

Response to Comments:
U.S. Army Yakima Training Center
Enforcement Order, Permit for
Corrective Action,
and Public Participation Plan

Yakima, Washington

Hazardous Waste and Toxics Reduction Program

Washington State Department of Ecology Central Region Office Union Gap, Washington

October 2023 Publication 23-04-060



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Contact Information

Washington State Department of Ecology

Hazardous Waste and Toxics Reduction Program Central Region Office 1250 W. Alder St. Union Gap, WA 98901

Website: Washington State Department of Ecology¹

Janelle Anderson

Community Outreach Specialist Telephone: 425-301-6454

Email: Janelle.anderson@ecv.wa.gov

Kurt Walker

Site Manager

Telephone: 509-934-0386

Email: kurt.walker@ecy.wa.gov

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Map of Counties Served



Southwest Region 360-407-6300

Northwest Region 206-594-0000 Central Region 509-575-2490 Eastern Region 509-329-3400

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

Response to Comments

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Public Outreach Summary

Site overview

Yakima Training Center (YTC) is owned and operated by the U.S. Army (Army) as a sub-installation of Joint Base Lewis-McChord (JBLM). It is located about 100 air miles east of JBLM and about 5 miles northeast of Yakima. YTC covers over 327,000 acres in Yakima and Kittitas Counties. Prior to military training, the land was used for ranching and mining operations.

YTC's on-base community is mostly visiting soldiers doing maneuvers and weapons training, and a few permanent residents and on-site workers. The training center also houses several military or federal government tenants, including the State of Washington Army National Guard Materials and Training Equipment Site, the Marine and Army Reserve Centers, and the former Yakima Research Station.

Although YTC has been in nearly continuous use since the early 1940s, there are few records of waste management practices prior to 1984. Since 1980, the Army has owned and operated YTC as a Dangerous Waste Management Facility under the Resource Conservation and Recovery Act (RCRA), 42 US Code 6925. RCRA is the federal hazardous waste management law.

Activities that use chemical products and can generate hazardous wastes occur at the YTC. The environmental pollution to be addressed on site includes releases (spills and leaks) of hazardous substances and toxic waste from past military and maintenance operations involving:

- Petroleum-based fuels (gasoline, diesel, and Jet-A).
- Solvents such as trichloroethylene (TCE) and methylethylketone.
- Lead-acid batteries from vehicles.
- Ordnance, explosives, and other pyrotechnics (including unneeded or outdated ammunition and weapons).
- Per- and polyfluoroalkyl substances (PFAS) used in firefighting foams.

A 1995 Facility Assessment report identified 115 known or potentially polluted areas within YTC. Most of these contaminated areas are near the southwest border of the base, near East Selah. By 2013, all the areas were investigated and over 80 percent were cleaned up with Ecology oversight. Some areas don't meet soil or groundwater cleanup standards or have yet to be properly investigated.

Off-base impacts to the public

Beginning in 2020, the Army began testing drinking water wells on and around YTC for PFAS. On-base use of firefighting foams containing PFAS contaminated groundwater, including off-base drinking water wells west of the YTC. Approximately 120 off-post private drinking water wells tested above Washington Department of Health state action levels or U.S. Environmental Protection Agency (EPA) standards for drinking water. Currently, the Army is conducting investigations and drinking water mitigation efforts without public review or Ecology oversight.

Action by Ecology

On February 1, 2023, Ecology issued an enforcement order (EO), permit for site cleanup, and a draft public participation plan. Essentially, the Army is ordered to follow Washington state's formal cleanup process³ as directed under the Model Toxics Control Act (MTCA⁴).

- The EO requires that the Army fully investigate and clean up contaminated areas on the site to meet both state and federal standards. It ensures that the public and Ecology have opportunities to review and comment on the Army's investigation and cleanup activities.
- The permit for cleanup provides oversight and a regulatory framework regarding dangerous waste activities, including cleanup.
- The public participation plan describes how the community will be informed about site activities and opportunities to engage in the process.

