

Occidental Chemical Corporation: Documents Available for Review and Comment



Figure 1: Occidental cleanup site in Tacoma, Washington. Photo courtesy of The News Tribune.

Comments accepted:

December 18, 2023–
March 29, 2024

Submit comments:

Online: [ecology.wa.gov/
Occidental-Public-
Comment](https://ecology.wa.gov/Occidental-Public-Comment)

By mail:

Kerry Graber,
Site Manager
Department of Ecology
Southwest Region Office
P.O. Box 47775
Olympia, WA 98504
kerry.graber@ecy.wa.gov
Phone: 360-522-0535

Document review:

[ecology.wa.gov/
Occidental-Public-
Comment](https://ecology.wa.gov/Occidental-Public-Comment)

Site information:

Facility Site ID: 1212
Site Cleanup ID: 4326

We want to hear from you!

We’re overseeing the cleanup at Occidental Chemical Corporation, located at 605 E. Alexander Avenue in the Tacoma Tideflats. We invite you to review and comment on the following documents:

- **Draft cleanup action plan (dCAP):** This plan outlines how site contamination will be cleaned up.
- **Draft agreed order (AO):** The legal document requiring the cleanup.
- **Draft permit:** This document allows environmental cleanup activities to continue under Ecology’s oversight.
- **Draft State Environmental Policy Act (SEPA) checklist and determination of non-significance (DNS):** We use the SEPA checklist to find and evaluate likely environmental impacts. We believe cleanup work is not likely to harm the environment.
- **Draft public participation plan:** This plan encourages community involvement in cleanup decisions.

Visit ecology.wa.gov/Occidental-Public-Comment to view these documents.

Public hearing

- **Date: March 6, 2024**
- **Time: 4:30 p.m.**
- **Location: Tacoma Convention Center, 1500 Commerce St., Tacoma, Washington 98402**

Join us in person for a presentation about the Occidental cleanup. Our technical staff will be on hand to answer your questions. You may voice comments for the official record.

Translations available

中文 (Chinese):¹

如需中文版文件，请致电(425) 301-6454 联系 Janelle Anderson, 或发送邮件邮箱 janelle.anderson@ecy.wa.gov。



Español (Spanish):²

Para solicitar una copia de este documento en español, por favor comuníquese con Janelle Anderson al 425-301-6454 o janelle.anderson@ecy.wa.gov.



Langue française (French):³

Pour demander une copie de ce document en langue française, veuillez contacter Janelle Anderson à l'adresse janelle.anderson@ecy.wa.gov ou au 425-301-6454.



ខ្មែរ (Khmer):⁴

ដើម្បីស្នើសុំច្បាប់ចម្លងនៃឯកសារនេះជាភាសាខ្មែរ សូមទាក់ទង Janelle Anderson តាមអ៊ីមែល janelle.anderson@ecy.wa.gov ឬតាមលេខ 425-301-6454។



한국어 (Korean):⁵

이 문서의 한국어 버전을 원하시면 담당자 Janelle Anderson (425) 301-6454 janelle.anderson@ecy.wa.gov 에게 연락하십시오.



Русский (Russian):⁶

Чтобы запросить копию этого документа на русском языке, обратитесь к Janelle Anderson по адресу электронной почты janelle.anderson@ecy.wa.gov или по телефону 425-301-6454.



Tiếng Việt (Vietnamese):⁷

Để yêu cầu một bản sao của tài liệu này bằng tiếng Việt, vui lòng liên lạc Liêm Nguyễn tại 360-790-4730 hoặc email janelle.anderson@ecy.wa.gov or 425-301-6454.



