



REGION 10

SEATTLE, WA 98101

Captain Nathan J. Gammache
Commanding Officer
Naval Air Station Whidbey Island
3730 North Charles Porter Avenue
Oak Harbor, Washington 98278

Dear Captain Gammache:

The U. S. Environmental Protection Agency Region 10 (EPA) has reviewed the Final Sixth Five-Year Review (FYR) Report for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites associated with Naval Air Station Whidbey Island (NASWI), Washington. The conclusions in this letter are based on the signed Final Sixth FYR Report which is dated July 26, 2024. It is EPA policy to make a protectiveness determination at federal facilities by the statutory FYR due date, which for NASWI is September 23, 2024.

The EPA reviewed the Final Sixth FYR Report for technical adequacy, accuracy, and consistency with the National Contingency Plan, CERCLA, and EPA guidance. The report provides a summary of the status and protectiveness determinations on operable units (OUs) for which Records of Decision (RODs) have been issued and are not considered No Further Action (NFA). It also identifies actions to be taken that ensure protectiveness of the selected remedies and ongoing remedial actions, and documents a schedule for completion of the recommended actions at the respective OU.

The EPA is making an independent finding of protectiveness for these OUs. The following are the EPA's protectiveness determinations for these NASWI OUs that will be provided in EPA's annual report to Congress. Also included are additional recommendations and follow-up actions necessary to address issues raised in the FYR Report that affect or could affect protectiveness. Each OU is discussed below, with reference to the corresponding numeric OU designations assigned in EPA's Superfund Enterprise Management System database.

OU 1 – Areas 5 (Highway 20 / Hoffman Road Landfill) & 6 (Landfill Operations Area and Former Hazardous Waste Storage)

The EPA does not concur with the Navy's "short-term protectiveness" determination for OU 1 and is making an independent finding of "not protective". The FYR Report does not include a thorough summary of the scope of per- and polyfluoroalkyl substances (PFAS) investigations to date. Area 6 is included in an ongoing PFAS Remedial Investigation (RI) and PFAS has not been delineated at that site.

The nature and extent of PFAS contamination and a cumulative risk assessment will need to be completed by the Navy.

More specifically, the EPA considers the remedy at Area 6 to be not protective because of the following issues:

1. Construction activities at the West Advanced Oxidation Process (AOP) Plant are ongoing and the western groundwater extraction network for Area 6 was shut down in August of 2023 and will be offline until completion of construction. Without containment of the western groundwater plume via the extraction network, there may be a migration of contaminants in an uncontrolled manner.
2. Delineation investigation of 1,4-dioxane is occurring mainly to the southeast of Area 6. However, there is a potential groundwater divide on the northern end of Area 6 congruent to Ault Road. If groundwater is flowing north, there may be an un-contained 1,4 dioxane plume to the north.
3. On- and off-base PFAS delineation and groundwater flow model is ongoing and pending a RI Report.
4. Additional off-base residential wells had PFAS detections over the Lifetime Health Advisory (LHA) of 70 parts per trillion (ppt) in February of 2024, far above the 4 ppt Maximum Contaminant Level (MCL) for PFOA and PFOS. A time-critical removal action (TCRA) is currently underway.
5. Potential and/or actual PFAS exposures above the MCLs are known to be occurring in this area.

The following actions need to be taken to ensure protectiveness:

1. Complete construction of the Western AOP Plant and have it fully operational by the end of fiscal year 2025 (September 30, 2025).
2. Collect samples for 1,4-dioxane analysis in the newly installed monitoring wells north of Ault Road by the end of fiscal year 2026 (September 30, 2026).
3. Submit Area 6 PFAS Phase 1 RI Report by the end of fiscal year 2025 (September 30, 2025).
4. Complete TCRA by the end of fiscal year 2026 (September 30, 2026).
5. Conduct extended PFAS off-base drinking water investigation and public outreach by the end of fiscal year 2025 (September 30, 2025).
6. Develop a plan on how to address the residential wells that have PFAS concentrations above the MCLs.

OU 2 – Areas 2 (Western Highlands Landfill), 3 (1969-1970 Landfill), 4 (Walker Barn Storage), 14 (Pesticide Rinsate Disposal) and 29 (Clover Valley Fire School)

The EPA does not concur with the Navy's "short-term protective" determination for OU 2 and is making an independent finding of "not protective". Similar to OU 1, the FYR Report on OU 2 does not include a thorough summary of the scope of PFAS investigations to date. Areas 2 and 3 wells had PFAS concentrations as high as 29,200 ppt in 2018. However, the Navy concluded that these exceedances were the result of past aqueous firefighting foam (AFFF) releases at the Current Fire Training Area (CFTA) and thus CFTA is included in an ongoing PFAS RI. The extent of PFAS contamination has not been delineated at this OU. The nature and extent of PFAS contamination and a cumulative risk assessment will need to be completed by the Navy. Furthermore, per the Fifth FYR Report

recommendation, an evaluation of the arsenic and manganese background concentrations at Areas 2 and 3 were to be conducted by the Navy. However, five years later, the EPA has not received such an evaluation report.

