



TOWN OF STRATHAM

Incorporated 1716

10 Bunker Hill Avenue· Stratham, NH 03885

Town Clerk/Tax Collector 603-772-4741

Select Board /Administration/Assessing 603-772-7391

Code Enforcement/Building Inspections/Planning 603-772-7391

Fax (All Offices) 603-775-0517

**PROFESSIONAL SERVICES AGREEMENT
TOWN OF STRATHAM, NEW HAMPSHIRE**

January 4, 2022

THIS AGREEMENT MADE THIS 4th day of January, 2022 by and between the TOWN OF STRATHAM, a body politic and corporate located in the County of Rockingham, State of New Hampshire (hereinafter referred to as "Town"), and

FB ENVIRONMENTAL ASSOCIATES, LLC

A Limited Liability Corporation with a principal place of business at 97A Exchange Street, Portland, Cumberland County, Maine
(hereinafter referred to as the "**Consultant**")

THE PARTIES. The parties to this agreement are the **Town of Stratham**, New Hampshire with a principal place of business at 10 Bunker Hill Avenue, Rockingham County, Stratham, New Hampshire 03885 (hereinafter referred to as "**Town**"), and **FB Environmental Associates, LLC**, a Limited Liability Corporation with a principal place of business at 97A Exchange Street, Portland, Cumberland County, Maine 04101 (hereinafter referred to as the "**Consultant**").

PURPOSE: The purpose of this agreement is to secure professional services associated with the development of an **Open Space and Connectivity Plan** for the Town of Stratham in accordance with the Request for Proposals issued by the Town on August 18, 2022.

WITNESSETH

WHEREAS, the Town desires to engage Consultant to render certain services;

NOW, THEREFORE, the Town and the Consultant do mutually agree as follows:

A. DESCRIPTION OF SERVICES

- 1) The Open Space & Connectivity Plan shall be completed in general accordance with the following documents:
 - (a) The Open Space and Connectivity Plan Scope of Services and Budget (Exhibit A).

- (b) The Open Space and Connectivity Plan Request for Proposals (RFP) issued by the Town of Stratham on August 18, 2022 (Exhibit B).
 - (c) The Proposal submitted in response to the Stratham RFP by FB Environmental Associates, LLC and Resilience Planning & Design, LLC dated September 14, 2022 (Exhibit C).
- 2) The parties mutually agree to the following amendment of Exhibit C: The Open Space & Connectivity Plan project shall commence in January 2023 with an anticipated completion date in January 2024. The **Consultant** shall submit a revised Project Schedule consistent with this change that is acceptable to the Town within 14 days of the signing of this agreement.
- 3) **TOWN OF STRATHAM Responsibilities:**
David Moore, Town Administrator, shall be responsible for executing this agreement and shall be responsible for authorizing any amendments to this agreement and the associated exhibits.

Mark Connors, the Town Planner - or any other designee identified by the Town Administrator - shall serve as the Town's project manager for the Open Space and Connectivity Plan and is responsible for ensuring such plan is carried out in accordance with this agreement and the associated exhibits. The Town Planner, working under the general supervision of the Town Administrator, shall serve as the primary contact for the **Consultant**.

B. TERM OF AGREEMENT. The **Consultant's** performance of this Agreement shall commence on January 4, 2023 and conclude no later than January 31, 2024.

C. PROJECT TEAM.

1. The project team shall consist of the **Town of Stratham, FB Environmental Associates, LLC** as the lead **Consultant**, and **Resilience Planning & Design, LLC**, a Limited Liability Corporation with a principal place of business at 1 Bridge Street, Plymouth, Grafton County, New Hampshire, as a sub-contractor for the Open Space & Connectivity Plan. Maggie Mills, Watershed & Community Planning Lead will serve as the Project Manager. Other FB Environmental Associates staff contributing to the plan will include: Forrest Bell, Owner/CEO; Maggie Kelly-Boyd, Water Resource Specialist; and Elliott Boardman, Ecologist & GIS Specialist. No additional subcontractor shall participate in the project without the express advance written consent of the Town. All national and/or state certifications and licenses indicated as held in the proposal shall be maintained over the course of this agreement. Substitution of project personnel shall only be permitted through express written permission from the Town.
2. The parties agree that **Resilience Planning & Design** shall serve as a sub-contractor for the Open Space & Connectivity Plan. The parties further agree that Resilience Planning & Design, LLC shall provide services for this project consistent with the Scope of Services (Exhibit A) including contributions from:

Steve Whitman, EDD, AICP, Principal Planner; Liz Kelly, Planning & Designer; and Zak Brohinsky, GIS Analyst and Land Conservation Specialist. More specifically, Resilience Planning & Design will play a lead role in evaluating the existing regulatory and non-regulatory mechanisms for open space and conserved land protection and acquisition and working with the Steering Committee to determine the best criteria for improving these mechanisms for future open space protection and acquisition. Resilience Planning & Design will attend some Steering Committee meetings, and provide key support with the Easement Checklist, guidance documents, or other scorecards/criteria for land acquisitions or conservation. Additionally, the sub-contractor will provide the Consultant support with public engagement efforts, and contribute to completion of the final project deliverables. Any material change to the proposed work, commitments, or deliverables to be performed by Resilience Planning & Design, LLC shall require the advance approval of the Town. The **Consultant** shall be responsible for all payments to any subcontractor and shall certify at the end of the project that all payments due to any subcontractor or supplier as a consequence of this Agreement, have been made in full before final payment is released by the Town.

- D. PROJECT BUDGET:** The Consultant shall be compensated in accordance with the budget included in Exhibit A and all other terms in the cost proposal unless expressly addressed otherwise in this agreement. In the case of any conflict between the two this agreement will govern. Material changes to the Scope of Services shall require the advance written agreement of the parties. Amendments to the Scope of Services shall be clearly drafted in narrative form and signed by both parties. In recognition that the budget reflects an estimate of resources needed to complete each task, the Consultant may re-allocate funds designated for a task provided that a task budget or expense item does not change by more than 50 percent of the amount indicated in Exhibit A. In no case shall the total budget of the Open Space and Connectivity Plan exceed \$64,555.
- E. PAYMENT PLAN.** The Consultant shall submit monthly invoices detailing work performed and estimated percentage of task completion for Town approval. If necessary, supporting documentation may be required by the Town. Such invoices shall be payable net 30 days from date of receipt.
- F. DRAFT PLAN MATERIALS.** Draft materials associated with the Open Space & Connectivity Plan shall be provided to the Town in accordance with the procedures outlined in the RFP (Exhibit B). Draft materials should be provided over time and should not exceed 35 pages of new material at one time. Sufficient time must be provided (no less than 21 days) for the Town to incorporate edits and input to guide the work of the Consultant and its subcontractor.
- G. OWNERSHIP OF INFORMATION.** All deliverables and information provided by the **Consultant** to the Town pursuant to this agreement, including data, documents, photos, computer records, and GIS files, shall become the property of the Town.

The Town acknowledges that such documents are not intended or represented to be suitable for reuse by the Town or others on extensions of this project or on any other project. Any reuse without written verification or adaptation by the **Consultant** for the specific purpose intended shall be at the Town's sole risk.

- H. CONFLICT OF INTEREST.** No officer, employee or agent of the Town, or any other person who exercises any functions or responsibilities in connection with the Town, shall have any personal or financial interest, direct or indirect, in this Agreement; and **Consultant** shall take appropriate steps to assure compliance.
- I. GOVERNING LAW.** The terms of this Agreement shall be governed by the laws of the State of New Hampshire. Jurisdiction and venue shall lie in Rockingham County Superior Court.
- J. INDEMNIFICATION.** **Consultant** agrees, to the fullest extent permitted by law, to defend, indemnify and hold harmless the TOWN OF STRATHAM against damages, liabilities and costs arising from the negligent acts or willful misconduct of **Consultant** in the performance of professional services under this Agreement, to the extent that **Consultant** is responsible for such damages, liabilities and costs on a comparative basis of fault between **Consultant** and the TOWN OF STRATHAM. **Consultant** shall not be obligated to indemnify TOWN OF STRATHAM for the Town's negligence or for the negligence of others. It is understood that reasonable attorney fees and defense costs will be covered only after negligence is found. There is not an expectation or duty to defend.

For purposes of this Agreement, any officers, employees, agents, applicants or beneficiaries of **Consultant** act in an independent capacity and are not officers or employees or agents of the Town.

K. TERMINATION OF AGREEMENT:

1. Termination of Agreement for Cause. If through any cause, **Consultant** shall fail to fulfill in a timely and proper manner its obligations under this Agreement; or, if **Consultant** shall violate any of the covenants, agreements or stipulations of this Agreement, the Town shall thereupon have the right to terminate this Agreement by giving written notice to **Consultant** of such termination and specify the effective date of such termination. **Consultant** shall be entitled to receive just and equitable compensation for any work satisfactorily completed prior to the date of termination. Notwithstanding the above, **Consultant** shall not be relieved of liability to the Town for damages sustained by the Town by virtue of any breach of the Agreement by **Consultant**, and the Town may withhold any payments to **Consultant** until such time as the exact amount of damages to the Town from **Consultant** is determined.
2. Termination for the Convenience of the Town. The Town may terminate this Agreement at any time for any reason by giving at least thirty (30) days notice in writing to **Consultant**. If the Agreement is terminated by the Town for its convenience, the Town shall pay **Consultant** for all work satisfactorily completed up to the date of termination.

- L. AMENDMENTS.** This Agreement, and its associated exhibits, may be amended only by written agreement executed by both parties.
- M. SEVERABILITY.** If any provision of this Agreement is held to be invalid, illegal, or unenforceable, the remaining provisions shall remain in force.
- N. INSURANCE REQUIREMENTS.** **Consultant** shall maintain insurance in the amounts as set forth in the RFP. The Town shall be an additional insured for general and automobile liability coverage and contractor shall provide certificate evidencing such insurance and Town's status as an additional insured at the Town's reasonable request.
- O. LIMITATION OF CONSEQUENTIAL DAMAGES.** The parties liabilities to each other with respect to any claims arising out of this Contract, including without limitation as a result of any termination, shall be limited to direct damages arising out of the services, there being no liability for any consequential loss, injury or damage incurred or claimed to be incurred, including but not limited to, claims for loss of use, loss of profits and loss of markets.
- P. PROJECT COMMUNICATIONS.** No contact with press without permission of the Town unless authorizes, approved and in coordination with the Town Administrator.

Marketing and promotional materials developed by Consultant and any sub-consultants related to this project and products delivered under this contract shall be developed with the TOWN OF STRATHAM and express permission granted for reuse of images, plans, and other specific work products resulting from this project. This obligation shall survive the termination and or completion of this agreement.

Signatures included on following page.

IN WITNESS WHEREOF, the Town and **Consultant** have executed this Agreement as of the date first above written.

ATTEST:

TOWN OF STRATHAM

DATE_____

BY:_____

David S. Moore
Town Administrator, TOWN OF STRATHAM
As authorized by vote of the Select Board on
November 21, 2022.

FB ENVIRONMENTAL ASSOCIATES, LLC

DATE_____

BY:_____

Forrest Bell
CEO and Senior Scientist
FB Environmental Associates, LLC

EXHIBIT A – SCOPE OF SERVICES and BUDGET

Open Space & Connectivity Plan
Town of Stratham, New Hampshire
January 4, 2023

Description

This Scope of Services summarizes professional services to be included as part of the Open Space and Connectivity Plan project mutually agreed upon between the Town of Stratham and FB Environmental Associates, LLC as part of the Professional Services Agreement dated November 29, 2022. The purpose of this project is to secure professional services provided by the Consultant to develop and assist the Town in adopting an Open Space and Connectivity Plan.

The Scope of Services is developed in accordance with the following documents:

- The Open Space and Connectivity Plan Request for Proposals (RFP) issued by the Town of Stratham on August 14, 2022 (Exhibit B).
- The Proposal submitted in response to the Stratham RFP by FB Environmental Associates, LLC and Resilience Planning & Design, LLC dated September 14, 2022 (Exhibit C).
- The Cost Proposal submitted by FB Environmental Associates, LLC for the Open Space and Connectivity Plan (Exhibit D).

The Consultant shall be responsible for completing the following tasks, and associated performance metrics and/or deliverables, in order to develop the Open Space and Connectivity Plan consistent with the documents outlined above:

TASK 1: PROJECT MANAGEMENT, ADMINISTRATION, AND COMMUNICATION

Task 1 includes general project management and administration, including but not limited to: budgeting, project tracking, internal project staffing and coordination, and subcontractor coordination and communication. The Consultant will facilitate communication on project progress or data needs to the Town of Stratham through emails and/or conference calls.

Task 1 shall include the following minimum performance metrics:

- The Consultant, represented by its project manager, shall provide updates to the Town Planner on the status and progress of the project on a biweekly basis or at least twice per calendar month. These updates may be provided via a mutually agreeable platform including through conference calls, electronic conference meetings, or via e-mail communications. In the event the Consultant is actively working and in communication with the Town to fulfill a task, status updates will likely be unnecessary. Status updates shall be provided however if the Consultant has not been in touch with Town staff for a period of two weeks or more.
- The Consultant shall be responsible for all invoicing consistent with the requirements outlined in the Professional Services Agreement.

The Task 1 estimated budget is \$5,945. Changes to the budget are permitted consistent with the requirements of Section D of the Professional Services Agreement.

TASK #2: STEERING COMMITTEE

Task 2 shall include overseeing of a Steering Committee to help guide the development of the plan. The Steering Committee will help generate public participation and involvement in the plan, encourage public input and engagement, attend public participation events associated with the plan, and keep the various Town Boards and Commissions apprised of the plan's progress and development. Importantly, the Steering Committee will serve as a sounding board and forum to discuss macro issues and topics relevant to the plan, including balancing natural and ecological protection with recreation concerns, and prioritization of various acquisitions or capital projects.

