

June 12, 2023

To the Members of the MRRA Board of Trustees  
15 Terminal Road, Suite 200  
Brunswick ME 04011

**ATTN:**

Rita Armstrong  
Lance Boucher  
Stan Gerzofsky  
David Lenna  
Charlotte Mace (Maine DECD)  
John Moncure  
Nick Nichols – Chair  
John Peters – Vice Chair  
Lois Skillings – Secretary  
Anne-Marie Swenson – Treasurer  
Barry Valentine  
Kristine Logan – Executive Director

Dear Reader:

On behalf of the taxpayers and residents of Brunswick and Harpswell, we write you to confirm our strong opposition to Midcoast Regional Redevelopment Authority (MRRA)'s stated intent to accept ownership of Hangar 4 before the Department of Defense has removed the thousands of gallons of PFOS-based Aqueous Film Forming Foam (AFFF) which exist in the hangar and removes or remediates the PFOS containing fire suppression system. The Department of the Navy in 2018 mandated that PFOS containing AFFF be removed from all military installations by 2024. At the recent Restoration Advisory Board (RAB) meeting, the BRAC representative for the Department of the Navy confirmed the Navy's obligation and willingness to remove the toxic AFFF **if the DOD remained the owner of the property by the 2024 deadline**. MRRA's push to take ownership, prior to the Navy's removal of this substance from Hanger 4, currently leased to MRRA, has grave implications not only for the exorbitant costs of the environmental impact in the event this foam is used to contain a fire, (or simply leaks from the system), but as significantly, seeks to burden the State of Maine taxpayers with millions of dollars in costs to replace this system once under MRRA ownership.

In September 2022 EPA initiated the rulemaking process of designating PFOA and PFOS as CERCLA hazardous substances. Once implemented, this designation is expected to significantly increase the cost and complexity of AFFF removal and disposal, as well as the environmental liability for MRRA and its Board associated with any release to the environment.

The public is aware that approximately 9,300 gallons of ex-Navy AFFF is stored in plastic tanks in hangars at the airport on the former base. MRRA either owns or leases all the hangars where AFFF is stored. Very significantly, the community is also aware that approximately 3000 gallons of this AFFF are the older, more dangerous, PFOS-based AFFF, of which an unknown amount was released by this airport in 2019, but not reported to the public. One teacup of this AFFF can contaminate millions of gallons of water posing a significant and ongoing threat to the community. As you are aware, PFAS from AFFF discharges has been found to have contaminated nearby public drinking water wells in Brunswick at the Jordan Avenue well field, in spite of assurances over the years that this would not happen. Community testing confirms that leakage into the Androscoggin River and Brunswick Sewage District continue as well.

Airport regulations for the Brunswick Executive Airport do not require the use of PFAS based MILSPEC firefighting foams which are a holdover for military weaponized aircraft. We have recently confirmed with the Town of Brunswick Fire Department that the requirements are simply to meet the NFPA 409 standards and do not require maintaining large volumes of this PFOS based foam, which present a serious environmental risk and human health hazard. Last month the Department of Defense issued a revised military specification for Fluorine-Free Foam (F3), as required by the 2020 National Defense Authorization Act.

Other similarly situated airports have already undertaken conversion to Fluorine-Free Foam. In 2022, Nantucket's conversion to fluorine-free foam for their small airport cost \$3.3 million dollars. These costs are expected to rise because, once PFAS is a formally recognized CERCLA hazardous substance, there will be skyrocketing demands for the product and skyrocketing costs for the disposal of PFAS-based material.

The release of the PFOS AFFF in 2019 has had devastating impact to our local environment as confirmed in the memo attached. This release of PFOS was not contained, as the contaminant flowed both into the drainpipes and into the Sewer District's system but it also was released to the storm and surface waters of our local community, raising PFOAs levels in surface waters for over 3 years. Recent testing by the Navy shows concentrations of PFOA + PFOS in stormwater, above 8,500 ng/l. These levels are **425 times higher** than Maine's drinking water standard of 20 ng/l for the sum 6 PFAS, including PFOA and PFOS and 17 times higher than the Surface Water Human Health Screening Level of 508 ng/l for PFOA and PFOS combined.

Action on this is urgent because the US Navy, currently still remediating Superfund sites at the former NASB, is proposing to transfer the remaining PFOS - based AFFF in Hanger 4 to MRRA in 2023. This is contrary to actions elsewhere in Maine, where PFAS - based AFFF was removed from the former Loring Air Force base in 2019. We request that nothing less than this occurs for the safety of the entire MidCoast region.

MRRA's actions in accepting ownership prior to PFAS removal and cleanup could subject our communities and our State to environmental burdens and costs exceeding any perceived benefit recognized in a redevelopment plan. Environmental liability extends to the Board of Trustees who wish

to become owners of this toxic material. We wish to address the board in person as well as in the community and to educate all regarding the dangers and costs that MRRA's ownership of Hanger 4, prior to military clean up, will produce. Please advise when such a public meeting with the Board will be arranged.

This letter has been produced in a collaborative manner between many organizations and individuals, some of which are signatories below. We ask that you reach out to David Page, PhD, the author of the attached environmental study to arrange a public meeting on this very important topic. Dr. Page is a resident of Brunswick and most quickly reached at [dpage@bowdoin.edu](mailto:dpage@bowdoin.edu). He may then distribute the information to individuals and entities who have requested participation.