More specifically, the EPA considers the remedy at OU 2 to be not protective because of the following issues:

1. In association with this OU (Areas 2 & 3), the CFTA is undergoing a PFAS RI with on- and off-base PFAS delineation and groundwater flow model.
2. Arsenic and manganese at Area 2 & 3 were detected at elevated concentrations above the ROD clean up levels and may be attributed to historical site activities. Per the Fifth FYR Report recommendations, a groundwater monitoring event was conducted in August of 2023. EPA has not received an evaluation report from the Navy.
3. Potential and/or actual PFAS exposures above the MCLs are known around this area.

The following actions need to be taken to ensure protectiveness:

1. Submit the CFTA PFAS Phase 1 RI Report by the end of fiscal year 2025 (September 30, 2025).
2. As stated in the Fifth FYR Report, "A Memorandum to File must be prepared to formally propose and document the calculated background concentrations as clean up levels for arsenic and manganese in groundwater at OU2." Submit this Memo to the EPA by the end of fiscal year 2026 (September 30, 2026).
3. Develop a plan on how to address the residential wells that have PFAS concentrations above the MCLs.

OU 3 – Area 16 (Runway Ditches)

The EPA does not concur with the "short-term protective" determination for OU 3 and is making an independent finding of "not protective". The Sixth FYR Report does not include a thorough summary of the scope of PFAS investigations to date. Area 16 is included in an ongoing PFAS RI and PFAS has not been delineated at this site. The nature and extent of PFAS contamination and a cumulative risk assessment will need to be completed by the Navy.

More specifically, the EPA considers the remedy at Area 16 to be not protective because of the following issues:

1. On- and off-base PFAS delineation and groundwater flow model is ongoing and pending a RI Report.
2. Additional residential wells had PFAS concentrations over 70 ppt in February of 2024 and a TCRA is currently underway.
3. Potential and/or actual PFAS exposures above the MCLs are known in this area.

The following actions need to be taken to ensure protectiveness:

1. Submit Area 16 PFAS Phase 1 RI Report to the EPA by the end of fiscal year 2027 (September 30, 2027).
2. Complete TCRA by the end of fiscal year 2026 (September 30, 2026).
3. Develop a plan on how to address the residential wells that have PFAS concentrations above the MCLs.

OU 4 – Areas 39 (Auto Repair and Paint Shop), 41 (Building 25 and 26 Disposal), 44 (Seaplane Base Nose Hangar), and 48/49 (Seaplane Base Salvage Yard and Landfill)

The EPA does not concur with the “protective” determination for OU 4 and is making an independent finding of “short-term protective”. According to the 2022 and 2023 Land Use Controls (LUC) inspection reports, there are shoreline erosion issues at Area 48/49. The boundary of Area 48/49 is adjacent to Crescent Harbor and could potentially be vulnerable to climate change impacts. The shoreline should be protected from further erosion to prevent migration of waste materials. This remedy performance issue could impact future protectiveness.

The remedy at OU4 currently protects human health and the environment because LUCs are in place. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness:

1. Conduct a thorough LUC inspection and assessment of the erosion issue at Area 48/49 by September 30, 2026.
2. If recommended by the LUC inspection and assessment report, develop a plan on how to address the erosion issue by the end of fiscal year 2027 (September 30, 2027).

OU 5 – Areas 1 (Beach Landfill), 31 (Former Runway Fire Training School), and 52 (Jet Engine Test Cell)

The EPA does not concur with the Navy’s “short-term protectiveness” determination for OU 5 and is making an independent finding of “not protective”. The Sixth FYR Report does not include a thorough summary of the scope of PFAS investigations to date. Area 31 is included in an ongoing PFAS RI and PFAS contamination has not been delineated at this site. The nature and extent of PFAS contamination and a cumulative risk assessment will need to be completed by the Navy.

More specifically, the EPA considers the remedy at Area 31 to be not protective because of the following issues:

1. On- and off-base PFAS delineation and groundwater baseline model is ongoing and there is a pending RI Report.
2. Additional residential wells had PFAS concentrations over 70 ppt in February of 2024 and a TCRA is currently underway.
3. Potential and/or actual PFAS exposures above the MCLs are known around this area.

