



The Newsletter of Friends of Merrymeeting Bay • PO Box 233 • Richmond Maine 04357 • 207-666-1118 • [www.fomb.org](http://www.fomb.org)

Friends of Merrymeeting Bay (FOMB) is a 501(c)(3) nonprofit organization. Our mission is to preserve, protect, and improve the unique ecosystems of the Bay through:

## Education

## Conservation & Stewardship

## Research & Advocacy

## Member Events

Support comes from members' tax-deductible donations and gifts.

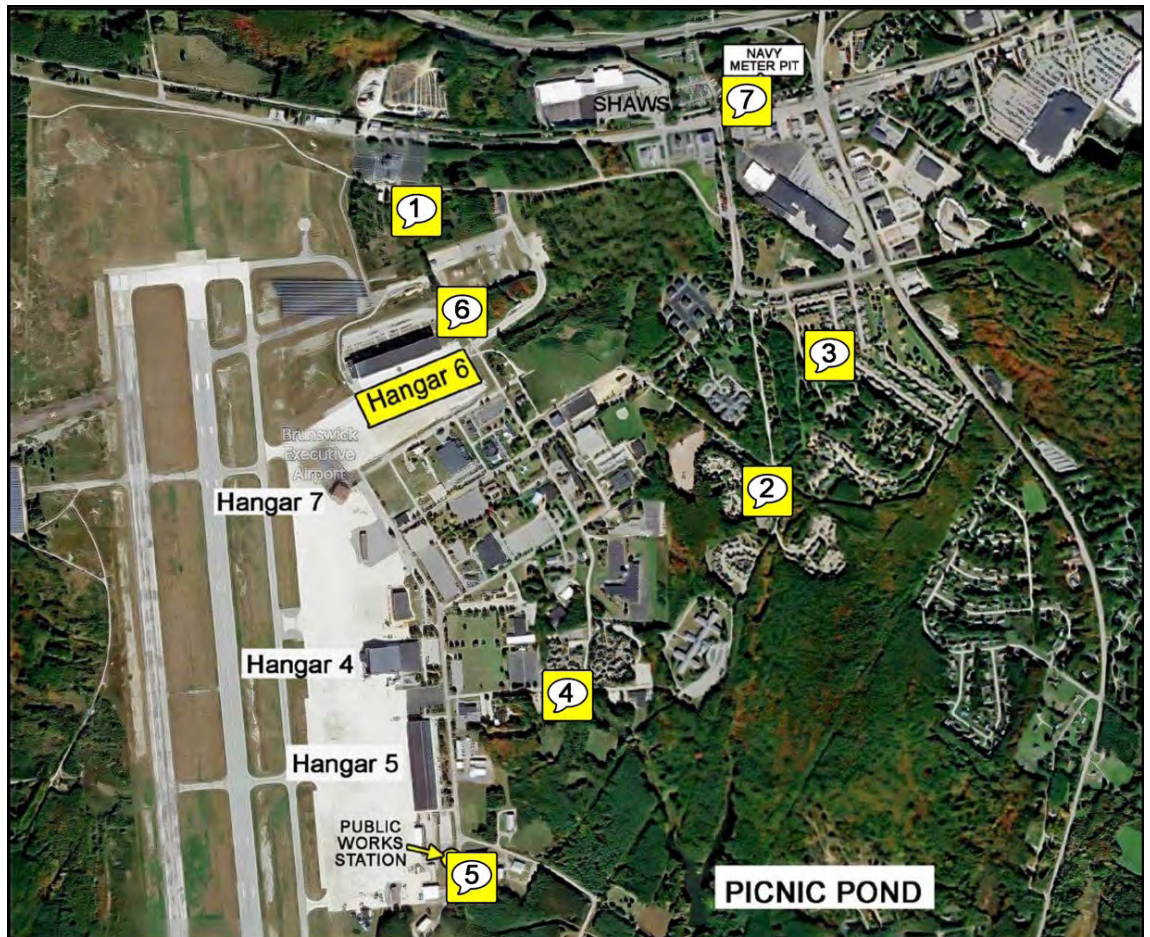
Merrymeeting News is published seasonally and is sent to FOMB members and other friends of the Bay. Article hyperlinks and color images are available in our [online edition](http://www.fomb.org) at [www.fomb.org](http://www.fomb.org)

