



Fact Sheet
The U.S. Environmental Protection Agency (EPA)
Proposes to Issue a National Pollutant Discharge Elimination System (NPDES) Permit for
Municipal Stormwater Discharges to:
Naval Air Station Whidbey Island, Washington
WAS026611

Public Comment Start Date: August 25, 2020
Public Comment Expiration Date: September 24, 2020

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EPA Requests Public Comment on the Proposed Permit

On September 30, 2019, EPA proposed for public comment an NPDES permit to authorize the discharge of stormwater from all municipal separate storm sewer system (MS4) outfalls owned or operated by Naval Air Station Whidbey Island. The public comment period closed on November 14, 2019. EPA received a number of comments expressing concern about discharges of per- and polyfluoroalkyl substances (PFAS) from Naval Air Station Whidbey Island that originate from the use of aqueous film forming foams (AFFFs) used in certain fire-fighting activities. In response to those comments, EPA is proposing changes to the draft permit and is requesting comment on those changes.

EPA is publishing the entire draft permit in order to provide full context. However, EPA is only requesting comments on the new or revised provisions that address assessment of and controls on PFAS discharges via the Naval Air Station Whidbey Island MS4 (Table 1).

EPA refers readers to the fact sheet published with the draft permit on September 30, 2019, for a description of the Naval Air Station Whidbey Island MS4 and a description of requirements for the stormwater management program (SWMP), a schedule of compliance, and other conditions, other than provisions related to the use of AFFFs.

Permit requirements are based on Section 402(p) of the Clean Water Act, 33 U.S.C. § 1342(p), and EPA's Phase II regulations for MS4 discharges, published in the Federal Register on December 8, 1999. 64 Fed. Reg. 68722, *see also* 40 CFR Part 122.

This Fact Sheet includes:

- information on public comment, public hearing and appeal procedures; and
- a description of PFAS- and AFFF-related requirements for the SWMP.

State of Washington Certification

On April 25, 2019, EPA requested that the Washington Department of Ecology (Ecology) certify the NPDES permit pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341.

Ecology requested public comment on the draft permits and on June 20, 2019 provided EPA a certification with conditions. EPA has included those conditions in the draft permit.

Public Comment

Because of the COVID-19 virus, access to the Region 10 EPA building is limited. Therefore, we request that all comments on EPA's draft permits or requests for a public hearing be submitted via email to Jenny Molloy (molloy.jennifer@epa.gov). If you are unable to submit comments via email, please call 202-564-1939.

Persons wishing to comment on, or request a Public Hearing for the draft permit for this facility may do so by the expiration date of the Public Comment period. A request for a Public Hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for Public Hearings must be submitted to the EPA as described in the Public Comments Section of the attached Public Notice.

After the Public Notice expires, and all comments have been considered, the EPA's regional Director for the Water Division will make a final decision regarding permit issuance. If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If substantive comments are received, the EPA will address the comments and issue the permit. The permit will become effective no less than 30 days after the issuance date, unless an appeal is submitted to the Environmental Appeals Board within 30 days pursuant to 40 CFR 124.19.

Documents are Available for Review

The draft permits, fact sheet, and other information can also be found by visiting the Region 10 NPDES website at: <https://www.epa.gov/npdes-permits/washington-npdes-permits>. Because of the COVID-19 virus and limited building access, we cannot make hard copies available for viewing at our offices.

Disability Reasonable Accommodation Notice

If you need a reasonable accommodation for a disability, please contact a TDD operator at 1-800-833-6384. Please ask to be connected to Jenny Molloy at the above phone number.

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Table 1. Proposed PFAS-Related Changes to the Naval Air Station Whidbey Island MS4 Permit

I. Background

Per- and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been manufactured and used by a variety of industries since 1940. Common applications of PFAS include water and stain repellent materials, as well as firefighting products. Due to their widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. There is evidence that continued exposure above specific levels to certain PFAS may lead to adverse health effects.