Respectfully,

*(signed)* \_\_\_\_\_

David Page, PhD, Brunswick Resident

*(signed)* \_\_\_\_\_

Paul Ciesielski, Harpswell Resident

*(signed)* \_\_\_\_\_

Suzanne L. Johnson, Brunswick Resident

*(signed)* \_\_\_\_\_

Sandy Stott, Brunswick Resident



Ed Friedman, Chair, Friends of Merrymeeting Bay

*(signed)* \_\_\_\_\_

Joshua Katz, Brunswick Resident

Cc: Public Distribution

## Stormwater Retention Pond Surface Water PFOS Concentrations vs Time Show a Significant Unreported PFOS Release at the Former Brunswick Naval Air Station Between 2018 and 2020.

Memo by David S. Page, Professor Emeritus, Bowdoin College. January 30, 2023

Stormwater from most of Brunswick Landing flows through a series of storm water retention ponds, currently owned by the US Navy as shown in Figure 1. Surface water flowing through these ponds has been sampled for PFAS over time by both the Navy and recently, by private concerned citizens. The time series of both private and Navy PFAS surface water data from the head of the chain of retention ponds (Pond A, SW11; Figure 1), to the Picnic Pond outflow to Merriconeag Stream and on to Mere Creek (SW 23; Figure 1), show that a significant unreported PFOS release occurred some time between 2018 and 2020 (Figure 2). This coincides with an unreported discharge of stored aqueous firefighting foam (AFFF) concentrate stored in Hangar 4, upstream from SW11 in the spring of 2019. The only publicly available note of this is in the Brunswick Sewer District Board of Trustees Regular Monthly Meeting Minutes dated June 20, 2019: *“AGM Pontau noted that during testing for a sprinkler system at one of the hangers at MRRA one of the drains was not plugged. We were notified immediately and was able to shut down the pump station and Clean Harbors came and cleaned it out. He noted that all staff time and cost will be reimbursed by their insurance claim. The Board discussed the matter and suggested protocols for any future issues and to be notified of when changes will be made with the foam system at Brunswick Landing.”* The surface water data show that this unreported release was more widespread than indicated. PFOS release to the stormwater retention ponds continues to occur at high levels.<sup>1</sup> Because PFOS is to be listed as a hazardous substance under CERCLA, a release like this today would be a major pollution incident.

The time series data for SW23 (Figure 2) shows that the release event was episodic. The rate of flow through the retention ponds is not known, but the Navy data indicate that for June 2020, the surface water at the upstream Pond A SW11 site was significantly elevated compared with 2018, while that for the downstream Picnic Pond outflow SW23 site was elevated, but not as much. By May/June 2022, both upstream and downstream sites had high PFOS levels in the surface water, indicative of ongoing PFOS input. The time line for PFOS concentrations of PFOS entering Mere Creek/Harpswell Cove waters is also consistent with the elevated concentration of PFOS found in ribbed mussels at the mouth of Mere

<sup>1</sup> Navy data from slide 40 January 25, 2023 Restoration Advisory Board Meeting:  
Surface Water PFAS Sampling Summary, PFAS RI, Fall 2022  
Picnic Pond System/Reference Samples (Preliminary/Unvalidated)

Sample	Location	PFOA	PFOS	PFHxS
Surface Water Human Health Screening Level		304	203	1,750
OF-09N	Outfall into Pond A	210	1,960	577
OF-09S	Outfall into Pond A	283	2,390	1,210

Creek in the fall of 2020<sup>2</sup>. Neither MEDEP, the Navy or USEPA, have publicly made note of a PFOS release in Hangar 4 in 2019.

*What We Know About PFAS-containing AFFF at Brunswick Landing:* PFAS-based AFFF concentrate remains as part of the fire suppression systems inherited from the Navy in Hangars 4, 5, and 6 at the Brunswick Executive, Airport managed by MRRA. In addition, MRRA notes 1600 gallons of AFFF stored in hangar 7. Quoting from: *US Navy 5 Year PFAS Summary Report, 2020, pp 35-37*, “Hangar 5 and Hangar 6 still contain AFFF fire suppression systems; however, these properties have been transferred (to MRRA). Hangar 4 is currently under lease (to MRRA in 2013) which includes the (PFOS-based) AFFF fire suppression system (including two 2000 gallon above ground plastic AFFF tanks). Therefore, the Navy no longer owns the AFFF fire suppression systems in Hangars 5 and 6, nor does the Navy maintain the AFFF fire suppression system in Hangar 4.” However, the Navy still owns the PFOS-based material in hangar 4 and is seeking to transfer it to MRRA in early 2023 through Finding of Suitability to Transfer (FOST 2023-4)<sup>3</sup>.

The total volume of AFFF currently stored on the Landing is 9,300 gallons. The breakdown: Hangar 4 – 3,000 gal; Hangar 5 – 3,200 gal; Hangar 6 – 1,500 gal; Hangar 7 – 1,600 gal. According to 4/22 MRRA photos of AFFF concentrate tanks in hangars inherited from the Navy, legacy PFOS-based 3M Light Water AFFF concentrate remains in Hangar 4. This represents a major environmental and liability risk<sup>4</sup>. Other hangars have large plastic tanks containing 62:FTS-based (Ansulite) AFFF, in some cases, mixed with older PFOS-based 3M Light Water AFFF. Both types of AFFF are obsolete for environmental and health reasons and are no longer sold.