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## Tracing PFAS Inputs to Brunswick Sewer District

Over the last year Friends of Merrymeeting Bay (FOMB) has been working with the Brunswick Sewer District (BSD) to sample outfalls and sanitary system pumping stations in the Brunswick area for PFAS. Ultimately, BSD discharges treated wastewater into the Androscoggin River from an outfall off the Bike Path. As part of this work, FOMB and the BSD engaged in a methodology validation exercise using different labs to analyze the same samples.<sup>1</sup> (See [Merrymeeting News, Summer, 2022 pp.6-7](#)). The result was that the Cyclopure PFAS analytical method used routinely by FOMB was found to give results comparable to those from approved certified labs used by state and federal agencies. Cyclopure uses the same quantification methods as certified laboratories. It is more rapid and less costly because the water sample is passed through a PFAS-absorbing resin in



BSD Pumping Stations Sampled

- 1. Martin's Point
- 2. Woodland
- 3. Mariner

- 4. Theater
- 5. Public Works
- 6. Hangar 6

- 7. Navy Meter Pit



<sup>1</sup> <http://cybrary.fomb.org/pages/PFAS%20R&A/The%20Wild%20West%20of%20PFAS%20Testing-A%20Lab%20Comparison%20Study.%20FOMB%209-19-22.pdf>

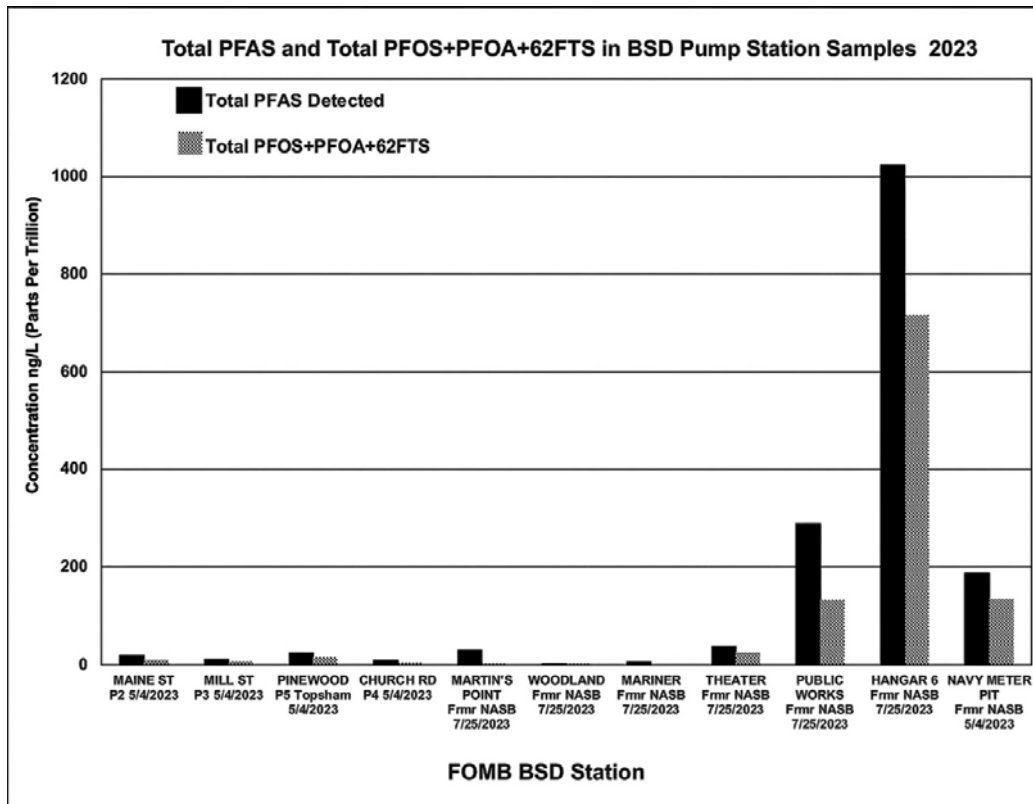
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*Tracing PFAS Inputs to Brunswick Sewer District continued from page 1*

the field which is then easily shipped to the lab. This avoids the need to handle and ship bottled water samples. It is a useful and cost-effective PFAS screening tool and detects 55 PFAS species.