Task 2 shall include the following minimum performance metrics:

- The Consultant shall be responsible for holding a minimum of 10 (ten) Steering Committee meetings consistent with the revised Project Schedule to be provided by the Consultant and approved by the Town. A minimum of five meetings shall be held in person and five meetings held as electronic teleconferences over the Zoom or Microsoft Meetings platform. Meetings should be well organized, concise, and informative with opportunities for tailored feedback or discussion items by the Steering Committee. Steering Committee meetings may be re-scheduled with the advance consent of the Town.
- At least 72 hours prior to a scheduled meeting, the Consultant shall provide the Town Planner a meeting agenda in PDF form and any associated meeting materials the Consultant would like the Steering Committee to review in advance. All associated materials shall be provided as PDF documents or in a mutually agreeable electronic form. Since meetings of the Steering Committee will constitute public meetings as defined by NH RSA 91-A, the meeting agendas will need to be posted and provisions provided for members of the public to participate in the meetings. The Town will be responsible for posting the meeting agendas and providing arrangements for members of the public to participate in the meetings.
- Within four business days of a meeting of the Steering Committee, the Consultant shall provide the Town Planner notes summarizing the nature of discussions and decisions made during the meeting. The Town Planner will be responsible for formalizing these notes as meeting minutes consistent with the requirements of NH RSA 91-A.
- In the event that members of the Steering Committee are asked to provide edits to draft documents, the Town will be responsible for collecting all draft edits and compiling them into a single document for the benefit of the Consultant. The Consultant must provide a minimum of 21 days for edits to be collected and synthesized.

The Task 2 estimated budget is \$13,005. Changes to the budget are permitted consistent with the requirements of Section D of the Professional Services Agreement.

TASK #3: EXISTING CONDITIONS - THE STATE OF OPEN SPACE & CONNECTIVITY

Task 3 shall include a thorough review of existing written documents (e.g. studies, reports) and spatial GIS data to identify the “state” of open space and connectivity. This review will cover a broad range of topics, including: (a.) A desktop review of natural resources in Stratham. This will include mapping and synthesis of critical groundwater and surface water resources, wells and wellhead protection areas, soils and prime farmland, habitat blocks and corridors listed in the Wildlife Action Plan, forestry, invasive plant presence and management. The desktop inventory will collect and assemble existing data; (b.) Review and consideration of data available on natural hazards and climate change impacts, including sea level rise and storm surge inundation in the Great Bay and the Squamscott River, marsh migration, and groundwater rise; (c.) Existing public access to open space including pedestrian, bicycle, boat, and foot traffic and the distribution of that access across residents in the community, particularly those in underserved neighborhoods; (d.) Connectivity of open space with regard to continuous habitat blocks and natural resources, public accessibility, continuity of trails, and any other factors deemed important by the Steering Committee; (e.) Protection of critical habitats and rare, threatened, and endangered species. (f.) Historical and cultural artifacts, places and spaces that are important to the community. (g.) Review of existing conserved lands and the regulatory mechanisms used for acquisition or protection and ongoing maintenance.

Task 3 shall include the following minimum performance metrics:

- The Existing Conditions data shall be synthesized by the Consultant into a series of publicly engaging map and/or other illustrative visuals and associated narrative materials that will be shared with the Steering Committee for feedback.
- Some or all of the Existing Conditions data shall be made available by the Consultant for review by members of the public during periods of public engagement, whether for in-person events or electronic engagement exercises.
- The Existing Conditions data shall be incorporated into the Open Space and Connectivity Plan by the Consultant.

The Task 3 estimated budget is \$15,110. Changes to the budget are permitted consistent with the requirements of Section D of the Professional Services Agreement.

TASK #4: OUTREACH & ENGAGEMENT

Consistent with the RFP, the Consultant shall be responsible for developing an inclusive and accessible public engagement process for the Open Space and Connectivity Plan including efforts to engage with communities not typically highly involved in public planning efforts or community forums.

Task 4 shall include the following minimum performance metrics:

- The Consultant shall develop a proposed plan for public engagement and solicit feedback by the Steering Committee. To the extent practicable, input from the Steering Committee shall be incorporated into public engagement efforts.
- The Consultant shall develop and maintain an opportunity for electronic public engagement that members of the public may access and participate at their own convenience. This engagement may take the form of a survey, Photovoice, mapping

exercise, electronic teleconference and/or other forms acceptable to the Town. The Consultant shall be responsible for developing marketing materials to help generate public interest in the plan and participation in the electronic public engagement activity. The Town shall be responsible for disseminating such materials to members of the public.

- The Consultant shall provide comprehensive opportunities for targeted stakeholder outreach to relevant organizations, businesses, property owners, and other stakeholders. Efforts shall be incorporated to include underserved and diverse populations.
- The Consultant shall be responsible to assist the Town in engagement opportunities tailored to property owners whose land is protected by conservation easements. Depending on budgetary considerations, the Consultant may lead such engagement efforts or provide guidance and consultation to Town staff and volunteers in how to approach, structure, and carry out such engagement efforts. The goal of this engagement would be to strengthen the Town's relationship with such property owners, better understand issues common to such properties, and identify areas where the Town can help improve management and/or public stewardship of such properties. This engagement would help guide the Town's development of future easements with the goal of encouraging greater participation by property owners, particularly on lands where public access to land is provided.
- The Consultant shall host up to two opportunities for fulsome in-person public engagement in the Open Space and Connectivity Plan. This engagement may take the form of a single major public input event focused specifically on the Open Space & Connectivity Plan and/or participation in larger community events where public input can be solicited and collected. The form of this engagement should be agreeable to the Steering Committee. The Consultant shall be responsible for developing marketing materials to help generate public participation in in-person public events. The Town shall be responsible for securing appropriate facilities for such events and disseminating marketing materials to the community. Marketing materials shall be provided to the Town Planner a minimum of 14 days in advance of such events.

The Task 4 estimated budget is \$7,320. Changes to the budget are permitted consistent with the requirements of Section D of the Professional Services Agreement.

TASK 5: CRITERIA DEVELOPMENT & BEST MANAGEMENT PRACTICES

The Consultant will facilitate conversations with the Steering Committee on criteria development for prioritizing parcels for acquisition and protection. This will include establishing a workflow for prioritizing parcels under consideration, and for identifying responsibility of town staff and the public review process. Additionally, it will identify possible funding strategies with recommendations for when and how these are implemented. This will include acquisition strategies such as market value property purchase, right of first refusal, gifting/bequeathing, land exchanges, easements (conservation, agricultural, trail), purchase or transfer of development rights, tax incentives, and collaboration with local partner organizations. Town Responsibilities: Provide any applicable reports, studies, and hydrogeological testing info not previously provided. Finally, the Consultant will review existing practices related to management of preserved properties and provide tailored Best Management Practices that are realistic and actionable for Stratham.

Specific deliverables of Task 5 provided by the Consultant shall include:

- Guidance documents, including scorecards, weighting criteria, or other acceptable form for assisting the Conservation Committee and other stakeholders to measure the relative value of potential land acquisitions or other expenditures of funds toward land conservation.
- An Easement Checklist, model easement language and terms, or other resources acceptable to the Town to assist the Conservation Commission and others in drafting conservation easements and to ensure that all community values are considered when drafting such easements.
- A review of existing management practices and proposed Best Management Practices for managing and overseeing conserved properties that are tailored to the Town of Stratham where staffing and associated resources is limited.

The Task 5 estimated budget is \$8,330. Changes to the budget are permitted consistent with the requirements of Section D of the Professional Services Agreement.

TASK 6: PLAN DEVELOPMENT

The Consultant shall be responsible for working with the Steering Committee to complete the Open Space and Connectivity Plan in narrative form with clear goals, vision, and strategies and recommendations for effectively planning for open space in Stratham. This task will include refinement of these goals and strategies as well as final formatting of the narrative text.

Specific deliverables of Task 6 provided by the Consultant shall include:

- An Open Space and Connectivity Plan conveyed in ArcGIS Storymap form or a similar digital web-based tool to ensure a dynamic and ‘living’ plan which includes maps, graphics, narratives and supporting information including desired future conditions for open space and connectivity in Stratham.
- A highly graphic Executive Summary in physical form that could serve as a stand-alone document for the plan. The Executive Summary will number approximately 15 to 20 pages with approximately five to six pages of narrative.

The Task 6 estimated budget is \$14,300. Changes to the budget are permitted consistent with the requirements of Section D of the Professional Services Agreement.

TRAVEL EXPENSES

Travel expenses incurred by the Consultant are estimated at \$545. Changes to this expense allocation are permitted consistent with the requirements of Section D of the Professional Services Agreement.

EXHIBIT B: Town of Stratham
REQUEST FOR PROPOSALS
Issued August 14, 2022



Town of
Stratham
New Hampshire

REQUEST FOR PROPOSALS

OPEN SPACE AND CONNECTIVITY PLAN

August 18, 2022



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I. BACKGROUND

The Town of Stratham, New Hampshire is soliciting proposals for professional services to assist the Town in the development and production of an Open Space and Connectivity Plan. A key recommendation of the Town's 2019 Master Plan Update, the Open Space and Connectivity Plan will guide the Town's efforts related to land conservation and stewardship, trail systems and facilitating connections for trails, the encouragement of non-motorized forms of transportation and recreation, and to effectively guide the ongoing management of open space resources and public education and promotion of these resources.

The plan should incorporate significant public input and involvement, including efforts to engage with under-represented communities not typically highly involved in community planning efforts or community forums. The plan should incorporate innovative infographics and other tools for public engagement. Stratham is an active community with a long history of land conservation and the Town intends to use the plan to best manage its existing conservation resources, strategically expand and build connections among existing open space parcels, and to help foster a community-wide environment oriented toward land stewardship and sustainability, recreation, walking and cycling, and engagement with natural resources.

II. COMMUNITY SNAPSHOT

Stratham is a vibrant though primarily residential community located in New Hampshire's Seacoast Region. Situated along the southern edge of the tidal estuary Great Bay and along the eastern shore of the Squamscott River, Stratham features a diversity of landscapes and ecosystems. The many brooks and streams in Stratham are assets with potential value as natural and open space recreational resources.

Stratham is renowned for its exceptional soils suitable for a variety of agricultural resources. Settled primarily as an agricultural community, Stratham still retains much of its rural heritage with several active working farms contributing to the local economy and framing the natural landscape.

With a population of approximately 7,600, Stratham is known today as a suburban community with some rural characteristics. The Town is located approximately 9 miles from the Atlantic coastline, 10 miles from the regional hub of Portsmouth, and 55 miles from Downtown Boston. Stratham is known for its high quality school system and residents prize its small town community-centered feel. Though largely regarded as a family community, Stratham is increasingly home to older residents and households without children.

Spanning 108 acres of scenic land that abuts other conserved properties, Stratham Hill Park is the centerpiece of the Town's recreational assets. Dubbed one of the "best Boston area parks" by *The Boston Globe*, Stratham Hill Park is a popular regional recreation area. In recent years, the Town has focused on long-term planning of this asset to ensure its effective management, address overuse of certain park features, and to transition the park to more effectively serve the public in the future.

An important Revolutionary War era community, Stratham remained largely rural with only modest growth into the mid twentieth century. The community experienced rapid growth during the mid to late 1900s into the early 2000s owing in part to its convenient location adjacent to major employment centers and commuting corridors and its abundance of developable land. Many of its development patterns are somewhat characteristic of that period. Stratham maintains a foundational network of historic roads that retain a rural feel that significantly contributes to Stratham's community character.

III. LAND CONSERVATION, CONNECTIVITY & KEY ISSUES IN STRATHAM TODAY

Stratham has prioritized land conservation in recent decades with more than 2,000 acres of land (more than 25 percent of the Town's land area) preserved through both partnerships and financial outlays approved by taxpayers. These efforts have been largely volunteer led and managed through the Stratham Conservation Commission and the Ad Hoc Committee for Purchase of Conservation Land. In 2003, the Town of Stratham authorized a \$5 million bond at Town Meeting to support land acquisition and conservation easement efforts.

Most conservation lands in Stratham remain privately owned with the Town or another entity holding conservation or agricultural easements to the property. Many of these properties do not provide for public access. Several farms, vital to the Town's heritage, have been preserved where public access is often counter to the continued active farming of the property. However, the Town's population is largely active in nature and demand has intensified in recent years for more outdoor recreation space, including for trail systems, off-road biking areas, and for more opportunities to engage with and recreate on open spaces particularly along and in Great Bay and the Squamscott River. The Town strives to balance public access of conserved properties with the understanding that agricultural and ecologically sensitive areas require restricting or heavily controlling public access.

In recent years, access to some lands protected by conservation easements has been restricted in response to issues of vandalism or misuse of the properties. The Town endeavors to strengthen its relationship with property owners of conservation land to better diffuse issues as they arise and to promote a stronger culture of land stewardship by residents and users across the community with the goal of expanding responsible public access to conservation land.

Historically, much of the Town's focus has been on preserving ecologically sensitive lands or highly visible properties that are important to the Town's heritage. Conservation easements have been negotiated on an ad-hoc basis, can be very dependent on the needs and desires of the property owner, and permissions for public access can vary dramatically across conservation parcels. Additionally, as the Town has expanded its inventory of conservation properties, the management of these resources has become more challenging.

The Town is interesting in developing connections between open space properties, encouraging land stewardship, sustainability and the protection of ecologically sensitive, historically significant or actively farmed lands, and fostering a town-wide environment that is conducive to walking, cycling, and passive recreation use to help enhance the Town's unique character and quality of life.