Ecology's public involvement activities related to the comment period (February 6 – March 22, 2023) included:

Public notice mailer:

- United States mail distribution notices providing information about the cleanup documents and the public comment period. We sent this notice to approximately 200 addresses, including neighboring businesses and other interested parties.
- The notice is also available digitally on Ecology's website.⁵

Legal notice:

- Publication of paid display newspaper ads in February and March 2023.
 Newspapers included:
 - The Yakima Herald Republic
 - El Sol (Spanish Translation)
 - Ellensburg Daily Record
- o Publication of paid display ads in *NW Military News* on February 9, 2023.

• Site Register:

- Publication of four notices in Ecology's Site Register:
 - Comment Period Notice:
 - February 9, 2023
 - February 23, 2023

³ https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process

⁴ https://ecology.wa.gov/mtca

⁵ https://apps.ecology.wa.gov/publications/SummaryPages/2304004.html

Visit Ecology's Site Register website⁶ to download PDFs of these notices.

Media coverage:

- The following media outlets posted a story on February 1, 2023 about PFAS contamination, the enforcement order, and needed cleanup:
 - Newstalk KIT
 - KIMA
 - NBC Right Now
- Inside EPA ran a story on February 3, 2023 about PFAS contamination, the enforcement order, and WA State Action Levels for PFAS.
- The Yakima Herald Republic ran a story on February 5, 2023, about the drinking water contamination from PFAS.
- The Yakima Herald Republic ran a story in the opinion section on February 12,
 2023 about PFAS, Ecology's actions, and a call for the Army to do more.
- Columbia Insight ran a story on February 15, 2023 about PFAS contamination around Yakima Training.
- The Yakima Herald Republic ran a story on March 31, 2023, about the PFAS
 history, proposed EPA limits for PFAS, and PFAS contamination to drinking water
 sources.

• Email subscribers:

 On February 22, 2023, Ecology posted a story about addressing contamination at the Yakima Training Center on <u>Ecology's blog</u>, which has approximately 3,760 email subscribers.

Websites:

 Ecology announced the public comment period, posted the public notice mailer (including Spanish translation), and made the review documents available on Ecology's <u>Yakima Training Center webpage</u>⁸ and Ecology's Public Inputs & Events webpage.

• Document repositories:

- Copies of the review documents and public notice mailer (including Spanish translation) were available for review at the Yakima Central Library and Ecology's Central Region Office in Union Gap, Washington.
- Outreach materials also directed the public to contact Sheila Coughlan, Outreach Planner, for document review assistance.

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⁶https://apps.ecology.wa.gov/publications/UIPages/PublicationList.aspx?IndexTypeName=Program&NameValue= Toxics+Cleanup&DocumentTypeName=Newsletter

⁷ https://ecology.wa.gov/blog/february-2023/your-input-matters-addressing-contamination

⁸ ecology.wa.gov/cleanupsearch/site/2301

Next Steps

Ecology has reviewed and considered the public comments received on the documents.

We didn't receive any comments regarding the draft public participation plan. Therefore, we intend to update the contacts and finalize the public participation plan as published.

The enforcement order and permit for cleanup have been in effect since February 1, 2023. While we received many encouraging comments and some legal suggestions, we don't anticipate amending either the enforcement order or permit for cleanup at this time.

Ecology is committed to protecting public health and seeing the investigation and cleanup goals achieved. We continue to communicate with the Army and state and local health agencies about ways to best protect the public and administer cleanup work at the Yakima Training Center.

Issues related to off-base impacts have the highest priority due to the risk to public health. Ecology recently required the Army to establish a PFAS sampling and analysis workplan. Regular and ongoing sampling efforts are needed to properly characterize PFAS contamination and to protect human health.

The Army and their contractors have begun investigating on-base contamination and developing remedial investigation plans.

The Yakima Training Center is currently in the remedial investigation phase of the cleanup process. See the graphic below and visit Ecology's <u>cleanup process webpage</u>⁹ to learn more about Washington's formal cleanup process.