The presence of these large quantities of AFFF on a property no longer servicing military aircraft is unacceptable and alarming. Nothing less than immediate removal of these toxins is acceptable. Agreements between MRRA and the Navy to keep these contaminants on site should not obligate the Brunswick community, nor the State of Maine to eventually assume the risk and liability of further contaminant release. Recurrent leakage incidents demonstrate the existing risk and unassumed liability associated with the current AFFF situation at Brunswick Landing. There is nothing gained by the continuing presence of these materials on site and there is literally everything to lose.

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<sup>2</sup> This study funded by private donor. The full report can be downloaded from the following FTP link. No password is required. <https://app.box.com/s/dsbsurhtsa3fv07iomjkmqpicbqf5lqq3>

<sup>3</sup> FOST 2023-4: Parcel AIR-12 consisting of Building 250 and Hangar 4 and land to the north not conveyed with initial airfield transfer. Internal USN draft preparation to begin in early 2023

<sup>4</sup> There have been past reported accidental discharges of 3M Light Water AFFF concentrate at Hangar 4 (Resolution Consultants, 2015. *Draft Technical Memorandum, Basewide Perfluorinated Compounds in Groundwater Investigation*, Former Naval Air Station Brunswick, Brunswick, Maine. May 5, 2015.) For example, in 2007, 1400 gallons of AFFF concentrate mixed with 14,000 gallons of water were released due to operator error.

Figure 1. Map of Southern Part of Brunswick Landing Showing US Navy Sampling Sites and Hangar 4, Where PFOS is Stored.

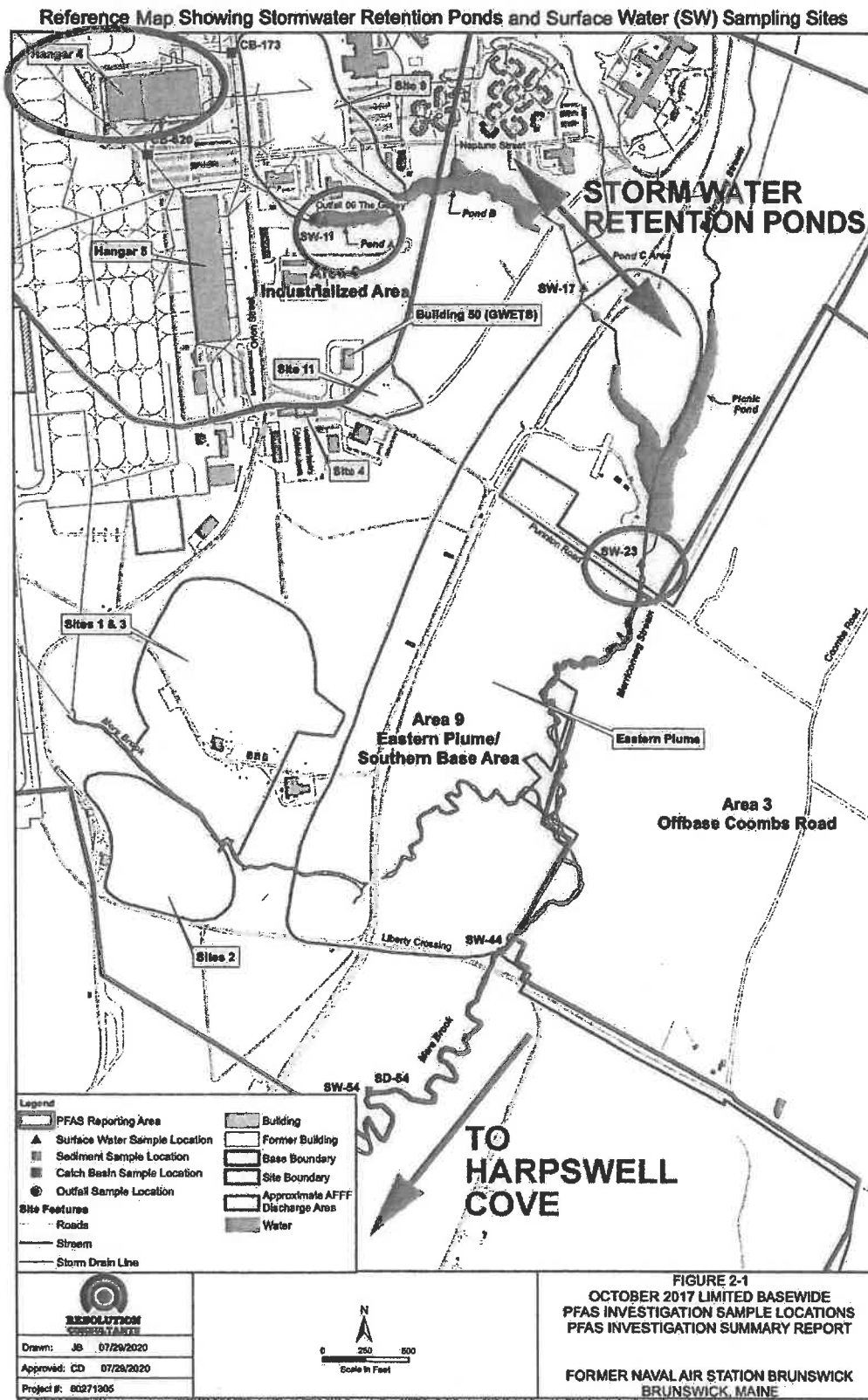
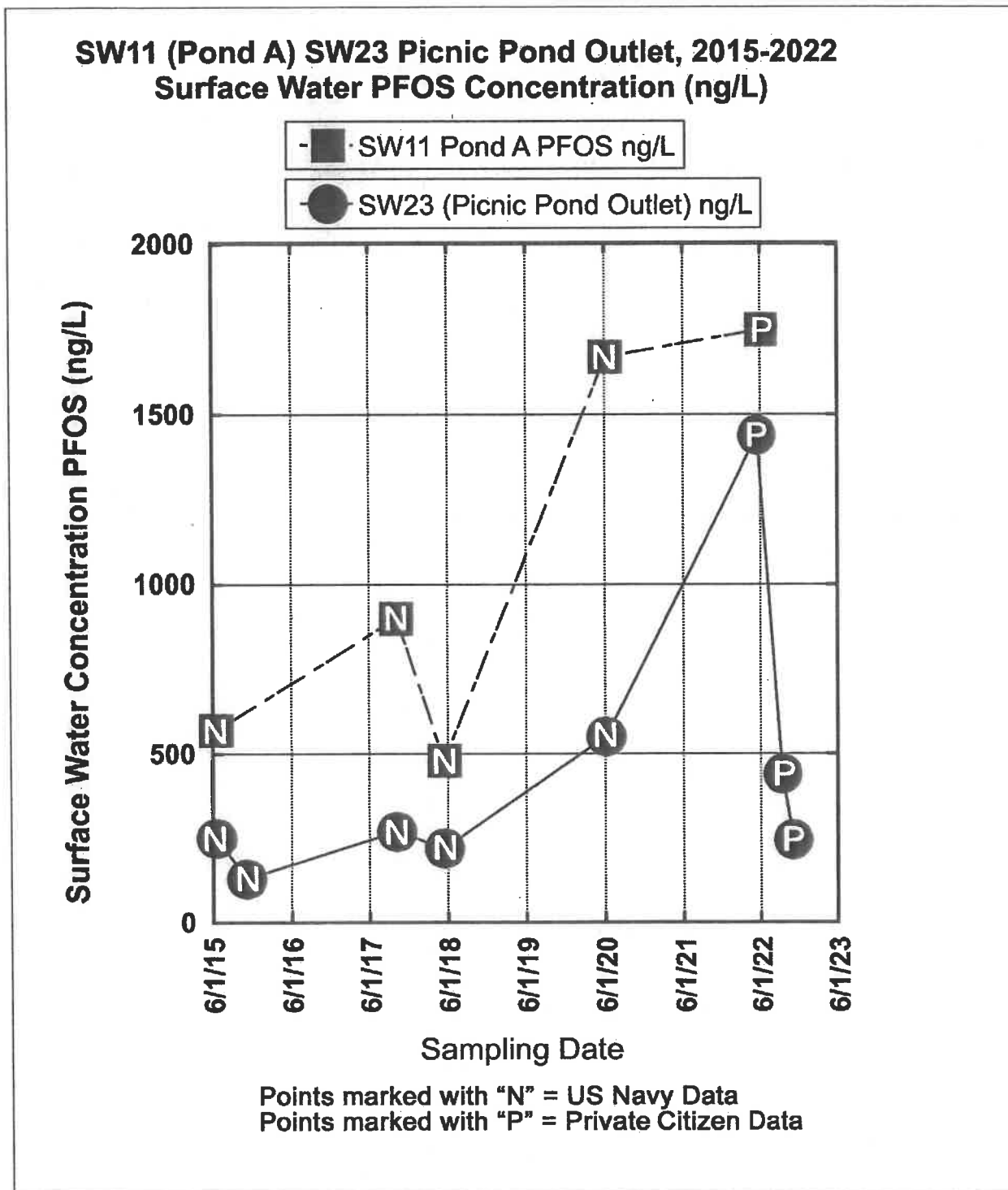