¹ <https://apps.ecology.wa.gov/publications/SummaryPages/2304053ZH.html>

² <https://apps.ecology.wa.gov/publications/SummaryPages/2304053ES.html>

³ <https://apps.ecology.wa.gov/publications/SummaryPages/2304053FR.html>

⁴ <https://apps.ecology.wa.gov/publications/SummaryPages/2304053KM.html>

⁵ <https://apps.ecology.wa.gov/publications/SummaryPages/2304053KO.html>

⁶ <https://apps.ecology.wa.gov/publications/SummaryPages/2304053RU.html>

⁷ <https://apps.ecology.wa.gov/publications/SummaryPages/2304053VI.html>

Site background and land use

The Occidental Chemical Corporation (Occidental) site is in the Tacoma Tidelands at 605 E. Alexander Avenue. From 1929 to 2002, the site was used for industrial chemical production, shipbuilding, and military activities. Occidental made chemicals to sell, such as chlorine, caustic soda (sodium hydroxide), and solvents trichloroethene (TCE) and tetrachloroethene (PCE). Occidental manufactured about 457 million pounds of solvents at this location. An estimated one million pounds of solvents contaminate the groundwater.

Because the groundwater contamination is very deep, it does not affect homes, public places, public drinking water, or activities such as swimming, paddleboarding, or boating.

We oversee the investigation and cleanup of the groundwater, surface water, and soil by applying the Model Toxics Control Act (MTCA), our state cleanup law. MTCA requires us to ensure that people, wildlife, and the environment are protected from harmful chemicals.

How big is the site?

A “site” includes everywhere the contamination ended up. This site goes beyond Occidental’s property, and covers about 90 acres, or 70 football fields. There are three plumes of contamination in the groundwater:

1. A plume of **chlorinated volatile organic compounds (CVOCs)** is about 160 feet below sea level and extends beyond the property line.
2. A plume of contamination with **elevated pH** (8.5 to more than 13) is about 100 feet below sea level and is mostly within the property line.
3. An **anthropogenic density plume (ADP)** is a mixture of caustic soda and dissolved silica that is heavier than water. The ADP sinks and displaces the CVOC plume.

Contaminants

- **Chlorinated volatile organic compounds (CVOCs)**. Chlorinated solvents were used to remove dirt and oil from parts. These solvents are no longer used for cleaning.
- **Salt (sodium chloride)**. Salt was used as a raw material to make brine (very salty water). The industrial-grade salt was kept in a large pile on site and fed into the brine-making process.
- **Caustic soda (sodium hydroxide)**. This chemical was a by-product of making chlorinated solvent using brine.

Cleanup

The purpose of environmental cleanup is to protect human health and the environment. The goals for Occidental’s cleanup are based on extensive site characterization, risk assessment, and a feasibility study. The resulting cleanup action plan protects people and the environment in three main ways:

1. By preventing contaminated groundwater from leaving the site.
2. By keeping people and animals away from contaminated soil, indoor air, and groundwater.
3. By removing and treating contamination.

Draft Cleanup Action Plan (dCAP)

These key cleanup actions are proposed:

1. **Indoor air** will be protected by pumping groundwater to lower the water table. Solvents will then evaporate from dry, shallow soil. The solvent vapor will be collected and removed. Removing harmful chemicals from the soil under buildings protects the air inside the building.
2. **A sheet pile wall** will be installed underground along the Hylebos Waterway shoreline to keep contaminated groundwater from flowing into the waterway.
3. **An asphalt barrier** will cover the entire property to shield people and wildlife from contaminated soil. The barrier will also keep the soil drier, which reduces the movement of the contamination.
4. **Contaminated groundwater** will be pumped from extraction wells and treated. The pumping pulls the contaminated groundwater towards the extraction well. This is called “hydraulic containment” and will protect the Hylebos Waterway and Commencement Bay. Treated water will be discharged.
5. **A new fence** will be built and maintained to restrict site access. Workers on the property, especially those cleaning up the site, will follow a detailed safety plan to protect them from contamination.
6. **Regular monitoring** of soil vapor and groundwater will ensure that the cleanup is working.

Cleanup standards

Occidental must meet cleanup standards. In the dCAP, we propose protective cleanup standards for groundwater, soil, soil vapor, and indoor air. The cleanup levels are concentration-based, meaning they limit how much contamination is allowed in groundwater, soil, soil vapor, and indoor air. The dCAP also sets where the cleanup levels must be achieved. The location where cleanup levels must be met is called the “point of compliance.” Occidental must meet protective, health-based cleanup standards throughout the entire groundwater plume. The dCAP also sets performance standards that make sure the groundwater contamination is contained.