Certain PFAS chemicals are no longer manufactured in the United States as a result of phase outs in which eight major chemical manufacturers agreed to eliminate the use of PFAS-related chemicals in their products and as emissions from their facilities. Although these chemicals are no longer manufactured in the United States, they are still produced internationally and can be imported into the United States in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber and plastics.

Recently, EPA published a drinking water health advisory level for PFOS/PFOA at 70 parts per trillion, approved analytical methods for drinking water (Methods 533, 537, and 537.1) and conducted monitoring for PFAS in drinking water. The [EPA's PFAS Action Plan](#) was published in February 2019 and EPA released an update to the Plan in February 2020. The Action Plan describes the EPA's approach to identifying and understanding PFAS, approaches to addressing current PFAS contamination, preventing future contamination, and effectively communicating to the public about PFAS. States have not adopted, thus EPA has not approved, any surface water quality standards related to PFAS for aquatic life and human health. Moreover, there are currently no EPA approved, validated analytical methods for testing/monitoring for PFAS in discharges or surface waters, including stormwater discharges, under 40 CFR Part 136.

Aqueous Film Forming Foams (AFFFs)

Based on all available information, PFAS contamination at Naval Air Station Whidbey Island, Ault Field and the resulting MS4 discharges, come from the use of AFFFs in airfield firefighting activities, including training. Since its development in the 1960s, AFFF has been used to suppress fires world-wide. The use of PFAS in foam gives these mixtures a low surface tension and ability to spread. It is highly effective in fighting high-hazard flammable liquid fires involving gasoline, oil and jet fuel. When mixed with water, the foam forms an aqueous film that quickly cuts off oxygen to a flame, extinguishes the fire and prevents reignition.

Investigations at Naval Air Station Whidbey Island, Ault Field

In May 2018, the Navy discovered the presence of PFAS in a storm drain manhole at Ault Field Hangar 6 and initiated investigations to identify the scope of contamination (see Figure 1). All sampling results discussed in this document are based on analytical methods approved for drinking water, not stormwater, wastewater or surface waters. Since analytical results must be interpreted as relative or qualitative, not actual or quantitative, specific values are not included in this Fact Sheet.

In August 2018, following clean-out of the identified storm drain at Hangar 6, the Navy resampled to determine if PFAS contamination was moving through the storm drain system. Samples were taken from two sumps below the hangar in an access tunnel. Two additional samples were taken from manholes

upstream and downstream of the original manhole. Low levels of PFAS were detected in the upstream manhole and the two sumps. In the downstream manhole, concentrations were higher and indicated historical AFFF formulation and movement of contamination downstream.

In September 2018, the Navy, concerned about the possibility of contaminated discharges to Clover Valley Creek, undertook additional sampling in the drainage system from Hangar 6 downstream to the discharge location at Dugualla Bay. The results confirm that PFAS is discharging to Dugualla Bay via the Naval Air Station Whidbey Island MS4.

In October 2018, the Navy notified EPA, landowners adjacent to Clover Valley Creek and the *Whidbey Times* regarding the discharge. Since then, investigations have been ongoing to identify: the extent of contamination, all possible sources, and priority remedial actions.

PFAS-Related Public Comments on the Draft Permit and the EPA Responses

On September 30, 2019, EPA proposed for public comment a NPDES permit to authorize the discharge of stormwater from all MS4 outfalls owned or operated by Naval Air Station Whidbey Island. The public comment period closed on November 14, 2019. EPA received a number of comments expressing concern about discharges of PFAS from Naval Air Station Whidbey Island. The majority of those comments fall into 3 categories:

1. Requests to either extend the public comment period or to reopen it.

None of the requests for an extension of the public comment period provided a reason for the extension. However, by the time the public comment period had closed, EPA had received enough information to determine that the draft permit would require substantive changes that would necessitate a second public notice and comment period. Therefore, EPA is responding to these comments by opening this second public comment period. As previously stated, EPA is only accepting comments on the new/revised permit conditions discussed in this Fact Sheet.

