Friends of Casco Bay
Casco BAYKEEPER

February 26, 2025
Environment and Natural Resources Committee
Maine State Legislature
Cross Building, Room 216
Augusta, Maine
ENR@legislature.maine.gov

Re: ***Friends of Casco Bay's (FOCB) Testimony in Support of LD 222****- An Act to Establish a Take-back and Disposal Program for Firefighting and Fire-suppressing Foam to Which Perfluoroalkyl and Polyfluoroalkyl Substances Have Been Added,* ***LD 400****-Resolve, Directing the Department of Public Safety, Office of the State Fire Marshal to Compile a Statewide Inventory of Aqueous Film-forming Foam Concentrate,* ***and LD 407****-An Act to Prohibit the Use of Aqueous Film-forming Foam at the Former Brunswick Naval Air Station*

Dear Senator Tepler, Representative Doudera, and Distinguished Members of the Environment and Natural Resources Committee,

Please accept Friends of Casco Bay's (FOCB) testimony in support of LD 222, 400 and 407 and vote that these bills OUGHT TO PASS. These bills offer a common sense approach to prevent further accidental spills of Aqueous Film Forming Foam (AFFF), which contains PFAS, into Maine's environment. PFAS persists in the environment, poses serious health risks to humans, and creates lesser known but potentially serious risks to aquatic life, including to Maine's valuable marine fisheries.

For over 35 years, FOCB has worked to improve and protect the health of Casco Bay. We monitor water quality and conduct studies to understand the impacts of contaminants. The equipment and methods we use to collect data have been approved by the US Environmental Protection Agency (EPA) and Maine Department of Environmental Protection (DEP). That means our data may be relied upon and used for regulatory and policy-making purposes.

You will hear strong testimony supporting LD 222, 400 and 407 from many perspectives. We will confine our testimony to the data we collected that support passing these bills.

PFAS in Casco Bay Before Brunswick Spill

Four years ago, FOCB began studying whether PFAS posed a threat to Casco Bay. We reviewed data collected by DEP, wastewater treatment plants, and others in our watershed. We learned that no data existed about the overall presence of PFAS in the Bay and potential sources of PFAS to the Bay. Without that data, it would be virtually impossible to set water quality criteria to protect human and marine life.

In 2023, we worked with Bigelow Laboratory for Ocean Sciences (Bigelow) to collect water samples at 18 of our seasonal monitoring sites. (We have sites around the Bay where we have monitored water quality for over 25 years.) Bigelow analyzed those water samples for 40 PFAS compounds. At every site, Bigelow detected PFAS, including the sites at the outer reaches of the Bay with significant oceanic influence. The highest detected levels were near the former Brunswick Naval Air Station (BNAS), property now owned or leased by Midcoast Regional Redevelopment Authority (MRRA) and known as the Brunswick Executive Airport.

Based on the 2023 study, Bigelow and FOCB teamed up and developed a study for 2024-2025, designed to trace potential PFAS sources from the lower watershed into Casco Bay. Bigelow set up an EPA-approved lab and developed EPA-approved methodology for collecting the data to ensure we did not contaminate samples with other PFAS. All field staff received training and wore PFAS-free clothing and products. With input from a diverse and expert advisory committee, we selected 81 sites to monitor, including sites designed to better understand PFAS contamination attributable to the former BNAS/Brunswick Executive Airport.

PFAS in Casco Bay After Brunswick Spill

On August 19, 2024, shortly before our first 2024 monitoring event, we learned that 1,450 gallons of AFFF concentrate mixed with 50,000 gallons of water had been improperly discharged from Hangar 4 at Brunswick Executive Airport. This is the largest spill of PFAS in Maine. The AFFF concentrate mixed with agitated water to create foam that flowed out of Hangar 4, through sewer and stormwater collection systems, and into ponds, streams and waters well beyond MRRA property boundaries.

We contacted DEP and asked how we might assist or adjust our monitoring to help understand the consequences of the spill. Based on that conversation, we added 6 more sites and agreed to monitor them more frequently. Attachment 1 shows a transect of our monitoring sites below the spill, starting in Mare Brook about 2 miles below the spill and ending in outer Harpswell Cove about eight miles below the spill. *See* Attachment 1: Map of Monitoring Transect (not pictured in this map are two additional sites in Long Reach to determine the impact to aquaculture sites; those samples are still being analyzed).

We began collecting water and sediment samples 3.5 weeks after the spill and will continue through this field season. Bigelow has processed and analyzed water samples from 3.5, 5.5, and 7.5 weeks after the spill. Other samples are still being processed but will be made available to the public. Our results are reported in nanograms per liter. A nanogram is one-billionth of a gram.

Attachment 3

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PFAS Spill at Brunswick Landing: A Letter from the Casco Baykeeper

September 18, 2024

Dear Friends of Casco Bay,

On August 19, 2024, the fire suppression system in hangar four at Brunswick Landing (formerly Brunswick Naval Air Station) malfunctioned, discharging 1,450 gallons of aqueous film-forming foam (AFFF) mixed with over 50,000 gallons of water. AFFF contains per- and polyfluoroalkyl substances (PFAS), including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). This toxic slurry filled the hangar, spilled into an oil/water separator and into retention pond A. The spill extended into Mare Brook. We do not yet know how extensive or persistent the spill will be, but are working to find out.