Occidental must also prevent soil contamination from continuing to pollute groundwater. Contaminated soil under buildings releases vapor that pollutes indoor air. Indoor air contamination must be kept below specific levels that are set to protect workers. These cleanup levels, combined with remedy performance standards, make up the overall cleanup standards for the Occidental site.

Formal cleanup process

There are six phases in the cleanup process: remedial investigation, feasibility study, cleanup plan, cleanup design, cleanup implementation, and monitoring and site-use controls.

Interim actions or partial cleanups can occur at any time. There will be opportunities for public comment at each stage, except for design and cleanup implementation.

We apply both the Resource Conservation and Recovery Act (RCRA) and the Model Toxics Control Act (MTCA) regulations to clean up hazardous waste sites. The cleanup protects human health and the environment from dangerous wastes and chemicals.

Hazardous Waste and Toxics Reduction Program

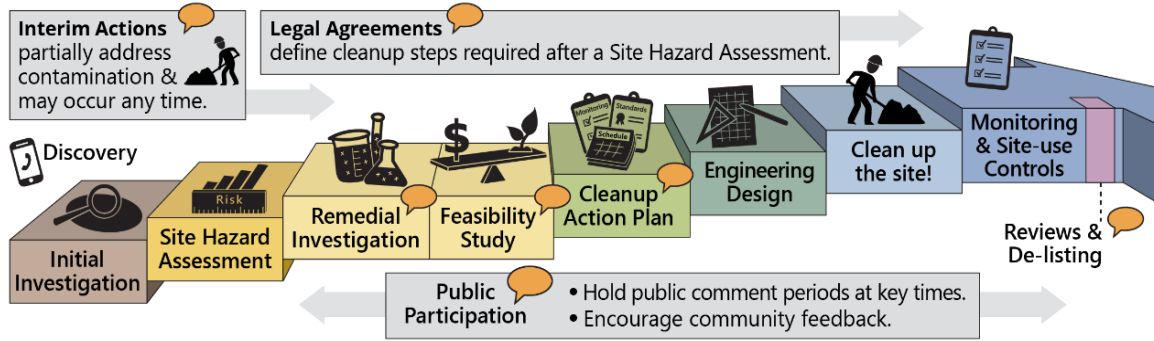


Figure 2: Formal cleanup process infographic (English).

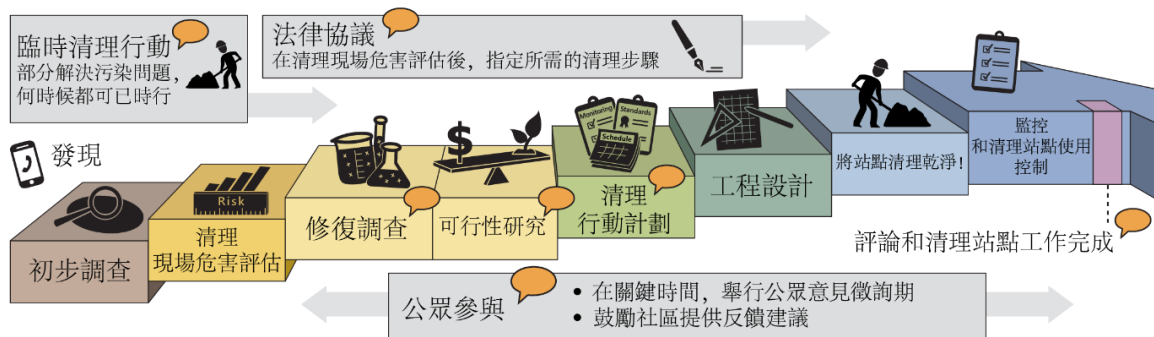


Figure 3: Formal cleanup process infographic (Chinese).

