Maine's Commitment to Environmental Protection: The Brunswick AFFF Spill One Year Later

Introduction & Background

On August 19, 2024, the Department of Environmental Protection (Department) was notified that approximately 1,450 gallons of aqueous film-forming foam (AFFF) mixed with 50,000 gallons of water was released at the Brunswick Executive Airport from Hangar 4.

The airport is leased by the Navy to the Midcoast Regional Redevelopment Authority (MRRA) and is part of the former Brunswick Naval Air Station (BNAS). BNAS is a federal clean-up site which is on the Superfund program's National Priorities List (NPL). Former military sites listed on the NPL, like BNAS involve the federal government through the Federal Facilities and Superfund Program umbrella. This means that there are federal representatives that act as the lead regulator for these sites through the remediation process. At BNAS the federal representatives that act as the lead regulators are the US Environmental Protection Agency (EPA), and the Department of Defense (DOD) acting through the Department of the Navy. The Department works closely with the EPA and DOD, but the Department is not the lead regulator for this project. Under an October 1990 Federal Facilities Agreement, the Navy is required to conduct site contaminant investigations and remedial activities at BNAS.

Once notified of the spill, the Department played a critical role in response actions. From getting to the scene right away to remove the discharged foam; to coordinating with multiple agencies, the municipality, consultants, contractors, and local residents; to conducting sampling and monitoring environmental impacts over the course of an entire year to understand environmental impacts from the release; and to providing regular updates to the public (available at the Department's website), the Department expended a tremendous amount of resources. A total of approximately 50 staff from three of the four Department Bureaus, including the Bureau of Remediation and Waste Management (BRWM), Bureau of Water Quality (BWQ), and Bureau of Air Quality (BAQ) were actively involved.

Initial Response and Unified Command

The Department immediately sent Emergency Responders from BRWM to the site to conduct site stabilization and cleanup. A Unified Command (UC) and Joint Information Center was established the day after the release occurred. This was done to enhance communication and coordination as multiple agencies and organizations were involved. Standing up a UC is a common practice in responding to environmental releases that are large in scale or that may pose a significant environmental risk. The following agencies in addition to the Department were involved in the UC: Maine Department of Health and Human Services' Maine Center for Disease Control and Prevention (Maine CDC), MRRA, USEPA, Town of Brunswick, and US Coast Guard (USCG). The Navy was not part of the UC but did have a presence at the UC table.

The immediate goal was to remove and mitigate the released foam. This involved contracting with clean-up companies and providing oversight. Right away, four vacuum trucks were deployed to four impacted surface water locations to conduct foam removal and Department Responders staged four work crews on site to provide oversight. Oversight work required Department staff to work through weekends and the Labor Day holiday.

Within a week of the spill, crews noticed significantly less foam at all locations, and a University of Maine drone was deployed to help with viewing foam from above. The impacted hangar and all impacted planes were cleaned and the water collected. The affected TechPlace industrial spaces were steam cleaned by contracted response crews. Stormwater piping and catch basins leading to retention ponds were flushed.

By September 5, foam production was at a minimum; the majority of sites no longer required foam collection, and only one area was still producing a small quantity of foam (but did not require daily collection). No foam was observed or collected at any of the locations after Friday, September 6th.

Consequently, the UC ceased its short-term emergency operations at the close of business on September 5, 2024. This meant that spill response activities at the site shifted from imminent emergency removal activities to long-term remediation and monitoring activities.

By September 26, 2024, approximately 22,000 gallons of PFAS-impacted water and water used for flushing/cleaning were removed for proper disposal off site.