Recent pump station effluent sampling done by FOMB and BSD found generally low PFAS levels except for three PFAS hotspots associated with the former Brunswick Naval Air Station (see Station Map above)<sup>2</sup>. (On 5/4/2023<sup>3</sup> the five major BSD stations of approximately 30 were sampled, and on 7/25/23<sup>4</sup>, tracing the highest inputs back, five stations on the former air station were sampled.)

The most concerning of these is Hangar 6 at the Brunswick Executive Airport (see graph below). The effluent sample from the BSD pumping station associated with and adjacent to Hangar 6, showed a total of 1024 ng/L total PFAS, 459 ng/L 6:2FTS, and 246 ng/L PFOS. This indicates release of aqueous film forming foam (AFFF) fire retardant within the hangar at some point because the floor drains in all the hangars are connected to the BSD sanitary sewer system. It is known from MEDEP 2020 data that Hangar 6 contains AFFF tanks with a mixture of older PFOS-based AFFF and newer 6:2FTS-based AFFF. Initial test results indicate that there is or was some sort of AFFF management issue regarding leakage or disposal in the hangar.



These tank and pump station levels are concerning because the eventual disposal of PFAS-based AFFF material in Hangar 6 will be more complicated due to high levels of PFOS in a product that should be PFOS-free. Since PFOS will be placed on the CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) Superfund list, we should know what is really in the AFFF tanks at the Brunswick Executive Airport, if it is still finding its way into the BSD wastewater system, and, if so, how.

*Ed Friedman*

2 This is consistent with a [prior study by FOMB](#), where 30 stations on the Androscoggin and Kennebec Rivers were sampled for PFAS (see [Merrymeeting News, Fall 2022](#)). Drainage from the former NASB formed a PFAS Hotspot.

3 <http://cybrary.fomb.org/pages/PFAS%20R&A/FOMB%20BSD%20Pump%20Station%20PFAS%20Results%20Data%20Excel%205-4-23.xlsx>

4 <http://cybrary.fomb.org/pages/PFAS%20R&A/FOMB%20BNAS%20Pump%20Station%20PFAS%20Results%20Data%20Excel%207-25-23.xlsx>



## Bay Day is Back!

Tuesday, September 26 was a spectacularly sunny one, perfect for “The Return of Fall Bay Day!” Not since the COVID pandemic began did we feel it safe enough for all parties; students and volunteers, to gather outside for a fun-filled, hands-on, muddy day of learning about what makes Merrymeeting Bay special. But Tuesday was the day and, boy, was everybody ready! Fall Bay Day came back with a vengeance.



Archaeology  
Photo: Ed Friedman

Some 230 4th graders from seven communities—Georgetown, Brunswick, Topsham, Bowdoinham, Bowdoin, Pittston/Randolph, and North Yarmouth—gathered in Bowdoinham’s Merrymeeting Bay Wildlife Management Area and, with the help of our approximately 60 volunteer guides and chaperones, each student enjoyed three of the 21 environmental workshops we offered.

Workshops included: Beach Seining, Anadromous Fish Printing, Pollinators, Fly Casting, Environmental Art, Tree Walk, Macroinvertebrates, Conservation K-9s, Observational Ecology, Archaeology, Native American Dwellings, Watershed Modeling, Nonpoint Source Pollution, Insect Ecology, Where’s Our Poop Go?, and more.