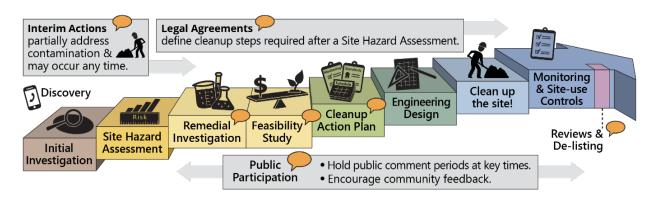


Figure 1: Washington's formal cleanup process (<u>download a text explanation</u>¹⁰).

⁹ https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process

¹⁰ https://apps.ecology.wa.gov/publications/parts/1909166part2.pdf

Comments and Responses

From February 6 to March 22, 2023, Ecology invited public comments on the enforcement agreed order, permit for cleanup, and draft public participation plan for the Yakima Training Center. Ecology received 20 comments during the comment period.

Summaries of the public and agency comments are presented below, along with Ecology's responses. The complete set of full-length comments are available upon request from Ecology's Central Regional Public Records Officer at 509-575-2490 or Ecology's Online Record Request webpage. 11

Comment 1 (members of the public)

Ecology was right to issue the enforcement order and the military should be held accountable.

Response 1

Ecology appreciates the support of our actions requiring the Army to address contamination on and around YTC. We will continue to advocate for the residents in the East Selah community who do not have safe drinking water.

Comment 2 (members of the public)

What areas are contaminated, and does it affect me? Are there more opportunities to sample my drinking water for PFAS?

Response 2

The Army recently started releasing groundwater testing data collected in 2021–2023. The EPA and Army conducted additional sampling in May 2023. Ecology has analyzed the data and generated a map to show the off-base areas affected by PFAS contamination. Additional groundwater testing is necessary to help us further understand the extent of PFAS contamination and how it's evolving over time. All results are made available to the public as soon as the data is checked for accuracy. Maps, data, and reports are available on Ecology's cleanup webpage: https://apps.ecology.wa.gov/cleanupsearch/site/2301.

Comment 3 (members of the public)

We are concerned about PFAS contamination impacts to animal health and agriculture.

Response 3

Ecology is working with a team of experts from the Washington Department of Health and Washington Department of Agriculture to better understand how PFAS contamination may impact farm animals, agricultural products, and farmland. These topics haven't been widely studied. However, information and support will be provided as we learn more.

¹¹ https://ecology.wa.gov/footer-pages/public-records-requests

Comment 4 (members of the public)

We are concerned about negative impacts to our property values associated with PFAS contamination.

Response 4

Concerns over property values and salability are understandable. We have observed that new home development is continuing in the affected area. However, it is not clear how PFAS contamination may negatively impact the value of the affected properties and development projects. If you believe your property value has been reduced and your annual property assessments need to be amended, please reach out to Yakima County for potential remedies.

Comment 5 (Washington State Department of Fish and Wildlife)

We are concerned about impact of PFAS contamination to surface waters down gradient from YTC. We are specifically concerned about the food safety related to the put-and-take North Elton Pond fishery. Potentially impacted surface waters need to be tested for PFAS, including the Yakima River which receives drainage water from YTC lands.

Response 5

Despite requests from Ecology, the Army hasn't agreed to test surface waters off-base. Army and EPA did sample multiple locations in late May 2023; we're currently awaiting results. Ecology also intends to evaluate the impact of contaminated groundwater to hydrologically connected surface waters, like Elton Pond and the Yakima River. Public safety and a healthy environment are our top priorities. Results will be available on Ecology's cleanup webpage: https://apps.ecology.wa.gov/cleanupsearch/site/2301.

Comment 6 (Yakama Nation)

Comment 6-1

"References to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are needed in the Order because the Army's sovereign immunity is waived only by Section 120 of that statute, not through the Model Toxics Control Act (MTCA). Also provisions in Section 6001 of the Resources Conservation and Recovery Act (RCRA) regarding state enforcement and waiver of U.S. immunity should be cited and stressed. State claims under MTCA can always be brought into federal court through pendent jurisdiction with CERCLA claims."

Response 6-1

Ecology agrees that sovereign immunity has been waived under Section 6001 of the Resources Conservation and Recovery Act (RCRA). The Yakima Training Center is a Dangerous Waste Management Facility and is subject to RCRA, state Dangerous Waste regulations, and Model Toxics Control Act (MTCA).

