Annual Environmental Cleanup Report 2025

Submitted to:
Governor Tina Kotek
Oregon Legislative Assembly
Oregon Environmental Commission
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Executive summary

This annual report is required by Oregon Revised Statute 465.235 to inform the Oregon Legislature, the Governor, and Oregon's Environmental Quality Commission of the efforts of the Oregon Department of Environmental Quality Environmental Cleanup Program to assess, investigate, and clean up contaminated sites. The Environmental Cleanup Program protects the health and wellbeing of people, ecosystems, and the environment in the state of Oregon by identifying, investigating, and remediating sites contaminated with hazardous substances. The program endeavors to ensure all cleaned up sites are safe for current and future use. This report also captures the Cleanup Program's efforts to modernize as we increasingly work to center the most vulnerable and marginalized people in Oregon and account for the changing realities of our state and the world, such as climate and emerging chemicals of concern.

Oregon DEQ's Environmental Cleanup Program:

- Discovers, evaluates, and prioritizes sites contaminated with hazardous substances for further action.
- Oversees the investigation and cleanup of sites presenting significant risks to human health or the environment through voluntary cleanup, or through enforceable agreements for high priority sites.
- Assists property owners and communities in restoring productive use of contaminated sites using brownfield technical assistance and prospective purchaser agreements.
- Leads the investigations and cleanups of orphan sites in cases where the responsible party is unknown, unwilling, or unable to complete necessary cleanup actions.

Program highlights in fiscal year 2024 (July 1, 2023 – June 30, 2024)

- Policy and program development including:
    - PFAS rulemaking process
    - Vapor Intrusion guidance updates
    - Toxicology update to Risk-Based Concentrations
    - Institutional and Engineering Control inspection project
    - Programmatic development projects including Site Assessment, Fiscal Framework, Environmental Justice, Diversity Equity Inclusion and Belonging, and Program Management Team chartering
- The Cleanup Program has identified that proactive engagement with tribes and underrepresented communities is a priority and necessitates additional resources

Program modernization

The Cleanup Program is undergoing a visioning and strategic planning effort in two phases which will guide the long-term future of the program.

- In fiscal year 2024, the cleanup program completed phase one of this effort by writing five papers that provide the current state of the program to set a baseline to use as the program vision is developed.
- The program created an institutional and engineering control assessment program to evaluate the effectiveness of different types of controls used on cleanup sites to ensure the protection of public health and the environment. Controls can be easements that place conditions on properties and land use or engineering controls such as treatment systems or caps placed above repositories of contaminated soil.

1. About the Environmental Cleanup Program

The Oregon DEQ Environmental Cleanup program is modeled after the U.S. Environmental Protection Agency Superfund Program. The federal Comprehensive Environmental Response, Compensation, and Liability Act provides the foundation for the “polluter pays” principle on which Oregon’s cleanup and hazardous waste laws are based. These laws authorize DEQ to compel responsible parties to perform cleanup activities when necessary to protect human health and the environment. The laws also allow DEQ to cost recover all reasonable costs attributable to or associated with the cleanup activities at contaminated sites.

The Cleanup Program focuses its efforts on site discovery, site prioritization, providing oversight for cleanup activities, and in some cases issuing orders to compel responsible parties to complete cleanups through a formal process. Today, as Oregon’s population grows and its industries evolve, much of the Cleanup Program’s work involves parties who voluntarily seek DEQ’s oversight and associated liability protection as they clean up industrial sites to be redeveloped for new purposes.

This programmatic funding model has the benefit of leaving the financial burden of cleaning up contamination caused by former industries mostly off of state funding. Heavy reliance on this funding model, however, creates a few challenges: First, a program mostly funded by cost-recovery of sites where there is a financial justification for redevelopment is highly vulnerable to economic upturns which generate demand for project oversight, and downturns which can cause staff to be unaffordable. Reduction of staffing levels during an economic downturn causes a critical loss in highly trained, specialized, and experienced staff that takes a much longer time to recover from than the economic downturn. Second, the focus on sites that have more redevelopment potential over sites that have less redevelopment potential (such as those that might exist in less wealthy or marginalized communities) has the long-term impact of disproportionately increased exposure risk to those already most vulnerable portions of our population. A more detailed examination of this structure and plans for modernization are outlined in section four of this report, Environmental Cleanup Program Modernization.

Cleanup site prioritization

The DEQ Environmental Cleanup Program screens sites where hazardous substances may have been released to determine the need and priority for further action. A preliminary assessment may be conducted to investigate the presence and extent of contamination. Under emergency conditions, a removal action may be needed to immediately stabilize the site, prevent exposure to people and the environment, and prevent further contamination.

To determine if and how a contaminated site should be cleaned up, the program conducts a two-step investigation. The first step is a remedial investigation to determine the full nature and extent of the contamination; to evaluate risks to human health and the environment from exposure; and to determine the need for a cleanup. The second step is a feasibility study to evaluate various cleanup options for sites posing unacceptable risk. Based on this information, DEQ determines what needs to be cleaned up and how it should be done.

When the cleanup is relatively straightforward, an initial removal action may be all that is required. However, if the cleanup is more difficult and complex, DEQ may issue a formal cleanup decision called a Record of Decision after a public comment period. The resulting cleanup is called a Remedial Action. In addition to (or instead of) removing or treating the

contamination, DEQ may install an Engineering Control (such as capping or fencing) to isolate the contamination or pursue an Institutional Control (such as administrative or legal limitation). These protective controls work to limit future activities at the site so that people and animals are not exposed to contamination.

A site receives a No Further Action designation when DEQ determines that the site poses no significant threat to people or the ecosystem. This may occur at any point during the investigation and cleanup process and may be revisited as new contaminants of concern emerge or new scientific understanding of risk is developed.

Routes to cleanup in Oregon

The DEQ Environmental Cleanup Program has several options for owners and operators of contaminated property to move through the investigation and cleanup process.

1. **Voluntary cleanup**
   The most common option is voluntary cleanup. Most financial institutions will not provide financing for site purchase or redevelopment if there is known or suspected contamination that has not been addressed. Property owners seeking a signoff from DEQ agree to have DEQ Cleanup Program project managers oversee their projects to ensure that their work meets regulatory requirements. Parties intending to purchase property with existing contamination may enter into a Prospective Purchaser Agreement with DEQ prior to purchase that describes the cleanup actions they will perform at the property in exchange for protections from liability from DEQ and third parties for any remaining contamination. One of the most important requirements for parties to be eligible for a PPA is that the cleanup action must provide substantial public benefit.

2. **Site assessment**
   DEQ also discovers contaminated properties through site assessment. DEQ learns about potential contamination from complaints, unsolicited reports, and other DEQ programs or government agencies in addition to conducting its own inquiries. DEQ evaluates and ranks sites based on their known or potential threats. Responsible parties are encouraged to address site contamination through voluntary cleanup. DEQ will require parties with high priority sites to conduct investigation and cleanup under the terms of a legally enforceable order.