IV. PROJECT SCOPE & SPECIAL CONSIDERATIONS

The Open Space and Connectivity Plan should include the following components:

1. **Executive Summary:** The plan should include an Executive Summary that could serve as a standalone product to communicate the findings and recommendations of the plan as concisely and efficiently as possible.
2. **Vision:** The plan should feature a consensus-based Vision articulating how Stratham views itself and its open space offerings and state of connectivity for recreation, preservation of natural and historical resources, and transportation purposes in the future.
3. **Inventory of Existing Conservation/Trail Assets:** The Town has acquired a significant collection of land and development rights to land over the years for parkland or conservation purposes. Permitted uses of these parcels can vary significantly based on easement terms or deeds negotiated with property owners. The Town in recent years has made efforts to centralize these documents so that they are more easily accessible (see Assessing inventory in Appendix A), but there is a need to better communicate this information to decision-makers, volunteers, and residents as concisely as possible. The plan should utilize mapping and other graphic means to communicate the Town's existing open space resources and the uses permitted on such parcels.
4. **Tools to ensure a Living Document (GIS Integration):** It is important to the town that the Open Space & Connectivity Plan is a living document that is a constant resource and reference for the community. The community also endeavors to increase awareness of open space properties and their associated restrictions and/or permissions and proposals should include creative approaches to promote public education of these resources. Examples include an ArcGIS storymap and the integration of open space information into GIS systems.
5. **Public Engagement, Board/Commission Input, and Engagement with Property Owners:** It is important to the Town that the Plan represents a general consensus of the community regarding a shared vision and goals for open space and connectivity in Stratham. It is equally important that the plan engages with community members who are not typically well represented in public forums and discussions. To that end, the plan should be preceded by an accessible public outreach process that engages with a broad cross section of the community.
6. **Criteria for Evaluating Open Space Acquisitions:** The Town is continually confronted with decisions related to the expansion of its open space resources and the most beneficial and strategic use of limited funding sources. These decisions are open to public debate and discussion. Although the Town's Conservation Commission has developed criteria in which to consider open space acquisitions, this is due for a re-evaluation in light of the recommendations of the Open Space & Connectivity Plan. The plan should include a transparent mechanism for measuring the relative value of potential land acquisitions or other uses of funds toward land conservation based on the

values articulated through public outreach and objective measures related to habitat preservation, ecological preservation or restoration, and Climate Change mitigation. ‘

7. **Easement Checklist:** The Town recognizes that properties are preserved for many different reasons. In Stratham, easements have focused on preserving sensitive ecologies and habitats, securing water rights, providing public access for recreation, and preserving actively farmed land. However, it would be helpful for the Town to consult a checklist, model easement, or other resource to ensure all community values are considered when negotiating easement terms. Such a resource should be a product of the Open Space and Connectivity Plan effort.
8. **Operations and Management Practices:** The plan should evaluate the Town’s existing practices related to management of open space properties and provide recommendations for improvement based on best management practices in similarly sized communities. These recommendations should address responsibilities and best practices for addressing violations and complaints, and the roles of town staff, town government, and volunteers to ensure responsible management of conserved lands.
9. **Goals and Recommendations:** The plan should include consensus-based goals and recommendations to implement the vision guided by community values reflected through public input and existing and forecast conditions. The Town is also pursuing other long-term goals related to infrastructure development and public services, increasing housing diversity and affordability, preservation of natural and historic resources, economic development, and transportation largely catalogued in its 2019 Master Plan Update. The Town’s open space and connectivity recommendations, as much as possible, should be supportive of and complementary to these goals.

V. REFERENCE PLANS & DOCUMENTS

The Town has established a large number of reference documents, plans, and spreadsheets to assist in the development of the Open Space & Connectivity Plan. These resources include the community’s recently updated Master Plan, extensive long-term planning associated with the future of Stratham Hill Park, a number of resources related to the Town’s last major Open Space Initiative, and an extensive repository of easements and other documents associated with the Town’s existing open space parcels. All of these reference plans and documents are linked electronically to this RFP in **Appendix A** (Page 11). The Town hosts an interactive GIS system that is maintained by CAI Technologies. Although the Town does hold Esri licenses, GIS resources, including shape files, are not maintained locally.

VI. PROJECT REVIEW PROCESS & DELIVERABLES

The firm will be responsible for providing necessary materials including drafts of the plan and plan materials. The Town anticipates that an Open Space & Connectivity Plan Steering Committee will help guide the effort with significant involvement of Town Staff including the Town Planner, Town Administrator, and the Parks and Recreation Director. Representatives from several community boards and commissions would likely serve on the plan committee,

including from the Conservation Commission, Planning Board, Recreation Commission, Select Board, and Heritage Commission. Draft materials should be provided to the Town in electronic form and in individual sections or chapters (not to exceed 35 pages of material at one time) for review by the Town Staff and project committee. A minimum of one week should be provided to provide edits and revisions to draft materials.

The Town will be responsible for making available the Open Space and Connectivity Plan when it is finalized and adopted.

At the completion of the project, the firm shall provide the following materials:

1. At least one reproducible hard copy of the final plan and electronic copies both in Adobe PDF form and MS Word format (or similar software program) in which the narrative and graphics may be edited or expanded upon.
2. Maps and supporting map data and shape files provided in a format compatible with the current version of ArcGIS.
3. Spreadsheets and charts in MS Excel format (or similar program) where the data may be updated or revised.

VII. PROPOSAL REQUIREMENTS

Interested firms should submit five (5) paper bound copies of the proposal and one (1) copy of the sealed bid price with the submission along with an electronic copy of the proposal in PDF format provided via e-mail or on a USB jump drive (also known as a thumb drive). Interested firms are encouraged to submit succinct, well-organized proposals where the requirements of this RFP can be easily identified. Proposals should include the following components:

1. **Letter of Transmittal:** Printed on the firm's letterhead with contact information for the proposed project leads.
2. **Description of Firm and Project Team:** The proposal should provide a description of the firm and its experience, qualifications, and capabilities in undertaking a project of this type. An organizational profile of the project team should also be provided with a CV provided for all members of the project team. If subcontractors will be working on the project, the proposal should make clear what previous projects the firms have previously collaborated on. Ideally, the firms should have experience working together on at least three previous projects.
3. **Comparable Projects and References:** The proposal should include comparable projects the firm has led. The proposal should briefly describe the nature of the project, the public outreach mechanisms employed, and the presentation and orientation of the final product. Additionally, telephone and e-mail contact information should be provided for the client lead on the project. The Town of Stratham reserves the right to contact references.

4. **Project Understanding and Approach:** The proposal should demonstrate a comprehensive understanding of the project scope and of the desired products of this project. Firms should also demonstrate some familiarity with the community, its regional context, and of its needs and desires related to open space preservation and connectivity.
5. **Description of Approach to Public Outreach and Plan Design:** The proposal should convey its approach to plan development, layout, use of mapping and infographics, and the potential for electronic integration of plan content. Additionally, the proposal should reflect how the firm will integrate innovative public outreach and engagement into the project including mechanisms to reach out to communities who are not typically well represented in community planning and decision-making.
6. **Project Schedule:** Proposals should include a schedule for completing the project with project-specific milestones and their projected dates of completion. It is the Town's goal to complete the project within a six to 12 month time period.
7. **Cost Proposal & Budget:** Proposals should include a budget estimate and typical billing rates by task (in a separate sealed envelope).

VIII. KEY DATES & DEADLINES

Event or Requirement	Date and Time
RFP posted to Town's website	Thursday, August 18, 2022
Pre-proposal video conference* (pre-registration required)	Tuesday, August 30, 2022 at 11:00 am
Deadline for submission of questions or clarifications due via e-mail to planning@strathamnh.gov	Wednesday, August 31, 2022
Responses to comments and questions posted to Town's website and distributed to all those who made inquiries	Friday, September 2, 2022
Proposals Due (complete proposals in paper and electronic form must be received by this time)	Wednesday, September 14, 2022 by 3:00 pm
Contract Execution	Late September/Early October 2022

* The pre-proposal video conference will be held over the Zoom video conference platform. Although participation is not required, it is recommended to better understand the project. Pre-registration is required by e-mailing planning@strathamnh.gov no later than the end of the day on Monday, August, 29, 2022.

IX. SELECTION CRITERIA

A selection committee will score proposals based on the following factors:

1. The proposal's responsiveness to the RFP, including the format of the proposals, capabilities of the firm, professional and technical approaches, clarity, and demonstrated ability to lead the project.
2. The ability of the firm to address the project scope and core competencies outlined in this RFP.
3. Innovation and creativity in the proposal's approach to the project.
4. A proven track record of working with clients to navigate comparable efforts, overcome impediments, and successfully complete projects on time and within budget.
5. The capabilities and experience of the Project Team.
6. Cost Proposal

Firms may be asked to participate in an interview before a finalist is selected. Interviews will likely be conducted in person at the Stratham Municipal Center. Town staff will coordinate relevant details with the selected firms or communicate with any firms who submitted proposals that do not advance in the process. The Town anticipates that contract with the selected firm will be in place no later than mid-October 2022.

X. TOWN STAFF AND BOARD/COMMISSION RESOURCES

Town Staff intend to be a helpful resource and guide for the selected firm and will be actively involved in the development of the Open Space & Connectivity Plan. However, existing professional commitments will not permit staff or others from writing significant portions of the plan, managing and conducting meetings, or conducting extensive research assignments. It is important that the firm be able to manage the project and associated tasks independently.

XI. RESERVATION OF RIGHTS

The Town of Stratham reserves the right to reject any or all proposals or accept the proposal the Town deems to be in its best interest. The Town of Stratham assumes no responsibility or liability for costs incurred by consultant teams in responding to this RFP or in responding to any further request for interviews, additional data or information, or clarification of any items included in the proposal. The Town reserves the right to request additional data or information or that the firm provide the Town a presentation in support of written proposals. The Town further reserves the right to:

- Not award a contract for the requested services;
- Waive any irregularities or informalities in any proposals;
- Accept the proposal deemed to be the most beneficial to the public and the Town;
- Negotiate and accept, without advertising, the proposal of any other respondent in the event a contract cannot be successfully negotiated with the selected firm; and
- Retain products submitted by respondents for its own use at its sole discretion.

XII. RFP INQUIRIES

The Stratham Planning Department is managing the Request for Proposals process for the Open Space and Connectivity Plan. Any inquiries or clarifications related to this RFP should be directed to the pre-proposal conference. Questions related to this process, shall be directed to the Stratham Town Planner via e-mail at the contact information provided below:

Mark Connors
Stratham Town Planner
mconnors@strathamnh.gov or
planning@strathamnh.gov
Telephone: (603) 772-7391, x. 147

APPENDIX A. REFERENCE PLANS AND DOCUMENTS

- Stratham 2019 Master Plan Update:
https://www.strathamnh.gov/sites/g/files/vyhlif5051/f/uploads/2019.11.20_masterplan_adopted.pdf
- Town of Stratham GIS
<https://www.axisgis.com/StrathamNH/>
- Town of Stratham Conservation Commission
<https://www.strathamnh.gov/conservation-commission>
- Town of Stratham Conservation Commission Land Conservation Criteria
https://www.strathamnh.gov/sites/g/files/vyhlif5051/f/uploads/conservation_criteria_2020.pdf
- Town of Stratham Assessors List of Easement Properties with Conservation Easements
<https://www.strathamnh.gov/assessing-department/pages/properties-conservation-easements>
- Town of Stratham Open Space Initiative, 2002
https://www.strathamnh.gov/sites/g/files/vyhlif5051/f/uploads/stratham_open_space_initiative_reduced.pdf
- Town of Stratham Planning and Zoning Requirements
<https://www.strathamnh.gov/planning-zoning-department/pages/rules-regulations>
- Town of Stratham Trail Management Advisory Committee Report
https://www.strathamnh.gov/sites/g/files/vyhlif5051/f/uploads/tmac_recommendations_final_2_15_22.pdf
- Town of Stratham Forestry Plan
https://www.strathamnh.gov/sites/g/files/vyhlif5051/f/uploads/forest_management_plan_-_stratham_hill_park_town_forest_june_2016.pdf
- Town of Stratham Climate Risk Vulnerability Assessment:
https://www.therpc.org/application/files/2515/1561/6767/Stratham_Assessment_Report_Final_rev2.pdf
- Great Bay Bicycle Loop
<https://www.therpc.org/transportation/bicycle-and-pedestrian/rpc-bikeped-plan>

**EXHIBIT C: Proposal submitted in response to Stratham RFP by FB
Environmental Associates, LLC and Resilience Planning & Design, LLC**

September 14, 2022

RESPONSE TO REQUEST FOR PROPOSALS

OPEN SPACE AND CONNECTIVITY PLAN

STRATHAM, NEW HAMPSHIRE

September 14, 2022



RESPONSE TO REQUEST FOR PROPOSALS

OPEN SPACE AND CONNECTIVITY PLAN

STRATHAM, NEW HAMPSHIRE

September 14, 2022

Prepared By:



FB Environmental Associates

Cocheco Mills #3, 383 Central Ave, Suite 267

Dover, NH 03820

www.fbenvironmental.com



Resilience Planning & Design

1 Bridge Street

Plymouth, NH 03264

<https://resilienceplanning.net/>



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Photos: FB Environmental

Cover Photo: Scamman Farm



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Mark Connors
Stratham Town Planner
c/o Town of Stratham Planning Office
10 Bunker Hill Ave
Stratham NH 03885

September 14, 2022

Dear Mr. Connors,

FB Environmental Associates (FBE) is pleased to submit the attached response to the Request for Proposals for the Town of Stratham Open Space and Connectivity Plan. FBE is widely regarded as a regional leader in community planning and natural resource management. Our staff includes highly qualified scientists experienced in ecological assessment, natural resource management and planning, and community outreach. We have worked directly with more than 50 municipalities across New England to restore, protect, and conserve natural resources. Specifically, we have a deep understanding of the ecology of New Hampshire as well as the economic and social needs communities face as they work to protect natural resources while also achieving open space access and connection for the public. If awarded, we will work closely with the municipal staff and community of Stratham to deliver an Open Space and Connectivity Plan for the Town that effectively prioritizes these seemingly competing, but often complimentary, needs.

For this proposal, we have collaborated with our partners at Resilience Planning & Design (RP&D) who bring a deep understanding of community planning in New Hampshire, specifically with outreach and engagement to underserved communities and with the development of regulatory frameworks to assist with land conservation and public access. FBE and RP&D have collaborated on five community planning projects over the last three years, including an Open Space Addendum for the City of Burlington and Master/Comprehensive Plans for Hampton NH, Williamstown MA, Bar Harbor ME, and Wells ME. Our team has demonstrated success working together and can provide an unmatched level of service to the Town of Stratham.

If selected, I will serve as the Principal in Charge and will be responsible for ensuring that all project tasks are completed to the satisfaction of the Town. I reside in the neighboring community of Exeter and look forward to the opportunity to work closely with a community that I spend significant time in and a region where our company is very active assisting municipal staff and citizens. Maggie Mills (Hydrologist and Watershed and Community Planning Lead) will serve as the Project Manager and will be responsible for oversight of natural resource evaluation and planning. Maggie Kelly-Boyd, Water Resources Scientist, and Elliott Boardman, Ecologist and GIS Specialist, will provide critical support across all tasks. Our partners at RP&D - Steve Whitman, Liz Kelly, and Zak Brohinsky - will provide support with community outreach, public engagement and development of criteria and strategies for land acquisition, conservation, and public access.

