



# FB ENVIRONMENTAL E-NEWS

**June 2020**  
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## Dear Clients and Friends,

This has been a challenging spring for everyone, to say the least. The COVID-19 crisis has generated uncertainty for both the present and future in all aspects of our lives. As an essential business, FB Environmental has been fortunate to remain busy (while working remotely) during this time.

We continue to be greatly impacted by the horrific acts of violence committed against Black lives and communities of color. Moving forward, we pledge to acknowledge and work to help dismantle the insidious ways in which racism exerts its power in our society. We will also work to help undo the environmental injustices that are intertwined with racism.

I believe that this is a great opportunity to pause and reflect on how we can all unite to help influence positive change locally and globally. As we approach our 20<sup>th</sup> year in business, I look forward to continuing our thoughtful and meaningful collaborations with all of you to help build more resilient connections between natural and human communities.

Sincerely, **Forrest Bell** – FBE Owner

## LAND AND WATER PERMITTING DIVISION LAUNCH!

FBE now supports land and water permitting projects in Maine and across New England. Navigating the permitting process requires a thorough understanding of all applicable regulatory triggers, ranging from local ordinances to state and federal requirements. FBE's experienced staff conduct agency consultation, assist with site design, perform environmental due diligence, and support overall permit development. FBE is currently working in Maine on projects triggering the Site Location of Development Act, the Natural Resources Protection Act, Maine Stormwater Management Law, and US Army Corps Section 404 authority. In addition, FBE has experience with Massachusetts Wetland Protection Act filings and the municipal site review process. FBE's ecologists and wetland scientists conduct wetland delineations, vernal pool surveys, and wildlife- and plant-specific surveys in support of these environmental permits.



On March 13, 2020, FB Environmental's beloved canine friend passed away. Fritz spent hundreds of days with us in the field or at our Portland office. He will truly be missed – thank you Kevin Ryan and Amanda Devine for sharing him with us. Our 2020 field season has been dedicated to Fritz.

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## FEATURED PROJECT: THE PALMER RIVER WATERSHED

### FBE Completes the Palmer River Project with the US EPA

FBE, in collaboration with Horsley Witten Group (HWG), state environmental agencies, and the US EPA Region 1, completed an analysis to better understand the status of water quality in the Palmer River watershed, located in Rehoboth, Seekonk, and Swansea, MA and Barrington and Warren, RI. The analysis included an assessment of water quality status and trends in the context of land cover change and agricultural best management practice (BMP) installation in the watershed. The project (1) developed recommendations for use of an innovative microbial DNA microarray (PhyloChip) method to identify fecal sources in other regional watersheds in the Southeast New England Program (SNEP); (2) analyzed water quality trends in the Palmer River watershed using existing water quality data and PhyloChip results, geospatial information, and summary papers and determined the efficacy of agricultural BMPs; and (3) assessed the impact of changing land use in the Palmer River watershed and provided municipal land use regulation recommendations for reducing the impacts of land development on water quality.



FBE and HWG will be presenting the results of this important project at the New England Interstate Water Pollution Control Commission (NEIWPCC) NPS Stormwater Conference in Vermont, which has been postponed to 2021 due to the COVID-19 crisis.

## FBE WELCOMES NEW STAFF

Cameron Twombly joined FB Environmental in March of 2020. He has a B.S. in Environmental Science from the University of New Hampshire and a M.S. in Civil and Environmental Engineering from the University of Vermont. Cameron's Master's degree focused on designing agroecosystems that protect water quality. His work evaluated the effectiveness of commonly used agricultural Best Management Practices (BMPs) and hydrologic models. Cameron has experience in water quality monitoring, agricultural hydrology, and green stormwater infrastructure. At FBE, Cameron assists with field work, management of project tasks, technical and permit writing, and engineering work such as BMP installation oversight.



Rich collecting water quality data along the Salmon Falls River in South Berwick, ME.



Christine received her New Hampshire Safe Boating Certificate!



Amelie measuring pH in Sagamore Creek, Portsmouth, NH.