Comment 6-2

"There are no references to the Yakama Nation in the Enforcement Order ("Order"), despite its interest in the YTC lands through treaty reserved hunting and gathering rights, and an agreement with the Army in 1992 that committed to transfer of the property to the Department of the Interior for tribal use."

Response 6-2

Ecology recognizes the 1992 memorandum of agreement (MOA) between the Yakama Nation and Fort Lewis (now Joint base Lewis-McChord). Ecology will continue to consider and honor this agreement—and the treaty reserved rights of the Yakama Nation for hunting and gathering—when making cleanup decisions and establishing long-term cleanup goals.

Comment 6-3

Suggest three changes to Ecology Order Part II.

- 1). Suggest adding to the first sentence, "and 42 U.S.C. § 9620(a)(4)."
- 2). Suggest adding the following to the end of second sentence: "and 42 U.S.C. § 6961(a)."
- 3). Suggest inserting a new sentence: "The Army waives its sovereign immunity from suit for purposes of this Order pursuant to Section 6001(a) of the Resource, Conservation and Recovery Act of 1976, 42 U.S.C. § 6961(a), and Section 120(a)(4) of the Comprehensive Environmental Liability and Compensation Act of 1980, 42 U.S.C. § 9620(a)(4)."

Response 6-3

See Response 7-1 for Ecology's view of jurisdiction and sovereign immunity.

Comment 6-4

Suggest a change to Ecology Order Part III as follows: "Insert at the end of the first sentence: "pursuant to 42 U.S.C. § 9620(a)(4)."

Response 6-4

Ecology doesn't believe the inclusion of the proposed federal citation is necessary. We believe RCW 70A.305, RCW 70A.300, WAC 173-303, and WAC 173-340 provide sufficient framework and cleanup authority at Yakima Training Center.

Comment 6-5

Suggest two changes to Ecology Order Part V.

- 1). In Section B, "Strike second sentence and insert as follows: Before 1855, the land was used by the tribes and bands now comprising the Yakama Nation. In that year the Yakamas ceded the YTC area to the United States by treaty, and expressly reserved hunting and gathering rights thereon. In the late 19th and early 20th centuries, the land was used for ranching and mining operations."
- 2). In Section H, suggests inserting the sentence, "In December 1992 Fort Lewis executed a memorandum of agreement (MOA) with the Yakama Nation acknowledging its 1855 treaty hunting and gathering rights on the YTC, permitting access to the area for such purposes, and

committing to a future transfer of the land to the Department of the Interior (DOI) in trust for the Yakama Nation when the Army no longer needs the YTC for military training."

Response 6-5

See response 7-2 for Ecology's view of the agreement between the Yakama Nation and the federal government, and the treaty rights of the Yakama Nation.

Comment 6-6

Suggest three changes to Ecology Order Part VI.

- 1). In Section A, recommend adding "and 42 U.S.C. § 9601(21)."
- 2). In Section B, recommend adding the sentence, "The Army is also an 'owner and operator' as defined by RCW 70A.305.020(22) and 42 U.S.C. § 9601 (20), and RCW 70A.305.020(8) and 42 U.S.C. § 9601 (9)."
- 3). In Section D, recommend inserting "and 42 U.S.C. § 9601 (14)."

Response 6-6

Ecology doesn't believe the inclusion of the proposed federal citations are necessary. We believe RCW 70A.305.020 provides sufficient references for the definition of "person," "owner or operator," "facility," and "hazardous substance."

Comment 6-7

Suggest a change to Ecology Order Part XI. Recommend amending the first sentence to read: "The Attorney General may bring an action to enforce this Order in federal court pursuant to 42 U.S.C. § 6961(a), 42 U.S.C. § 9613, and RCW 70A.305.050 and WAC 173-303-960."

Response 6-7

Ecology doesn't believe the inclusion of the proposed federal citation related to Civil Proceedings is necessary. Ecology believes RCW 70A.305 and WAC 173-303 provides sufficient enforcement authority at Yakima Training Center.