3. **Industrial Orphan Site cleanup**
   Where responsible parties are unknown, unwilling, or unable to perform a cleanup, DEQ may designate the site as an orphan site and oversee the cleanup of those sites with limited Industrial Orphan funding through environmental contractors.

4. **Other**
   Other types of cleanups are conducted under separate statutory authority. Examples of this are: DEQ's Cleanup program addresses petroleum releases from underground storage tanks while meeting additional federal and state requirements; DEQ's Emergency Response program ensures new hazardous material spills are immediately cleaned up by the responsible party; and through state superfund agreements EPA may clean up sites on the national priorities list.

Funding environmental cleanup

Cleanup work is expensive. Cleanup costs from a single site can range from several thousands to millions of dollars, and there are thousands of sites in Oregon. Determining who pays for

cleanup is complicated, but the foundation of the polluter pays principle intends the burden of cleanup to first fall on the responsible party or parties. Under Oregon law, current property owners and all former operators of a site are considered potentially responsible parties and are strictly liable for funding all reasonable cleanup costs to reach a level of acceptable risk where practical. State and federal cleanup laws are retroactive, meaning contamination that occurred under past common operating practices, or a level of contamination or a substance that was previously thought to be safe when the risks associated with exposure were less well understood, can still result in the current owner or operator(s) being compelled to undertake an expensive cleanup.

Costs

Generally, in order to prioritize and complete effective cleanups across the state, there are two categories of cleanup costs: direct site-specific costs and programmatic costs. Direct site-specific costs are those associated with work on an individual site, both for remedial action activities and direct Cleanup Program oversight. Programmatic costs are all those associated with maintaining a functioning program that can effectively support the direct oversight activities, but are not attributable to any one specific site, such as: general technical assistance, fiscal analysis and reporting, maintaining/developing updated regulations and policies based in current science, staff training and professional development, rulemaking, management activities, intake, site discovery, and legal support.

1. **Direct costs**
   Direct site-specific costs of voluntary or legally enforced cleanups, such as those discovered through Site Assessment, are invoiced to a responsible party, with few exceptions.

   Direct costs for Orphan sites that present unacceptable risk to human health and the environment but have no responsible party to fund the needed cleanup are funded by Industrial Orphan bonds approved by the Oregon Legislature.

   Federal superfund sites or those on the National Priorities List may be cleaned up with federal funds but require a state funding match, usually 10% of the construction costs, with the state taking on ongoing oversight and maintenance after the cleanup is completed. The direct costs, including the match and ongoing oversight and maintenance funding, are drawn from the Orphan bond funding.

   Other types of cleanups follow this pattern, with direct site work and oversight costs being born by a responsible party, a federal fund source such as a grant, or some limited state funding.

2. **Programmatic costs**
   Programmatic costs are funded by a complex braiding of revenue sources, including cost recovery in the form of an indirect rate paid by responsible parties for cleanup oversight, hazardous waste disposal fees, federal grants, and Orphan bond sales. There is no General Fund allocation.

Revenue

1. Cost recovery

Much of the DEQ Environmental Cleanup program’s programmatic costs are funded through cost-recovery from the responsible parties (owners and operators) performing cleanup activities through DEQ oversight. Cleanup is expensive and can take many

years, and responsible parties are often interested in negotiating a settlement agreement that will resolve their liability. Historical settlements that failed to adequately account for inflation over time or forecast increases to contracting costs may not cover the full final cost of the project, leaving a project unfinished or requiring an additional (state or federal) funding source to complete. Additionally, many responsible parties are unwilling or unable to pay the cleanup costs, resulting in enhanced collection efforts, costly litigation uncertain to recover funds, or a need to fund priority projects through limited orphan funding.

2. Fees

Fees pay a small portion of Environmental Cleanup program costs, and fee revenue has declined in recent years. Senate Bill 57, which passed the Oregon Legislature in 2021, updated the fees collected at the hazardous waste landfill near Arlington which help support the Environmental Cleanup program. DEQ uses a portion of this fee revenue to meet federal grant match requirements.

3. Federal funds

Grants, primarily from EPA, support cleanup work in several ways. DEQ uses grants to fund programmatic costs such as the development and administration of the statewide program; support efforts to develop brownfield sites; pay for federal-level site assessments and brownfield assessments; and enable staff to participate in decisions related to EPA Superfund sites in Oregon. The U.S. Department of Defense also provides some funding through a cooperative agreement for DEQ's oversight of cleanups at military facilities. Generally, federal grant funds are decreasing or remain flat. In 2023, DEQ was awarded a five-year grant from the Infrastructure Investment and Jobs Act that was anticipated to be roughly $1 million per year, however the allocation awarded for the 2025 fiscal year is only a little over half of that, with further reductions anticipated. This one-time funding is being used to support the modernization and stabilization of the program going forward by funding staff participation in activities like the strategic planning effort described earlier in this report.

The Leaking Underground Storage Tank Trust fund is an additional federal fund available to address petroleum releases from federally regulated underground storage tanks. These funds are accessed to support UST cleanup and prevention through a formal assistance agreement.

4. Bond sales and other revenue sources

For priority sites where responsible parties have not been identified, or where the responsible parties are unable or unwilling to finance the cost of cleanup, DEQ uses Industrial Orphan funds to pay for the work. The Industrial Orphan Site Account has been funded by long-term bonds, financed primarily from General Funds, and a contribution from hazardous substance possession fees. DEQ has also been successful in recovering some of the orphan funds used to clean up sites through agreements with prospective purchasers of contaminated properties, and settlements with responsible parties once liability is established, or owners' insurance claims are paid. The Cleanup program has consistently received bond authority approval from the legislature in the amount of approximately $10 million every other biennium.

Since the creation of the program over 3 decades ago, direct cleanup costs and the programmatic costs to maintain an effective program have increased while the funding has

remained mostly static. The Cleanup program has optimized processes, adjusted subprograms, reassigned staff duties, and renegotiated expectations to try to meet its expanding needs.

2. Program highlights, fiscal year 2024

DEQ's Environmental Cleanup program had many successes in the fiscal year. The Cleanup Program has continued progress on ongoing program priorities, including DEQ-led cleanup actions for sites throughout Oregon through site assessment, voluntary cleanup actions, funding cleanup at Orphan sites, Brownfields projects and milestones, and Prospective Purchaser Agreements.

The program also began or continued work on several policy and program development initiatives. These initiatives include a rulemaking to address per- and poly-fluorinated alkyl substances (PFAS) contamination, beginning a fiscal framework project, completing updates to the program's Vapor Intrusion guidance, updating the Cleanup Program's risk-based concentrations, assessing the ongoing effectiveness of Institutional and Engineering Controls, enhancements to the Site Assessment Program, charter development for the Program Management Team, and active engagement with DEQ's Environmental Justice Work Group and groups focused on Diversity, Equity, Inclusivity, and Belonging.