We look forward to the opportunity to work with the Town on developing an Open Space and Connectivity Plan. Our highly-qualified team will be flexible and creative in our approach and will work closely with the Town to adapt to new information as it becomes available. If you have any questions, please feel free to call me at (207) 650-7597 or email me at info@fbenvironmental.com.

Sincerely Yours,

Forrest Bell

CEO and Senior Scientist, FB Environmental Associates, Portland, ME

DESCRIPTION OF FIRMS

FB ENVIRONMENTAL ASSOCIATES

FBE is a small consulting firm that specializes in directing environmental planning, assessment, monitoring, mapping, and restoration projects for a diverse array of clients. The company was founded by Forrest Bell in 2001 with a focus on incorporating forward-thinking natural resource planning into municipal planning projects. The FBE staff is composed of highly qualified water quality specialists, ecologists, biologists, and natural resource scientists with a breadth of experience facilitating municipal conversations around natural resource protection and equitable open space access. Examples of FBE projects include assistance with planning documents such as Comprehensive Plans, Open Space Plans, and Beach/Site-Specific Plans, as well as technical assessment projects such as water quality sampling and analysis, natural resource inventories, wetland delineations, and more. Since its beginning, FBE has become a regional leader in assisting municipalities with natural resource planning and has worked extensively across New Hampshire.

Collectively, FBE's staff has more than 150 years of combined experience working on land and water resource projects in New England. As FBE is a small business with low overhead, we can provide a high-quality professional product at reasonable hourly labor rates. References have indicated that the firm's greatest asset is the staff's ability to work with great attention to detail to meet the specific needs of project partners and the public. FBE takes great pride in our ability to communicate complex scientific details with the public. Through an evaluation conducted by an independent research firm for the US Government, we were given an overall performance score of 95 (out of a possible 100) by our current and past clients. Our staff professionalism and expertise ranking scored a perfect 100. FBE will serve as the project lead for the Stratham Open Space and Connectivity Plan.

RESILIENCE PLANNING & DESIGN

Resilience Planning & Design provides collaborative planning, design, and education services. RP&D's office is located in Plymouth, NH and they work throughout the northeast. Currently, RP&D has three full-time planners and a GIS analyst on staff. Beyond this core team, they collaborate with other professionals on a project basis to ensure they can deliver the specific skills needed for each initiative. They have extensive experience working on a range of planning projects in communities of all sizes.

The RP&D team is very experienced with designing creative and diverse community outreach and engagement campaigns, graphics, and document creation. They have been working to make planning documents and information more accessible and engaging to the public and municipal boards. They also have the ability to create the concise language and graphics needed to clearly communicate Stratham's vision for open space and connectivity. Additionally, the RP&D staff team have experience with land conservation and acquisition strategies. RP&D staff member, Zak Brohinsky, teaches undergraduate curriculum on applied land protection strategies at Plymouth State University.



FBE and partners at TJD&A host a community forum on open space in South Portland. ©Jessica Kimball, TJD&A (left). FBE staff scientists performing a natural resources inventory (right).

PROJECT TEAM

FBE will be led by Principal Scientist and Owner, Forrest Bell. Watershed and Community Planning Lead (Maggie Mills) will serve as the Project Manager. Water Resources Scientist (Maggie Kelly-Boyd) and Ecologist/GIS Specialist (Elliott Boardman) will provide support across all inventory and spatial mapping tasks. Additional FBE support will be provided by Ecological Services lead Dr. Kevin Ryan, Ph.D.. Steve Whitman, Liz Kelly, and Zak Brohinsky of RP&D will provide critical support with public outreach and engagement as well as with the development of acquisition and conservation strategies. Brief staff descriptions of key project personnel are listed below. More detailed staff qualifications are provided in the Resumes section of this proposal.



FORREST BELL | Owner/CEO

Forrest is the founder and owner of FB Environmental Associates, a regional leader in managing environmental assessment and restoration projects. With over 32 years of experience, Forrest has directed more than 750 successful environmental planning, assessment, monitoring, and restoration projects for a diverse array of clients, including federal and state natural resource agencies, municipalities, and non-profit organizations. Forrest is a skilled presenter and facilitator, embracing the challenge of presenting the complexities of land and water resources to New England's communities. Forrest received his B.S. in Geography from the University of Southern Maine and completed his Master's coursework at the University of New Hampshire in the Natural Resources Management program. He resides in the neighboring town of Exeter and frequently recreates on the Stratham Open Space network. **Forrest will serve as the Principal Scientist for development of the Open Space and Connectivity Plan.**



Maggie Mills | Watershed & Community Planning Lead

Maggie Mills serves as the lead for Watershed & Community Planning at FBE and has a background as a hydrologist and water resource scientist. She works on projects ranging from natural resource management and planning, community engagement, water quality monitoring, to lake and stream assessment and restoration. At FBE, Maggie works with private entities, federal and state agencies, lake and watershed associations, and municipalities to assess their natural resources and incorporate natural resources into planning and development. Maggie has led numerous municipal planning projects for FBE. Prior to FBE, Maggie gained experience working with lead scientists on watershed biogeochemistry at the Institute of Arctic and Alpine Research (Boulder, CO) and Hubbard Brook Experimental Forest (Thornton, NH). **Maggie will serve as the Project Manager and will be responsible for overall execution of all tasks.**



Maggie Kelly-Boyd | Water Resource Scientist

As a project manager and water resource scientist at FBE, Maggie Kelly-Boyd leads watershed and community planning projects including municipal planning, stakeholder engagement, water quality monitoring and analysis, and GIS analysis and mapping. Maggie also works on watershed BMP implementation efforts, data synthesis and analysis, pollutant load modeling, municipal build-out analyses, trail assessments, land-use analysis, and technical writing. She provides Geographic Information Systems (GIS) mapping and analysis for many of FBE's projects. Maggie joined FB Environmental Associates in 2018 with a B.S. in Conservation Biology from St. Lawrence University. Maggie gained experience with watershed protection working previously for Squam Lakes Association, monitoring water quality and removing aquatic invasive plants. **Maggie will provide natural resource assessment support across all tasks on the Open Space and Connectivity Plan.**



Elliott Boardman | Ecologist & GIS Specialist

As an ecologist and GIS specialist for FBE, Elliott provides a wide variety of environmental services with a focus in ecological and geospatial services, including cartography, GIS analyses, ESRI web application development, desktop land use assessments, natural resource inventories, and climate impact and flood risk analyses. Elliott joined FB Environmental Associates in May of 2021, after graduating from the University of New England (UNE) with a B.S. in Environmental Science. During his time at UNE, Elliott conducted field research relating to the effects of climate change on soil microbial communities and photosynthesis. **Elliott will provide support with assessing and mapping ecological communities in Stratham.**



Steve Whitman, EDD, AICP | Principal Planner

Steve Whitman is professional planner and educator who has been working in the public, non-profit, and private sectors for over twenty-three years. Steve established Resilience Planning & Design to assist municipalities, agencies, and non-profit organizations with planning initiatives and implementation efforts that reinforce their visions and future plans. His work includes strategic open space planning, comprehensive planning projects in small towns and large cities, housing assessments, and regional and watershed scale natural resource planning. Steve is also a published researcher on the value of holistic natural resource protection and regenerative design at the municipal scale. His work has been published in Planning magazine. Steve is also a municipal board member in Plymouth, NH and an active board member for Mill City Park in Franklin, NH. Steve's experience with strategic open space and natural resource planning will be an invaluable asset to the team. **Steve's talents will be employed for specific meeting discussions focused on developing criteria to strategize open space acquisition and protection.**



Liz Kelly | Planner & Designer

Liz Kelly is a professional planner and designer who holds an M.S. in Ecological Design and Planning and has completed a variety of comprehensive planning projects for municipalities focused on dynamic visioning, place-based analysis, collaborative land use planning, creative plan development, and designing equitable outreach and engagement processes. Liz is passionate about helping communities realize their goals and envision solutions to complex local issues. Most recently, Liz has been the point of contact for updating the Berlin, NH and Hampton, NH Master Plans. She is formerly a municipal and regional planner, is a certified permaculture design teacher, and is highly skilled in group facilitation, graphic design, project management, and strategic planning. **Liz will provide support with graphic design and data visualization.**



Zak Brohinsky | GIS Analyst & Land Conservation Specialist

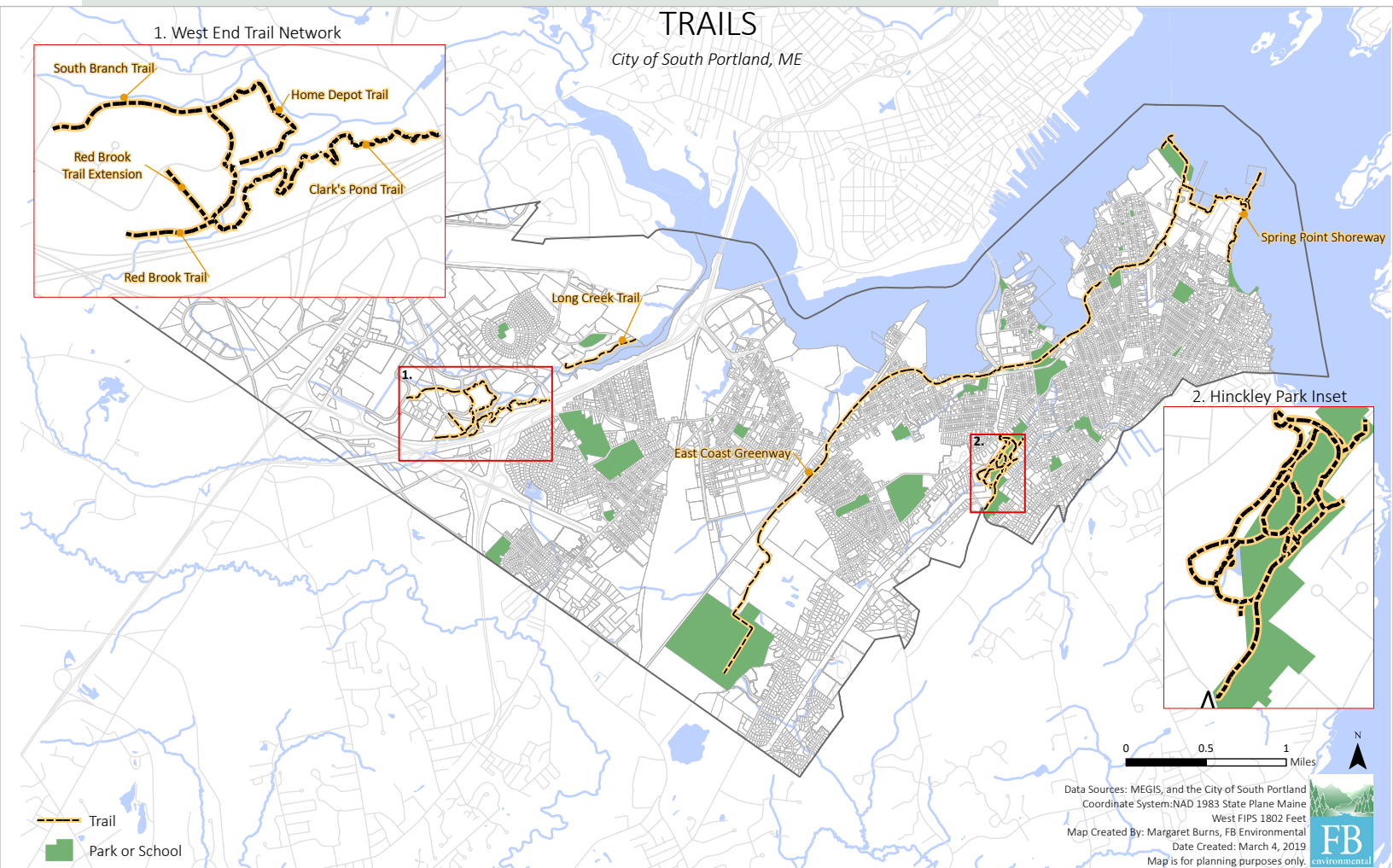
Zak Brohinsky has significant experience in applied land conservation at nearly every level from the federal government to local non-profit land trusts. His professional background provides broad knowledge and direct involvement in many aspects of land conservation including land acquisition, conservation easement drafting and interpretation, stewardship, landowner and volunteer interaction, and development. Additionally, Zak has worked with organizations and agencies on long-term conservation planning and visioning, which provides him with robust skills in both technical and strategic concepts and solutions. Zak has an understanding of complex conservation, environmental, and social interactions. Zak is also an instructor of land conservation techniques and GIS at the university level. **Zak will provide land conservation planning expertise, particularly for criteria development.**

COMPARABLE PROJECTS

FBE and RP&D have worked together and independently with numerous New Hampshire and New England municipalities on natural resource protection and planning. The following pages outline four key projects that we believe serve as good examples for the Stratham Open Space and Connectivity Plan. We have also included a list below of additional relevant projects completed by our project team. Partnerships between FBE and RP&D are highlighted in **blue bold** text. The first firm name mentioned indicates the project team lead.