Figure 2. Time series of PFOS measurements in surface water at locations downstream of Hangar 4. The data show a significant release of PFOS in 2019 that remained elevated for 3 years.



## Identity of AFFF in Tanks in Hangars at Brunswick Executive Airport

*Prepared for by David S. Page 7/15/24,*

In 2019, MEDEP staff sampled AFFF concentrate tanks in the fire suppression systems Hangars 4, 5 and 6 at the Brunswick Executive Airport. These samples were analyzed for PFAS species present by Battelle in 2020. Some hangars had multiple tanks. Hangar 7, constructed by MRRA in 2019 was not sampled, but presumably has newer AFFF. The locations of the Hangars are shown on Figure 1 below.

On September 5, 2023, Victoria Eleftheriou P.E., Deputy Director, Bureau of Remediation and Waste Management of MEDEP sent me the 1919 PFAS data at my request. The data are very helpful and raise the question about whether PFOS-based AFFF material had been moved between hangars from older tanks to newer ones.

I have prepared the Table 1 and Table 2 below that summarize the analytical data from the information provided by MEDEP. The 2019 MEDEP field notes are included at the end of this memo.

Table 1. Hangar AFFF Tank Information Summary. Information primarily from MEDEP 2019 AFFF sampling field notes.

Hangar Number/ Construction Date	Number of AFFF Tanks	Type(s) AFFF Present	MEDEP/Battelle 2019 AFFF sampling results (See Table 2 below)
4/Bldg 250 1940s	Two tanks; one primary; one secondary	Primary Tank 1705 gal; labelled Ansulite  Secondary Tank 1638 gal labelled as 3M Light Water	Primary Tank labelled as Ansulite, contains primarily 6:2 FTS-based Ansulite with some PFOS-based 3M Light Water. Secondary Tank primarily PFOS-based 3M Light Water with some 6:2 FTS-based Ansulite.
5 1982	Four tanks: 2 Primary; 2 secondary.	Both primary tanks, labelled Ansulite, sampled by MEDEP 2019. Tank 1=1100 gal. Tank 2=526 gal.	Both Primary tanks contain 6:2 FTS-based AFFF only – Ansulite. No evidence of significant PFOS contamination.
6 2004	One 2125 gal	Tank marked with dated fill lines 2006-2015. As of 8/29/19, Tank was recorded as ~1/3 full by MEDEP. Tank labelled Ansulite	Tank contains primarily PFOS-based 3M Light Water. With a minor amount of 6:2 FTS-based Ansulite.
7 10/2019	One	Tank contains modern less hazardous AFFF	

Table 1 shows that the 2125 gallon AFFF in Hangar 6, although labelled as containing only PFOS-free Ansulite AFFF, is mostly 3M PFOS-based Light water AFFF.



Table 2. Summary of PFAS concentrations measured in AFFF Samples in milligrams per liter (mg/L) taken 8/28/2019 from AFFF Tanks, Brunswick Executive Airport by MEDEP  
(Prepared by D. S. Page from data provided by MEDEP)

MEDEP SAMPLE:	AFFF-1	AFFF-2	AFFF-3	AFFF-4	AFFF-5
Sample Description from MEDEP Field Notes	Hangar 6 Labelled Ansulite ~800 gal	Hangar 5 Labelled Ansulite ~1100 gal	Hangar 5 ~526 gal	Hangar 4 Labelled 3M Lightwater ~1038 gal	Hangar 4 Labelled Ansulite ~1705 gal
Total PFAS	1768.6	91.9	65.2	3865.0	709.1
Total PFOS*	1381.2	0.1	0.0	3135.0	582.1
Total 62FTS**	71.1	75.3	57.1	23.3	7.8
PFOS/62FTS***	19.4	0.0	0.0	134.3	74.3
% PFOS/ Total PFAS***	78.1	0.1	0.0	81.1	82.1

Note: Concentration units are mg/L. 1 mg/L = 1,000,000 ng/L

\* PFOS is the marker for 3M Lightwater AFFF – older material in use at base.

\*\* 62FTS is the marker for Ansulite AFFF – newer PFAS-based AFFF in use at base.

\*\*\* Shows that PFOS is the dominant PFAS species in Hangar 4 and in Hangar 6

At some point, all of this PFAS-based AFFF material will have to be replaced and the 2019 MEDEP AFFF Tank data will be key for safe disposal, because we can't trust the labels on the tanks.

The mystery of the source of PFOS-based AFFF was solved by reference to p. 3 of the minutes of the Brunswick Sewer District Board of Trustees Regular Monthly Meeting 18 October, 2012. The relevant section is reproduced below.

*“AGM Pontau noted MRRA had a broken valve in Hanger #6 that dumped approximately 2,000 gallons of airplane fire-fighting foam (A-FFF) down the sewer lines before it was noticed. He noted the District offered to create a maintenance contract with MRRA for line maintenance. A draft contract has been sent to Tom Brubaker at MRRA.*

The missing AFFF was replaced by MRRA by drawing from PFOS-based Lightwater stocks in Hangar 4. It is unfortunate that the public was not aware of this until September of 2023. Now that PFOS is a CERCLA listed hazardous substance, the presence of this material in Hangar 6 poses health and environmental risks and potential liability. The data shown in Figure 2 demonstrates that there have been ongoing releases of AFFF from Hangar 6 based on data obtained by the Friends of Merrymeeting Bay and the Brunswick Sewer District from the sanitary sewer pump station serving only Hangar 6. It shows that between 7/25/23 and 10/25/23 there was a significant release of AFFF into the floor drains leading to the sanitary system. Figure 2 also shows elevated PFOS levels at the Navy Meter Pit Station that collects all effluent from the former base.

Figure 3 shows a recent 10/2023 photo of 3M Lightwater PFOS-based AFFF containers in the back of the Hangar 6 tank room, consistent with having been moved in at a prior date. Because there are undoubtedly quantities of PFOS residues/AFFF in the containers, they will have to be disposed of as hazardous material.

Figure 1. Locations of Hangars at Brunswick Executive Airport.