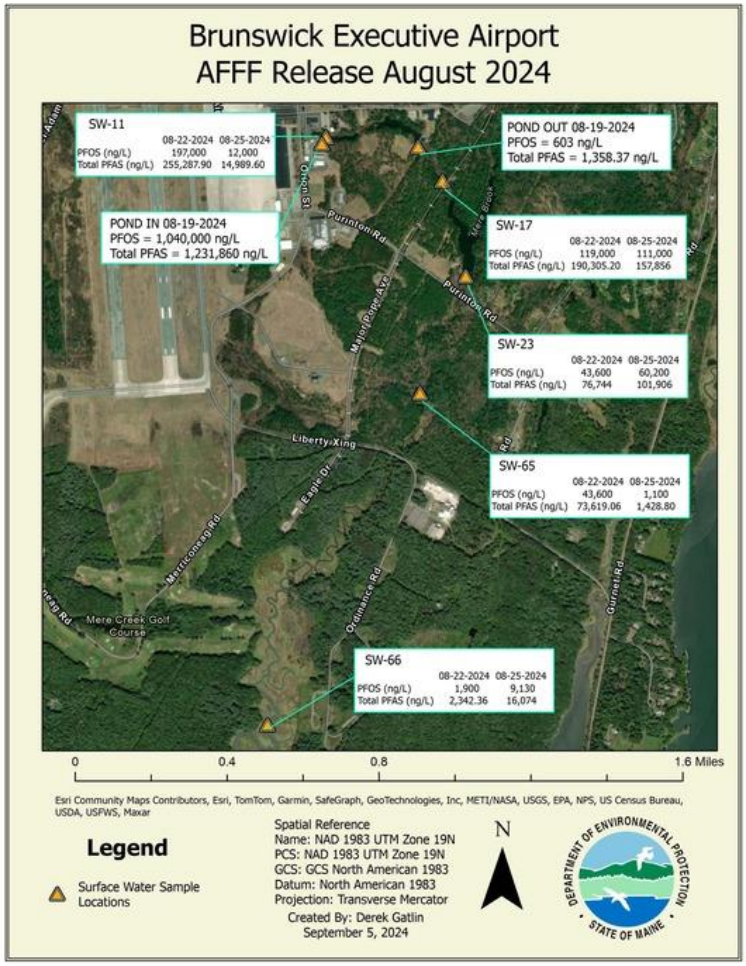
Altogether the Department spent over 3,525 staff hours for the direct emergency response of this site and incurred approximately $480,000.00 for clean-up operations.

Surface Water Sampling (BWQ/BRWM)

Mare Brook Watershed

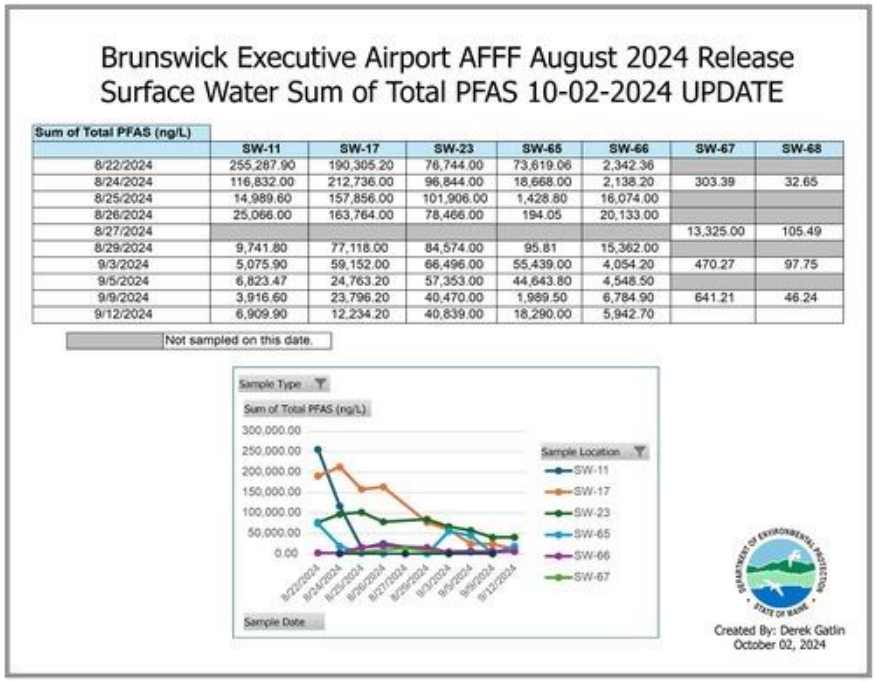
The Department immediately sent BRWM Technical Services Division staff to the site to collect surface water, groundwater, and soil samples. Surface water samples were collected at the retention ponds, Mare Brook, and at Harpswell Cove. As sampling and analysis plans (SAPs) were developed, on-site pond retention areas were being sampled every day, surface water samples taken twice a week, and marine sampling once a week.

Pond In and Pond Out were the initial sampling points. Five of the sampling points consisted of five surface water samples from the drainage system above Harpswell Cove (SW-11, 17, 23, 65 and 66), and the other three included those five sample locations plus two from within Harpswell Cove (SW-67 and 68). (See figure below).