Work continued on the second phase of a program modernization initiative (further detailed under the Strategic Planning section of Program Modernization) which involves a comprehensive outreach campaign in marginalized communities and Tribal Nations across Oregon to gather external feedback about the Cleanup Program. By involving diverse voices throughout this visioning and strategic planning process, the Cleanup Program will develop a strategic plan that shifts the direction of the program substantially to be more protective of marginalized communities, to center environmental justice in guidance updates, and to undertake increasingly proactive outreach with communities in the future.

Policy and program development

PFAS rulemaking and cleanup work

The Environmental Cleanup Program is an agency-wide leader in establishing DEQ's next steps to address PFAS contamination of Oregon's air, land, and water, and actively participates in DEQ's cross-program PFAS Working Group. Between July 2023 and June 2024, DEQ's PFAS Working Group continued to evaluate the best approaches for addressing PFAS environmental contamination, including continuing development of a draft DEQ PFAS Strategic Plan, coordinating efforts between programs, tracking PFAS data of known and potential sources, and staying current on PFAS science and regulatory developments.

The Cleanup Program began a rulemaking process with the intent to designate certain PFAS as hazardous substances, aligning Oregon's approach with the EPA. This rulemaking will ensure the program has the authority to require reporting of releases, investigation and risk analysis, and cleanup action where significant risk to public health or the environment is identified. A significant component of this rulemaking is convening an external rulemaking advisory committee representing diverse interests to gather feedback on the proposed rule. Additional rulemaking actions, such as holding a public hearing and public comment period, writing a staff report, and presenting to the Environmental Quality Commission are also planned, with the rulemaking anticipated to be completed in 2025.

The Cleanup Program currently oversees multiple PFAS investigations, which are conducted on a voluntary basis with various parties, including the Department of Defense, municipalities, ports, and industry. Investigations to date have primarily focused on groundwater contamination. In addition, the Cleanup PFAS Workgroup has begun efforts to inventory potential PFAS release sites, including database mining, GIS mapping, and coordinating with other DEQ programs. Prioritization of requests for information and sampling will begin with sites deemed most likely to have released PFAS based on industry type and historical practices, as well as sites upgradient of known drinking water impacts. The Cleanup Program also continues to engage in collaborative research efforts with Oregon State University and the U.S. Geological Survey to study the fate and behavior of PFAS as they move through the environment from source to receptor. This work is a follow-up to a study of fish impacts in the Columbia Slough, located in a highly urbanized and industrialized area of Portland adjacent to both known and suspected PFAS sources. This study resulted in Oregon's first PFAS fish consumption advisory, issued by the Oregon Health Authority. Further, the Cleanup Program is collaborating with the DEQ Laboratory, Oregon Health Authority, and USGS to support fish collection efforts in various Oregon waterbodies.

Fiscal framework project

DEQ evaluated the Environmental Cleanup Program's funding structure and developed a summary of program funding areas, a timeline of significant program milestones, and initial recommendations on improving program financial stability in the medium and long term. This year the program continued the efforts of implementing those recommendations, including investing significant resources in developing the Cleanup module of Your DEQ Online, which went live this year. This agency-wide project upgrades and streamlines the way we accept, process, and share information within DEQ, and with the public and regulated community. Additionally, DEQ has continued its migration to Workday Payroll and is in the testing phase of developing a replacement for the Cost Recovery Invoice System, which is an obsolescent, two decades-old database. The new Invoice System will modernize invoicing and communication, will have more robust reporting and analytical tools to help us make better and more timely fiscal determinations, and aid in long-term financial strategizing and forecasting. These investments, combined with simplifying various fiscal processes, are necessary elements in stabilizing the program's budget.

Vapor Intrusion Guidance update

The DEQ Vapor Intrusion Workgroup made substantial updates to the Vapor Intrusion Guidance between July 2023 to June 2024. After receiving feedback from external Vapor Intrusion experts in late 2023, DEQ published the draft revised Vapor Intrusion Guidance in March 2024. This update also included revised Vapor Intrusion Risk-Based Concentration Screening levels, based on EPA's annual updates to its screening levels for VI. DEQ held an informal public review period from March to June 2024 and held listening sessions in April 2024 to provide an overview of the revised guidance and listen to input from external parties. There were three targeted listening sessions with separate focuses on heating oil tank providers, agencies and consultants, and community partners. The VI Workgroup revised the draft guidance document based on feedback received during the informal external review period. Members of the VI Workgroup also shared updates to the revised guidance at the October 2023 meeting of the Pacific Northwest International Section of the Air and Waste Management Association, the December 2023 Business and Environment Conference for the Northwest Environmental Business Council, and a June 2024 seminar on Contaminated Properties in Oregon.

Toxicology update

The DEQ Toxicology Workgroup is updating the program's risk-based concentrations. In fiscal year 2024, the Workgroup has proposed a revised residential RBC for exposures to lead in soil, informed by EPA's updated lead Risk-based Screening Levels, as well as revised occupational, construction worker, and excavation worker RBCs using EPA's recommended methodology with Oregon-specific input parameters.

Site Assessment Program enhancement

DEQ is modernizing an element of the Site Assessment Program to more effectively identify sites where contamination may be present by developing a groundwater vulnerability model. The groundwater model shows the vulnerability of specific groundwater aquifers to chlorinated solvents across Oregon, allowing the program to focus assessment resources on areas that pose the most significant risk to human health and the environment. The DEQ Environmental Cleanup program is collaborating with EPA to fund and manage groundwater model development through the Preliminary Assessment/Site Investigation grant.

DEQ completed the validation of the model and used it to predict groundwater contamination with chlorinated solvents across Oregon. The resulting map and comparison of predicted contamination between sites is being evaluated to help prioritize sites for Site Assessment resources. While the groundwater vulnerability model is one modernizing element, other Site Assessment priorities such as environmental justice and contaminants of emerging concern, including PFAS, will be used to focus site assessment and resulting resource allocation.

PMT charter development

The Program Management Team is the proverbial "board of directors" for the Cleanup Program. It is made up of the Land Quality Administrator and eight program managers from across the regional and headquarters offices. The development of a charter was prioritized this year to increase communication, transparency, accountability, and consistency of programmatic decisions. This charter development process helped strengthen the relationships between the Cleanup Program, Emergency Response Program, and Underground Storage Tank Program, which will improve collaboration between these programs on cleanup sites in the future.