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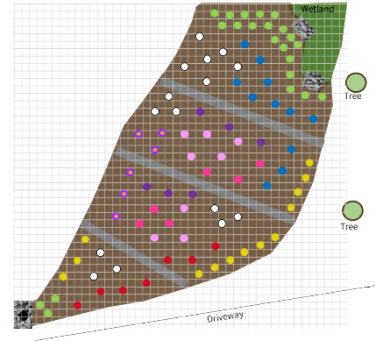
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## PROJECT ANNOUNCEMENTS & UPDATES

### Restoring Pleasant Lake: A Stormwater Education and Improvement Project

FBE assisted the Pleasant Lake Preservation Association with completing technical assessments of shoreline residential properties around Pleasant Lake. FBE walked each property with the landowner(s) to identify where stormwater concentrates and flows from each property to the lake. FBE developed detailed reports for each property that included conceptual designs, plant and material lists and costs from local vendors, step-by-step installation instructions or references, and any necessary permit application content. Following landowner review and approval, FBE assisted landowners with submitting permit applications and answered any questions during the implementation phase, which was the responsibility of the landowners. FBE will continue to work with the remaining landowners to install the recommended stormwater improvements in summer 2020.



Aerial diagram (top left) with conceptual (top right) and installed (bottom) design of a vegetated swale with check dams for a residential property on Pleasant Lake, NH.

### Solar Development Assistance Update

Staff from FB Environmental's Ecological Services Division and newly created Land & Water Permitting Division have been busy supporting solar development projects throughout New England. Sited and developed responsibly, solar energy offers many environmental and economic benefits in our home region. In 2019, the Maine legislature passed a series of measures to encourage solar energy development at the residential, commercial, and municipal scales. These policies, coupled with state incentives for landowners, have attracted numerous solar companies to Maine. FB Environmental is playing a key role in solar projects by ensuring natural resources are adequately considered when planning the physical layout of solar projects at individual sites. The Ecological Services Division has been conducting wetland delineations, vernal pool surveys, and herpetological inventories and providing input on how best to conserve these resources on a project-specific basis. Land & Water Permitting Division staff are assisting with multiple solar projects and guiding clients through the natural resource permitting process.



Photo of a solar field by Revision Energy at Eastman's Farm, NH.

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## FB ENVIRONMENTAL IN THE COMMUNITY

### New England Right Whale Consortium (Nov 2019)

- Project Manager Amanda Gavin and Erin Summers (Maine DMR) presented findings from the functional breaking strength of vertical lines in the Gulf of Maine study.

### Watershed Water Quality Management at the University of New Hampshire (Nov 2019)

- Project Manager Laura Diemer and Project Scientist Christine Bunyon were invited to give a guest lecture on watershed management planning in action.

### Maine Stormwater Conference (Dec 2019)

- Owner and Principal Scientist Forrest Bell presented with Doug Roncarati, City of Portland, on the Protection and Restoration of Dole Brook in Portland, ME.
- Project Manager Margaret Mills presented with Phil Ruck, P.E. Stillwater Environmental Engineering, on *Identifying Candidate Sites for Low Impact Development along Kennedy Brook in Presque Isle, ME.*

### Maine Lake Researcher's Retreat (Jan 2020)

- Project Manager Amanda Gavin presented on *The Impacts of Dissolved Organic Carbon Quality and Quantity on Cold Water Refugia.*

### Wildlife Ecology at the University of Maine, Orono (Spring 2020)

- Project Manager Amanda Gavin has been teaching a course on Wildlife Ecology at the University of Maine, Orono.

### Moultonborough Bay and Winter Harbor Project Meeting (April 2020)

- Owner and Principal Scientist Forrest Bell and Project Managers Laura Diemer and Margaret Mills conducted a virtual presentation on the *Moultonborough Bay and Winter Harbor Watershed Based Management Plan Development: Lake Loading Response Model, Buildout, and Water Quality Goals.*

## STAFF UPDATES

- **Amanda Gavin** will be joining the Board of Directors for the Maine Lakes Society.
- **Kevin Ryan** bought a new house in southern Maine.
- **Cayce Dalton** and his wife Maria welcomed their first child, James, in November 2020.
- **Deb Mayo** celebrated the birth of her third grandchild, Mya James, on June 4, 2020, weighing in at 8 pounds 4 oz and 19.5 inches long.



FBE celebrated its staff during a lunch in December overlooking the Portland Harbor.



Maggie Kelly and Zepelin in the field.



Laura measuring the area for a BMP installation within the Spofford Lake watershed, NH.



Amanda collecting lake data in Downeast Maine.



Congratulations Cayce and Maria!



Congratulations to the Mayo Family!

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