- » **Bar Harbor, ME Comprehensive Plan | RP&D and FBE (Ongoing)**
- » Bridgton, ME Open Space Plan | FBE and TJD&A (Ongoing)
- » **Hampton, NH Master Plan | RP&D and FBE (Ongoing)**
- » Harpswell, ME Comprehensive Plan | TJD&A & FBE (Ongoing)
- » **Wells, ME Comprehensive Plan | RP&D and FBE (Ongoing)**
- » **Williamstown, MA Comprehensive Plan | RP&D and FBE (Ongoing)**
- » **Nature-Based Climate Solutions: Addendum to the Burlington, VT Open Space Protection Plan | RP&D and FBE (2022)**
- » Portsmouth, NH Open Space Plan | RP&D (2020)
- » South Portland, ME Open Space Plan | FBE and TJD&A (2019)
- » Littleton, NH Master Plan Update | RP&D (2019)
- » Wolfeboro, NH Master Plan | RP&D (2019)
- » Dover, NH Master Plan Chapter Updates | RP&D (2022)
- » Lovell, ME Historical Development and Conservation Lands Build-out Analysis | FBE (2016)
- » Bar Harbor, ME Open Space Plan | FBE (2014)
- » Harpswell, ME Open Space Plan | FBE (2009)

▼ An example of a map developed during the South Portland Open Space Plan. © FB Environmental



City of Burlington, VT Open Space Plan on Nature-Based Climate Solutions

The City of Burlington is often seen as a leader in addressing climate change, but they recognized that their current approach is focused mostly on energy and emissions related initiatives. Late in 2020 Resilience Planning & Design and FB Environmental were hired by the City to address this need by developing an addendum to the existing open space plans. This new open space planning document focuses on utilizing nature-based climate solutions to capture carbon and deliver other critical ecosystem services. Nature-based climate solutions work with the soils, plants, trees, and water through community partnership, education, and participation to strengthen the people and the natural areas. Working closely with City staff and a sub-committee of the Burlington Conservation Board we worked to assess existing conditions, research case study examples, and engage the public to imagine a future where residents are working together to combat climate change through nature. The final addendum document includes a land acknowledgment and addresses issues of equity and inclusion now and into the future. It is currently being reviewed and edited and will go through the adoption process during the summer of 2021. For more information on the project, please visit: <https://www.burlingtonvt.gov/DPI/CB/Open-Space-Addendum/What-is-the-Open-Space-Climate-Change-Addendum>

CLIENT REFERENCE

Scott Gustin, Principal Planner for Development Review
149 Church Street
Burlington, VT 05401
p: (802) 865-7189
e: sgustin@burlingtonvt.gov





OPEN SPACE & COMMUNITY PLANNING

Key Services: Community engagement; open space planning; stakeholder involvement

FB ENVIRONMENTAL ASSOCIATES

97A Exchange St, Suite 305, Portland, ME 04101

Cocheco Mills #3, 383 Central Ave, Suite 267, Dover, NH 03820

(207) 221-6699; (603) 828-1456

www.fbenvironmental.com



Bug Light Park. © FBE

SOUTH PORTLAND OPEN SPACE PLAN

CITY OF SOUTH PORTLAND, MAINE

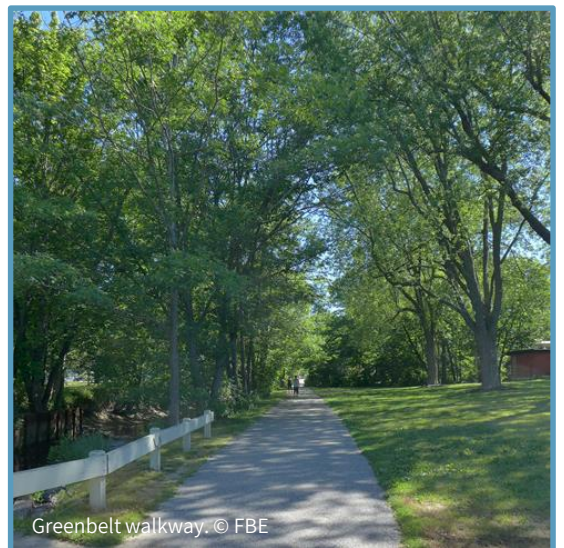
FBE and Terrance J. DeWan and Associates worked together with the City of South Portland to create a comprehensive Open Space Plan. FBE worked with a volunteer Open Space Planning Committee to design a plan that is tailored to the specific needs of the City. Through this planning process, we implemented a public City-wide survey of open space needs and executed a successful public forum. The goal of the forum was to provide the public with a structured opportunity to contribute their suggestions for open space planning. All ideas were recorded on maps that were digitized and incorporated into the final Open Space Plan. The project team then used the input from the community and planning committee to develop strategies for future open space planning. Following formal adoption of the Plan in July 2019, the Open Space Committee has begun immediate implementation of the Plan recommendations. The South Portland Open Space Plan can be accessed online on the city website.

CLIENT INFORMATION

Barbara Dee, City of South Portland Conservation Commission,
(207) 317-0975, catzrul1@live.com



Public forum during planning process. © TJD&A



Greenbelt walkway. © FBE



In 2019/20, Resilience Planning & Design (RP&D) partnered with the City of Portsmouth, NH to create a municipal Open Space Plan. The purpose of the Plan is to improve public access, increase use and stewardship, and improve connectivity between open space assets city-wide and into neighboring communities. Throughout the planning process, RP&D worked with City staff, a Steering Committee, and the public to prioritize undeveloped land for acquisition/protection, create open space stewardship and management guidelines, enhance outdoor recreation facilities and programming, and identify opportunities to improve connectivity between open spaces, trails, and neighborhoods. Additionally, RP&D also identified key areas for open space amenities within the highly developed areas of the city and identified opportunities to protect or regenerate critical ecosystem services. For more information about the project, please visit: <https://www.cityofportsmouth.com/planportsmouth/open-space-plan>



CLIENT REFERENCE

Peter Stiith, Principal Planner
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801
p: (603) 610-4188
e: jmstiith@cityofportsmouth.com



COMPREHENSIVE PLAN UPDATE

Key Services: Comprehensive plan development; existing conditions analysis; public outreach and engagement; facilitation

FB ENVIRONMENTAL ASSOCIATES

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www.fbenvironmental.com



The Bar Harbor Waterfront. © DownEast Acadia

COMPREHENSIVE PLAN UPDATE

BAR HARBOR, MAINE

Starting in 2021, FBE teamed with Resilience Planning & Design to assist the Town of Bar Harbor with a Comprehensive Plan update. Bar Harbor is a vibrant coastal community well known for its proximity to Acadia National Park, where planning requires consideration of heavy seasonal tourism, natural resource protection, and year-round living. FBE is performing an existing conditions analysis of Bar Harbor's natural resources and existing land use, including water resources, wildlife habitat, agriculture and forestry, marine resources, and threats such as climate change. FBE and the consultant team are working with the Comprehensive Plan Committee to facilitate discussions and public feedback on key planning topics, including addressing land use, affordable housing, high property costs, and meeting the needs of visitors and local citizens. Outreach efforts will engage Town residents and stakeholders in envisioning a sustainable future for the Town. The final plan is anticipated to be completed at the end of 2022.

CLIENT INFORMATION

Michele Gagnon, Planning Director, Town of Bar Harbor
207-288-3329; mgagnon@barharbormail.org



View from the summit of Cadillac Mountain © Maine Tourism Association



Downtown Bar Harbor. © Yankee Magazine

PROJECT UNDERSTANDING

FBE's approach to creating an Open Space and Connectivity Plan for the Town of Stratham will be data-driven and community-supported. We will work closely with Town staff and the steering committee to ensure that the final plan is well supported by the community and provides actionable items to ensure effective plan implementation. We recognize that open space and its connectivity to key areas are critical to the identity of the Town and its residents.

We understand that Stratham is a regional leader in land conservation, with over 25% of the land area in the Town under protection. However, the majority of these protected lands occur on private property with an overlying conservation or agricultural easement held by the Town or a local partner. Public access is limited with an outsized recreational impact on the Stratham Hill Park system. Mapped trails in the Town are entirely limited to those around Stratham Hill Park, with a 4.6 mile outer perimeter trail, and a series of smaller trails (1 mile or less) within the park and Town Forest. Public access on parcels along Great Bay have limited public access, with three boat access locations (Depot Road, Chapman's Landing, and the Town Landing – all with high tide access only and two for carry-in only) and land access limited to the Great Bay Discovery just over the town line in Greenland. Fee owned parcels include Stratham Hill Park and the adjacent Town Forest, a series of properties along the Squamscott, the Strathlorne Track in the southwest corner of the Town, and a 37-acre parcel on the Rollins property in the southeast corner of the town. Conservation has been fairly opportunistic, prompting the revision of the land conservation criteria in 2020 by the Ad Hoc Conservation Bond Subcommittee and development of six goals to evaluate each parcel against when presented with a conservation opportunity.

Below, we have outlined a Project Approach that we believe will assist the Town with coordinating their approach to open space identification, prioritization, acquisition, and maintenance. We are prepared to work collaboratively with the Town on adjusting this Scope of Work as the Town deems necessary to ensure that we develop an Open Space and Connectivity Plan that builds on the previous conservation success in the Town and identifies effective strategies for open space and connectivity moving forward.



The Great Bay Community Wildlife Garden.

PROJECT APPROACH

TASK 1: PROJECT MANAGEMENT, ADMINISTRATION, AND COMMUNICATION

Task 1 includes general project management and administration, including but not limited to: budgeting, project tracking, internal project staffing and coordination, and subcontractor coordination and communication. FBE will facilitate communication on project progress or data needs to the Town of Stratham through emails and/or conference calls. Steering committee meetings are outlined in the following tasks, but FBE Project Manager, Maggie Mills, will be available for communication with Town staff as needed through the duration of the project and recommends a minimum of monthly check-in calls with the point of contact for the Town.

TASK 2: STEERING COMMITTEE

In line with the recommendation in the RFP, FBE recommends the development of an Open Space & Connectivity Plan Steering Committee. This committee will be composed of Town staff (Town Planner, Town Administrator, and Parks and Recreation Director) as well as representatives from community boards and commissions (e.g., Conservation Commission, Planning Board, Recreation Commission, Select Board, and Heritage Commission). We will assist the Town, as needed, with establishment of the committee and outreach to prospective committee members and representatives. Due in part to the accelerated timeline for plan development, we recommend monthly meetings with the steering committee, with a few months omitted during quieter periods of the project to prioritize budget for use on other tasks. We have outlined these meetings in the project schedule (see page 13) with five meetings occurring in person and five meetings occurring virtually. We have proposed in-person meetings for discussions that we believe would value from a dynamic in-person working conversation.

TASK 3: THE STATE OF OPEN SPACE

To ensure that the Open Space and Connectivity Plan is grounded in a deep understanding of existing conditions, we will begin with a thorough review of existing written documents (e.g. studies, reports) and spatial GIS data to identify the “state” of open space. This review will cover a broad range of topics, including:

- » A desktop review of natural resources in Stratham. This will include mapping and synthesis of critical groundwater and surface water resources, wells and wellhead protection areas, soils and prime farmland, habitat blocks and corridors listed in the Wildlife Action Plan, forestry, invasive plant presence and management. The desktop inventory will not include the creation of any files or documentations but will collect and assemble existing data.
- » Review and consideration of data available on natural hazards and climate change impacts, including sea level rise and storm surge inundation in the Great Bay and the Squamscott River, marsh migration, and groundwater rise.
- » Existing public access to open space including pedestrian, bicycle, boat, and foot traffic and the distribution of that access across residents in the community, particularly those in underserved neighborhoods.
- » Connectivity of open space with regard to continuous habitat blocks and natural resources, and continuity of trails.



Stuart Farm

- » Protection of critical habitats and rare, threatened, and endangered species.
- » Historical and cultural artifacts, places and spaces that are important to the community.
- » Review of existing conserved lands and the regulatory mechanisms used for acquisition or protection and ongoing maintenance.

We will then create a series of map visuals and written text to summarize our findings for each topic area that will be shared with the steering committee for review and feedback. It is critical that this inventory is vetted closely by the committee as they will represent the individuals most versed in the history and existing conditions of Stratham.

TASK 4: OUTREACH AND ENGAGEMENT

We recognize that community outreach and engagement are important to the Town in developing an equitable Open Space and Connectivity Plan. We propose three distinct forms of public outreach and engagement.

Targeted Stakeholder Outreach

At the onset of the project, FBE will work with the Town of Stratham staff and the Steering Committee to develop a comprehensive list of businesses and organizations in the Town that are important stakeholders in the Open Space and Connectivity Plan. This would include identification of a contact for each stakeholder group that would serve as a channel for disseminating outreach information to the organization. Upon identification, each representative would be contacted to confirm their role and support for sharing information with their organization. Businesses and organizations working with underserved and diverse populations in Stratham will be identified and prioritized. FBE and RP&D staff will connect with each representative during assembly of the existing conditions inventory to ensure their feedback is included. We will then reach out to these organization representatives throughout the project to alert them to key document publications and opportunities for public engagement in the project.

Photovoice

We propose the use of the qualitative research method, Photovoice, to document real-life situations community members are facing. We will publicize methods on how to take photos, ask a specific set of questions, and then task the community with taking photographs to represent or answer the question(s) from their point of view. Specifically, we will ask community members to take photos of important open space areas, concerns with open space and connectivity, or important natural habitats. Typically, afterwards the group discusses the images and their stories and transitions into a meaningful conversation about what can be tangibly done about the problem using community resources. We propose this discussion happens virtually using zoom, where members can log-in and share their photos and experiences in small breakout groups. FBE will provide back-up photos for discussion if photo evidence from the community is limited.

To learn more about Photovoice: <https://globalhealth.duke.edu/news/what-photovoice>

Summerfest (Event) Attendance

FBE staff will attend and staff a booth at one public event in the summer of 2023. We will work with the steering committee to identify the most suitable event that will allow us to gain the most public engagement, such as the 4H Summerfest event in July.



Stratham Hill Park

The booth will include interactive mapping exercises where large-scale maps will be available with sticky dots in various colors representing open space and connectivity needs within the Town. Sticky dots can be placed on areas of concern, important viewpoints, recommended public access locations, trail connectivity, and more. The responses will be transcribed digitally and synthesized on a map visual for inclusion in the final plan. Attendance at this event will be advertised through Town channels as well as through the list of targeted stakeholders identified above.

TASK 5: CRITERIA DEVELOPMENT

We recognize that there are a variety of methods for the acquisition and protection of open space and natural resources. Our team will draw on our experience in open space planning from other communities to facilitate conversations with the steering committee on criteria development for prioritizing parcels for acquisition and protection. This will include establishing a workflow for prioritizing parcels under consideration, and for identifying responsibility of town staff and the public review process. Additionally, it will identify possible funding strategies with recommendations for when and how these are implemented. This will include acquisition strategies such as market value property purchase, right of first refusal, gifting/bequeathing, land exchanges, easements (conservation, agricultural, trail), purchase or transfer of development rights, tax incentives, and collaboration with local partner organizations.