Organizing Bay Days are a bit like organizing D-Days. We cannot offer these great opportunities to reconnect with nature without a ton of volunteers. **Many thanks to all the volunteers below.**

## Guides

Ernie Bergeron, Bryan Chonko, Roy Morejon, Sarah Mitchell, Devi Martinez, Leslie Anderson, Will Blocher, Fred Koerber, Becca Peixotto, Jason Bartlett, Anthony Holzhauser, Shannon Nelligan, Nate Gray, Jason Prout, Kent Cooper, Eric Ham, Bert Singer, Brian Quirion, Steve Musica, Dick Brown, Kathi McCue, John Evanishyn, Laura Craver-Rogers, Elise Smorzewski, Melissa Sweet, Charlie Spies, Will Broussard, Julia Kemnitz, Bonnie Turek, Gracie Ballou, Raquel Miller, Peggy Muir, Betsy Steen, and Erik Walling.

## Chaperones

Mike Jouver, Jennifer Nicholson, Dan Munsey, Phil Brzozowski, Becky Bowes, Julie and Jim Rea, Pam Hanson, Mike Curran, Adele Morgan, Andrew Fiori, Tina Phillips, Margaret Williams, Ann Hartzler, Linda Hornbeck, Jane Frost, Eleanor Holmes Wilson, Kennon Wilson, Carole Sargent, Kerry Collins, Matt Densmore and, Brandon Elwell.

## Special thanks

Everyone knows this was an unusually wet summer and fully expecting there was a good chance we might have some stuck school buses, we came prepared. Thanks to **Nate Gray** for his commercial duty tow straps and towing expertise and to the **bus drivers** who worked with us to pull out their stuck partners.

**Brunswick Sewage District** participated for the first time supplying three workshop guides and five chaperones. Thank you!

FOMB Volunteers **Sarah Findley** and **Susan Chase** thankfully ran our lunch tables, serving up great fare from **Wild Oats!** Thank you for the service and the grub!

A number of state and federal agencies supplied volunteer guides—**DEP, DMR, IF&W, DOT, and USFWS**. Other guides were associated with the **Maine Master Naturalist Program, Trout Unlimited** and **NAVHDA**.

Thanks to **IF&W Regional Biologist Keel Kemper** for allowing us use of the property!

## Bay Day Appreciation

*“Thank you once again for an amazing day!!! We had a great time with all of the activities in both of our classes. You have created many happy memories and appreciation for the bay. Thank you from the bottom of my heart.” - Teacher.*

*Dear FOMB, Thank you for having us! I liked to play with mud. And I liked to learn about trees. And the game we played when we were learning about bugs. And it was cool that you had them in clear cases so we could see them! Thank you again for having us! - Student*

*“Christine and her students bolstered my optimism for the future. To say they exceeded my expectations for the day is an understatement.” - Chaperone*

*Dear Friends of Bay Day, Thank you for The Field trip. I liked the black dog. I threw the ball. I liked building with the sticks. I learned about clean water. I had fun! - Student*

*“That was a feat of logistics (and vehicle challenges!), but in the end the kids had a great day. I appreciate all the details that went into yesterday, including a delicious lunch. One girl on our BUGS ALL AROUND! scavenger hunt said, ‘I never liked bugs before but I love this!’ There was a lot of value on many levels in Bay Day!” - First Time Presenter*

*Dear FOMB, Thank you for the invitation. And the dog and bird thing was really cool. Finally, making the nest was the coolest! - Student*

*“I was so glad to (finally) be part of Bay Day!! What a great, great event you organize and the huge amount of work you do is evident. Great planning, spacing, materials, info to presenters, site prep, signs, maps, food! Simply amazing. Bravo! The range of presenters is just great - loved the participation of the Sewer District especially! Will was next to us teaching binocular use! Presenters of all ages! I think the kids sensed how many ways you can enter environmental work. And enjoyable too. Three sessions was the perfect amount of time and teaming with Betsy fabulous (as two spry elders we know our limits). Loved the full range of ages of presenters. I brought a chair and think you might consider offering them in the first stages of organization or suggesting people bring them even those that move. I would very much like to be part of Bay Day next September (already have an art project in mind)! I am not sure of my spring plans re the Chops event. Thanks for all you do to create a superlative event!” - Presenter*