Comment 7 (U.S. Army)

Comment 7-1

Our most significant concern is that these documents do not reflect the substantial cleanup actions undertaken under the federal CERCLA cleanup law. . . . We reiterate our request to enter into a formal [Defense and State Memorandum of Agreement (DSMOA)] with Washington, but in any event, we are committed to sharing our draft CERCLA documents for your review and comment and partnering with Ecology on our ongoing CERCLA cleanups. In lieu of the draft order and permit, we request that we meet to discuss how to work collaboratively on our ongoing CERCLA cleanup response actions.

Response 7-1

Ecology greatly appreciates the environmental remedial actions the Army has undertaken at the Yakima Training Center (YTC). However, the Army's position that it has been conducting

cleanup of the regulated units at YTC under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) doesn't eliminate the legal necessity or requirement for the RCRA corrective actions under the Ecology Enforcement Order.

With respect to your request that Ecology enter into a Defense Site Memorandum of Agreement (DSMOA), Ecology doesn't believe a DSMOA is necessary for the Army and Ecology to work together in an efficient and effective manner on environmental remedial matters involving YTC. Washington state is authorized to administer and enforce a hazardous waste management program, in lieu of the Federal program under Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA).

As such, Ecology will work with the Army under the state's hazardous waste management program on the investigation and cleanup actions that need to take place at YTC. The corrective action processes are set forth in the state's Dangerous Waste Management Act (RCW 70A.300), Dangerous Waste regulations (WAC 173-303), and the Model Toxics Control Act's regulations (WAC 173-340).

Comment 7-2

The Army respectfully requests continued discussions between the Army and Ecology to address future coordination of cleanup efforts between the Army and Ecology, including consideration of a cooperative agreement, and what, if any, further cleanup work Ecology is seeking through the draft order and permit.

Response 7-2

Ecology agrees that continued discussions between the Army and Ecology are and will continue to be necessary to address future coordination of cleanup efforts between the Army and Ecology at the YTC.

Comment 7-3

The Army's Restoration Program has addressed and will continue long-term management of the ten sites specifically identified in the draft order and permit.

The Army has reviewed Washington State law and does not believe there is a legal basis for the issuance of the draft order and permit. The Army does not agree that it is the operator of a Dangerous Waste Management Facility at YTC and is not seeking an operating permit or a post-closure permit. YTC is a cleanup-only facility, and there is no basis for subjecting the Army to corrective action regulation under the State's Dangerous Waste Regulations and MTCA. To the extent that Ecology believes state law applies, the Army welcomes further discussion on the incorporation of state law at federal cleanup sites through the applicable or relevant and appropriate requirements ("ARARS") process under CERCLA.

While the Army has independent federal authority to conduct cleanup under DERP and CERCLA for property it controls, the Army's "independent cleanup" could be a component of collaboration between Army and Ecology.² Again, the DoD's DSMOA or similar cooperative agreement would provide a framework for coordination and collaboration and would provide for payment for Ecology's assistance to the Army on its ongoing DERP cleanup efforts.

Consistent with this concept, as noted above, EPA recognizes that cleanup under CERCLA is substantially equivalent to and fulfills RCRA corrective action obligations.

Army's footnote 2 to the above language: "Washington State law does not require cleanup to be conducted under the State's RCRA authority or Dangerous Waste Management program. See RCW 70A.305.020 and WAC 173-340-515. Based on Ecology's website, the majority of cleanups in Washington are conducted independently, and some independent cleanup projects work with the voluntary cleanup to receive a No Further Action opinion, while property owners may conduct independent remedial action without joining the voluntary cleanup program, but these cleanups would not be eligible to receive a No Further Action opinion by the State."

Response 7-3

The U.S. Government, Department of Army is the owner and operator of YTC, a dangerous waste treatment, storage, or disposal (TSD) facility regulated by the Dangerous Waste regulations. See page 4 of the Army's November 24, 1980 Hazardous Waste Permit Application for YTC, and page 5 of the Army's September 9, 1997 Hazardous Waste Permit Application for YTC.