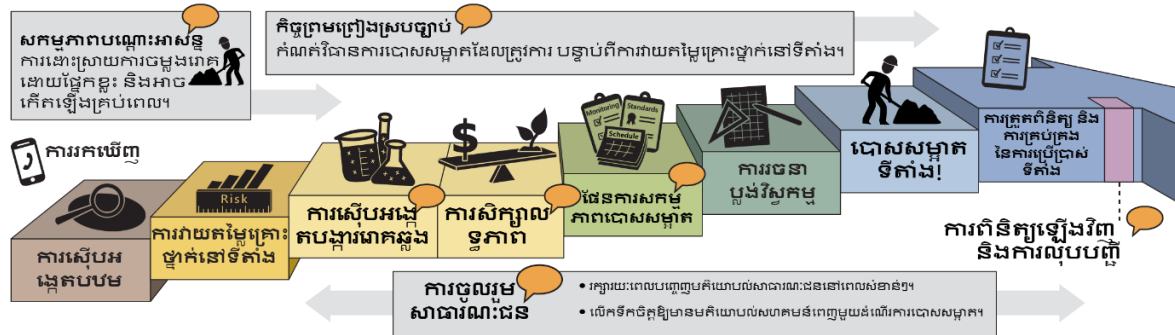


Figure 4: Formal cleanup process infographic (Khmer).



Figure 5: Formal cleanup process infographic (Russian).

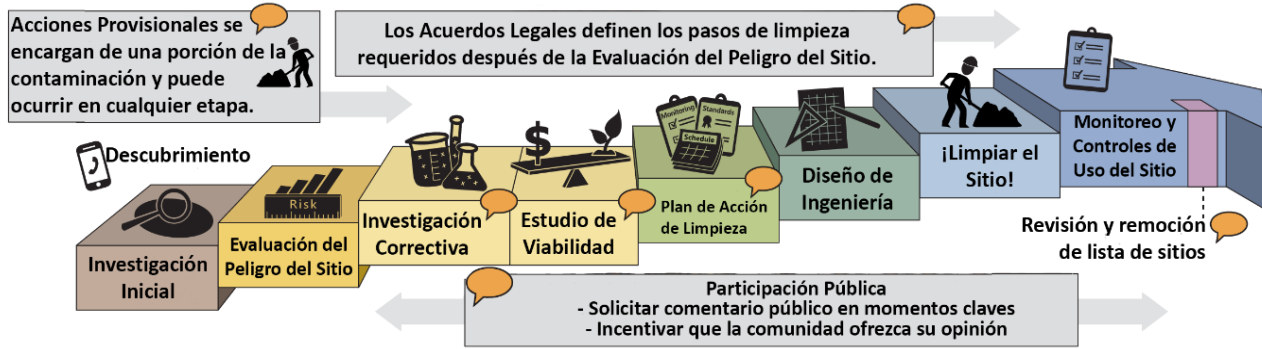


Figure 6: Formal cleanup process infographic (Spanish).

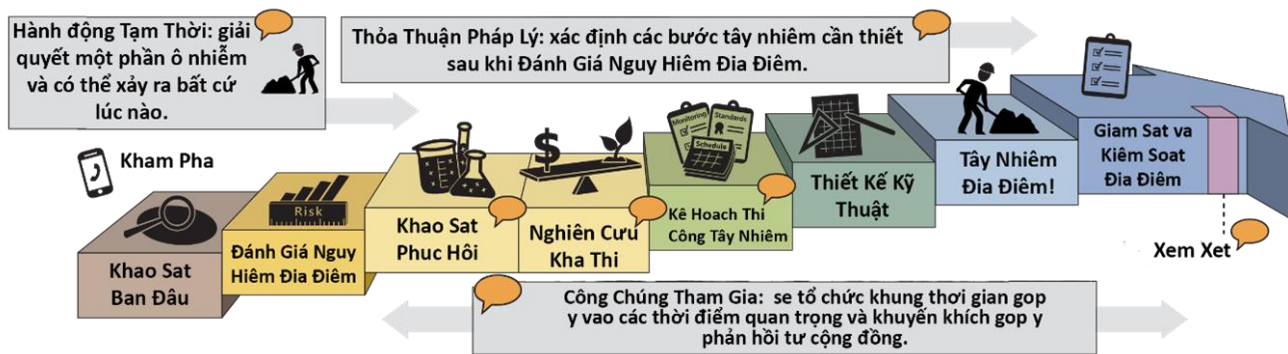


Figure 7. Formal cleanup process infographic (Vietnamese).