Institutional and Engineering Control Inspection Project

The DEQ Cleanup Program is using current Infrastructure Investment and Jobs Act funding to update the 1998 OR DEQ Guidance for Use of Institutional Controls and plans to create a template for reviewing a backlog of previously closed sites starting in 2025 to determine if ICs and Engineering Controls are being maintained, and what, if any, corrective actions are needed to ensure site protectiveness. Implementation of IC/ECs is done to prevent unacceptable exposures to contamination left in place at the completion of remedial or removal actions. Over 500 sites throughout Oregon have IC/ECs that range from deed restrictions to physical barriers, such as caps or fencing. While effective at preventing exposure to residual contamination, these controls are only protective if they are regularly inspected and maintained. As this work is currently federally funded by an IIJA grant which is set to sunset in 2027, it will be necessary for the Cleanup Program to identify and acquire funding sources and permanent position authority to continue this work in the future, given the large workload and importance of the site review process.

Environmental Justice Workgroup

Members of the Environmental Cleanup Program continued to be active participants and hold leadership roles in DEQ's agency-wide staff-led Environmental Justice Workgroup. This included Environmental Cleanup Program staff leading the EJWG's Community Outreach and Engagement Subcommittee, actively participating in the EJWG's Technical and Policy Subcommittees, and actively participating in the EJWG Planning Committee and Leadership Coordination Committees. Staff have been working to improve environmental justice community engagement practices across the entirety of DEQ's work, including developing a protocol for compensating community partners and laying the groundwork to develop a resource library to support effective community engagement guided by EJ principles. Cleanup staff also coordinated an EJ in Cleanup subgroup focused on incorporating EJ principles into the Cleanup Program.

Diversity, Equity, Inclusivity and Belonging

The Environmental Cleanup Program is committed to incorporating diversity, equity, inclusion, and belonging principles and values into its work. We strive to ensure that programmatic work is consistent with and supports EPA's Justice 40 requirements by prioritizing sites using environmental and climate justice screening tools. Members of the Environmental Cleanup Program continue to hold participation and leadership roles in DEQ's DEI Council and Black, Indigenous, and People of Color Affinity group; actively participate in DEQ's Pride Affinity group, agency DEI plan, and various DEQ allyship groups; work closely with DEQ's Retention and Recruitment Committee; and are starting a Disability Affinity Group within DEQ.

Statewide priority cleanup sites

In fiscal year 2024, DEQ made significant progress on many cleanup sites across the state. Some specific sites are highlighted below and organized by region as shown on this map.

Northwest Region

- Time Oil Company (Former), Portland
- Bradford Island, Columbia River
- Scappoose Bay/Multnomah Channel, St. Helens
- GASCO Manufactured Gas Plant, Portland
- Port of Astoria, Astoria
- Willamette Cove Uplands, Portland
- Portland Harbor Superfund Site, Portland

Western Region

- J.H. Baxter, Eugene
- Ashland Rail Yard, Ashland
- Formosa Mine, South Umpqua River Basin of Douglas County

Eastern Region

- Umatilla Army Depot, Umatilla
- Oregon State University – Cascades Brownfield, Bend
- Department of State Lands – Stevens Road Tract Brownfield, Bend

Time Oil Company (Former), Portland

The former Time Oil Company Northwest Terminal, along with all TOC Holdings properties, were declared bankrupt in early 2017. In 2021, DEQ successfully negotiated a Prospective Purchaser Agreement with a new buyer after several previous purchase attempts had been unsuccessful. In exchange for a waiver of liability from legacy environmental contamination, DEQ required the buyer to perform a scope of work that included significant remedial actions to address remaining contaminants and to decommission a WWII-era stormwater sewer system. The scope of remediation work included excavation of contaminated soil from below the water table, construction of an on-site containment cell to receive the excavated soil, and the decommission of a leaky storm sewer system that drained contaminated groundwater to the Willamette River. Remediation work was completed in 2022. DEQ prepared a *Certificate of Completion* for the Prospective Purchaser Agreement, dated March 14, 2023, and continues to oversee site redevelopment work.

Redevelopment of the site will continue into 2025. The redevelopment plan includes construction of a very large battery bank for Portland General Electric to provide electricity storage and improve regional electrical grid resilience. Work in 2024 included site grading, excavation of utility corridors, construction of an electrical substation, the battery yard on deep foundations, stormwater swales, and a floodplain basin.

Bradford Island, Columbia River

EPA added Bradford Island to the National Priorities List in 2022 with a goal of more effective and rapid progress. This significant site on the Columbia River is contaminated with PCBs, and despite past efforts to remove known sources of contamination, PCBs continue to be present at high concentrations in fish.

A Federal Facilities Agreement, with an associated site management plan, was implemented in September 2024, although work proceeded prior to the FFA. In February 2024, the U.S. Army Corps of Engineers conducted further investigation of river sediment contamination. The Washington Department of Ecology, with support from EPA, sampled fish downstream of the Bonneville Dam. USACE prepared a work plan for a supplemental remedial investigation of upland contamination on the island. To address known areas of contamination, a non-time-critical removal action is planned. As a first step, USACE prepared a draft engineering evaluation and cost analysis in November 2024. Removal actions are planned for 2025-2026.

Scappoose Bay/Multnomah Channel, St. Helens

Scappoose Bay enters the Multnomah Channel by the town of St. Helens in Columbia County. Industrial use of this area was primarily manufacturing wood products, including paper, plywood, fiberboard and treated lumber. Significant levels of hazardous substances have been identified at three former industrial sites in Scappoose Bay: the Armstrong World Industries fiberboard plant, the Pope & Talbot creosote treating facility, and the Boise Cascade paper mill.

DEQ issued a Record of Decision for the Boise Cascade site in March 2023 and for the Pope & Talbot site in September 2023. DEQ is pursuing an Interim Removal Action Measure to remove the most significantly impacted areas of the Armstrong site within the next five years prior to selecting and implementing a final cleanup remedy. In December 2024, OfficeMax performed sediment sampling as part of a phased Pre-Design Investigation to collect data needed for remedial design. Implementation of these cleanup actions is expected to significantly reduce risks to people and wildlife while supporting waterfront redevelopment plans, recreation, and habitat restoration within the Bay.

Gasco Manufactured Gas Plant, Portland

From 1913 to 1956, the Portland Gas & Coke Company (Gasco) owned and operated a Manufactured Gas Plant processing facility on an approximately 80-acre property. One half of that property is currently owned by NW Natural (the Gasco Site), and the other half, known as the Allen Tract, is now owned by Siltronic Corporation (Siltronic Property). Leaseholds on the Gasco site have historically been used by companies involved in coal tar, creosote, and pitch operations, and for storage and distribution of marine fuel. NW Natural now uses the Gasco Site for a Liquified Natural Gas operation and a marine fuel storage/distribution terminal.