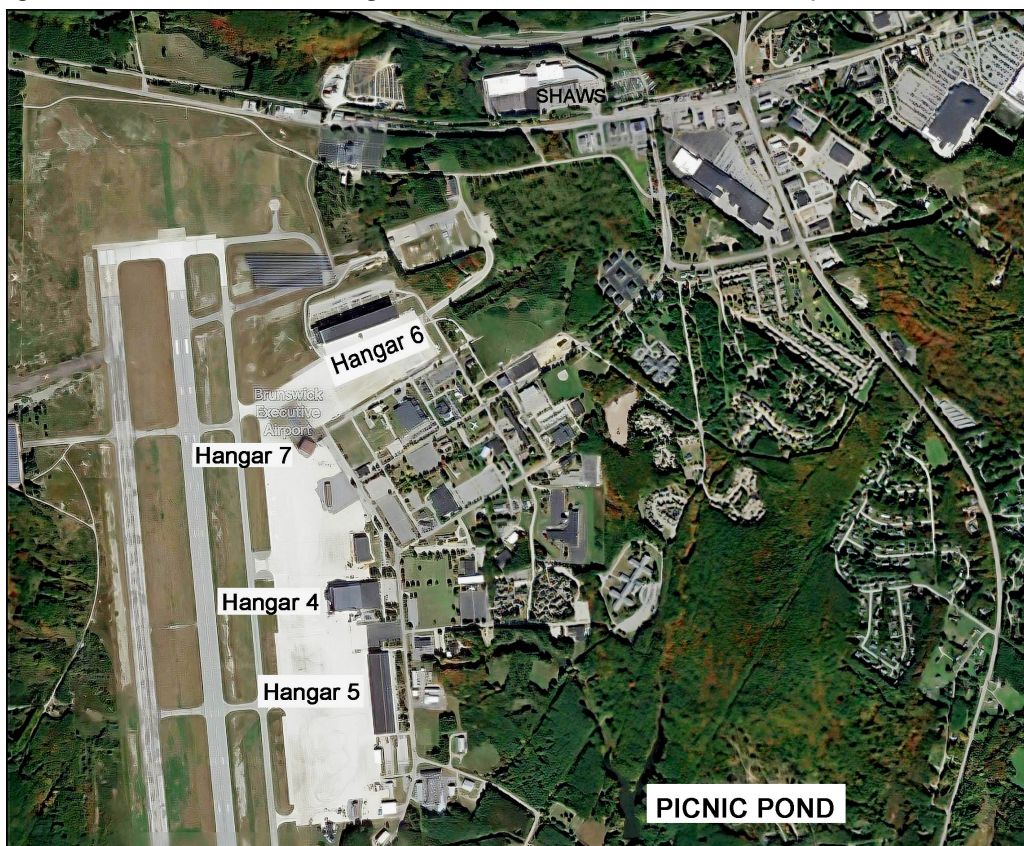


Figure 2. PFAS concentrations in effluent samples from Hangar 6 Sewer District Pumping Station and Navy Meter Pit Pumping Station over time.

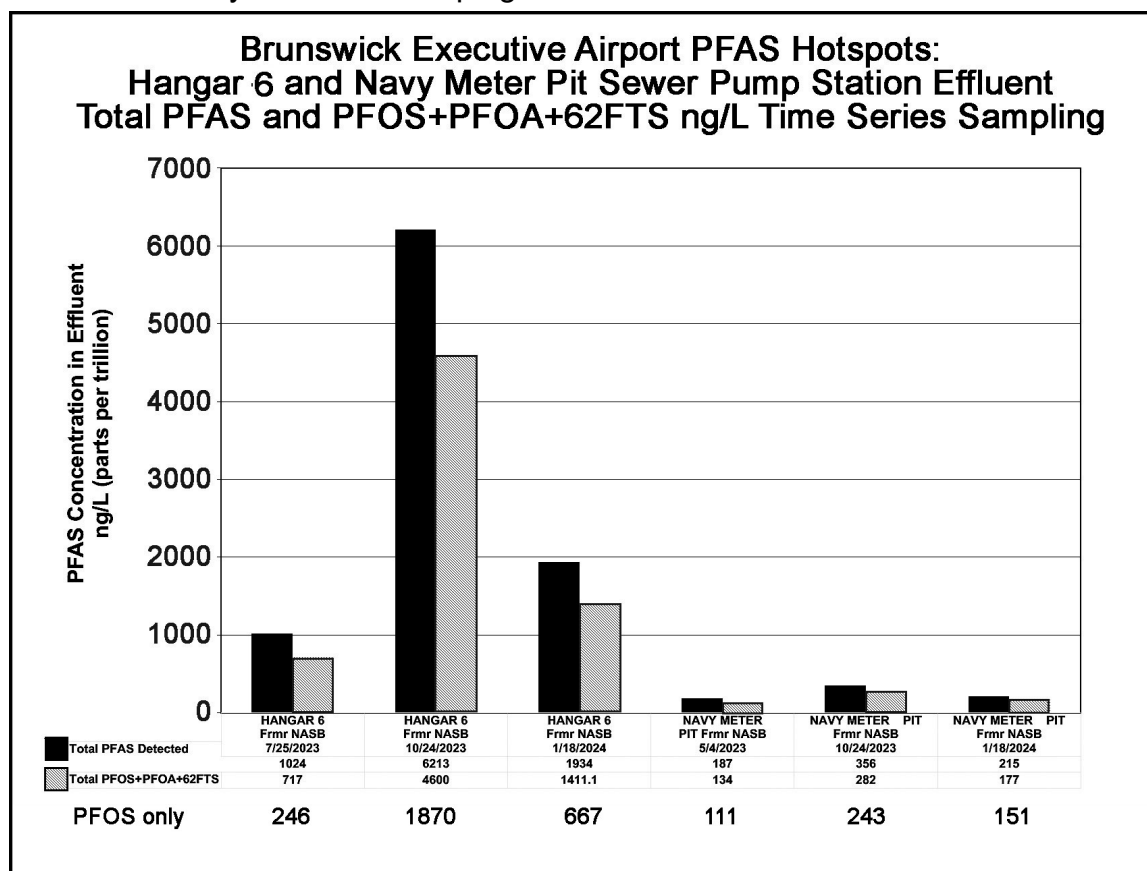




Figure 3. 3M PFOS-based Light water PFOS-based AFFF containers in Hangar 6 AFFF tank room; 11/2023.



The following Pages reproduce MEDEP field notes made during the AFFF tank sampling done in 2019.