Surface water sampling results received by the Department in September documented conditions up to ten days following the release and demonstrated some trends. These trends were that: PFAS concentrations decreased in the upper portions of the surface water drainage, closest to the release location, and at the confluence of Mare Brook and Merriconeag Stream. PFAS concentrations increased at the outlet of Picnic Pond and in the salt marsh above Harpswell Cove. Low levels of PFAS were detected in the Harpswell Cove samples indicated that residual contamination had reached the cove.

Later into the fall as more sample results were evaluated, Department staff observed that contamination was moving out of the release area and moving through the watershed. As contamination reached the marine environment, it was quickly being diluted to low concentrations. No significant rebound of concentrations occurred to suggest that further emergency removal effort was warranted. Department staff continued to monitor PFAS contamination levels and trends and determined that weekly sampling would be reduced to monthly sampling starting November 2024 as the drainage system appeared to be flushing out. Update #12 documented the trends in the graphs below.



Brunswick Executive Airport AFFF August 2024 Release
Surface Water Sum of Total PFAS 10-02-2024 UPDATE

Sum of Total PFAS (ng/L)	SW-11	SW-17	SW-23	SW-65	SW-66	SW-67	SW-68
8/22/2024	255,287.90	190,305.20	78,744.00	73,619.06	2,342.36		
8/24/2024	116,832.00	212,736.00	96,844.00	18,668.00	2,138.20	303.39	32.65
8/25/2024	14,989.60	157,856.00	101,906.00	1,428.80	16,074.00		
8/26/2024	25,066.00	163,764.00	78,466.00	194.05	20,133.00		
8/27/2024						13,325.00	105.49
8/29/2024	9,741.80	77,118.00	84,574.00	95.81	15,362.00		
9/3/2024	5,075.90	59,152.00	66,496.00	55,439.00	4,054.20	470.27	97.75
9/5/2024	6,823.47	24,763.20	57,353.00	44,643.80	4,548.50		
9/9/2024	3,916.60	23,796.20	40,470.00	1,989.50	6,784.90	641.21	46.24
9/12/2024	6,909.90	12,234.20	40,839.00	18,290.00	5,942.70		

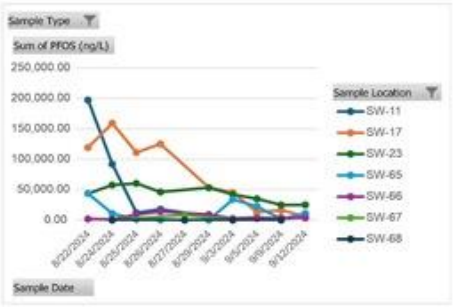
Not sampled on this date.

Created By: Derek Gatlin
October 02, 2024

Brunswick Executive Airport AFFF August 2024 Release
Surface Water PFOS 10-02-2024 UPDATE

PFOS (ng/L)	SW-11	SW-17	SW-23	SW-65	SW-66	SW-67	SW-68
8/22/2024	197,000.00	119,000.00	43,600.00	43,600.00	1,900.00		
8/24/2024	92,000.00	159,000.00	57,500.00	10,800.00	1,160.00	155.00	19.20
8/25/2024	12,000.00	111,000.00	60,200.00	1,100.00	9,130.00		
8/26/2024	17,800.00	125,000.00	46,000.00	101.00	14,100.00		
8/27/2024						8,160.00	49.30
8/29/2024	6,570.00	53,500.00	53,100.00	41.50	9,020.00		
9/3/2024	2,530.00	45,500.00	42,000.00	33,900.00	2,230.00	321.00	61.70
9/5/2024	4,380.00	12,800.00	34,900.00	22,200.00	2,660.00		
9/9/2024	2,050.00	16,100.00	24,700.00	1,690.00	3,850.00	385.00	27.10
9/12/2024	4,370.00	5,800.00	25,000.00	11,100.00	3,550.00		

Not sampled on this date.



Created By: Derek Gatlin
October 02, 2024

Brunswick Executive Airport AFFF
August 2024 Release Data
Surface Water 10-02-2024 Update

SW - 11									
Sample Date	8/22/2024	8/24/2024	8/25/2024	8/26/2024	8/29/2024	9/3/2024	9/5/2024	9/9/2024	9/12/2024
PFOS (ng/L)	197,000.00	92,000.00	12,000.00	17,800.00	6,570.00	2,530.00	4,380.00	2,050.00	4,370.00
Total PFAS (ng/L)	255,287.90	116,832.00	14,989.60	25,066.00	9,741.80	5,075.90	6,823.47	3,916.60	6,909.90