Historical MGP production generated large quantities of byproducts and waste, which were used as fill across the Gasco Site and Siltronic Property and discharged into unlined ponds and the Willamette River. After the end of MGP operations, coal tar, creosote, and pitch waste were released into soil and groundwater in the southern portion of the Gasco site. Wafer manufacturing on the Siltronic Property involved the use of solvents which caused soil and groundwater contamination across that portion of the site.

NW Natural entered a voluntary cleanup agreement with DEQ in 1994 to complete the Remedial Investigation and Feasibility Study process. Since 1994, NW Natural completed RI and risk assessment work, completed a FS data gap investigation, and began development of a feasibility study to inform site-wide remedy selection. NW Natural and DEQ have worked throughout 2023 and 2024, and DEQ anticipates receiving the draft FS at the end of 2024. In 2024, NW Natural and DEQ agreed to implement an interim remedial measure that NW Natural will begin designing in parallel with completing the FS. The scope of the IRAM includes an in-situ stabilization and solidification barrier wall along the Willamette River shoreline, hydraulic controls for groundwater behind the barrier wall, and ISS treatment of dense non-aqueous phase liquid in a zone adjacent to the shoreline. DEQ anticipates receiving the IRAM Basis of Design Report in the first half of 2025.

Port of Astoria, Astoria

On December 14, 2001, DEQ issued Unilateral Order ECSR-NWR-01-11 to address multiple sources of petroleum contamination in an area identified as the Astoria Area-Wide Petroleum Site. The Order was issued to nine Respondents that owned or operated facilities where releases of petroleum products occurred, including the facility at the Port of Astoria, five former bulk-fuel facilities, six former service stations, and one utility-fleet garage located between Highway 101 and the Columbia River. The Order required completion of a Remedial Investigation/Feasibility Study and Interim Removal Action Measures as appropriate.

Following completion of the site-wide remedial investigation, the site was divided into five Areas of Concern based on historic use and nature of contamination to facilitate subsequent feasibility studies and cleanups.

Since 2001, the site facilities in AOCs 1, 2, 3, and 5 have completed their investigations and cleanups, and most have been returned to productive use. DEQ has issued eight NFA determinations to date. For AOC 4, the Port of Astoria completed a remedial investigation and feasibility study, and DEQ issued a ROD in June 2019. The Port finalized negotiations with other responsible parties in a consent judgment and began their remedial design work in May 2022. DEQ approved the remedial design work plan for construction of a groundwater-permeable reactive barrier, a sediment cap, and soil vapor controls in December 2022. Remedy design continued in 2023, and an alternative proposal to incorporate the remedy into an infrastructure project is currently under review.

Willamette Cove Uplands, Portland

DEQ issued a Record of Decision for the Willamette Cove Uplands property in March 2021. Metro has plans to redevelop the property as a nature park. The riverfront property is situated on the east bank of the Willamette River, north of the Railroad Bridge in Portland's Cathedral Park neighborhood and has a history of development and use spanning over 100 years. Soil contamination throughout the approximately 20-acre upland area exceeds acceptable levels for both human health and the environment, including elevated levels of dioxins and furans, metals, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs).

Remedial design is underway at the uplands of Willamette Cove and in-water portion overseen by EPA as part of the Portland Harbor Superfund. In 2022 Metro and the Port of Portland, which formerly owned the property, completed a comprehensive remedial design investigation. Also, in response to public comment, Metro Council voted to invoke the contingency remedy specified in the Record of Decision, which will substantially increase the amount of soil removed from the site and disposed of in a landfill. Using this information and remedial design investigation results, the Port of Portland and Metro have prepared a Basis of Design Report which presents their overall approach for implementing the upland cleanup.

Portland Harbor Superfund Site, Portland

The Portland Harbor Superfund site is located in the Lower Willamette River, stretching approximately 10 miles from River Mile 2 to River Mile 12. DEQ provides technical support and works to ensure Oregon state rules are applied to the project in support of EPA, which is the lead agency working on cleaning up pollution in the river. DEQ leads the work controlling contaminants in contaminated lands along the river (“upland” areas) to prevent recontamination of the river following EPA’s in-water cleanup. EPA’s Record of Decision, issued in January 2017, relies on the upland and upriver pollution control work DEQ is conducting as part of the overall strategy for addressing contamination at the site. In 2024, DEQ solicited input on multiple upland source control-related documents and on a proposed source control decision. EPA is overseeing progress on remedial design of the cleanup at 18 individual project areas within the site with the goal of entering into an agreement to begin implementing the cleanup by 2027.

J.H. Baxter, Eugene

This 31-acre site in Eugene was an active wood treatment facility since the early 1940s, until J.H. Baxter & Co. ceased operations on January 31, 2022. When active, the facility produced treated wood products such as utility poles and railroad ties. Spills and operational practices resulted in soil and groundwater contamination and air emissions concerns. Over the years, DEQ, the EPA, and the Lane Regional Air Protection Agency have investigated the facility and issued numerous enforcement actions and required cleanup measures. In October 2019, DEQ

completed a cleanup plan and issued a formal ROD which required offsite sampling and other remedial actions on the property.

Between 2020 and 2023, DEQ and EPA sampled 62 residential yards for dioxins, a group of toxic chemicals that can be associated with wood-treating chemicals. Soil sampling identified 11 yards above both DEQ's residential cleanup levels and an OHA priority cleanup level to protect children under 6 years old. In 2024, significant progress was made on cleanup at residential properties and the facility. DEQ completed soil cleanup at seven residential properties, which included excavation and disposal of contaminated soil and import of clean soil. The residential cleanup work at these seven properties was funded through DEQ's Industrial Orphan Site Account. Due to the high threat of release and risk to public health and the environment, on August 5, 2024, EPA began a CERCLA Time Critical Removal Action at the J.H Baxter facility to remove large quantities of hazardous substances that were left on site when the facility closed in 2022. The EPA TCRA at the J.H. Baxter site is a massive undertaking and is anticipated to cost more than $10 million. In addition to the TCRA, EPA finalized an Integrated Assessment and Hazard Ranking System scoring, which resulted in EPA proposing the J.H. Baxter site for inclusion on the National Priorities (Superfund) List on September 4, 2024. At present, final listing to the National Priorities List is tentatively expected for the Spring of 2025.

Since 2020, when DEQ formed a collaborative team including EPA, LRAPA, Oregon Health Authority, and several local agencies and organizations, cooperation and coordination has been ongoing. Throughout investigation of the sources and extent of the contamination, and now into the removal work and evaluation for Superfund, this team has worked to share and disseminate information, cooperate on technical elements, and provide expertise. Additionally, a community engagement group comprised of community members interested in the Baxter facility have also met. This group is working closely with the collaborative team to inform the investigation and share information with the wider community. The agency and community engagement groups used EPA grant funds to develop a story map with the Pacific Northwest Center for Translational Environmental Health Research at Oregon State University. The story map provides an overview of the site history, investigations, and public health consultations associated with the site.