## Field Trip Report

Date: 8-29-19	Weather Conditions: Pthycldy 60's
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Site Name and Location: Farmer NASB - MRRA Brunswick
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MEDEP Personnel Present:	ONSITE 10:35
Chris Evans, Finn Whiting	OFF 12:45
Other People Present:	
Stacy Revels	(MRRA) - Brunswick Landing

Purpose of Site/Area Visit:
<input type="checkbox"/> Reconnaissance <input type="checkbox"/> Inspection <input type="checkbox"/> Sampling Monitoring Wells <input type="checkbox"/> Waste Sampling, Drums, Stained Soil, Other <input type="checkbox"/> Soil Sampling <input type="checkbox"/> Surface Water/ Sediment Sampling. Water Body _____ <input type="checkbox"/> Contractor Oversight <input type="checkbox"/> Residential Well Sampling <input checked="" type="checkbox"/> Other: sampling AFFF tanks Hangers 4, 5, 6

Field Notes and Sample Numbers Recorded by:
---

Additional Comments:
Hngr6 - 1 tank Hngr5 - 4 tanks, 2 primary, 2 secondary - collected each primary Hngr4 - 2 tanks primary/secondary - 1 each tank C took field blank

Attachments:
<input type="checkbox"/> Copy of Field Book Pages <input type="checkbox"/> Copy of Chain-of-Custody <input checked="" type="checkbox"/> Photographs <input type="checkbox"/> Other

Signature: Chris Evans 8/29/19
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## Site Sketch/Notes

AFFF-1 - Hanger 6 ~ 2500 gal tank marked w/dated  
fill lines, 2006 → 2015 tank about  $\frac{1}{3}$  full (Ansulite 3%)  
peripump - tubing - into tank vent. sample time 11:15  
amber

At each location - used ladder to access port in top of tank, 2x2500 HDPE

AFFF-2 Hngr 5 Primary 1100 also 3% Ansulite AFFF label  
sample time 1145 amber

AFFF-3 Hngr 5 Primary 326 same label  
sample time 1155 amber

AFFF-4 Hngr 4 Secondary 1638 3M light water 3% AFFF  
Time 12:23 amber  
Cape FC203CF  
Lot + date obscured Date 6/?

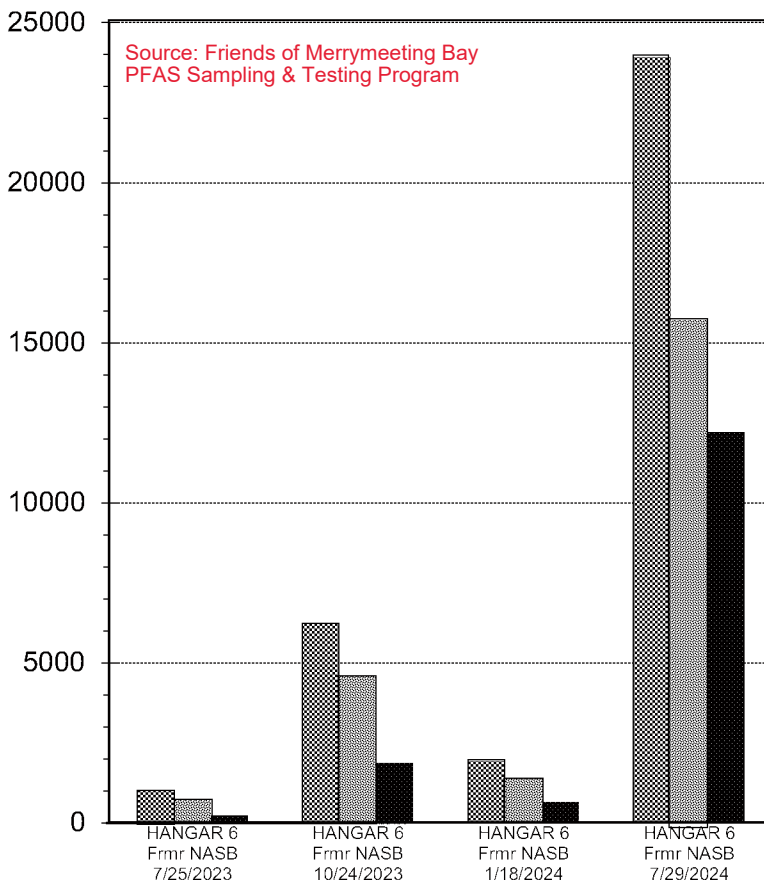
Took Field Blank 12:30

AFFF-5 Hngr 4 Primary 1705 gals 3% Ansulite AFFF  
Time 1235  
light yellow color  
LOT X2714 Date 12/07

one of these reported  
mixed legacy + new

# Hangar 6 BSD Pump Station Effluent PFAS Levels 7/2023 - 7/2024

CONCENTRATION, NG/L - PARTS PER TRILLION



✖ Total PFAS Detected	1024	6213	1934	23928
☐ Total PFOS+PFOA+62FTS	717	4600	1411	15717
■ Total PFOS	246	1871	667	12222

## BRUNSWICK AREA CITIZENS FOR A SAFE ENVIRONMENT

P.O. Box 245 Brunswick, Maine 04011-0245

BACSEmail@gmail.com

Kristine Logan, Executive Director  
Midcoast Regional Redevelopment Authority  
15 Terminal Road, Suite 200  
Brunswick, ME 04011

Via Email and US Mail

2 August 2024

Dear Kristine:

Thank you for meeting with the BACSE Board Members a few weeks ago to discuss the Aqueous Film-Forming Foam (AFFF) in the fire suppression system at the Brunswick Executive Airport.