SW - 17									
Sample Date	8/22/2024	8/24/2024	8/25/2024	8/26/2024	8/29/2024	9/3/2024	9/5/2024	9/9/2024	9/12/2024
PFOS (ng/L)	119,000.00	159,000.00	111,000.00	125,000.00	53,500.00	45,000.00	12,800.00	16,100.00	5,800.00
Total PFAS (ng/L)	190,305.20	212,736.00	157,656.00	163,764.00	77,118.00	59,152.00	24,763.20	23,796.20	12,234.20

SW - 23									
Sample Date	8/22/2024	8/24/2024	8/25/2024	8/26/2024	8/29/2024	9/3/2024	9/5/2024	9/9/2024	9/12/2024
PFOS (ng/L)	43,600.00	57,500.00	60,200.00	46,000.00	53,100.00	42,000.00	34,900.00	24,700.00	25,000.00
Total PFAS (ng/L)	76,744.00	96,844.00	101,906.00	78,466.00	84,574.00	66,496.00	57,353.00	40,470.00	40,839.00

SW - 65									
Sample Date	8/22/2024	8/24/2024	8/25/2024	8/26/2024	8/29/2024	9/3/2024	9/5/2024	9/9/2024	9/12/2024
PFOS (ng/L)	43,600.00	10,800.00	1,100.00	101.00	41.50	33,900.00	55,439.00	1,690.00	11,100.00
Total PFAS (ng/L)	73,619.06	18,668.00	1,428.80	194.05	95.81	55,439.00	44,643.80	1,989.50	18,290.00

SW - 66									
Sample Date	8/22/2024	8/24/2024	8/25/2024	8/26/2024	8/29/2024	9/3/2024	9/5/2024	9/9/2024	9/12/2024
PFOS (ng/L)	1,900.00	1,160.00	9,130.00	14,100.00	9,020.00	2,230.00	2,660.00	3,850.00	3,550.00
Total PFAS (ng/L)	2,342.36	2,138.20	16,074.00	20,133.00	15,302.00	4,054.20	4,548.50	6,784.90	5,942.70

SW - 67				
Sample Date	8/24/2024	8/27/2024	9/3/2024	9/9/2024
PFOS (ng/L)	155.00	8,160.00	321.00	385.00
Total PFAS (ng/L)	303.39	13,325.00	470.27	641.21

Pond In	
Sample Date	8/22/2024
PFOS (ng/L)	1,040,000.00
Total PFAS (ng/L)	1,231,860.00

SW - 68				
Sample Date	8/24/2024	8/27/2024	9/3/2024	9/9/2024
PFOS (ng/L)	19.20	49.30	61.70	27.10
Total PFAS (ng/L)	32.65	105.49	97.75	46.24

Pond Out	
Sample Date	8/22/2024
PFOS (ng/L)	603.00
Total PFAS (ng/L)	1,358.37

Created By: Derek Gatlin
October 02, 2024

Over 17 sets of samples were taken by December. Data by December showed attenuation of PFAS slowing as the concentrations between sample events showed less variation. The AFFF release continued to discharge residual contamination into the stormwater drainage system and established a new baseline of PFAS concentrations entering the uppermost impoundment in the Merriconeag watershed (Pond A). Overall, the decrease in PFAS concentrations indicated that the PFAS gradually moved through the watershed and most of the contaminant mass had already passed through the system. Variation of concentrations observed in surface water from one sample event to another is typical given the influence of rain events on flow and stormwater discharge to a watershed.

Androscoggin River

There was concern that AFFF from the spill made its way from on-site drainage manholes to the Brunswick Sewer District (BSD) and was potentially discharged to the Androscoggin River. Samples collected by the Department from the Androscoggin River on August 27 and September 5, 2024, showed concentrations of 5.1 parts per trillion (ppt) and 4.6 ppt above the Brunswick Sewer District effluent outfall and concentrations ranging from 3.9 ppt to 6.5 ppt at three locations below the outfall. These concentrations are based on the sum of the following 6 PFAS compounds that are used as the current Maine interim drinking water standard (PFHPA, PFHXS, PFOS, PFNA, PFOA, PFDA).

An upstream control site on Mare Brook (MAB0) was established at Meadowbrook Road and a downstream site was established below the confluence of Mare Brook and Merriconeag Stream (MAB2) to provide more information about the bounds of spill impacts.

See table below and click the link below to view the chart with the data indicated in the table as pending. The full data set in the charted data follows a similar trend as the partial data listed in the table.
https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=5bdc42d73a484e1982370371e97aae83.

