

PARSONS CREEK | 2024 WBP UPDATE



TO: Matt Scruton, Town of Rye
FROM: Luke Frankel, FB Environmental Associates
SUBJECT: Parsons Creek 2024 Watershed Based Plan (WBP) Update Contract
DATE: July 19, 2024
CC: Forrest Bell, Laura Diemer, Cayce Dalton, FB Environmental Associates

FB Environmental Associates (FBE) is pleased to share the following contract with the Town of Rye for updating the Parsons Creek Watershed Based Plan (WBP). The original Parsons Creek WBP was drafted by FBE in 2011. These plans are intended to guide watershed management efforts over ten-year periods, so it is appropriate to consider updating the WBP in 2024 as the 2011 plan is becoming outdated.

In accordance with the recommendations outlined in the 2011 WBP, the Town of Rye has undertaken many actions through the years to improve the water quality of Parsons Creek which suffers from elevated bacteria levels. Most prominently, these actions include conducting annual monitoring for enterococci bacteria from 2013-present, implementing numerous Best Management Practices (BMPs) in the watershed through 319 grant-funded projects, codifying a septic system pump-out health regulation in 2016 for properties in the watershed, and funding various other fecal source tracking efforts through the years including canine scent detection, beach seep monitoring, groundwater monitoring, and PhyloChip® DNA analysis.

Although significant progress has been made in terms of mitigating some bacteria sources in the watershed, Parsons Creek continues to show elevated bacteria concentrations which often result in beach closures at Pirate's Cove beach where the Creek outlets, thereby posing a potential risk to public health. To chart the path for the next ten years of watershed management aimed at restoring water quality in Parsons Creek, the Town is considering updating the 2011 WBP. Our proposed approach to updating the WBP is provided in the Scope of Work below, along with our proposed schedule and budget for carrying out the tasks outlined therein. This Scope of Work ensures that the Parsons Creek WBP update will satisfy all nine elements of an EPA watershed plan, thereby allowing the Town to be eligible for federal 319 grant funding to implement the plan. The timeline of this project is flexible, and FBE is happy to work with Town staff on breaking this project up into multiple phases to better align with the Town's annual budgets in 2024 and 2025.

SCOPE OF WORK

TASK 1. PROJECT MANAGEMENT AND KICKOFF

FBE will coordinate with the Town of Rye to host a virtual kickoff meeting outlining project roles, tasks, deliverables, and invoicing. General project management throughout the course of the project will also be covered under this task (e.g., project communication, tracking, staffing, and administration).

Deliverables: Detailed meeting minutes from the kickoff meeting, including a table of action items for the project.

TASK 2: TECHNICAL ADVISORY COMMITTEE (TAC)

A Technical Advisory Committee (TAC) will be formed by FBE and the Town of Rye consisting of key project staff, municipal staff, and personnel from local, regional, and state partner organizations. Potential partner organizations that could participate on the TAC include the New Hampshire Department of Environmental Services (NHDES), University of New Hampshire (UNH), New Hampshire Fish and Game Department, Great Bay National Estuarine Research Reserve, Rockingham Planning Commission (RPC), Southeast Land Trust (SELT), and the Rockingham County Conservation District. The TAC will convene for three in-person or in-person/remote hybrid format meetings in Rye for the project. The first meeting will occur early in the project to outline the project timeline, discuss the status of items in the 2011 Action Plan, and begin creating the water quality goal for Parsons Creek. The second meeting will occur after the public forum to finalize Action Plan items based on stakeholder input. The third and final meeting will occur after a draft of the WBP update has been distributed to the TAC and will be focused on receiving edits and feedback from committee members to incorporate into a final draft.

Deliverables: Detailed meeting minutes for each TAC meeting.

TASK 3: WATERSHED SURVEY

To identify nonpoint sources of bacteria pollution to Parsons Creek, FBE will conduct a watershed survey. Building off the surveys that were performed in 2009 as part of the original Parsons Creek WBP, this survey will investigate key stormwater infrastructure in the watershed (e.g., storm drains, catch basins, outfalls) to verify that these features are functioning properly and not conveying bacterial pollution to surface waters. In addition to stormwater, this survey will also investigate other sources of nonpoint pollution in the watershed including septic systems, agricultural activities (including animals), and fertilized lawns. In preparation for the survey, FBE will conduct desktop GIS analysis to identify priority areas for investigation and will record this information on both hard-copy and web-based maps for use in the field. FBE will also develop an electronic field form using the Fulcrum® mobile application (or similar) to facilitate data entry during the survey. During survey preparation, FBE will work closely with the Rye Department of Public Works to identify priority infrastructure and will also coordinate with Town staff and landowners for permission to access private properties identified as high risk. For areas identified as sources of nonpoint pollution, FBE will recommend BMPs that could be implemented to reduce pollutant loading. Pollutant load reductions for proposed BMPs will be estimated by FBE staff using appropriate models, and load reductions will be used in tandem with cost estimates to prioritize BMPs in the Action Plan. FBE will draft a memo summarizing findings from the survey including recommended BMPs and estimated pollutant load reductions and submit to the Town.