*Dear FOMB, Thank you for inviting us. I'm pretty sure everybody loved it. My favorite you had was the one where you find old plates and other stuff. And I really liked the pollination and the animal rescue thing too!!! - Student*

*“Thank YOU. For the incredible job you did of organizing so well the many moving parts of Bay Day! And you are able to bring so many talented people together who are willing to donate their time and talent. I am so appreciative of what you give to protect the bay and the great love you have for this special place.” - Chaperone*

*Dear FOMB- Thank you again for inviting us to Bay Day this year. I also thank the volunteers for being so kind and friendly. My favorite activity was sculpting Merrymeeting Bay out of mud! - Student*

*“Bay Day could not have been better! Major kudos for your hard work!” - Chaperone*

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*“I don't think this card or any card could hold the amount of ‘Thank Yous’ that should be coming to you!!! Your beautiful ‘Bay Day’ was absolutely WONDERFUL!!!!!! I personally thank you for your kind invitation for me to lend a hand. Even with the school bus ‘hiccups’, everything turned out great. You definitely had folks pitching in to help. Thank you again FOMB!” - Lunch helper*

*Dear FOMB, Thank you for inviting us. I loved building the bird's nests. It was one of the best places that I have ever been! - Student*



Nest building  
Photo: Christine Egan



## *A Bay Day Perspective*

*The note below (slightly edited) was sent to Regional Biologist Keel Kemper and several other Inland Fisheries & Wildlife personnel including the Commissioner.*

Hello Keel and everyone else,

I just wanted to share with you an update about the Bay Day that I was a part of last week down at the Merrymeeting Bay WMA in Bowdoinham. I am copying Judy, Ron, and Emily on this as well because I feel it was a great event that we could do a little more at for outreach and staff presence. Especially since many kids were getting inspired for future careers. The local sewer company was saying they had kids wanting to apply that day. 😊

So this event, which is put on annually by the Merrymeeting Bay Friends group for over 20 years, is just a phenomenal program for the area 4th graders. The group organizes the whole thing, and often visits participating schools with wildlife materials before and sometimes after as well.



**Beach seining**  
Photo: Christine Egan

Having this event at the WMA is a great location with the diversity of habitat and relative ease of access. Of course this year the mud made it a little more challenging, but we made it work. This group of dedicated volunteers organizes a fall field day with different stations around the property with many organizations and volunteers hosting different educational activities. Some of these included shoreline seining and understanding fish migration, fly casting (in the field), bird dog and conservation dog demonstrations, watershed lessons, bird nest construction, pollinator walk, nature journaling, bird watching, wildlife walk, sewer water treatment and water quality, geology, archaeology with indigenous studies, and so much more.

There were hundreds of 4th graders from several area schools and they were broken into smaller teams to rotate through a few different stations. Each team had a volunteer who helped guide the rotation of students, school staff, and chaperones. It was a great day.

I organized a couple areas and recruited some Maine Master Naturalists (MMN), whom I met through my training workshops, to coordinate teaching insect ecology while I taught wildlife signs and led wildlife walks. I loaned them educational materials, helped them set-up some activities from Project Wild, and it went splendid. One of them made the most beautiful insect scavenger hunt/bingo card as well (attached), and she said we could add it to our website for an educational resource as well. She even included our new state butterfly. Then these MMNs recruited a couple more MMNs to teach nature journaling. It is so great to work with the Maine Master Naturalist Program. I then also connected with Will Broussard the day of the event, who was leading the bird walks, and loaned him our educational binoculars for his student's use.

Overall it was a great day, well attended, and all volunteers, students, teachers, and fellow SOM employees were reaching out and connecting. There were several people there from DOT, DMR, DEP, USFWS, and a few others I can't recall at the moment. I am hoping next year we can have another station or two manned by IFW staff. I am thinking someone from Ron's area and maybe someone from Warden Service. Keel's team and FOMB helped to prepare the location to make sure it was good for the WMA as well as this program.