PFAS Water Samples for the Androscoggin River, Mare Brook and Merriconeag Stream following the Brunswick Executive Airport AFFF Release (August 2024)

Created by Tom Danielson - 9/24/2024

Androscoggin River, upstream of Fort Andros dam (ART)

Sample Date	8/27/2024	9/5/2024	9/9/2024	9/19/2024	9/23/204
PFOS (ng/L)*	2.25	1.74	1.59	*pending*	*pending*
Sum of 6 (ng/L)**	5.1	4.6	3.7	*pending*	*pending*
Total PFAS (ng/L)	9.6	12.7	8.9	*pending*	*pending*

Androscoggin River, ~300 m downstream of treatment plant discharge (ARB1)

Sample Date	8/27/2024	9/5/2024	9/9/2024	9/19/2024	9/23/204
PFOS (ng/L)*	2.72	1.46	1.17	*pending*	*pending*
Sum of 6 (ng/L)**	5.8	4	2.8	*pending*	*pending*
Total PFAS (ng/L)	12.8	9.1	5.7	*pending*	*pending*

Androscoggin River, ~2 km downstream of treatment plant discharge (ARB2)

Sample Date	8/27/2024	9/5/2024	9/9/2024	9/19/2024	9/23/204
PFOS (ng/L)*	3.68	1.92	1.59	*pending*	*pending*
Sum of 6 (ng/L)**	6.5	3.9	3.7	*pending*	*pending*
Total PFAS (ng/L)	14.8	9.2	6.4	*pending*	*pending*

Androscoggin River, ~3.2 km downstream of treatment plant discharge (ARB3)

Sample Date	9/5/2024	9/9/2024	9/19/2024	9/23/204
PFOS (ng/L)*	2.29	1.75	*pending*	*pending*
Sum of 6 (ng/L)**	4.3	3.6	*pending*	*pending*
Total PFAS (ng/L)	9.5	7.7	*pending*	*pending*

Mare Brook, upstream of airport, Meadowbrook Road (MAB0)

Sample Date	8/28/2024
PFOS (ng/L)*	2.84
Sum of 6 (ng/L)**	20.2
Total PFAS (ng/L)	38.3

Merriconeag Stream, downstream of Purinton Road (MEB), near SW23

Sample Date	9/4/2024	9/17/2024
PFOS (ng/L)*	39,300	*pending*
Sum of 6 (ng/L)**	49,510	*pending*
Total PFAS (ng/L)	65,526	*pending*

Mare Brook, downstream of confluence of Merriconeag Stream (MAB2), near SW65

Sample Date	9/4/2024	9/17/2024
PFOS (ng/L)*	6,480	*pending*
Sum of 6 (ng/L)**	8,271	*pending*
Total PFAS (ng/L)	11,040	*pending*

* U.S. EPA's drinking water guideline for PFOS is <4 ng/L. Most of Maine's rivers and streams have <2 ng/L.

** Maine's interim drinking water criteria for the sum of 6 kinds of PFAS is 20 ng/L.
The 6 PFAS included in the Sum of 6 are PFOS, PFOA, PFHpA, PFNA, PFHxS, and PFDA.

The primary kind of PFAS associated with the AFFF spill is PFOS. Many rivers and streams in densely populated areas of Maine near unlined landfills, wastewater treatment plants, airports, and agricultural fields with historic spreading of PFAS contaminated biosolids typically have <5 ng/L of PFOS in the water. PFOS samples from all four sampling points on the Androscoggin River (ART, ARB1, ARB2, and ARB3) had <4 ng/L of PFOS. The upstream site on Mare Brook (MAB0) had 2.84 ng/L of PFOS on August 28, 2024. All the samples from the Androscoggin River and the upstream site on Mare Brook (MAB0) had concentrations of <4 ng/L of PFOS.

Effluent samples were also taken at BSD to determine levels of PFAS. The table and linked chart below summarize the results of the BSD effluent samples for PFAS that were taken in response to the spill. Initial results indicated levels of PFAS significantly higher than the BSD long term historical averages of PFAS 34.2 ng/L (for the Sum of Six PFAS - Maine's interim drinking water standard) obtained in 2022 and 2023 prior to the spill. Subsequent

results indicate a steady downward trend in effluent PFAS levels over the sampling period since the spill. See table below and data chart here: https://www.maine.gov/dep/gis/datamaps/Brunswick_AFFF/149993.wastewater.html.