Drinking water

Contamination does not affect public drinking water. If you have a private well near the site, please call Tacoma-Pierce County Health Department at 253-798-6470.

Follow the local fish and shellfish advisories

People who consume fish or shellfish from the Hylebos Waterway may be indirectly exposed to contamination from sites along the waterway. Find information about healthy fish consumption on the [Washington Department of Health's Fish Consumption Advisories website](https://doh.wa.gov/community-and-environment/food/fish/advisories).⁸

Shellfish harvesting is closed in Commencement Bay due to pollution from sites along the waterway. Find out more by visiting [Tacoma-Pierce County Health Department's Safe Shellfish website](https://www.tpchd.org/healthy-places/surface-water-quality/safe-shellfish).⁹

What happens next?

The public comment period is open from December 18, 2023 to March 29, 2024. After the comment period ends, we will review and consider all comments we receive. The cleanup documents may change based on your comments. After we consider all comments, the documents will become final. When there are new documents about the site, we'll notify you about additional public comment periods.

⁸ <https://doh.wa.gov/community-and-environment/food/fish/advisories>

⁹ <https://www.tpchd.org/healthy-places/surface-water-quality/safe-shellfish>

Why this cleanup matters

The Occidental cleanup is one of the state's largest and most complex environmental challenges. This extensive contamination happened before Congress passed environmental regulations to control the release of pollution into U.S. waters. The cleanup of this site is expected to take one hundred years, and we will continue to communicate with you throughout that time. A well-informed public can help maintain support for the cleanup.

Document review locations

In-person document review is available at the following locations:

Washington State Department of Ecology

Southwest Region Office
300 Desmond Dr. SE
Lacey, WA 98503
Reception (24-hour): 360-407-6300

University of Washington Tacoma Library

1900 Commerce St.
Tacoma, WA 98402
Phone: 253-692-4400

Tacoma Public Library Kobetich Branch

212 Browns Point Blvd. NE
Tacoma, WA 98422
Phone: 253-280-2920

Communities for a Healthy Bay

535 Dock St., Suite 213
Tacoma, WA 98402
Phone: 253-383-2429

You can also review documents on our website: ecology.wa.gov/Occidental-Public-Comment.

Questions about accessing information?

Contact Kerry Graber
Phone: 360-522-0535
kerry.graber@ecy.wa.gov

To submit comments

Visit: ecology.wa.gov/OccidentalSiteComments.

ADA Accessibility

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact Ecology by phone at 360-407-6700 or email at hwtrpubs@ecy.wa.gov. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit ecology.wa.gov/accessibility for more information.



DEPARTMENT OF
ECOLOGY
State of Washington

Southwest Region Office
P.O. Box 47775
Olympia, WA 98504
Telephone: 360-407-6300

Occidental Tacoma Cleanup Documents ready for review and comment



Public comment period:
December 18, 2023–March 29, 2024

We're overseeing the cleanup of contamination at the Occidental Chemical Corporation in Tacoma, Washington. We invite you to review and comment on the following documents:

- Draft cleanup action plan
- Draft agreed order
- Draft permit
- Draft SEPA/DNS
- Draft public participation plan

Visit ecology.wa.gov/Occidental-Public-Comment to learn more or submit comments.

Translations available:

中文 中文
Español
한국어
Français
Русский
Tiếng Việt



Location of Occidental Chemical site in Tacoma.

Accessibility: To request an ADA accommodation, visit ecology.wa.gov/accessibility.