Thank you Keel, for connecting me to this wonderful program. I am looking forward to being a part of this annually.



**Watershed modeling**  
Photo: Rebecca Bowes

## Milltown Dam Removal

In 2011 and 2012 FOMB played a vital role in restoration of the St. Croix River on the Maine/Canada border. In 1995 the Maine legislature passed a law prohibiting river herring (alewives and blueback herring) from ascending the river past the Grand Falls dam, third on the river and the dam blocking virtually all key herring habitat. This was achieved by installing a low barrier at the fishway entrance to block herring but allow any salmon to jump over.

After years of unsuccessful international attempts to remove this, FOMB, Doug Watts, and Kathleen McGee filed a couple of lawsuits, first against the Departments of Marine Resources and then against the EPA, claiming this fish barrier violated the Clean Water Act (CWA). Our efforts resulted in a letter from the EPA to the Maine Attorney General, putting the AG on notice that Maine was in fact violating the CWA.

Following this, legislation was amended to reopen the fishway and restoration has ensued at a remarkable pace since. In 2023, 841,357 river herring and 675 shad passed the Milltown dam fish-counting facility, whereas by 2002 river herring had declined to 900 in a river that once supported the largest river herring fishery on the east coast.



(Top and right) Milltown dam structures coming down  
Photos: CHCO TV

Milltown dam, first on the river, was built in 1881 and was one of the oldest hydro dams in existence. It crosses the river just above Calais and St. Stephen. Now owned by New Brunswick Power, the dam was generating only .84% of provincial power and a decision was made to remove it.

Removal will open 15 km of free-flowing river to Woodland dam, which will become the first dam on the river, and reduces, by one third, the obstacles to migrating fish trying to reach prime spawning habitat.

Decommissioning began this year and is expected to be completed in spring of 2024. In the images from [CHCO TV on 10/10/23](#) you can see the mill buildings being demolished. On the next page you can see before and after images of the intact dam in 2012 and the dam during demolition in 2023.



*Continued on next page*



Milltown Dam Removal continued from page 6



Dam before removal  
Photo: Point of View Helicopter Services



Dam removal in process  
Photo: CHCO TV

Ed Friedman

# WE NEED YOU! PLEASE SUPPORT OUR IMPORTANT WORK

## FOMB Leadership

Our accomplishments are due to the hard work of dedicated volunteers, especially those who serve on our committees. If you want to get involved and serve, please contact the committee chair or Ed Friedman. We always welcome member input and we'd love for you to join us!

### Steering Committee

- Ed Friedman, Chair (Bowdoinham)
- Vance Stephenson, Treasurer (Beavercreek, OH)
- Tom Walling, Secretary (Bowdoinham)
- Simon Beirne (Gardiner)
- Becky Bowes (Brunswick)
- Phil Brzozowski (Brunswick)
- Nate Gray (Vassalboro)

### Education Committee

- Betsy Steen, Co-Chair, 666-3468
- Tom Walling, Co-Chair, 666-5837

### Conservation and Stewardship Committee

Chair Vacancy

### Membership and Fundraising Committee

Nate Gray, Chair, 446-8870

### Research and Advocacy Committee

Ed Friedman, Chair, 666-3372

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### Membership Levels

- \$1,000+ Sturgeon
- \$750 American Eel
- \$500 Wild Salmon
- \$250 Striped Bass
- \$100 Shad
- \$50 Alewife
- \$20 Smelt
- Other

\$7 Enclosed (optional) for a copy of Conservation Options: A Guide for Maine Land Owners [\$5 for book, \$2 for postage].

Name \_\_\_\_\_

Address \_\_\_\_\_

Town/State/Zip \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

- Renewal
- New Member
- Send information about volunteer opportunities
- I would like a sticker



Thanks to Rebecca Bowes for newsletter layout.



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## *A Beautiful Day in the (Androscoggin) Neighborhood!*



Photo: Chris Gutscher, 10/12/2023