TASK 6: PLAN DEVELOPMENT

Following completion of the aforementioned plan components, FBE and RP&D will work with the Steering Committee to develop a written plan with clear goals, vision, and strategies for effectively planning for open space in Stratham. This task will include refinement of these goals and strategies as well as final formatting of the narrative text. We will work with the committee to identify the best strategy for final formatting and presentation. We recommend a creative and visually engaging final product, such as an ESRI GIS StoryMaps format, with a concise and printable PDF Executive Summary document to accompany it. The StoryMap format would allow the Plan to be a dynamic document, with opportunities for updating maps and tables to show progress on achieving the goals outlined in the Plan.



Chapman Boat Launch

SCHEDULE

We have provided a proposed project schedule in the graphic below that utilizes the full 12-months allowable through the RFP document. We believe that a full summer season is important to drafting a relevant and updated Open Space and Connectivity Plan and will give us more access to residents and community members utilizing open space in the Town. However, limiting the plan development process to 12-months will ensure that we are able to maintain momentum throughout the duration of the project. It will also allow time to be allocated to frequent meetings with the steering committee.

	2022			2023									
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
TASK 1. PROJECT MANAGEMENT, ADMINISTRATION, AND COMMUNICATION													
Internal and subcontractor coordination.													
TASK 2. STEERING COMMITTEE													
Monthly meetings. (yellow = in-person, blue = zoom)													
TASK 3. THE STATE OF OPEN SPACE													
Evaluation of existing conditions.													
Identification of gaps.													
Visualization of existing conditions.													
TASK 4. OUTREACH AND ENGAGEMENT													
Digital engagement through Photovoice.													
Booth/attendance at Summerfest.													
Targeted stakeholder outreach.													
TASK 5. CRITERIA DEVELOPMENT													
Acquisition criteria.													
Easement checklist.													
Operations & maintenance plan.													
TASK 6. PLAN DEVELOPMENT													
Draft plan.													
Final plan.													

COST PROPOSAL AND BUDGET

We have included our cost proposal and budget in the sealed bid accompanying this narrative.

RESUMES

Resumes for key project personnel are available on the following pages.

FORREST BELL | OWNER/CEO of FB Environmental Associates



Forrest is the founder and owner of FB Environmental Associates, a regional leader in managing environmental assessment and restoration projects. With over 32 years of experience, Forrest has directed more than 750 successful environmental planning, assessment, monitoring, and restoration projects for a diverse array of clients, including federal and state natural resource agencies, municipalities, and non-profit organizations. Forrest is a skilled presenter and facilitator, embracing the challenge of presenting the complexities of land and water resources to New England's communities. Forrest received his BS in Geography from the University of Southern Maine and completed his Master's coursework at the University of New Hampshire in the Natural Resources Management program.

TECHNICAL EXPERTISE

- BMP Design & Implementation
- Community Development
- Conservation & Land Use Planning
- Lake, River, & Stream Assessment
- Marine Fisheries Management
- Natural Resource Evaluations
- Watershed Management
- Water Quality Monitoring

EDUCATION

- M.S. coursework completed, Natural Resource Administration & Management, University of New Hampshire, Durham (1999-2002)
- B.S., Geography & Land Use Planning, University of Southern Maine (1991)

VOLUNTEER BOARDS

- Executive Board Member, Piscataqua Regional Estuaries Partnership (2014-2016)
- Executive Board Member, Saco Headwaters Alliance (2019 – 2021)



PROFESSIONAL HIGHLIGHTS

- Proven record of success working for clients such as US Environmental Protection Agency, US Army Corps of Engineers, Maine Department of Marine Resources, New Hampshire Department of Environmental Services, Rhode Island Department of Environmental Management, Piscataqua Regional Estuaries Partnership, Spruce Creek Association, the Casco Bay Estuary Partnership, numerous private companies, and more than 50 municipalities in Maine and New Hampshire.
- Technical training in geomorphic processes, river and stream restoration, water quality monitoring, BMP design, and pollutant load modeling.
- Worked face-to-face with more than 5,000 landowners and fishing and agriculture industry employees to develop conservation strategies for various projects.
- Advises nonprofit organizations, government, municipalities, and professional associations regarding compliance with environmental programs and laws.
- Delivered more than 100 formal presentations at numerous national, state, regional, and local water resource, watershed management, and land management conferences.
- Secured over \$10 million in environmental project funds between 1995 and 2019 for several organizations to help improve and protect water resources.

SELECT PROJECTS

Large-Scale Projects

Maine Department of Marine Resources (2018-2021). Co-PI for a 3-year, \$550,000 NOAA-funded study of vertical line strength as it relates to North Atlantic right whale entanglements. Tasks include survey design, implementation, and analysis; rope breaking analysis, and load cell deployment to test breaking strengths at sea. Working collaboratively with the Maine Department of Marine Resources, the Maine Lobstermen's Association, the University of Maine Chen Lab, and the other New England coastal states.

US Environmental Protection Agency Region 1 BPA (2008-2013 and 2019-present). Principal scientist and senior project manager for two five-year, million-dollar contracts focusing on providing detailed assessments of impaired waterbodies in all six New England states. Tasks included directing staff, technical writing, river and stream mapping, impervious cover analysis, pollutant load modeling, and water quality monitoring for multiple parameters. Forrest successfully led eleven individual large-scale projects under this contract.

Select Watershed Management Projects

Saco River Watershed (2018- present). Helped local stakeholders develop the Saco Headwaters Alliance which will oversee decades of groundwater and surface water assessment, management, and restoration in conjunction with several conservation organizations, federal and state agencies, and municipalities. Overseeing multiple projects in the Saco River Watershed focusing on water quality management, groundwater protection, floodplain mapping, and climate change resiliency.

Multiple Watershed Plans, Lake Winnepesaukee Association and New Hampshire Department of Environmental Services (2014-present). Lead contractor for multiple comprehensive watershed management planning projects in the Lake Winnepesaukee watershed in central New Hampshire. Project tasks include field BMP survey, land use modeling, pollutant load modeling, stakeholder participation, community forum facilitation, and technical report writing.

FORREST BELL | OWNER/CEO of FB Environmental Associates

Select Watershed Management Projects (continued)

Long Creek Watershed Management District (2011 – 2018). Project manager for the development of the US EPA merit award-winning, Long Creek Watershed Management Plan. Project tasks included developing a detailed stormwater retrofit inventory, including detailed cost estimates, developing a long-term monitoring plan, and leading a large technical advisory committee. FB Environmental also developed the initial Quality Assurance Project Plan and managed the comprehensive water quality monitoring program for several years.

Casco Bay Estuary Partnership, Presumpscot River Drainage Basin (2003-2007). Co-managed a regional watershed management planning and assessment project for the Presumpscot River Watershed. Accomplishments include the authoring of an EPA-funded \$740,000 Targeted Watershed Initiative grant proposal and designing a comprehensive monitoring plan for the river, including the establishment of quality assurance guidelines and the installation of continuous monitoring devices.

Land Conservation Planning and Management

Peaks Island Land Preserve (2022). Principal-in-Charge for a large-scale natural resources inventory and conservation management plans for eighteen properties on Peaks Island in Casco Bay. Tasks include broad-scale cover type mapping, invasive plant management, and management plan development. Project is in conjunction with Mohr & Seredin Landscape Architecture of Portland, ME.

Multiple Maine and New Hampshire Land Trusts (2012-present). Principal-in-Charge for multiple projects for Maine and New Hampshire land trusts. Efforts include the development of Natural Resources Inventories, conservation planning, easement monitoring, buildout studies, invasive species management, GIS mapping, and wildlife surveys.

Upper Saco Valley Land Trust (2013-2015). Project Manager and Lead Scientist for a regional Conservation Planning project. Project tasks included interpreting regional co-occurrence modeling, leading presentations to eleven municipalities, modeling future development patterns, hosting a community forum, and engaging communities in land protection efforts.

RECENT PROFESSIONAL PRESENTATIONS

- 2022 Empowering Lake Associations to Develop Watershed Management Plans, NH Lakes Congress, Meredith, NH
- 2022 Lake Umbagog Watershed Management Plan Final Community Presentation, Moultonborough, NH
- 2019 Maine Stormwater Conference, Portland, ME: Innovative Restoration Efforts on Dole Brook and Riverside Golf Course
- 2019 Implementing the Merry Meeting River and Merry Meeting Lake Watershed Management Plan, Alton, New Hampshire
- 2018 – Green Mountain Conservation Group: Multiple Public Presentations for the Ossipee Lake Watershed Plan
- 2017 Maine Rural Water Association, Bangor, ME: Bacteria Source Tracking Methods in Maine and New Hampshire
- 2017 Lake Winnepesaukee Association: Multiple Public Presentations for Lake Winnepesaukee Watershed Plan Development
- 2016 New Hampshire Lakes Conference, Meredith, NH: Watershed Plan Development
- 2016 Penobscot River Watershed Conference, Northport, ME: Culvert Assessment for Climate Change Adaptation
- 2015 Maine Lakes Conference, Sebago, ME: Local Climate Change Monitoring and Culvert Assessment
- 2015 International Oyster Symposium, Woods Hole, MA: Using Canine Tracking for Bacteria Impaired Waters
- 2015 New England NPS Conference, Freeport, ME: Restoring Bacteria Impaired Waters in Kittery, Maine and Rye, New Hampshire
- 2015 Maine Beaches Conference, South Portland, ME: Bacteria Source Tracking and Implementation
- 2015 Northern New England Planners Association Annual Meeting, Portland ME: Local Climate Change Monitoring and Adaptation
- 2015 NH Saving Special Places Conference: Climate Change Monitoring and Build-Out Analyses
- 2015 Joint NEAEB/NH Water & Watershed Conference: Innovative Bacteria Source Tracking
- 2015: New England Association of Aquatic Biologists Conference: Restoring New England's Impaired Waters
- 2014 Northeast Region Planners Association Conference, Stowe, VT: Topsham Fair Mall Stream Assessment Project

MARGARET MILLS | WATERSHED & COMMUNITY PLANNING LEAD



Margaret serves as the lead for Watershed & Community Planning at FBE and has a background as a hydrologist and GIS-specialist. She works on projects ranging from watershed management and planning, community engagement, water quality monitoring, and lake and stream assessment and restoration. At FBE, Margaret works with private entities, federal and state agencies, lake and watershed associations, and municipalities to assess their natural resources and incorporate natural resources into planning and development. Prior to FBE, Margaret gained experience working with lead scientists on watershed biogeochemistry at the Institute of Arctic and Alpine Research (Boulder, CO) and Hubbard Brook Experimental Forest (Thornton, NH).

PROFESSIONAL EXPERIENCE & SELECT PROJECTS

TECHNICAL EXPERTISE

- Community Planning and Leadership
- Watershed Management Planning
- Meeting Facilitation & Public Process
- GIS Spatial Analysis
- Hydrology and Biogeochemistry
- Stormwater Hydrology
- Surface Water Chemistry and Nutrient Cycling
- Programming in R and MATLAB
- Data Synthesis and Analysis

EDUCATION

- M.A. Geography, University of Colorado Boulder in collaboration with the Institute of Arctic and Alpine Research (2014)
- B.S., Ecology & Environmental Science, University of Maine, Orono (2012)

MEMBERSHIPS

- Maine GIS User Group (Jan 2019 – Present)
- Presumpscot Regional Land Trust, Community Engagement Committee (2016 – 2017)
- American Geophysical Union (2014 – 2016)



Municipal Conservation Planning & Resource Protection

Town of Bar Harbor Comprehensive Plan Update (December 2021 – Present). Serving as the Project Manager for FBE's role in the Town of Bar Harbor Comprehensive Plan Update in partnership with Resilience Planning & Design. Leading all natural resource assessments and existing condition analyses within the Town, including coordination with stakeholders at Acadia National Park, the Jackson Laboratory, College of the Atlantic, and more.

Town of Wells Comprehensive Plan Update (Spring 2021 – Present). Serving as the Project Manager for FBE's role in the Town of Wells Comprehensive Plan Update in partnership with Resilience Planning & Design. Responsible for data collection and desktop analysis of all spatial data across topic areas and furthermore, responsible for updating the natural resource topic areas in the Plan (e.g., water resources, critical natural resources, marine resources, and land use). Assisting in public forums and community engagement activities.

Town of Hampton Master Plan (Spring 2021 – Present). Serving as the Project Manager for FBE's role in the Town of Hampton Master Plan development process in partnership with Resilience Planning & Design. Responsible for the existing conditions inventory and analysis related to natural resources, hazards, open space/conservation, and climate change. Participating in the public outreach process with a focus on developing a thematic and sustainability-focused Master Plan.

City of Burlington Open Space Plan Addendum (December 2020 – July 2021). Worked collaboratively with Resilience Planning & Design on an addendum to the Burlington, VT Open Space Plan. The Plan addendum was focused on incorporating nature-based climate solutions into open space planning and parcel prioritization. Served as the Project Manager for all spatial data and map assembly and provided recommendations on appropriate nature-based climate solutions.

City of South Portland Open Space Plan Development (Spring 2018 – July 2019). Actively worked with the City of South Portland to develop an Open Space Plan. Compiled and built on the existing data held by the City to create a comprehensive, and up-to-date GIS database of all open space. Additionally, operated as lead in creating all GIS mapping and data visualization and provided assistance with the project Steering Committee and the public forum. Contributed to final written Open Space Plan that was adopted into the City Comprehensive Plan in August 2019.

Mare Brook Watershed Assessment & Community Engagement Project, Brunswick, ME (2015 – 2016). Served as support staff for the assessment of Mare Brook in Brunswick, ME. Mare Brook runs through both residential and commercial development, as well as through the former Brunswick Naval Air Station before it empties into Harpswell Cove. Assessment of the stream involved basic water quality parameters (dissolved oxygen, temperature, conductivity, bacteria, etc.) as well as parameters such as metals and toxic pollutants. Was responsible for the organization of historical documentation and water quality monitoring for input into a stressor analysis to provide the Town with monitoring and restoration recommendations.