It is clear that the presence of AFFF on a site presents a significant risk to human health and the environment. The extensive PFAS contamination at the former BNAS is a case in point. At the Brunswick Executive Airport, extremely high concentrations of PFAS have been detected in the groundwater in the vicinity of Hangar 4. Here PFOS concentrations of 170,000 ppt - more than 10,000 times the drinking water standard - have been reported in samples collected by the Navy from the groundwater in this area. PFAS in the groundwater has migrated off base and has contaminated the Jordan Avenue Wellfield operated by the Brunswick Topsham Water District. The Navy has agreed to pay for the cost of a treatment system, expected to exceed 10M, to remove PFAS from the public drinking water supply. PFAS, however, continues to discharge from the stormwater system at Brunswick Landing and has been detected in fish samples collected from both on and off the former base. All fish tissue samples exceed the Maine CDC fish tissue action level for PFOS of 3.5 ng/g (one meal/week).

Recognizing the risks associated with AFFF, Congress required the FAA to allow airports to switch to PFAS-free foams (F3) by 2021. In 2022, significant changes to the National Fire Protection Association (NFPA) 409 code allow the use of risk-based fire protection strategies for aircraft hangars. These changes allow airports to install alternatives to a foam fire suppression system in aircraft hangars using a more flexible, risk-based approach for fire suppression system design. The National Defense Authorization Act for Fiscal Year 2020 requires that Department of Defense (DoD) to cease use of AFFF no later than October 1, 2024, unless the Secretary of Defense submits a one-year waiver. The DoD has taken steps to eliminate its use of AFFF and is in the process of transitioning over 1500 facilities to F3, water-only systems, or other fire-suppression technologies.

Our members have been active in educational programming regarding AFFF foam, its risks and have become increasingly concerned given the Navy's PFAS testing results that are being obtained both at Hangar 4 and Hangar 6. In 2019, Maine DEP sampled AFFF concentrate tanks in Hangars 4, 5 and 6 at the Brunswick Executive Airport for Per- and polyfluoroalkyl substances (PFAS). The data show that the single tank in Hangar 6 contains not only fluorotelomer-based AFFF, as previously thought, but also large quantities PFOS-based 3M Light Water, the same PFOS-based AFFF as in Hangar 4.

Effective this month, EPA has designated two PFAS, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), as CERCLA hazardous substances. Therefore, any AFFF currently on the Brunswick Executive Airport that contains PFOA or PFOA will now be considered a hazardous substance under CERCLA. Consequently, MRRA (or the Navy) will need to conduct an inventory and testing of all the AFFF onsite. MRRA should require the Navy to remove these hazardous substances which are their responsibility under CERCLA as legacy contaminants. Given the current ownership and order of transfer of the properties, MRRA's liability for retention of AFFF may be different for each of the properties. Eventual disposal of the PFAS-based material, even if it does not contain PFOA or PFOS, is now more complicated and costly.

We understand that MRRA is interested in eliminating AFFF from the fire suppression system at the Brunswick Executive Airport and replace it with either fluorine free foam (F3) or a water-based system. We strongly urge MRRA to consider transitioning to a less hazardous, water-based fire suppression system. According to the July 2024 GAO report, both the Navy and the Air Force are planning to eliminate foam-based fire suppression systems and transition to water based or non-foam systems at most if their aircraft hangers.

Facilities that have already transitioned to non PFAS foams or water -based systems have identified system decontamination and/or replacement as a significant consideration and cost. Existing AFFF system infrastructure may not be compatible with newer F3 formulations but more importantly simply putting fluorine free foam into an already contaminated fire suppression system will only result in creating additional contaminated foam. This issue was highlighted with the materials we provided to you at our first meeting and of which we attach hereto in the experience of the Town of Nantucket foam removal. We understand and will continue to advocate that the foam and the current contaminated suppression systems need to be completely removed before the hazard is resolved. Even with multiple rinses residual PFAS may remain in the system.

We are wholly in support of the installation of a water-based fire suppression at all the hangers at the Brunswick Executive Airport and encourage MRRA to prioritize this infrastructure improvement. Installing a new, water-based fire suppression system would permit removal of all AFFF Foam and the existing, PFAS contaminated fire suppression system tanks, sprinklers, piping, etc. You asked if we had any contacts for professionals involved with AFFF systems. We recommend that you hire a firm with expertise in NFPA 409 assessments and airport fire suppression system transitions. There are many firms that provide this service. We understand that the City of Portland has just switched over to PFAS free foam at the Portland Jetport so they may be a useful resource. We can suggest you contact Gorm Heron, M.Sc, Phd at TRS Group, Inc. [www.atriplef.com](http://www.atriplef.com) who will at no charge to you conduct a site visit and provide you with an estimate for remediation options for the current fire suppression systems .

The explosion of housing units at Brunswick Landing, while welcomed by the community, poses heightened risks for MRRA's management of the property. A balance needs to be undertaken as economic drivers creating airport -related opportunities are also creating a need for a appropriate and expensive infrastructure to be developed and professionally monitored and maintained.

BACSE looks forward to further dialog with MRRA about the removal of AFFF from the Brunswick Executive Airport's fire suppression systems.

Sincerely,

Carol A. White



BACSE Technical Advisor

Email distribution: BACSE Members