Ashland Rail Yard, Ashland

This 21-acre rail yard was operated by the Southern Pacific Railroad Company for nearly 100 years as a locomotive fueling, maintenance, and railcar repair facility near downtown Ashland, until 1986. Over the past 30 years, environmental investigations of the rail yard have shown that soil and groundwater in portions of the property are contaminated with several heavy metals and petroleum products and byproducts. The contamination is at levels that may pose a health risk to people working or living on the rail yard.

Union Pacific merged with Southern Pacific in 1996 and joined DEQ's Voluntary Cleanup Program. DEQ has worked closely with Union Pacific and City of Ashland representatives to develop an appropriate cleanup plan. There have been significant community concerns to address, and in 2017 there was a change to the environmental cleanup levels that reduced the area subject to cleanup. This required a new risk assessment, feasibility study, and cleanup plan.

In 2022, Union Pacific proposed a new cleanup plan for the rail yard. In 2023, DEQ attended two City Council meetings and one planning session and held an in-person public information session. After a rigorous public comment period, DEQ gained support from the community and

City Council for the proposed cleanup plan. The site covered under this cleanup plan is an 11.7-acre area located on the central portion of the former rail yard property. The plan includes excavation of contaminated soil from the western 8.7-acre area of the site, consolidation on the eastern 3-acre area of the site, covering contaminated soil with a protective vegetated cap, and site use restrictions. The new cleanup plan will allow the rail yard to be safely developed for industrial, commercial, or urban residential use. In 2024, DEQ prepared the final Record of Decision and entered into a Voluntary Agreement for Remedial Design and Remedial Action. UPRR plans to implement the approved cleanup plan in summer 2025.

Formosa Mine, South Umpqua River Basin of Douglas County

Acid mine drainage from the abandoned Formosa Mine site has contaminated Middle and South Fork Middle Creeks, tributaries of Cow Creek, in the South Umpqua River Basin of Douglas County. The site consists of over 17,000 linear feet of underground workings co-located on private and public land managed by the Bureau of Land Management. This former copper-zinc mine is a source of highly acidic discharges with elevated concentrations of heavy metals. At least 3 miles of prime coho and steelhead habitat in Middle Creek have been adversely impacted by the mine contamination.

The mine operated into the early 1990s by Formosa Exploration, Inc., and was abandoned in 1996. Since its closure, BLM and DEQ completed a Remedial Investigation and Feasibility Study, characterized the site, and evaluated cleanup alternatives. BLM initiated the RI in 1999, but in 2000 reduced its role to one of technical assistance to DEQ, claiming that it was not liable for the cleanup. In 2000, DEQ assumed the lead agency role with construction of an interim acid mine water diversion system intended to limit contaminated water discharge into Middle Creek. From 2001 to 2005, DEQ conducted much work investigating the site and evaluating the feasibility of cleanup alternatives.

EPA placed the site on its National Priorities List (Superfund) in September 2007 and is now the lead agency for performing CERCLA removal and remedial actions. DEQ has provided ongoing support to EPA and its contractors in the technical evaluation of the site, potential responsible party investigations, stakeholder involvement, and cleanup decision-making. DEQ staff have supported EPA in site visits, contractor meetings, and acid mine drainage discussions.

Since 2022, the mine waste Remedial Design was completed, DEQ prepared a Co-op Agreement between DEQ and EPA for DEQ to maintain access roads to monitoring wells MW13 and MW16 and landowner access agreement support, completed the Human Health Risk Assessment and Baseline Ecological Risk Assessment for groundwater and surface water, and provided outreach to the local community regarding upcoming remedial action.

In 2025, DEQ will provide technical support for an updated Remedial Investigation and Feasibility Study of the impacted surface water and groundwater. This work will be funded by the Oregon DEQ/EPA Support Agency Cooperative Agreement. The Remedial Design for encapsulation of acid generating mine waste is ready for implementation in 2025 if EPA can secure sufficient funding. Current available Bill funds are insufficient for the final mine waste Remedial Design. EPA currently anticipates spending 36 million dollars of appropriated funds on the Remedy, which would require a ten percent state match. DEQ will likely need to provide funding for the remaining several million dollars for remediation of the acid-generating mine waste to proceed.

Umatilla Army Depot, Umatilla

The former Umatilla Army Chemical Depot continues to move toward reuse and redevelopment. Destruction of chemical agents stored at the Depot began in fall 2004 and was completed in October 2011.

The formal closing of UMCD occurred on August 1, 2012, and in November 2017. The western half of the property (Camp Umatilla) was reassigned to the National Guard Bureau and licensed to the Oregon Military Department.

In October 2022, Camp Umatilla was renamed the Raymond F. Rees Training Center. The training center is home to the 249 Regional Training Institute and will be used for inter-agency training. The remaining eastern half has been transferred to the local Columbia Development Authority this year.

DEQ continues to work with the Army, EPA, and regional stakeholders on remaining cleanup work at two primary locations: the former ammunition disposal area and the explosive washout lagoons. Cleanup to remove and remediate explosive contamination from the former operations at the facility has continued this year and is anticipated to be ongoing for two more years.

Oregon State University – Cascades Brownfield, Bend

The Bend Demolition Landfill is an inactive construction and demolition waste landfill covering about 72 acres in Bend, Oregon. It stopped receiving waste in 1986. Oregon State University - Cascades began developing the landfill and adjacent properties in 2018 for a four-year university campus in Central Oregon.

Following the initial phases of work which included the removal of organic waste (e.g. saw dust and wood waste fines) and prohibited waste (e.g. tires, metal), new legislative funding was received through the university system to start the next phase of cleanup of the pyrolyzing waste, and an EPA Brownfield grant was received to support the cleanup efforts. Work that utilized EPA-Brownfield cleanup funding was completed between September 2023 and May 2024. General activities included excavation and stockpiling of waste material and cover soil, environmental monitoring and sample collection, and tire shredding. The combined funding will support additional remediation and will create the first eight acres of the Innovation District, an urban mixed-use district comprised of strategic industry and research partners, middle market housing, and small-scale retail. This District will integrate university academic programs and research with industry and entrepreneurs, leveraging the fast growing and entrepreneurial economy of Central Oregon with a dynamic and innovative university. OSU applied for another EPA Cleanup Grant for Fiscal Year 2025 in November 2024 to extend the cleanup area and to allow for additional campus development.

Department of State Lands – Stevens Road Tract Brownfield, Bend

Located in southeast Bend, this site was used in the 1960s and early 1970s before Knott Landfill began operation to dispose of solid waste and septic sewer sludge. The Department of State Lands took possession in the mid-1990s from the Bureau of Land Management. In June 2007, DSL completed the Stevens Road Tract Conceptual Master Plan, outlining redevelopment of the site and necessary remedial actions required from past activities.