This is the largest accidental AFFF spill in the state of Maine, and the sixth largest in the U.S. in the past 30 years. This spill is scary, difficult to comprehend, and very upsetting. We are remaining calm and focused. We had already planned to work with Bigelow Laboratory for Ocean Sciences to measure PFAS levels around Brunswick Landing. As a result of the spill, we spoke with United States Coast Guard and Maine Department of Environmental Protection (DEP) responders in the Unified Command set up to clean the site. Based on those conversations, we are increasing both the number of sites and times we collect data to better understand how PFAS has entered Mare Brook and what levels are reaching Harpswell Cove. This data will complement data being collected by others to assess levels of PFAS in publicly restricted areas, in fish and shellfish tissues, in drinking water, and more. Our expertise is in water quality monitoring, and our partnership with Bigelow Laboratory ensures our data will be analyzed at a state-certified lab and will be of very high quality. The data will be shared with regulators and will be publicly available.

We also have spoken with DEP's enforcement unit and know that they are investigating the spill to determine who may be responsible and possible legal actions. We know some facts but do not have ready access to all of the contracts and other agreements related to the hangers at Brunswick Landing. The investigation may take a while, and it will be hard but necessary to remain patient. We will continue to check in with DEP and track the investigation progress.

Our biggest concern is supporting efforts to ensure this never happens again. We plan to support actions by state and federal legislators and others to make certain fire-fighting systems in the other hangers at Brunswick Landing do not malfunction and cause more harm to our beloved Bay, its wildlife, habitats, and people. The solutions likely will be complicated and expensive. But the harm to our treasured Bay, and us, is even more complex and costly.

Please know how much we care and that we are steadily doing our part to understand the consequences of the spill, advocate for ways to clean it up, and work to prevent this from happening again.

With a full heart,

Ivy Frignoca
Casco BAYKEEPER®
Friends of Casco Bay

The data is reported this way because of the toxicity of these chemicals and to be consistent with known public health standards.

The results from the 5 sites shown in the attached map are exemplified in the attached bar graphs. *See* Attachment 2: Bar graphs of monitoring results. For reference, the bar graphs also include the level of PFAS detected from our 2023 monitoring effort, which took place well before the spill. PFAS levels at all five sites post spill were elevated above the levels detected in 2023. It is important to note that sites 1 and 2 are scaled differently than sites 3-5 due to the extremely high levels detected at those two sites. Site 1 PFAS levels reached almost 1000 ng/L of 8 combined PFAS 5.5 weeks after the spill. At 7.5 weeks, levels at Sites 1 and 2 had almost returned to 2023 amounts. However, PFAS levels at Sites 3-5, which are much further down the cove, remained elevated above 2023 levels even at 7.5 weeks after the spill. Notably, these five monitoring sites span a distance of 2 to 8 miles below the spill site, and are estuarine or marine sites that experience two daily tidal cycles. Even with these well-flushed waters, we detected alarming and concerning PFAS levels.

In summary, Attachments 1 and 2 show the following:

- PFAS levels were substantially higher after the spill. The red line across the bar graph represents the 2023 level, so you can use that to compare levels before and after the spill.
- If you compare Attachments 1 and 2, you can see the transect ends about eight miles below the spill. We detected PFAS from the spill that far away! Given all the tidal flushing, that is truly remarkable and concerning.
- Attachment 2 illustrates the lag time it took PFAS to travel. 7.5 weeks after the spill, concentrations of PFAS were highest at sites furthest from the spill.

Maine does not yet have enough data to set PFAS criteria in marine water quality standards. (The Bigelow/FOCB study will help fill that data gap.) Based on what is known to date, the State closed Harpswell Cove to shellfish harvesting as a result of this spill. In addition, the levels of PFAS we detected in Harpswell Cove are well above what we understand to be acceptable limits based on drinking water regulations, fish tissue action levels, and bioconcentration factors. Therefore, we suspect the harm to marine life and habitats to be significant. We are certain that a spill like this should not happen again.

The Solution

We must remove AFFF from the Brunswick Executive Airport, where the risk of another spill is high, and elsewhere in the state where these chemicals are currently being stored. While EPA investigates to determine who should be held accountable for the spill, we in Maine must ensure that no further spills occur. *See* Attachment 3: email letter to our members.

LD 400, 222 and 407 create the practical framework for that solution. LD 400 mandates a state wide inventory of all sources of 5 or more gallons of AFFF. LD 222 creates a safe collection and storage program that will hold AFFF until such time as it can be properly destroyed. Finally, LD 407 requires that all AFFF be promptly removed from the Brunswick Executive Airport, where inspections have revealed risks for future spills. The environment surrounding the Brunswick Executive Airport cannot handle further insult. We are just beginning to understand the lasting effects of this spill. Any additional spills would compound and magnify that problem.

Please consider the data Bigelow and FOCB have collected, showing the harm from the spill extending 8 miles away, in some of the Bay's most pristine waters. Based on that data, in complement to all of the other information you receive today showing the harm from this spill, please vote that LDs 400, 222 and 407 OUGHT TO PASS. Maine should not experience any more AFFF spills like the one in Brunswick.

Respectfully submitted,

Ivy L. Frignoca, Casco Baykeeper
Friends of Casco Bay
Cell: (207) 831-3067
ifrignoca@cascobay.org