Watershed Planning

Kennebunk River Watershed-Based Management Plan Development (February 2019 – Present). Actively serving as the Project Manager and lead contractor for the development of a nine-element Watershed-Based Management Plan for the Kennebunk River watershed. The watershed spans across six communities and includes six major tributary drainages with unique water quality challenges. Collaborating with project partners from York County Soil and Water Conservation District and the Wells National Estuarine Research Reserve.

Medomak River Watershed Management Plan Development (October 2017-December 2019). Served as project manager for a project in Waldoboro, ME to develop a nine-element watershed management plan for the Medomak River. The Medomak River is one of the leading soft-shell clam producers in Maine, but has suffered from seasonal and conditional harvesting closures due to elevated bacteria. Was responsible for coordinating communication between the Department of Marine Resource, the Department of Environmental Protection, Town officials, and commercial clammers. Served as lead in synthesis of existing data from state agencies, environmental monitoring, and future planning for database management, monitoring, and restoration efforts.

Goosefare Brook Watershed Management Plan, Saco and Old Orchard Beach, ME (2015-2016). Co-led the development and writing of the watershed management plan for Goosefare Brook for the City of Saco and the Town of Old Orchard Beach. Plan development and writing included the synthesis of past water quality monitoring, a retrofit reconnaissance inventory to identify existing best management practices (BMPs) for stormwater and provide BMP recommendations for the watershed. The overall project plan includes prioritization of both structural and non-structural recommendations for improving stormwater runoff to the stream. This project included close coordination with both municipalities, state agencies, and local conservation groups.

Upper Saco Valley Land Trust (2017). Task lead for the completion of a potential contamination source (PCS) survey following New Hampshire RSA 485-C:7 II Statute and Env-Wq-401: Best Management Practices for Groundwater. Through a NH Drinking Water Grant, FBE assisted the land trust in synthesizing and expanding the PCS database in areas overlaying the stratified drift aquifer and within the land trust jurisdiction. Organized existing data, survey methods, and trained/led volunteers during a two-day survey of the coverage area.

Research Experience

Dissolved Organic Matter Transport and Chemical Transformation (2012 – 2014). Completed a research-focused masters thesis at the Institute of Alpine and Arctic Research in Boulder Colorado investigating the changes in fluorescent properties of dissolved organic matter (DOM) transport through an alpine, headwater stream. Performed fluorescence spectroscopy on daily samples from lysimeters, piezometers, and streams coupled with a MATLAB parallel factor model (PARAFAC) to trace changes in chemical composition through the soil profile.

Investigation of the Hydrological and Geochemical Role of the C Horizon in a Glacial Till Mantled Headwater Catchment (2011 – 2012). Through an NSF-funded REU internship, studied the role of the C horizon on vertical and lateral podzolization and water movement at the Hubbard Brook Experimental Forest in New Hampshire. Continued working with the Forest Service following the completion of my internship to write an undergraduate honors thesis at the University of Maine. Returned to Hubbard Brook on a related project as a field technician in 2015.

PRESENTATIONS

- **Mills MA & P Ruck.** (12/3/2019). Maine Stormwater Conference, Portland ME. *Identifying Candidate Sites for Low Impact Development Retrofits in Kennedy Brook, Presque Isle ME.*
- **Burns (Mills) MA & AG Gavin.** (3/28/2019). Maine Sustainability & Waters Conference, Augusta ME. *Watchic Lake: Observations of Physical Parameters from Continuous Monitoring*
- **Burns (Mills) MA & J Kimball.** (1/22/2019). City Council Workshop, City of South Portland ME. *South Portland Open Space Planning.*
- **Burns (Mills) MA & P Ruck** (11/29/2018). City Council Presentation, City of Presque Isle ME. *Kennedy Brook & Mantle Lake Watershed-Based Plan.*
- **Bell F & MA Burns (Mills)** (7/11/2017). Public Forum, University of Maine at Presque Isle, City of Presque Isle ME. *Kennedy & Mantle Lake Watershed-Based Plan.*
- **Burns (Mills), MA & L Bizzari.** (3/30/2017). Maine Sustainability & Waters Conference, Augusta ME. *Intensive Sampling during Storm Events to Identify Land-Based Sources of Fecal Contamination to a Coastal Estuary.*
- **Burns (Mills), MA.** 2014. Hubbard Brook Cooperators Meeting, Thornton NH. *Biogeochemical Hotspots for Carbon and Nitrogen Cycling in Watershed 3.*
- **Burns (Mills), MA.** 2014. Hydrologic Sciences Symposium, Boulder CO. *Variability of Hillslope Dissolved Organic Matter Transport and Transformation in a Semi-arid Catchment.*
- **Burns (Mills), MA.** (12/9/2013 – 12/13/2013). American Geophysical Union, San Francisco CA. *Transport and Transformation of Dissolved Organic Matter in Soil Interstitial Water Across Forested, Montane Hillslopes.* Poster presentation.

PUBLICATIONS

Berryman, EM, HR Barnard, HR Adams, **MA Burns (Mills)**, PD Brooks. 2015. Complex terrain alters temperature and moisture limitations of forest soil respiration across a semi-arid to subalpine gradient. *Journal of Geophysical Research: Biogeosciences*, 120(4), 707-723.

Burns (Mills), MA, HR Barnard, DM McKnight, and RS Gabor. 2016. Dissolved organic matter transport reflects hillslope to stream connectivity during snowmelt in a montane catchment. *Water Resources Research*, 52(6), 4905-4923.

Gabor, RS, **MA Burns (Mills)**, RH Lee, JB Elg, CJ Kemper, HR Barnard and DM McKnight. 2015. Influence of leaching solution and catchment location on the fluorescence of water-soluble organic matter. *Environmental Science & Technology*, 40(7), 4425-4432.

PROFESSIONAL TRAININGS

University of New Hampshire. Stormwater Hydrology Certificate. Durham, NH. Completed April 2019.

MAGGIE KELLY-BOYD | PROJECT MANAGER



As a project manager at FBE, Maggie leads watershed and community planning projects including municipal planning, stakeholder engagement, water quality monitoring and analysis, and GIS analysis and mapping. Maggie also works on watershed BMP implementation efforts, data synthesis and analysis, pollutant load modeling, municipal buildout analyses, trail assessments, land-use analysis, and technical writing. She provides Geographic Information Systems (GIS) mapping and analysis for many of FBE's projects. Maggie joined FB Environmental Associates in 2018 with a B.S. in Conservation Biology from St. Lawrence University. Maggie gained experience with watershed protection working previously for Squam Lakes Association, monitoring water quality and removing aquatic invasive plants.

TECHNICAL EXPERTISE

- Community Planning
- Municipal Planning
- Best Management Practice Technical Assistance and Design
- GIS Mapping and Analysis
- CommunityViz Build-Out Analyses
- Watershed Management Planning
- Water Quality Monitoring
- Pollutant Load Modeling
- Land-Use Analyses
- Data Synthesis and Analysis

EDUCATION

- B.S., Conservation Biology, St. Lawrence University, Canton, NY (2018)



PROFESSIONAL EXPERIENCE & SELECT PROJECTS

Municipal Conservation Planning & Resource Protection

Williamstown Comprehensive Plan Update (Fall 2021 – Present). Serving as the Project Manager for FBE's role in the Town of Williamstown, Massachusetts Comprehensive Plan Update in partnership with Resilience Planning & Design. Responsible for analysis of natural resource conditions within the town, including water resources, critical natural resources, natural resource land use, and climate change threats. Assisting with public forums and community engagement activities.

Bar Harbor Comprehensive Plan Update (Winter 2021 – Present). Assisting with FBE's role in the Town of Bar Harbor, Maine to assess natural resources within the town and identify existing conditions on natural resources, including water resources, critical habitat, marine resources, land use, and climate change effects. Performed data collection and GIS spatial analysis for all existing conditions within the town. Assisting with community engagement activities. Also assisted the Town complete the Maine Flood Resilience Checklist (Spring 2021).

Wells, Maine Comprehensive Plan Update (2021 – Present). Assisting with FBE's role in Wells, Maine to update the Town's Comprehensive Plan by assessing natural resources within the Town and providing recommendations for guiding future municipal planning efforts. Led efforts to assess impacts of climate change to natural resources within the Town, including water resources, marine resources, critical natural habitat, and land use.

Hampton, New Hampshire Comprehensive Plan Update (2021 – Present). Assisting with FBE's role in the existing conditions inventory an analysis related to natural resources, hazards, open space/conservation, and climate change. Participating in the public outreach process with a focus on developing a thematic and sustainability-focused Master Plan.

Wells, Maine Flood Resilience Checklist (Spring 2020). Led a workshop for municipal staff to complete the Maine Flood Resiliency Checklist to help Wells prepare for the impacts of climate change. Completed a report to assist the Town with prioritizing risk and vulnerability, critical infrastructure and facilities, community planning, social and economic vulnerability, and natural environment.

City of Ellsworth Build-Out Analyses (Fall 2019 – Spring 2020). Performed buildout analysis of the City of Ellsworth, Maine, using ArcGIS and CommunityViz software. Reviewed and incorporated city zoning ordinances, existing structures, and development constraints such as conserved land and resource protection ordinances to calculate the development capacity of the City (numerically and spatially) and full buildout. Full buildout is a theoretical representation of a future condition in which all available land suitable for residential, commercial, and industrial construction has been developed to the maximum extent permitted by local ordinances and state or federal laws.

Moultonborough Bay and Winter Harbor Watershed Build-Out Analysis (Summer 2019 – Winter 2020). Performed buildout analysis of portions of the Towns of Moultonborough, Tuftonboro, and Wolfeboro, New Hampshire, within the Moultonborough Bay and Winter Harbor Watershed using ArcGIS and CommunityViz software. Analyzed and mapped full build-out for the watershed area as part of a comprehensive watershed protection plan.

City of South Portland Open Space Plan Development (Spring 2018 – July 2019). Assisted FBE project manager to work with the City of South Portland to develop an Open Space Plan. Compiled

public feedback and local knowledge from a city-wide survey on open space use in South Portland to incorporate into a comprehensive open space plan.

Watershed Planning and Water Quality Monitoring

Harpswell Water Quality Monitoring (Winter 2021 – Present). Leading water quality monitoring and investigative tracking in numerous Harpswell coves that suffer from pollution and resulting shellfish flat closures.

Pemaquid River Monitoring (Spring 2019 – Present). Led water quality monitoring on the Pemaquid River and surrounding tributaries, including bracket sampling and microbial source tracking. The Pemaquid River Estuary is an important local shellfish growing area but suffers from seasonal and conditional harvesting closures due to elevated bacteria. Analyzed data to track nonpoint pollution sources and developed report for the Town of Bristol.

Kennebunk River Watershed-Based Management Plan Development (Winter 2019 – Winter 2021). Assisted FBE project manager to develop a nine-element watershed management plan for the Kennebunk River Watershed. Task led to perform pollutant load modelling using a bacteria source calculator to estimate fecal coliform loading in the watershed and the Model My Watershed model to calculate stormwater runoff, sediment, and nutrient loading. Assisted with stream corridor survey and watershed assessment efforts and performed GIS mapping and analysis of environmental conditions within the watershed area. The Kennebunk River is valuable recreational resource, however the river is listed as impaired for elevated indicator bacteria and aquatic life use.

Watchic Lake Watershed Protection Plan and 319 Grant Implementation (Spring 2019 – Present). Task lead for the development of a watershed-based protection plan. Organized existing data and survey methods and assisted with leading a watershed survey and shoreline survey for the study area to assess nonpoint source pollution problems. Calculated pollutant load estimates for identified sites to prioritize best management practice installation. Developed the comprehensive plan to provide guidance on watershed protection.

Broad Cove, Bremen, Risk Assessment Report & Water Quality Monitoring (Summer 2020 – Fall 2021). Task led for the development of risk assessment report for Broad Cove in the town of Bremen, Maine. Broad Cove is a productive shellfish flat that has experienced increasing closures due to elevated fecal coliform. Conducted a watershed and shoreline assessment of the Broad Cove watershed to identify potential pollution sources. Assisted project manager with in-depth review of existing water quality data. Provided short- and long-term action items to improve water quality in Broad Cove.

Medomak River Watershed Management Plan Development (Fall 2017 – Fall 2019). Assisted FBE project manager for a project in Waldoboro, ME to develop a nine-element watershed management plan for the Lower Medomak River. The Medomak River is one of the leading soft-shell clam producers in Maine but has suffered from seasonal and conditional harvesting closures due to elevated bacteria. Performed GIS mapping and analysis of environmental conditions within the watershed area and assisted with planning for database management, monitoring, and restoration efforts.

Best Management Practice Assessment & Design

Watchic Lake Protection Project Implementation, Phase I (Spring 2021 – Fall 2021). Lead technical assistance visits to assess and correct stormwater runoff and erosion control issues on residential properties. Provided best management practice technical design and installation information for all sites to mitigate nonpoint source pollution.

Long Pond Watershed Protection Project, Phase I (Summer 2021). Assisted project manager with assessment of erosion control issues and provided technical design assistance for installation of best management practices.

Marine Industry Outreach and Data Collection

Vertical Line Characterization (Fall 2018 – Spring 2021). In partnership with the Maine Department of Marine Resources, state agencies, and industry associations throughout New England, collected data to understand vertical line use in Gulf of Maine fixed gear fisheries. Worked to gather information directly from fishermen about vertical line configuration, organized collection of vertical line samples to test the breaking strength of the rope, and deployed load cells on fishing vessels to test the strain vertical lines are under during hauling operations. Additionally, assisted with data synthesis to inform management decisions for protection of the North Atlantic right whale.

Time Tension Line Cutter (Spring 2019 – Spring 2021). In partnership with the Maine Department of Marine Resources, Blue Water Concepts, and industry associations throughout New England, facilitated testing of the time tension line cutter to assess the feasibility of the device's use in fixed gear fisheries as a gear modification to reduce entanglement risk for the endangered North Atlantic right whale. Collected and analyzed data to understand time tension line cutter's effect during normal hauling conditions. Facilitated the discussion between fishermen testing device through New England and Blue Water Concepts engineers to address the feasibility of the device as a gear modification.