Stevens Ranch LLC purchased the site in 2020 and worked with the City of Bend to revise a new mixed-use development Master Plan for the property. The DEQ Cleanup, Solid Waste, and Asbestos Programs have been involved in overseeing the cleanup and remediation of waste material.

Municipal waste materials were found buried at the site from ground surface to 25 feet in depth. The waste material was excavated and processed to remove any prohibited materials from being directly transported to the County landfill. The prohibited materials included tires, scrap metal, and suspect asbestos-containing material and were managed separately. Reclaimed soil material was reused as backfill within excavations as structural fill. Approximately 203,180 cubic yards (cy) of material was excavated during the remedial activities over two years resulting in approximately 99,111 cy of reclaimed soil, 17,084 tons of waste material to the landfill, 534 tons of scrap metal, 339 tons of tires, and 62.45 tons of ACM.

DEQ issued an NFA for the Site in December 2022, and redevelopment planning was completed in 2023.

Voluntary cleanups

The 1991 Oregon Legislature authorized a Voluntary Cleanup Program to provide DEQ oversight to willing parties for investigating and cleaning up contamination from their properties. This cooperative approach helps parties proceed efficiently and meet funding and redevelopment deadlines. In 1999, DEQ added a second Voluntary Cleanup Program pathway, Independent Cleanup, which allows parties to complete their own remedial actions with limited or no DEQ oversight. The Independent Cleanup option is available for relatively simple and moderately contaminated sites that may exceed acceptable risk levels but do not pose significant threats to human health or the environment.

Brownfield redevelopment

A brownfield is a vacant or underused property where actual or perceived contamination hinders the site's expansion or redevelopment. These are often distressed properties where uncertainty about potential cleanup liability, including the risk to people and wildlife, creates barriers to redevelopment opportunities to bring new site uses and jobs that would revitalize a community's health and vitality. Nearly every community has brownfields. They are vacant lots we drive by

daily, the piles of known or suspected polluted dirt behind rusting chain-link fences and abandoned storefronts along our main streets. Community-led and agency-supported cleanup and reuse of these properties can provide community-serving spaces including affordable housing and greenspace, increase local property tax bases, provide jobs, address environmental justice issues, help meet Oregon's land use goals, and enhance public health and the environment. Currently, DEQ relies on three EPA grants to support brownfield redevelopment: 128a State Response Regular Appropriation; 128(a) State Response - Investment, Infrastructure, and Jobs Act [IIJA]; and the Columbia River Basin Restoration Funding Assistance Program.

In fiscal year 2024, DEQ provided technical assistance to 25 local governments and public economic development agencies that received EPA brownfield planning, site assessment, or cleanup grants. DEQ allocated approximately $763,000 in EPA grant funds at 10 brownfields to conduct site investigations, cleanup planning, limited cleanups, and to explain further-action recommendations or make No Further Action decisions. Brownfield grant funding was used across Oregon at the following properties:

EPA128(a) State Response Regular Appropriation Funded Projects

- Parrot Creek, Clackamas County
- Ione Gas Station (Former), Morrow County
- Ecology Motor Service Station, Umatilla County
- Freedom Bros. Fuel Co., Klamath County
- King Salvage, Lincoln County

EPA128(a) State Response IIJA Funded Projects

- Roth Building (Linn County)
- Sumner Store (Coos County)
- Sukhwinder Property (Josephine County)
- American Market (Linn County)
- City Texaco (Lincoln)

In January 2024, Oregon DEQ's Water Quality Program was awarded over $6 million from the EPA Columbia River Basin Restoration Funding Assistance Program. This five-year funding will prevent, reduce, and clean up toxics throughout Oregon's portion of the Columbia River Basin. The Cleanup program is using approximately $1.3 million of this funding to plan for and implement cleanups at up to 10 distressed properties located within the Oregon Columbia River Basin. In collaboration with communities, DEQ will prioritize properties that have the most significant potential benefits to water quality in historically underserved communities or those that have been disproportionately impacted by toxics. Sites will also be prioritized based on redevelopment readiness and community support.

DEQ will continue to use federal brownfield funding to support community engagement, remove barriers to redevelopment at publicly- and privately-owned properties, and work with project partners to leverage resources to return sites to protective and productive use for community benefits. DEQ will prioritize brownfield work in and with disadvantaged communities, including those that are experiencing disproportionate impacts of climate change.

While DEQ uses funding received from EPA to support brownfield site investigations and cleanup planning, EPA also offers grant funding directly to successful applicants to support planning, assessment, and cleanup. DEQ supports these grant recipients with technical and

regulatory assistance to help them meet the State's requirements and complete their projects. Fiscal year 2024 EPA grant recipients and ongoing brownfield projects are described below.

City of The Dalles (Community-Wide Assessment) - $500,000

Grant funds will support completing up to 12 Phase I and Phase II environmental site assessments. Grant funds will also be used to conduct three cleanup alternative evaluations, develop three site-specific reuse plans and one area-wide plan, and conduct community engagement activities. The target area for this grant is the City of The Dalles's Westside and Downtown Historic Area. Priority sites include a county maintenance shop, a former middle school, a vacant grocery store, a dry cleaner facility, retail gas stations, a former landfill and aluminum plant, a truck service and repair facility, vacant retail spaces in the downtown district, and former petroleum bulk terminal locations.

North Wasco County School District #21 (Cleanup) - $500,000

EPA grant funding will be used to clean up the former Chenowith Middle School located at 3718 West 13th Street in the City of The Dalles. The 13-acre cleanup site was developed as a school in 1955 and has sat vacant since 2009 when deferred maintenance began to take a toll on the 45,000 square foot school building. The building is contaminated with heavy metals and inorganic contaminants. Grant funds will also be used to conduct community engagement activities.

Port of Arlington (Cleanup) - $780,000

Grant funds will be used to clean up the former Condon Grade School located at 220 South East Street in the City of Condon. The 3.2-acre cleanup site was used as a school for just over 100 years and has been vacant since it closed at the end of the 2021-2022 school year. It is contaminated with heavy metals, inorganic materials, and PCBs. Grant funds also will be used to develop a Public Participation Plan and conduct community engagement activities.

Metro (Coalition Assessment) - $1,500,000

Grant funds will support completing 37 Phase I and 27 Phase II environmental site assessments. Grant funds also will be used to develop eight cleanup plans, four area-wide plans, and to support community engagement activities. Assessment activities will focus on the City of Portland's 82nd Avenue Corridor, the 10-mile Tualatin Valley Highway Corridor in Washington County, the four-mile Sunrise Corridor in Clackamas County, and the six-mile Southwest Corridor of State Highway 99W from Portland to the City of Tigard. Priority sites include a vacant former RV sales lot with a dilapidated building built in the 1960s, a former gas station adjacent to a residential neighborhood, and a 35-acre gravel quarry site. Non-lead coalition members include Unite Oregon, Washington County, and Clackamas County.

