potential project challenges, with a number of stated examples, as well as potential scenarios and proposed resolutions to those, with broad applicability to the City and specific to watershed planning.
A	Proposal demonstrates adequate knowledge, experience and ability to anticipate potential project challenges, with broad applicability to the City but unrelated to watershed planning.

NA	Proposal demonstrates some knowledge, experience and ability to anticipate potential project challenges, without broad applicability to the City and unrelated to watershed planning.
10. Demonstrated successful past experience managing similar projects via references' input.	
HA	The Respondent provided 5 or more references, and the majority of references provided excellent feedback with regards to their qualifications, research and analytical capabilities, public facilitation experience, public engagement and communication experience, examples of overcoming challenges, and experience with stormwater BMPs.
A	The consultant provided 3-4 references, and the majority of references provided adequate feedback with regards to their qualifications, research and analytical capabilities, public facilitation experience, public engagement and communication experience, examples of overcoming challenges, and experience with stormwater BMPs.
NA	The consultant provided 3-4 references, but the reviewing staff was not able to reach at least three references and/or the majority of references did not provide adequate feedback with regards to their qualifications, research and analytical capabilities, public facilitation experience, public engagement and communication experience, examples of overcoming challenges, and experience with stormwater BMPs.

11. Interview / Oral Presentation of Services (if requested)	
HA	Respondent's proposal presentation is supported by the individuals who will perform the services and included thorough, highly detailed information regarding how the firm will complete the scope of services. The proposal presentation included multiple relatable examples and dialog from services performed for other similar municipalities/organizations.
A	Respondent's proposal presentation is supported by some of the individuals who will perform the services and included adequately detailed information regarding how the firm will complete the scope of services. The proposal presentation included 3 or less relatable examples and dialog from services performed for other similar municipalities/organizations.
NA	Respondent's presentation was conducted by the firm's sales team and not the individuals who will perform the services. It included some information regarding how the firm will complete the scope of services but was not clear as to the firm's ability to comply with the stated scope of services. The proposal presentation included limited examples and dialog from services performed for other similar municipalities/organizations.

Cost/Price Proposal

To be completed by proposer

Consulting fee must be submitted as a flat, lump sum fee for each task noted below and required under the contract. Please include all costs associated in the fees. No additional fees will be considered. Proposers may not add additional items.

Task 1 – Project Management and Administration

\$ _____

Task 2 – Develop a Quality Assurance Project Plan (QAPP)

\$ _____

Task 3 – Public Workshops for Project Engagement

\$ _____

Task 4 – Existing Data and Information Compilation and Review

\$ _____

Task 5 – Perform Modeling for Lake Loading and In-Lake Responses

\$ _____

Task 6 – Determine Assimilative Capacity and Water Quality Goals

\$ _____

Task 7 – Watershed Assessments

\$ _____

Task 8 – Strategy for NPS Management Measures

\$ _____

Task 9 – Watershed-based Plans

\$ _____

Task 10 – Public Review and Comment, Final plan completion

\$ _____

Task 11 – Drainage Assessment of Weasel Brook

\$ _____

TOTAL ALL ITEMS: \$ _____ *

*Low proposal price to be based on this amount