Elliott Boardman | Ecologist/GIS Specialist



Elliott serves as an Ecologist and GIS Specialist for FB Environmental, providing a wide variety of environmental services with a focus in ecological and geospatial services. At FBE, Elliott performs cartography and GIS analysis and assists with natural resource inventories, herpetological surveys, vernal pool surveys, coastal climate impact and flood risk analysis, ESRI web application development, and desktop land use assessment. Prior to joining FBE, Elliott has participated in research that has provided valuable insight into the effects of climate change on Maine's ecology. During his education at the University of New England (UNE), Elliott acted as the lead student researcher in the Zogg laboratory, where he focused on measuring the effects of climate change on soil respiration and photosynthesis. He has also contributed to research on fall avian migration and has worked as an aquatic invasive removal technician.

TECHNICAL EXPERTISE

- Ecological Services & Monitoring
- Wetland Delineation
- Vernal Pool Surveys
- Natural Resource Inventories
- Habitat Characterization and Assessment
- Coastal Climate Impact Analysis
- Flood Risk Analysis
- ESRI Web Application Creation
- Water Quality & Flow Monitoring
- PFAS Monitoring
- Data Management & Analysis
- Statistical Analyses
- Research Design
- Scientific & Technical Writing

EDUCATION

- B.S., Environmental Science, University of New England (2021)



SELECTED ECOLOGICAL PROJECTS

Wetland Delineation (2021-Present). Uses ecological knowledge to assist in the delineation of wetland and riparian features in support of various projects, notably community solar development. Additionally, provides desktop analysis and technical writing skills to said projects.

- Lincolnville, ME Wetland Delineation: 15 acres
- Starks, ME Wetland Delineation: 51 acres
- Waldoboro, ME Wetland Delineation: 21 acres
- Auburn, ME Wetland Delineation: 8 acres

Vernal Pool Surveys (2021-Present). Identified and inventoried vernal pools across the state of Maine. Pools were surveyed at two time points during the spring breeding season to determine amphibian usage. Notable species and egg masses surveyed for include Wood Frog and Spotted Salamander. Data collected from surveys was used to inform state regulatory decision making.

Herpetological Surveys (2021-Present). Conducted multiple surveys to assess presence of Blandings and Spotted Turtles at potential development sites in Maine. Surveys included deployment and maintenance of traps every 24-hours, as well as the identification and documentation of any species caught in traps.

Natural Resource Inventories (2021-Present). Provides ecological knowledge to identify and evaluate natural resources present within a given property. Resources identified and assessed include vegetation type and density, hydrological features, vernal pools, and wildlife encountered. Properties were characterized based on natural community type per Gawler and Cutko's *Natural Landscapes of Maine* (2018). Served as lead GIS analyst for data collected in field visits.

- MCHT NRI's: Yarmouth (81 acres), Lamoine (117 acres), and Bar Harbor (133 acres)
- Peaks Island Land Preserve Properties (156 acres)

NH Department of Transportation Wetland and Watercourse Delineation (2021-Present). To date, have assisted in 6 wetland-related projects for NHDOT. Said projects vary in scale from assessment of a singular watercourse to delineation of hydrological features within a 4-mile linear survey area. Services provided for each project include wetland and watercourse delineation, and the identification of potential vernal pools, invasive species, and rare plant and animal species.

NH Department of Transportation Stream Crossing Assessments (2021-Present). Performed stream crossing assessments across the state of NH to inform state and federal permitting for culvert and bridge replacement and maintenance. Assessed habitat and geomorphic characteristics such as flood prone width, bankfull width and depth, sinuosity, substrate type, and riparian vegetation.

Coastal and Marine Species Surveys (2021-Present). Provides ecological knowledge and experience to projects requiring inventories of the ecological features within a selected area on behalf of private landowners in support of restoration initiatives. Also provides desktop analysis through GIS and technical writing skills to said projects.

SELECTED GIS ANALYSIS PROJECTS

Gouldsboro Vulnerability Assessment (2021-Present). Identified critical infrastructure, including buildings, roads, and culverts, for the town of Gouldsboro, ME through desktop analysis. Natural features such as wetlands, waterbodies, and watercourses were also identified. An analysis of areas inundated in a variety of sea level rise and flood situations was conducted using available sea level rise scenario data and FEMA flood risk maps. All watersheds within the town were also delineated using GIS. Areas of particular risk to sea level rise and flooding were identified based on amount and area of inundation. Results were reported to the Town of Gouldsboro to inform coastal climate change planning and preparation efforts.

New Hampshire Afterschool Network (NHAN) Out of School Time Program Mapping Web Application (2021-Present). Developed an online mapping application to depict out of school time programs for NHAN. Tasks included creation of layers showing different program types, density of said programs, and context data depicting population change and percent of children in poverty. Web application navigation and data query tools were also created to allow the user to identify and select programs based on specific characteristics, such as grade level served and/or waitlist capacity. This tool is used by NHAN to drive policy and funding around childcare and to assist in well-informed decision making.

Saco-River Corridor Management Plan: Existing Conditions and Land Use Assessment (2021-Present). Identified existing resources and conditions within the Saco and Swift River Corridors through desktop analysis. Specific resources identified include aquifers, farmland soils, ranked habitat, conserved lands, roads, and recreational trails. Created a suite of maps to depict the plethora of resources within the corridors in a concise yet informative and aesthetic manner. Also conducted an analysis of both current and historical land uses using aerial imagery. This data was then used to determine changes in land use within the corridors over a 20-year period. The results of this analysis are being used to inform future planning and management of the Saco and Swift River Corridors.

ADDITIONAL EXPERIENCE

Quantifying the Effects of a Reduced Snowpack on Soil Respiration and Photosynthesis in Southern Maine (2017-Present). Measured the effects of removing snowpack during winter months on soil respiration and photosynthesis using a LI-COR IRGA Sensor. Designed, tested, and applied a variety of new methods to measure soil respiration during winter, while snow accumulation was present. Prepared poster to be presented at the Ecological Society of America annual conference (2020, 2021). Data analysis and presentation of results is ongoing.

Fall Migration Avian Mist Netting (2019). Netted and measured physical attributes of a variety of avian species during fall migration. Data was added to a 12-year dataset and was paired with weather data to explore shifts in avian migration patterns and morphology over this time period.

Aquatic Invasive Plant Removal Technician (2019). Assisted many lakes associations in Maine and New Hampshire with the removal of Milfoil from waterbodies through technical scuba diving. Also conducted lake-wide aquatic invasive surveys.

STEVE WHITMAN, EdD, AICP

Principal Planner & Project Manager



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VOLUNTEER ACTIVITIES

Board of Directors, Mill City Park; December 2018 – Present

Board of Directors, Root to Rise; January 2018 – October 2021

Alternate, Plymouth Planning Board; January 2015 – December 2021

Member, Plymouth Energy Commission; July 2007 – 2017

Board of Directors, Plymouth Area Renewable Energy Initiative; August 2006 – 2017

Board Member, Permaculture Association of the Northeast; March 2016 - 2018

Founding Member, American Planning Association SustainableCommunityPlanning Group; 2008 - Present

Planner of the Year, New Hampshire Planners Association; 2012

Eagle Scout, Boy Scouts of America

EDUCATION

EdD Learning, Leadership and Community.
Plymouth State University, Plymouth, NH; December 2018

M.S. Regional Planning. Concentration: Environmental Policy and Planning
University of Massachusetts, Amherst, MA; May 1998

B.A. Marine Affairs. Concentration: Coastal Zone Management. Minor: Zoology
University of Rhode Island, Kingston, RI; May 1995

Associates Degree: Liberal Arts. Concentration: Math and Science
Dean College, Franklin, MA; May 1993

CERTIFICATIONS

Permaculture Teacher Certification
Central Rocky Mountain Permaculture Institute, Basalt, CO; September 2009

Permaculture Design Certificate
Crystal Waters Ecovillage, Queensland, Australia; May 2008

PROFESSIONAL EXPERIENCE

Planning Consultant. Resilience Planning and Design LLC, Plymouth, NH; January 2014 – Present
Founder and Principal of this New Hampshire based planning, ecological design and education firm providing a range of services to clients with a commitment to a more resilient future.

Sustainability Programs Coordinator & Teaching Lecturer. Plymouth State University, Plymouth, NH; January 2004 – May 2021

Contract staff for the Office of Environmental Sustainability. Currently teaching courses in Environmental Planning, Community Planning, Permaculture and Sustainability in the Social Science Department at the University. Developed and currently offering international field study courses focused on sustainability and permaculture.

Adjunct Professor. Colby Sawyer College, New London, NH; January 2011 – January 2018
Developed and co-taught the College's first Permaculture Design Course. Participants in these courses include Colby students, faculty, and members of the general public. Currently assisting the College with the development of a Community Based Sustainability major, and collaboration on projects in Franklin, NH.

Senior Planner. Jeffrey H. Taylor and Associates, Concord, NH; April 2003 – December 2013
Planning consultant offering facilitation and long range planning services. Projects included design charrettes, climate/energy projects, community and watershed scale master planning, policy audits, and natural resource based planning projects.

Principal Planner. Office of State Planning, Concord, NH; August 1999 – December 2003
Responsibilities included coordination and/or participation in major studies and projects dealing with smart growth land use issues in New Hampshire. Responsibilities also included planning the annual conference and other workshop opportunities for planners in New Hampshire; providing technical advice to municipalities and regional planning staff on land use planning related topics; preparing and coordinating the publication and distribution of technical bulletins; writing, administering, and coordinating contracts.

Regional Planner. Lakes Region Planning Commission, Meredith, NH; December 1997–August 1999
Provided technical planning assistance and workshops to Lakes Region Municipalities and other interested parties. Provided Circuit Rider Planning Assistance to the Town of Northfield, NH on a part-time basis.



ELIZABETH KELLY

Planner & Designer



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VOLUNTEER ACTIVITIES

Secretary. Plymouth
Community Garden. Sept.
2019 - Present.

Committee Member.
Permaculture Association of
the Northeast
2017 - 2021

EDUCATION

M.S. Ecological Design

The Conway School of Landscape Design, Northampton, MA; June 2014

B.S. Interdisciplinary Studies: Sustainability and Ecological Design

Plymouth State University, Plymouth NH; May 2013

SKILLS AND EXPERTISE

- Digital Design: Adobe Creative Suite, Auto CAD
- Regional and Municipal Planning
- Permaculture and Ecological Design
- Community Resiliency
- Natural Resource Planning
- Placemaking

PROFESSIONAL EXPERIENCE

Project Planner. Resilience Planning & Design LLC. Plymouth, NH. July 2017 - Present.

- Develops municipal and regional planning documents for municipalities, coalitions, and non-profit organizations. Relevant project experience includes preparing comprehensive planning documents, open space and land conservation plans, housing studies, economic development plans, and site-level master plans.
- Manage community engagement and outreach processes for a variety of planning projects. Design print and digital outreach materials.
- Author and design layout of planning documents.

Teaching Lecturer. Plymouth State University. Plymouth, NH. February 2018 - May 2021

- Developed and taught curriculum for the following courses: Issues in Sustainability, Community Planning, Intro to Permaculture, and Advanced Permaculture Design.

Planner. Town of Bristol. NH. July 2017 - May 2018.

- Conducted plan review for site plan applications, subdivisions applications, etc.
- Provided technical assistance and support to local land use boards.
- Drafted land use regulations.
- Communicated planning processes and procedures to the public and applicants.
- Applied for and managed grants related to historic preservation and transportation planning.

Planning Technician. Southwest Regional Planning Commission. Keene NH. January 2016 - June 2017.

- Contributed to the authoring and design of numerous regional planning documents.
- Developed complete streets policies and accompanying design guidelines for municipalities.
- Coordinated complete streets demonstration projects in two communities.
- Managed a grant funded regional free bike rack program including outreach, budget management, and fostering relationships with funding recipients.
- Produced graphics, maps, promotional materials, plans, and publications for a variety of projects.



ZAK BROHINSKY

GIS Analyst



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VOLUNTEER ACTIVITIES

President of Board of Directors. Plymouth Area Renewable Energy. Mar. 2019 - Present.

Member of Board of Directors. Plymouth Area Renewable Energy Initiatives. Jan. 2015 - Present.

Advisory Committee. Local Foods Plymouth. May 2013 - Present.

EDUCATION

M.S. Conservation Biology & Planning. University of Massachusetts. Amherst, MA. 2011.

B.S. Cultural Ecology & Sustainability. Plymouth State University. Plymouth, NH. 2009.

ADDITIONAL TRAINING

Professional Certificate. Hazus-MH for Flood. FEMA Software. Emmitsburg, MD. April 2018.

PROFESSIONAL EXPERIENCE

GIS Technician. Resilience Planning & Design LLC. Plymouth NH. June 2019 - Present.

Provide GIS and technical support for planning projects with state, municipal, private and non-profit partners. Prepare maps and imagery, collect, process and analyze project data, and assist with facilitation of GIS and data-related topics during stakeholder engagement.

Adjunct Faculty. Plymouth State University. Plymouth NH. January 2013 - Present.

Develops and teaches undergraduate curriculum in GIS foundations and advanced topics with focus in applied land protection and environmental research projects.

Conservation Mapping & Field Specialist. Squam Lakes Conservation Society. Holderness, NH. July 2013 - Present.

Prepares baseline documents, maps, and all spatial needs related to land conservation transactions and maintains the geographic database for the Squam Lake Watershed.

GIS Specialist. Sobis, Inc. January 2017 - Present.

Provides geospatial and GIS expertise in the field of natural disaster risk management for domestic and international clients.

Contractor. Geolink. Rumney, NH. May 2015 - Present.

Prepares baseline documentation reports as part of land conservation transactions for regional conservation groups in the northeast. Prepare required maps and conduct data collection and field work for certified forestry operations in VT and NH.

Program Coordinator. Plymouth Area Renewable Energy Initiative. September 2011- 2014.

Organized, implemented, and marketed energy efficiency workshops throughout New Hampshire on behalf of state utilities. Acted as liaison between utilities to prioritize workshop locations.

Extension Research Assistant. NH Fish & Game Department. January 2011 - May 2011.

Assisted with the federally endangered Karner blue butterfly recovery plan by prioritizing properties and landowners to focus future conservation efforts.