2. Requests to deny the permit.

EPA clarifies that denying Naval Air Station Whidbey Island MS4 permit coverage will neither halt the discharges of stormwater nor control the pollutants in them. As part of this permit action, EPA has specifically determined that the MS4 discharges from Naval Air Station Whidbey Island are a contributor of pollutants to waters of the U.S. (see [Designation of Naval Air Station Whidbey Island as a Small Municipal Separate Storm Sewer System](#)), and has designated the system as a regulated small MS4 subject to NPDES permitting. This will be the first permit to regulate these specific discharges. EPA is including a number of provisions in the permit that will require the Navy to implement controls to minimize the discharge of pollutants via the MS4. EPA has provided a basis of how the provisions in this permit meet state water quality standards and the regulatory “maximum extent practicable” standard (see original Fact sheet dated September 30, 2019). The Washington Department of Ecology has certified that the permit meets the state’s water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341. Based on all of these reasons, EPA has decided to move forward with permit issuance. Further, pursuant to 40 CFR §122.4, EPA has no basis for denying the permit.

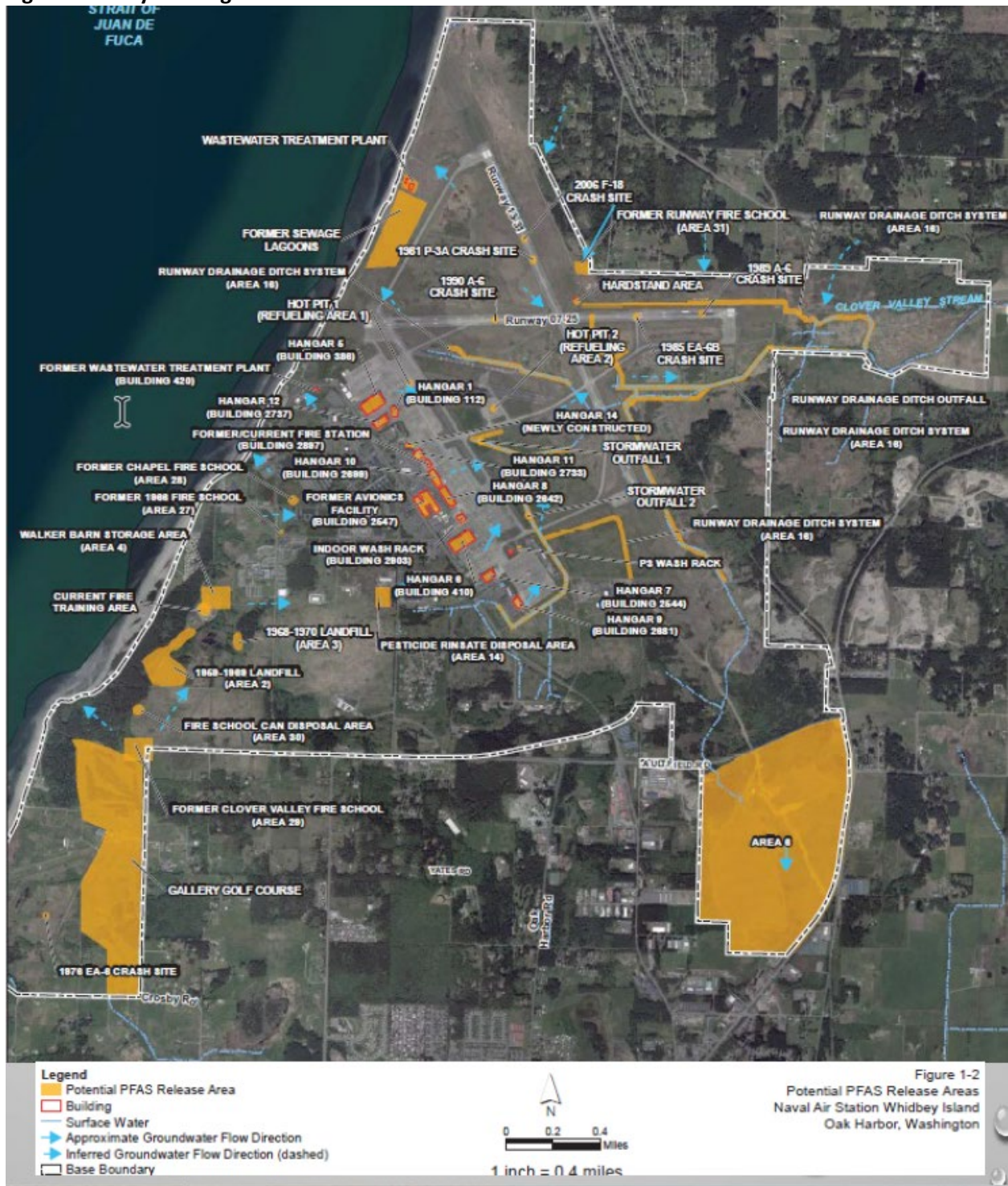
3. Requests to investigate and abate the source and nature of PFAS contaminants discharging from the Navy’s stormwater collection and discharge system.