PFAS Effluent Samples Following the Brunswick Executive Airport AFFF Release (August 19, 2024)

Brunswick Sewer District, Final Treated Effluent					Week of	Week of
Sample Date	8/26/2024	9/29/2024	9/3/2024	9/25/2024	9/30/24	10/7/24
PFOS (ng/L)*	2780	1340	514	*pending*	*pending*	*pending*
Sum of 6 (ng/L)**	2908	1439	568	*pending*	*pending*	*pending*
Total PFAS (ng/L)	3753	2035	853	*pending*	*pending*	*pending*

* U.S. EPA's drinking water guideline for PFOS is <4 ng/L.
** Maine's interim drinking water criteria for the sum of 6 kinds of PFAS is 20 ng/L.
The 6 PFAS included in the Sum of 6 are PFOS, PFOA, PFHpA, PFNA, PFHxS, and PFDA.

Groundwater and Residential Well Sampling (BRWM)

Navy groundwater sampling data prior to the AFFF release was available due to the ongoing investigation of the Federal clean-up site. While past data did not definitively confirm a connection between the contaminated site and nearby private drinking water wells, the Department opted to be cautious and developed and implemented a SAP to determine whether any nearby drinking water wells could be impacted by the release. Representative samples under the SAP would be taken to understand if there were any imminent risks to public health as a result of the spill. Following the same protocol the Department is using to conduct the statewide PFAS investigation, test results from this initiative were to be used to assess whether more testing would be needed.

The SAP included wells along Coombs Road from the southern intersection with Gurnet Road up to roughly a quarter mile past the intersection with Hawkins Lane, including properties on Hawkins Lane and Purinton Road. Locations were selected by carefully reviewing the historical data, hydrogeology, and test findings from the former naval air base and after hearing concerns from the public at the August 30, 2024 forum. Approximately 45 residential properties were initially identified by the Department for sampling. The Department determined that quarterly sampling would occur over the course of one year. This meant sampling would occur in December 2024, and March and June of 2025. At that time the results would be analyzed to determine if any further sampling was warranted.

In early September, Department staff contacted residents for sampling by going door-to-door to speak with residents. The purpose was to discuss PFAS sampling of drinking water wells and answer any questions and concerns directly from residents.

By September 26, 2024, 34 of the 45 residential well samples had been collected. The rest were not collected as it was later determined that several of these residences were already hooked into the public water system (no private drinking water well to sample), and at least one resident did not want sampling to occur at their home.

The first round of samples analyzed were below Maine's Interim Drinking Water Standard.

The second round of residential samples were collected on December 11 and 12, 2024. Results of these samples were generally consistent with the samples collected in September with minor fluctuations both increasing and decreasing in wells tested. Two water supply wells reported PFAS concentrations over the Maine Interim Drinking Water Standard, and these wells were resampled on January 6, 2025 to confirm the results. Results of the January re-sampling event showed PFAS concentrations below the Maine Interim Drinking Water Standard, and as a result the Department did not recommend filtration systems for these wells.

The third round of sampling occurred on March 24 and 25, 2025 and the fourth round of sampling was conducted on June 16 and July 8, 2025. Results of both the March and June/July sampling rounds showed PFAS concentrations below Maine's Interim Drinking Water Standard.

Mere Creek Golf Course: On January 23, 2025, the Department sampled the well located at the Mere Creek Golf Course, located southwest of the runway at the former Naval Air Station Brunswick. The concentration of the Sum of Six PFAS exceeded the Maine Interim Drinking Water Standard and totaled 33.1 ng/L (same as parts per trillion or ppt). PFOS was detected at 19.9 ng/L. The Navy has performed a cursory investigation of this general area of the base, but it is not detailed enough to determine whether the PFAS in the golf course well is a result of past Navy activities. The source of the PFAS in this well is currently unknown but predates the August 19, 2024, AFFF release from Hangar 4. The Department issued a letter in February of 2025 asking the Navy to conduct further investigation in this area. The Department sampled the Mere Creek Golf Course well on March 24, 2025, and again on June 16, 2025. The results for the Sum of Six PFAS were 37.6 ng/L and 28.9 ng/l, respectively, exceeding Maine's Interim Drinking Water Standard. Based on the results, MRRA coordinated the installation of a filter system in early April of 2025.