Additional water quality monitoring will also be performed as part of this task to help determine if rat or raccoon fecal contamination is present within key stormwater infrastructure in the Parsons Creek watershed. To do this, three different catch basins or outfalls draining three large stormwater networks that discharge to Parsons Creek will be sampled during two samples events, one consisting of wet weather conditions and the other consisting of dry weather conditions. The three stormwater networks to be sampled were selected with assistance from the Rye Director of Public Works Jason Rucker and include the following: the network near Star Fish Circle on Brackett Rd, the network near Geremia St on Brackett Rd, and the network servicing the Park Ridge Rd, Oceanview Ave, and Appledore Ave neighborhood along Wallis Rd. Samples will be analyzed for the presence of rat and raccoon fecal contamination through mitochondrial DNA analysis by Dr. John Bucci's laboratory at the University of New Hampshire. To prevent additional labor and mileage costs, these samples will be collected concurrently with the annual Parsons Creek water quality monitoring performed by FBE in 2024.

Deliverables: Watershed Survey Memo.

TASK 4: WATER QUALITY GOAL DEVELOPMENT

One of the core aspects of a watershed plan is the water quality goal, which establishes a target with which all management efforts outlined in the plan are focused toward achieving. For most watershed plans, the goal is simply for the waterbody of interest to meet applicable state water quality criteria. Currently, there are two segments within the Parsons Creek watershed that are impaired for bacteria. Together with input from the TAC, FBE will draft a water quality goal for the Parsons Creek watershed. To facilitate the development of the water quality goal and related pollutant reduction targets, FBE will perform detailed water quality data analysis and pollutant load modeling to establish estimates of the current water quality condition of Parsons Creek and the pollutant reductions needed to achieve the water quality goal. Water quality data analysis will utilize the data that has been collected through annual water quality monitoring in Parsons Creek since 2013. Relevant watershed models will be used in tandem with water quality data to estimate pollutant loading from the watershed and the pollutant load reductions needed to achieve the water quality goal. FBE will draft a memo summarizing the water quality goal and all data analysis and modeling that was performed to estimate pollutant load reductions needed to achieve the goal and submit to the Town.

Deliverables: Water Quality Goal Memo.

TASK 5: REVISE ACTION PLAN AND PUBLIC FORUM

To outline the various management actions that can be taken to achieve the water quality goal, FBE will work with the TAC to draft an Action Plan for the WBP. Action Plans are a central component to watershed plans, satisfying most of the requirements of a nine-element EPA watershed plan. To begin outlining the Action Plan for the WBP update, FBE will first review the 2011 WBP Action Plan and draft a memo summarizing the status of recommendations from the plan.

Next, utilizing this information along with input from the TAC, FBE will draft an Action Plan for the WBP update that builds off the lessons learned from implementing the previous Action Plan. This Action Plan will incorporate information gained through water quality data analysis, modeling, the watershed survey, and TAC meetings, and will consist of structural and non-structural BMPs organized within a single table. Each BMP will be accompanied by the party responsible for implementation, the estimated cost of implementation, potential funding sources, and a schedule for implementation. Examples of non-structural BMPs include stormwater maintenance, education and outreach, development planning, land conservation, ordinance revisions, and road maintenance. Structural BMPs include installing infrastructure to infiltrate and divert stormwater, repairing or replacing failing septic systems, enhancing vegetated buffers, and retrofitting existing stormwater infrastructure. The structural BMPs included in the Action Plan will consist primarily of recommendations from the watershed survey. The final structural BMPs in the Action Plan will be organized via a cost-benefit analysis, with load reductions taken into consideration.

A public forum will also take place under this task to provide community members and stakeholders with the opportunity to shape the Action Plan in the WBP update. To begin the forum, FBE staff will give a brief presentation that outlines the work that has been done since 2011, describes the watershed planning process, and states the water quality goal for Parsons Creek. Attendees will then have the opportunity to ask questions and provide input on the water quality goal and overall vision for the WBP update. After this initial discussion, FBE staff will facilitate small group discussions of 10 people or less to discuss specific action items that can be taken to achieve the water quality goal for specific categories such as stormwater management, municipal operations, land use planning and zoning, and education and outreach. Attendees in the groups will have the opportunity to show support or disapproval of action items developed by the TAC and propose new action items, with their input directly effecting how the items are prioritized in the Action Plan. The result of this forum will be a stakeholder driven Action Plan for the WBP update.

Deliverables: 2011 WBP Action Plan Review Memo; draft Action Plan; public forum; final Action Plan.

TASK 6: WATERSHED BASED PLAN UPDATE

Guided by the information obtained through the tasks outlined above, FBE staff will compile a draft of the Parsons Creek WBP update that incorporates all nine elements of an EPA watershed plan. This draft will include a summary of key updates to the 2011 WBP to provide context as to how the two documents complement one another. Maps highlighting key natural resources and pollutant sources in the watershed will be included in the plan to accompany relevant text. The plan will be produced in a user-friendly format with graphics used wherever possible to help illustrate key concepts to a diverse set of stakeholders. A first draft of the WBP update will be submitted to the TAC and other relevant parties (e.g., NHDES and/or EPA) for review. After incorporating all edits and comments, FBE will submit a final draft of the WBP update to the Town of Rye.