EPA is responding to these requests by proposing changes to the permit that will directly address PFAS in MS4 discharges from Ault Field. The requirements in the MS4 permit will advance investigation and

implementation of controls on the discharge of contaminants. This permit will be one part of a more comprehensive approach to PFAS abatement measures for Naval Air Station Whidbey Island (see discussion under *General Approach*, below).

EPA received additional comments on the draft permit that were unrelated to PFAS contamination. Those comments will be addressed in a separate response to comment document published with the final permit.

Figure 1. Navy Investigations of Potential PFAS Release Areas at Ault Field



II. Basis for the Revised Permit Conditions

General Approach to Incorporating PFAS-Related Requirements into the Permit

MS4 permits require the implementation of controls on pollutants and sources of pollutants that discharge via the MS4 to waters of the U.S. Like other unauthorized non-stormwater discharges, such as sanitary sewage (i.e. black water), oily runoff, or chlorinated swimming pool water, PFAS discharges from the airfield are another type of unauthorized non-stormwater discharge.

Note that some aspects of PFAS-contamination at Ault Field are not addressed in this permit since they are outside the scope of MS4 regulatory authority (e.g., groundwater contamination). Other programs, such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), often referred to as the Superfund program, also have roles to play in abatement activities. EPA is taking steps to ensure the appropriate level of coordination among the relevant programs.

Based on all available information, discharges of PFAS from the Naval Air Station Whidbey Island, Ault Field MS4 originate from the use of AFFFs in airfield firefighting activities. No other sources have been identified. Accordingly, the proposed revisions to the permit target MS4 discharges from these specific activities. Should investigative activities identify additional sources, EPA anticipates that the additional and modified provisions proposed in this draft permit should be sufficient to address additional sources. EPA will also consider modifying the permit should new information, methods or tools become available in advance of the permit expiration date.

PFAS-related criteria for human health and aquatic life have not yet been developed, thus water quality standards have not yet been established. As a result, developing numeric effluent limits at this time is infeasible. Because there is not yet an approved analytical method for PFAS in stormwater, confirming compliance with a numeric limit is likewise not yet possible. Similarly, treatment technologies for PFAS are not yet well proven and established, thus end-of-pipe treatment requirements are by-and-large premature. However, the development and implementation of stormwater controls that rely primarily on pollution prevention and minimization is central to how MS4 operators are expected to comply with their permits. Therefore, this approach can be effectively harnessed to manage stormwater discharges from firefighting operations that utilize PFAS-containing AFFFs by installing measures such as in-line valves or diversions in high risk areas; to inform clean-up from those activities, such as blocking storm drain inlets and diverting flows to collection or treatment systems; and to undertake relevant operation and maintenance of MS4 assets such as sumps, manholes, pipes and ditches (Parts 2.4.4, 2.5.6, 2.5.8, 2.5.10 of the draft permit). EPA anticipates that as analytical methods and treatment technologies are established, permit requirements and the permittee's PFAS management approaches will likewise become more refined.