Soil Sampling (BRWM)

The Department collected soil samples in areas that were identified as either the most likely to be impacted from the AFFF release or those with the greatest risk for potential exposure to recreational users. On September 5, 2024, soil samples were collected adjacent to Hangar 4 and immediately around the on-site-oil water separator, the field north of the outdoor athletic complex, soils surrounding the outdoor athletic complex, and the field southeast of Pond B where appreciable amounts of wind-blown foam accumulated on the day of the AFFF release.

Analytical results identified PFAS detections in all soil areas that were tested. Soil concentrations at the Hanger 4 area and athletic complex were slightly above PFAS background soil levels for urban developed soils in Maine and were well below Maine's Remedial Action Guidelines for a park user exposure scenario (see the a table of PFAS Soil Remedial Action Guidelines as part of the Maine PFAS Screening Levels Document). The field southeast of Pond B where appreciable amounts of wind-blown foam accumulated on the day of the AFFF release was found to have soil concentrations of PFAS well above background levels but lower than Maine's Remedial Action Guidelines for the park user exposure scenario.

Additional soil sampling for Pond B took place in October 2024. A series of six discrete soil samples were collected in a transect moving away from the pond. Results showed that

PFAS concentrations only exceed soil RAGs at the location sampled closest to the pond. This sample is located on Navy-owned property and is posted “no trespassing”.

In addition, six composite soil samples were collected from small, raised garden beds that are used by a nearby business and all results received had concentrations at or below the Department’s published background soil concentrations for urban developed soils in Maine. One additional incremental soil sample was collected around the nearest building which houses two local businesses. Results of this sample were also at or below the Department’s background soil concentrations for urban developed soils for compounds with published values.

Fish Sampling (BWQ)

Mare Brook and Merriconeag Stream Fish Tissue Sampling: Before the spill, concentrations of PFOS in brook trout, black crappies, and American eels collected in 2023 by the Navy ranged from 28 to 298 nanograms per gram (ng/g) PFOS. As a result, and with consultation with Maine CDC, a “do not eat” advisory was put in place.

Following the spill, concentrations of PFOS in Merriconeag Stream fish ranged from 528 to 4,687 ng/g. Further downstream, concentrations of PFOS in Mare Brook fish ranged from 226 to 893 ng/g. DEP also found low concentrations of PFOS (1.5 ng/g) in brook trout collected upstream of the airport. While the release of firefighting foam greatly increased the concentration of PFOS in fish in affected parts of Merriconeag Stream and Mare Brook, there was already a “do not eat” advisory in place.

On July 30, 2025, surface water samples and fish tissue samples were collected from both Merriconeag Stream and Mare Brook downstream of the former air station. These were sites that the BWQ previously sampled immediately following the spill last year. These sample results are pending.

Androscoggin River Sampling: Before the spill, concentrations of PFOS in smallmouth bass ranged from 10 to 17 ng/g. After the spill, samples of smallmouth bass collected downstream of the BSD wastewater treatment facility ranged from 9 to 17 ng/g. Samples of smallmouth bass collected upstream of the wastewater treatment plant and the Fort Andros dam had 6 to 8 ng/g PFOS. Overall, the amount of PFOS in downstream fish was comparable before and after the spill. On June 27, 2025, fish tissue samples were collected from the Androscoggin River below the BSD outfall. These sample results are pending.

Harpswell Cove Sampling: The Department has been coordinating with the Department of Marine Resources (DMR) and the Town of Brunswick on shellfish sampling for PFAS in

softshell clams, blue mussels, quahogs, and American oysters. After the spill, as a precautionary measure, the DMR closed a seasonal shellfish harvesting area. The primary PFAS of concern in fish and shellfish is PFOS. Maine's fish tissue action level (FTAL) for PFOS is 3.5 ng/g wet weight, which is equivalent to parts per billion.

Results for PFAS analysis in shellfish tissue samples from Harpswell Cove collected three-weeks post-spill had concentrations well above the FTAL. Results at five-weeks post-spill dropped considerably and had concentrations slightly above the FTAL. Summary charts of this data can be found here: https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=5bdc42d73a484e1982370371e97aae83

Results collected in November 2024 had concentrations below the FTAL. To ensure high confidence in the data, additional samples were obtained in May 2025. Laboratory data for these samples was recently received by the Department and will undergo quality control review. Data will also be reviewed with DMR, CDC, and the Town of Brunswick to determine whether any changes in the shellfish area's closure status are necessary.

