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FEATURED PROJECT: South Portland Open Space Plan

FBE and Terrence J. DeWan & Associates (TJDA) will be putting the final touches on the Open Space Plan for the City of South Portland, ME this spring. Over the past year, our project team has worked with a dedicated volunteer committee to develop a plan that brings to life the vision for open space in the City. This vision accounts for **natural resource and habitat protection**, neighborhood connectivity, open space accessibility, the enhancement of **community character**, waterfront access, **health and wellness**, and **climate resiliency**. Using this vision, we developed strategies to protect existing open space, as well as criteria to prioritize the acquisition of future open space.

In addition to the work of the committee, our project team hosted a public forum which included an interactive mapping exercise. The exercise allowed members of the public to identify specific needs within the City for improving the open space network. The public's input is being incorporated into the final plan through a series of neighborhood recommendations and data visualizations. In January of 2019, FBE Project Manager Maggie Burns and TJDA Project Manager Jessica Kimball presented the draft plan to the South Portland City Council to request feedback prior to completion. City Council members provided invaluable comments and were in full support of the plan's goals and strategies. Stay tuned for access to the final plan on our FB Environmental website this spring!



Public forum participants on July 31, 2018.
Photo credit: Jessica Kimball of TJDA.



FBE map showing walking distance (or accessibility) to City parks in South Portland.



Laura Diemer, along with Don Kretchmer and Mike Gelinas, on a river paddle of the Merrymeeting River, NH.



Maggie Burns collecting water samples on the Salmon Falls River, South Berwick, ME.



Parsons Creek outlet following a storm event in Rye, NH.

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RECENT AND ONGOING PROJECTS

Wetlands Work in New Hampshire

FBE recently was awarded another three-year contract with the New Hampshire Department of Transportation (NHDOT) providing wetland delineation and other ecological services work throughout the state. To date, FBE has successfully completed over a dozen small- to large-sized projects under these contracts. This will be our seventh, eighth, and ninth consecutive years delivering these services to the NHDOT.



Kevin Ryan conducting a wetland assessment.

Groundwater Monitoring in Corinna, ME

FBE conducts annual baseline groundwater monitoring per a Maine DEP-approved Environmental Monitoring Plan (EMP) for the closed Phinney Road landfill in the Town of Corinna, ME. The EMP (updated by FBE in 2018) includes water quality sampling of both private residential drinking water wells near the former landfill and installed groundwater monitoring wells at the former landfill. We are helping the Town of Corinna to monitor for changes in groundwater chemistry and continue to keep local drinking water sources safe for consumption.



Rich Brereton and Christine Bunyon recording field measurements from a groundwater monitoring well in Corinna, ME.

FBE WELCOMES NEW STAFF

Maggie Kelly joined FBE as a project assistant in 2018 after graduating from St. Lawrence University with a bachelor's degree in Conservation Biology. Maggie assists project managers with scientific literature reviews and field work for our monitoring projects. She worked previously for Squam Lakes Association as a conservation intern, monitoring water quality and removing aquatic invasive species identified during her lake dive surveys. As an undergraduate, Maggie worked at the St. Lawrence University marine ecology lab and biology preparatory lab and studied marine ecology through the Williams-Mystic Marine Studies Program.



FBE conducted a natural resource inventory for the Kennebunk Land Trust at Hope Woods in Kennebunk, ME.

PROJECT UPDATES

Vertical Line Characterization to Help Protect Endangered Right Whale

To help protect North Atlantic right whales, FBE's Forrest Bell and Caitlin Cleaver have teamed up with project partners to gather data that will help inform proposed future regulations. FBE and project partners have:

- Collected numerous vertical lines to test their breaking strength.
- Deployed 15 load cells to test vertical line strain on fishermen's vessels.
- Completed nearly 1,000 phone and online surveys of New England fishermen related to their vertical lines and trap configurations.

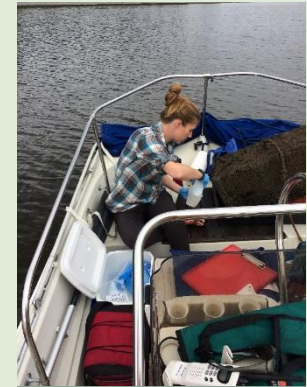
FBE staff are working to summarize project findings and develop a database of vertical line use for modeling purposes. This will help inform the Atlantic Large Whale Take Reduction Team meeting this spring when a set of new regulatory measures to protect right whales will be discussed.