The draft permit also requires the permittee to keep downstream users of relevant aquatic resources informed about pollutant discharges and relevant activities, so that those users can make informed decisions about utilization of such resources for drinking water, crop irrigation, livestock watering, fish and shellfish harvesting and other likely uses (Part 2.3.3.4 of the draft permit). The draft permit further proposes that the permittee engage these downstream users, as relevant, in setting certain priorities for the Naval Air Station Whidbey Island SWMP (Part 2.2.2 of the draft permit).

Specific Proposed Revisions to the Draft Permit

In consideration of the factors discussed above, the revised proposed permit provisions are based on the following:

1. Clarifying authorized non-stormwater discharges via the MS4 (Parts 1.3.4.2, 2.3.2.1);
2. Identifying sources and causes using investigation and screening approaches that need not be specifically quantitative, i.e., presence/absence or known uses. While these provisions are not specific to PFAS, EPA calls attention to them because they respond to comments received (Parts 2.3.1, 2.3.3.1);
3. Implementation of pollution prevention, containment and minimization best practices (Parts 2.3.3.3, 2.3.3.6, 2.4.4, 2.5.6, 2.5.8, 2.5.10); and
4. Providing outreach and notification to downstream entities and engagement with those who are potentially affected. While these provisions are not specific to PFAS, EPA calls attention to them because they address comments received (Parts 2.2.2, 2.3.3.4).

The proposed additions and modifications to the Naval Air Station Whidbey Island MS4 permit are described and explained in Table 1.

Table 1. Proposed Provisions in the Naval Air Station Whidbey Island MS4 Permit			
Permit Part	Change	Permit Requirement	Explanation and Regulatory Authority
Acronyms	Added	AFFF (Aqueous Film Forming Foam) PFAS (Per- and Polyfluoroalkyl Substances)	
1.3 Limitations on Permit Coverage			
1.3.4.2	Modified	The discharges originate from and during emergency firefighting activities either that do not involve PFAS-containing AFFFs, or that involve PFAS-containing AFFFs and are consistent with Part 2.5.8 of this Permit. After the emergency has ceased, non-stormwater discharges (e.g. associated with cleanup) to the MS4 are prohibited.	Normally discharges from firefighting activities are an authorized non-stormwater discharge. This clarifies both that discharges from emergency firefighting activities that involve no PFAS-containing materials AND that discharges from emergency firefighting activities using PFAS-containing AFFFs in compliance with Part 2.5.8 of the permit are authorized non-stormwater discharges.

			40 CFR §122.34(b)(3)(ii)
2.2 Public Involvement/Participation			
2.2.2	Added, though not specific to discharges of PFAS	To the extent that stormwater management activities and decisions affect Naval Air Station Whidbey Island neighbors and nearby activities and operations, public engagement should be used to help establish priorities for implementation activities with significant effects on those people and organizations.	Emphasizes the importance of engaging those potentially affected by stormwater discharges in establishing stormwater management priorities. 40 CFR §122.34(b)(2)(i)
2.3. Illicit Discharge Detection and Elimination (IDDE)			
2.3.1	Modified, though not specific to discharges of PFAS	Locations of all Permittee owned or operated industrial facilities, maintenance/storage facilities, snow disposal sites that discharge directly to the Permittee's MS4, <u>areas of known toxic and bioaccumulative materials usage and contamination</u> , and/or waters of the U.S.	Emphasizes that areas of known contamination should be included in maps of the MS4. 40 CFR §122.34(b)(3)(i)(A)
2.3.2.1	Modified	<ul style="list-style-type: none"> Discharges from emergency firefighting activities that do not involve the use of PFAS-containing AFFFs. Discharges from emergency firefighting activities that involve the use of PFAS-containing AFFFs, provided they are in compliance with the provisions of Part 2.5.8. 	As noted above, limits authorization of discharges from emergency firefighting activities only to those that do not involve PFAS-containing AFFFs, and those that are in compliance with Part 2.5.8. 40 CFR §122.34(b)(3)(i)(B)
2.3.3.1	Modified, though not specific to discharges of PFAS	Procedures for locating priority areas likely to have illicit discharges, including areas where complaints have been recorded in the past, and areas with storage of large quantities of materials that could result in spills; <u>and areas where storage, usage, releases or contamination of any pollutant in Table 2.4.4 is or has occurred;</u>	Emphasizes the importance of including known areas of contamination in priorities for the IDDE program. 40 CFR §122.34(b)(3)(i)(C)