Once the WBP update is completed, FBE will present key aspects of the plan to the public at a Rye Select Board meeting. This presentation will take place in-person at the Rye Town Hall.

Deliverables: Draft WBP update; final WBP update; presentation to Select Board

PROPOSED SCHEDULE

The proposed schedule for the Parsons Creek WBP Update is provided in Table 1.

Table 1. Estimated timeline for the completion of project tasks for the Parsons Creek WBP update.

	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Task 1. Project Management and Kickoff													
Kick-off meeting													
General project management													
Task 2. Technical Advisory Committee (TAC)													
Three meetings in-person													
Task 3. Watershed Survey													
Survey preparation													
Watershed survey													
Watershed survey memo													
Stormwater DNA sampling													
Task 4. Water Quality Goal Development													
Water quality data analysis and pollutant modeling													
Water quality goal memo													
Task 5. Revise Action Plan and Public Forum													
2011 Action Plan review memo													
Updated Action Plan													
Public forum													
Task 6. Watershed Based Plan Update													
Draft WBP													
Final WBP													
Presentation to Select Board													

COMPENSATION

The estimated cost of FBE's services for the Parsons Creek WBP update is provided in Table 2. The total time and materials project costs billed to the Town of Rye are based on the detailed scope of work above and will not exceed \$54,797.

Table 2. Project costs outlined by task for the Parsons Creek WBP update.

Task No.	Task Description	Cost
Task 1	Project Management and Kickoff	
	Labor	\$5,576
	<i>Task 1 Sub-Total</i>	<i>\$5,576</i>
Task 2	Technical Advisory Committee (TAC)	
	Labor	\$3,942
	Travel	\$309
	<i>Task 2 Sub-Total</i>	<i>\$4,251</i>
Task 3	Watershed Survey	
	Labor	\$6,936
	Travel	\$40
	Lab Fees	\$540
	<i>Task 3 Sub-Total</i>	<i>\$7,516</i>
Task 4	Water Quality Goal Development	
	Labor	\$9,436
	<i>Task 4 Sub-Total</i>	<i>\$9,436</i>
Task 5	Revise Action Plan and Public Forum	
	Labor	\$10,048
	Travel	\$103
	<i>Task 5 Sub-Total</i>	<i>\$10,151</i>
Task 6	Watershed Based Plan Update	
	Labor	\$17,785
	Travel	\$82
	<i>Task 6 Sub-Total</i>	<i>\$17,867</i>
	Total	\$54,797

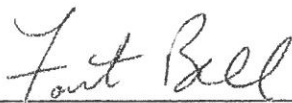
STANDARD TERMS AND CONDITIONS

This agreement between FB Environmental Associates, LLC (hereafter, the company) and the Town of Rye (hereafter, the client) will serve as a binding contract. By signing this contract, the client certifies to be duly authorized to sign this fiscally binding agreement and has read and agrees to the fees, terms, and conditions set forth herein.

1. All agreements are between the company and the client or client representative who authorized the service or whose signature is attached, not a third party. Invoices shall be paid in full regardless of a third-party failure to pay client, or a disagreement with the outcome or results provided, or litigation.
2. Authorization by verbal, written, or email shall constitute acceptance of these terms and conditions, provided client has received a copy of said terms.
3. Services will be billed monthly based on work completed to date.
4. Payment is due upon receipt. If payment is not received within 30 days, the company reserves the right to stop services. The company may resume services when payment is made, and the services can be rescheduled.
5. Client agrees to pay all costs associated with collection of past due accounts, including but not limited to, court costs, collection agency fees, and reasonable attorney fees.
6. The company, and its agents, staff, and/or sub-consultants employed are covered by appropriate insurances required under state law and has such coverage limits under commercial liability and property damage insurance policies which the company deems adequate, or as specifically requested by client.
7. Certificates for policies of insurance shall be provided to the client upon request. Within the limits and conditions of such insurance, the company agrees to indemnify and hold harmless the client against any loss, damage, or liability arising from any negligent acts by the company, its agents, staff, and consultants employed by it. The company shall not be responsible for any loss, damage, or liability beyond the amounts, limits, and conditions of such insurance, or liability arising from any negligent acts by client, its agents, staff, and other consultants employed by it.
8. Client agrees to waive any claim beyond the amounts, limits, and conditions of such insurance for professional negligence. Client further agrees to waive any claim against the company for loss suffered by the client due to any cause or action by the company, including, but not limited to, negligence, to insured amount or the contract fee whichever is greater.
9. All reports, plans, digital files, and related documents completed by the company, or provided to company during as part of services rendered shall remain property of the company unless return is requested by client. The company may retain a copy of all documents for records.

ACCEPTANCE OF CONSULTING SERVICES

By signing below, FB Environmental Associates and the Town of Rye accept the terms and conditions stated within this scope of work. Invoices will be billed monthly with work completed to date.

 7/19/24

Forrest Bell ~ FB Environmental Associates

Matt Scruton ~ Town of Rye