- In November 1980, the Army submitted a RCRA permit Part A application to EPA for open burning and detonation of 80 tons of hazardous waste at YTC.
- In November 1985, the Army submitted a RCRA Part B application to EPA for thermal treatment by open burning and open detonation of ordnance at the YTC.
- In September 1997, the Army submitted a revised RCRA Part A application to Ecology for YTC.

A RCRA Facility Assessment report for the YTC identified 77 RCRA solid waste management units and 38 RCRA areas of concern. The RCRA Facility Assessment report stated that a sample from a monitoring well at one of the facility's solid waste management units (SWMUs) contained arsenic, barium, beryllium, cadmium, lead, manganese, and nickel above drinking water standards. The report further noted that four areas of concern had soil samples that exceeded the state cleanup criteria for petroleum hydrocarbons. These facts establish that YTC constitutes a facility under RCRA and the State's Dangerous Waste regulations and **not** a cleanup-only facility.

- As a facility subject to the Dangerous Waste regulations, the Army must implement cleanup at YTC to protect human health and the environment for all releases of dangerous wastes and dangerous constituents. See WAC 173-303-64620(1).
- Ecology requires corrective actions, which are undertaken pursuant to WAC 173-303-64620, to be fulfilled using an enforceable action issued pursuant to the state's Model Toxics Control Act. See WAC 173-303-64630(1).
- Enforceable actions under the Model Toxics Control Act and its regulations include Orders. See RCW 70A.305.030(1)(f); WAC 173-340-530 (Agreed orders), -540 (Enforcement orders).

Thus, Ecology had a legal basis for the issuance of its Enforcement Order.

As for the Army's position that there is no legal basis for Ecology's issuance of the permit (which accompanied the Enforcement Order), when corrective action is required at a facility that doesn't have a final permit, EPA requires that Ecology issue a facility management permit to conduct cleanup at such facilities, even though the management is only for purposes of corrective action.

With respect to the Army's position that "the Army's 'independent cleanup' could be a component of collaboration between Army and Ecology," Ecology doesn't believe that remedial action at this facility should be completed as an independent action. As noted above, this facility is subject to the Dangerous Waste regulations, and corrective actions (undertaken pursuant to WAC 173-303-64620) are to be fulfilled using an enforceable action issued pursuant to the state's Model Toxics Control Act, not as an independent or voluntary remedial action.

Comment 7-4

Though neither the draft order nor the draft permit specifically identifies PFAS, it appears from the language of the public notice on Ecology's website that one of Ecology's concerns is the Army's cleanup of PFAS resulting from the Army's historical operations at YTC . . .

... CERCLA is the appropriate regulatory framework under which Army has been addressing PFAS at YTC. At this time, PFAS are not federally regulated as either CERCLA hazardous substances or RCRA hazardous wastes, the DoD has addressed PFAS as "pollutants and contaminants," as the term is defined in CERCLA section 101(33), under our CERCLA section 104 authority.

Response 7-4

Ecology disagrees that CERCLA is the appropriate regulatory framework for the Army to address hazardous substances at the facility, including PFAS contamination. Ecology has concluded that PFAS compounds are hazardous substances under the state's Model Toxics Control Act. The Dangerous Waste corrective action regulations, through the Model Toxics Control Act, authorize Ecology to require the owners and operators of dangerous waste facilities to investigate whether releases of hazardous substances have occurred, identify the hazardous substances that have been released and extent of contamination, and the risks posed by the releases.

Appendix A. Acronyms and Abbreviations

Table 1: Acronyms and abbreviations used in this publication.

Term	Meaning	
Army	U.S. Army	
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	
DSMOA	Defense Site Memorandum of Agreement	
EO	Enforcement order	
EPA	U.S. Environmental Protection Agency	
JBLM	Joint Base Lewis-McChord	
MOA	Memorandum of agreement	
MTCA	Model Toxics Control Act	
Petroleum-based fuels	Gasoline, diesel, and Jet-A	
PFAS	Per- and polyfluoroalkyl substances	
RCRA	Resource Conservation and Recovery Act	
Releases	Spills and leaks	
SWMUs	Solid waste management units	
TCE	Trichloroethylene	
TSD facility	Treatment, storage, or disposal facility	
YTC	Yakima Training Center	