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2.3.3.4	Consolidated/Modified, though not specific to discharges of PFAS	<p>Procedures for notifying affected parties, including immediate notification of spills and illicit discharges, and ongoing updates about abatement measures and possible impacts.</p> <p>The Permittee must immediately notify downstream operators of MS4s, shellfish beds/fisheries, agricultural/livestock operations and drinking water systems (public or private) of spills or other non-stormwater discharges that may impact those systems;</p> <p>For illicit discharges that cannot be immediately abated and that have the potential to affect human health, or any of the systems identified in Part 2.3.3.4.1, the Permittee shall keep those parties informed of the status of illicit discharge elimination activities and also provide other information and data, as appropriate, on potential impacts.</p>	<p>Consolidates the notification requirements for spills and illicit discharges, and emphasizes procedures for doing so. Specifically articulates the scope of who must be notified. Emphasizes the importance of including potential effects in those notifications, as appropriate.</p> <p>40 CFR §122.34(b)(3)(i)(D)</p>
2.4. New Development, Redevelopment and Construction Site Runoff Control			
Table 2.4.4 <i>Pollutants of Concern</i>	Added	Per- and polyfluoroalkyl substances (PFAS)	<p>Adds PFAS to the table of Pollutants of Concern that the Permittee must consider in planning the design and implementation of stormwater controls.</p> <p>40 CFR §122.34(b)(5)(i)(A) and (C); 40 CFR §122.34(c)(1)</p>
2.5 Pollution Prevention and Good Housekeeping for Operation & Maintenance			
2.5.6	Added	Runway/Airfield cleaning/maintenance, including clean-up from firefighting activities	Adds runways and airfields, including clean-up from firefighting activities, to the list of areas/activities for which maintenance

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			practices must be established. 40 CFR §122.34(b)(6)(i)
2.5.8	Added	<p>PFAS Management at Naval Air Station Whidbey Island-Ault Field</p> <p>The Permittee must implement measures to minimize discharges of PFAS via the MS4 during emergency firefighting activities. The Permittee is not expected to deploy control measures during an emergency.</p> <p>The Permittee must implement measures to minimize discharges of PFAS via the MS4 during post-emergency activities, including clean-up.</p> <p>The Permittee must establish specific protocols for minimizing the resuspension, conveyance and discharge of PFAS already in the MS4 system, both during normal operations and during all maintenance and remediation activities.</p> <p>The Permittee must report on all activities undertaken in fulfillment of Parts 2.5.8.1 and 2.5.8.2 in each annual report.</p>	<p>Specifies the requirement to develop and implement appropriate stormwater management controls related to firefighting activities and subsequent clean-ups where PFAS containing substances have been used. Also establishes a requirement for managing PFAS contamination already in the storm sewer system. Also establishes requirements to report on all relevant activities in each Annual Report.</p> <p>40 CFR §122.34(b)(6)(i); 40 CFR §122.34(c)(1); 40 CFR §122.34(d)(3)</p>
2.5.10	Added	As relevant, all SWPPPs must include provisions for the use and clean-up of PFAS-containing AFFFs.	<p>Adds PFAS-containing AFFF usage and clean-up to the elements required to be included in stormwater pollution prevention plans for equipment maintenance/material storage yards, if relevant.</p> <p>40 CFR §122.34(b)(6)(i)</p>