Ambient Air Monitoring

In response to community concerns about the potential for ongoing air exposures following the AFFF spill, the Department investigated potential ambient air sampling methods for the PFAS compounds found in AFFF. This type of sampling had not been previously conducted by the Department. A method used by the Minnesota Pollution Control Agency was selected for use. The Department completed two sampling events, one in November 2024 and a second in April 2025. The second round of testing was conducted to assess whether PFAS concentrations were increasing, decreasing, or remaining constant over time and at different ambient temperatures. A total of five,72-hour ambient air samples were collected for PFAS analysis, along with two blank samples used for quality control checks. Using high-volume air samplers, over 390,000 liters of air were sampled by each instrument during the sampling period which allowed for the detection of very low levels of PFAS in ambient air. An additional 72-hour ambient air sample was collected in Acadia National Park in Bar Harbor to better understand background levels of PFAS in ambient air without a known PFAS source. Laboratory results indicated low ambient air concentrations of many PFAS compounds found in AFFF. Results from the first round of sampling in November 2024 were higher than PFAS concentrations measured in April 2025. The PFAS levels measured

in April 2025 were similar to the levels measured in Bar Harbor and may reflect background levels of PFAS in ambient air.

Nearly all PFAS detected in the samples were found at concentrations well below provisional health-based air screening levels. One compound, PFOA, was detected at concentrations slightly above the provisional cancer screening level during both sampling events, but the measured PFOA in Brunswick is similar to the level measured in Bar Harbor. This screening level is conservatively based on an ambient air level that will result in only a small increase in cancer risk (cancer risk of 1-in-100,000) assuming lifetime exposure at this air level. Based on separate calculations, analysis of PFOA data suggests that exposure at the level found in ambient air at BNAS is not likely to result in any measurable increase in blood levels over expected current background blood levels in the U.S. population.

Where we are One Year Later…

The Department has expended a significant number of resources in response to the Brunswick AFFF spill and amassed a large body of data. The following is the most recent status and plan forward.

Emergency Response Actions: Completed as of September 6, 2025, when foam was no longer observed and the UC ceased operation. The Department does not recommend any further action at this time.

Surface Water Monitoring: Demonstrates that PFAS from the AFFF spill has flushed through the watershed and is not rebounding. Sampling also indicates minimal impact to the Androscoggin River. The Department intends to complete one additional round of surface water sampling that will occur in August 2025 and does not recommend further surface water sampling at this time.

Groundwater Monitoring: Private drinking water well levels were found on average to be below the Maines current Interim Drinking Water Standard. The Department does not recommend outfitting any private residential wells sampled with PFAS filter treatment systems at this time. The Department also does not recommend any further sampling or expansion of sampling as the data does not suggest that the contamination from the AFFF spill has impacted nearby residential drinking water wells. The Department plans to work with the Navy and EPA through the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process to further investigate the southwest portion of the former BNAS and make an informed decision about whether additional off-site wells need to be sampled.

Fish and Shellfish Monitoring: As noted above, additional surface water samples and fish tissue samples were recently collected from Merriconeag Stream, Mare Brook, and the Androscoggin River. These were sites that the BWQ previously sampled immediately following the spill in 2024. These sample results are pending. It is noted that there has been a "do not eat" fish advisory in these water bodies that pre-dated the spill. Any additional sampling will be based on available resources and consideration of sampling needs in other locations.

Also as noted above, recent shellfish sampling data from Harpswell Cove is under review. Any additional sampling will be based on results of this most recent sampling, consultation with DMR, CDC, and the Town of Brunswick, and available resources and consideration of sampling needs in other locations.

Ambient Air Quality Monitoring: In response to community concerns about the potential for ongoing air exposures following the AFFF spill at the former Brunswick Naval Air Station, the Department conducted ambient air sampling for PFAS typically found in AFFF. Based on a review of results, the Department does not recommend any further air quality sampling at this time.

Wildlife Sampling: The Maine Department of Inland Fisheries & Wildlife (IF&W) is currently conducting sampling of deer, turkey and eiders in the vicinity of the release to determine any potential impacts on wildlife. Once the sampling is complete and the results of the sampling have been analyzed, the department will publish any needed consumption advisories at https://www.maine.gov/ifw/hunting-trapping/hunting/laws-rules/pfas-related-consumption-advisory.html.

Ongoing work regarding the Federal Clean-up Site: The Department continues to work with Federal lead agencies EPA and DOD through the Federal CERCLA process for continued investigations and cleaning up the former BNAS site. The EPA issued a letter to the Navy in September 2024 requesting additional coordination about actions concerning site remediation. This CERCLA process is ongoing.