The following actions need to be taken to ensure protectiveness:

1. Submit Area 31 PFAS Phase 2 RI Report to the EPA by the end of fiscal year 2027 (September 30, 2027).
2. Complete the TCRA by the end of fiscal year 2026 (September 30, 2026).
3. Develop a plan on how to address the residential wells that have recorded PFAS samples above the MCLs.

The EPA and the Navy do not agree on all protectiveness statements for the NASWI Sixth FYR Report due particularly to issues of PFAS implementation. The LHA of 70 ppt for PFOS and PFOA is no longer considered by the EPA to be protective of public health and the environment. Please use the recently

promulgated MCLs and maximum contaminant level goals (MCLGs) promulgated by EPA for PFOS and PFOA as the cleanup goals for drinking water. These MCLs and MCLGs are applicable or relevant and appropriate requirements (ARARs) under CERCLA for addressing the groundwater contamination. To further ensure implementation, EPA again request the completion of the Federal Facility Agreement Amendment to include PFAS and Site Management Plan requirements.

Below is a table summarizing the protectiveness determinations.

Operable Unit Name	Navy Protectiveness Determination	EPA Protectiveness Determination
OU 1	Short Term Protective	Not Protective
OU 2	Short Term Protective	Not Protective
OU 3	Short Term Protective	Not Protective
OU 4	Protective	Short-Term Protective
OU 5	Short Term Protective	Not Protective

Sitewide – Naval Air Station Whidbey Island: EPA Site ID WA5170090059

PFAS are present at OUs 1, 2, 3, and 5 at concentrations above the current MCL of 4 ppt and exceeding the current regional screening levels (RSLs). PFAS in groundwater at these OUs may impact the protectiveness of the remedies. There are known off-base residential drinking water wells that have been impacted and are being addressed through LUCs and removal actions. As of the most recent PFAS sampling and public outreach effort in February of 2024, additional PFAS contaminated residential wells were discovered. The Navy plans to continue the PFAS off-base drinking water sampling and outreach efforts again through the Department of Defense policy on PFAS implementation. At this point, there is uncertainty about whether additional contaminated wells will be discovered. With this uncertainty, the EPA considers the remedies at OUs 1, 2, 3 and 5 to be not protective of human health and the environment. The EPA considers the remedy at OU 4 to be short-term protective for engineering performance issues at Area 48/49. The EPA will be reporting these protectiveness determinations in its FY 2024 Report to Congress.

Consistent with EPA’s August 1, 2011 memorandum “[Program Priorities for Federal Facility Five-Year Reviews](#)”, the Five-Year Review Guidance Section 1.3.3 has been superseded and the future Five-Year Review dates will be based on the completion date for this review to assure that the due dates will not change if the reports are early or late. The EPA due date for the subsequent 7th FYR is September 23, 2029.

Finally, the August 1, 2011 Program Priorities memorandum also calls for a summary of the EPA Superfund Sitewide Environmental Indicator Status for Sites undergoing Five-Year Reviews. The Environmental Indicators for NASWI Field and Seaplane Base are posted on the EPA website [Superfund Human Exposure Dashboard](#).

The Superfund Sitewide Human Health Exposure Indicator (EI) status has changed to “current human exposures not under control”. This change is due to confirming residential well concentrations between the 4 ppt MCL and 70 ppt LHA have not been addressed and the additional uncertainty regarding existing residential wells that may be contaminated with PFAS. The EPA concludes this EI status is

appropriate.

The Superfund Sitewide Contaminated Groundwater Migration indicator status will remain “contaminated groundwater migration not under control”. Due to the uncertainty regarding the nature and extent of PFAS contamination in groundwater and that phased sampling efforts continue to find PFAS contaminated residential wells, EPA finds that this status is appropriate and that uncontrolled contaminated groundwater poses an unacceptable risk to human health and the environment.

The next FYR is due September 23, 2029. It is my understanding that our staff will continue to discuss a timeline that would ensure EPA receives the draft report with adequate time to provide comments to the Navy, and to allow follow-up discussions and revision of the next draft FYR Report. Our goal is to be able to work with the Navy to come to a resolution on issues, recommendations, and protectiveness determinations before the statutory deadline.

If you have questions concerning this letter, please contact the Remedial Project Manager, Chan Pongkhamsing, at 206-553-1806 or by email to pongkhamsing.chan@epa.gov.

Sincerely,

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Calvin J. Terada

Director

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