The Upper Saco River Aquifer Project

FBE is excited to share that the Town of Hart's Location, NH is planning to vote on a groundwater protection ordinance as a result of FBE and the Upper Saco Valley Land Trust's (USVLT) collaborative work evaluating groundwater protection for the Upper Saco Valley Drift Aquifer. Through this collaboration, FBE worked with the town's "ecosystem approach" to protect its water resources by conducting an ordinance review and survey of potential contamination threats to the Upper Saco Valley Drift Aquifer.

FBE's Ecological Services Division and the Eastern Spadefoot Toad

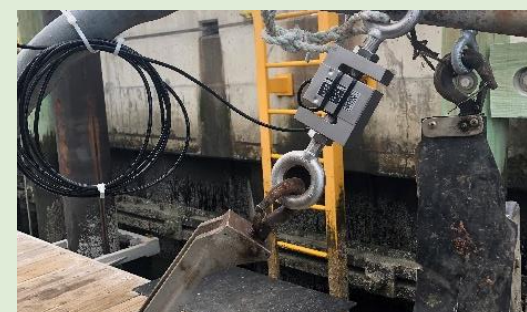
FBE Ecological Services Division lead Kevin Ryan conducted surveys for the eastern spadefoot toad (*Scaphiopus holbrookii*) in Connecticut in 2018. The eastern spadefoot toad is one of New England's rarest amphibians and is listed as Endangered by the State of Connecticut. The eastern spadefoot is a desert amphibian believed to have evolved in the arid southwestern United States and northern Mexico. As such, they retain some of their desert-adapted characteristics. These include explosive breeding and rapid larval development during heavy rains from March through October. Eggs can hatch in only a few days, and it can take a mere two weeks for a tadpole to transform into a juvenile!



Amanda Gavin
collecting water quality
samples in Spruce
Creek in Kittery, ME.



FBE deployed an
automated sampler in
Sagamore Creek in
Portsmouth, NH.



An example of a load cell setup to test
vertical line strain on fishermen's vessels.



View of the Saco River headwater
landscape, NH. Photo credit: Emily Greene



The eastern spadefoot toad.
Photo credit: Dennis Quinn.

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A NOTE FROM FBE'S OWNER

"I would like to extend a warm thank you to all our staff, clients, and project partners that helped make 2018 our most successful year in our 17 years in business. We strive to provide excellent work products, and we are grateful to be able to add more quality staff to address a growing book of business. We anticipate an exciting 2019 and we are pleased to have added a new division – **the marine sciences division** – which is undertaking a diverse array of work, including vertical line testing with lobstermen, dive surveying, fishery workshop facilitation, and monitoring and permitting assistance for the aquaculture industry." - **Forrest Bell**



FBE gathered with friends and family at Bayside Bowl in Portland to celebrate the end of another great year.

RECENT & UPCOMING PRESENTATIONS

Right Whale Consortium Annual Meeting

- Project Manager Caitlin Cleaver and DMR's Erin Summers presented preliminary results of vertical line characterization in New Bedford, MA.

Saco River Watershed Collaborative Annual Meeting

- Project Manager Rich Brereton presented at the University of New England on the work FBE has completed for the Upper Saco Valley Land Trust.

2019 Maine Fishermen's Forum

- Project Manager Caitlin Cleaver will present results from a year-long study monitoring the survival of the Atlantic sea scallop in lantern nets in Penobscot Bay on 3/2/19 in Rockport, ME.

2019 NH Water & Watershed Conference

- Project Managers Laura Diemer and Maggie Burns will each be giving presentations on 3/15/19 at Plymouth State University in Plymouth, NH.

2019 Maine Sustainability & Water Conference

- Project Manager Maggie Burns and Project Scientist Amanda Gavin will be co-presenting on 3/28/19 at the Augusta Civic Center in Augusta, ME.

2019 Beaches Conference

- Project Managers Caitlin Cleaver and Maggie Burns will each be giving presentations on 6/14/19 at the Kittery Community Center in Kittery, ME.

STAFF UPDATES

- **Kevin Ryan** competed in the Rangeley (ME) Fat Bike Loppet on January 27th and came in fourth in his class.
- **Caitlin Cleaver** and her husband, Kristofer, purchased a 32' Mitchell Cove lobster boat; Kris plans to start lobstering in Casco Bay in the spring of 2019. They plan on renaming the boat from *No Problem* to their daughter's name, *Iva Jean*.
- **Maggie Burns** is pursuing a Stormwater Management Certificate through UNH's Professional Development Program.
- **Amanda Gavin** bought her first home in South Portland, Maine.
- **Christine Bunyon** is on her way to hike all 48 mountains over 4,000 feet in New Hampshire - ending 2018 with 15 summits.



Kevin competed in the Fat Bike Loppet Race in Rangeley, ME.



Cait's husband Kris' new 32' Mitchell Cove lobster boat.



Christine on the snowy summit of Mount Moosilauke, NH.

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