City of Sherwood (Cleanup) - $5,000,000

Grant funds will be used to clean up the Former Frontier Leather Tannery located at 1210 SW Oregon Street. The cleanup site operated as a tannery from 1947 to the late 1990s with a building that was leased to lead-acid battery manufacturers from 1956 to 1972. The site has been vacant since the tannery closed and is contaminated with heavy metals. Grant funds will also be used to develop a Public Participation Plan and to conduct community engagement activities.

City of Eugene (Cleanup) - $1,500,000

Grant funds will be used to clean up Trainsong Park located at 2775 Edison Street. The five-acre cleanup site was first used as agricultural land until it was redeveloped for residential use in the mid-1940s and as a municipal park in the mid-1980s. In January 2022, the park was closed and fenced off because environmental sampling found elevated levels of dioxin concentrations in park soils from an unknown source. Grant funds also will be used to develop a Public Involvement Plan and conduct community engagement activities.

Ongoing EPA assessment and cleanup grants

DEQ continues to provide technical assistance and oversight on previously awarded EPA cleanup, multi-purpose, and assessment grants. These grantees include:

- Harney County: $500,000 (cleanup) *DEQ is providing Qualified Environmental Professional assistance to administer Harney County's grant*
- Mid-Columbia Economic Development District: $1,000,000 (assessment)
- Oregon Cascades West Council of Governments: $1,000,000 (assessment)
- Oregon Department of State Lands: $1,000,000 (cleanup)
- Oregon State University: $2,000,000 (cleanup)
- Wild Rivers Land Trust: $1,940,000 (cleanup)
- Confederate Tribes of the Siletz Indians: $800,000 (multi-purpose)
- ColPac Economic Development District: $1,000,000 (revolving loan fund)
- Tillamook County: $500,000 (assessment)
- Clatsop County: $500,000 (assessment)
- City of Portland: $500,000 (assessment)
- City of Hillsboro: $500,000 (assessment)
- Lincoln City: $500,000 (assessment)
- City of Chiloquin: $402,500 (cleanup)
- Rogue Valley Council of Governments: $500,000 (assessment)
- Confederated Tribes of the Grand Ronde (Willamette Falls): $800,000 (multi-purpose)
- City of Chiloquin: $300,000 (assessment)
- The Dalles, Wasco County, Port of The Dalles: $600,000 (assessment)
- Harney County, Cities of Burns and Hines: $600,000 (assessment)
- Baker Technical Institute: $500,000 (cleanup)
- Baker Technical Institute Coalition (Baker City, La Grande, Eastern Oregon University): $600,000 (assessment)
- South Central Oregon Economic Development District (SCEODD)- Lake County and Cities of Lakeview and Paisley: 2- $600,000 grants (both assessment)
- City of Ontario, Malheur County and partner cities Nyssa and Vale: $600,000 (assessment)
- Metro Coalition: $600,000 (assessment)

Heating Oil Tank Program

The Heating Oil Tank Program works with homeowners, real estate agents and service providers on issues related to below-ground tanks storing fuel oil (typically Numbers 1 and 2 diesel oil) to heat buildings for human habitation. The HOT program helps people meet the requirements for the voluntary decommissioning of HOTs, reporting releases, and the cleanup of soil and groundwater contamination. HOT also handles service provider licensing through YDO and administers rules for contractors working on HOTs and the cleanup of soil

contamination, with consideration for Risk-Based Concentrations in soil, soil vapor, indoor air, and groundwater. The HOT program is unique in the broader Cleanup Program for its often-direct work in residential areas and Oregonian's homes. Two noteworthy HOT projects are described below.

Gladstone, OR (03-18-0390)

A 2018 heating oil tank release reported at a home in Gladstone. This year, a full investigation and cleanup effort was completed at the property. Heating oil contaminated soil extending 16 feet below ground surface and impacted groundwater. Approximately 106.12 tons of contaminated soil were excavated from the front yard of the residence, and 200 gallons of impacted groundwater were pumped out and removed from the property. DEQ provided guidance on assessing the extent and risk of the impacted groundwater. DEQ also provided guidance on how to evaluate the potential risk of vapor intrusion from the impacted media. Following additional investigation showing no risk to the on-site residents, DEQ was able to close the file for the address.

Beaverton, OR (34-24-0109)

The Heating Oil Tank program coordinated with the DEQ Leaking Underground Storage Tank program to close a heating oil tank file at the Beaverton High School campus this year. A release from a 1,750-gallon heating oil tank was identified this summer during planned demolition. Soil and groundwater were impacted by the release, with impacted soils extending up to 7.5 feet below ground surface. After a total of 170 tons of contaminated soil and 13,195 gallons of impacted groundwater were removed from the site, DEQ was able to help facilitate the closure of the heating oil tank file as part of school renovations.

Prospective Purchaser Agreements

Prospective Purchaser Agreements facilitate the cleanup and return to productive use of properties contaminated with hazardous substances. The agreements provide developers and others with the means to manage risk and liability before acquiring contaminated property, and to make financial investments and move forward with redevelopment following acquisition.
A PPA is a legally binding agreement between DEQ and a prospective purchaser that limits the purchaser's liability for environmental cleanup at the property, in exchange for the purchaser providing a "substantial public benefit" such as cleanup, funding for cleanup, redevelopment of a vacant or underused property, or another important public purpose. For each project, DEQ determines what constitutes a substantial public benefit, believing that flexibility is key to providing the best community outcomes from new site uses.

During fiscal year 2024, DEQ entered into five new PPAs, four of which are in DEQ's Northwest Region and one in the Western Region. These PPAs supported the transfer and productive redevelopment of sites that will provide much needed affordable senior housing, a new health professions graduate school campus, a wildlife rehabilitation center, data center and renewable energy storage facility, and commercial retail space. These PPAs were purchased by nonprofit organizations and private businesses.

Northwest Housing Alternatives, Portland

A nonprofit organization that acquired property in Portland through a donation from Kaiser Permanente which will be developed into 62 units of affordable senior housing, with priority for those who have been displaced through gentrification in North and Northwest Portland.

The Bird Alliance of Oregon (formerly the Portland Audubon Society), Portland

A nonprofit organization that purchased a 12.5-acre portion of a former landfill in order to develop the property into a wildlife rehabilitation center and solar array. The Bird Alliance anticipates serving over 6,000 animals a year once the new site is complete, up from 4,000 at its current location.

WesternU, Lebanon

A nonprofit higher education institution that will acquire a roughly 150-acre property in Lebanon that has sat vacant for over a decade and was previously used as a plywood manufacturing facility in order to construct a medical sciences campus, expand existing degree programs, and an Interprofessional Behavioral Health Institute.

RestorCap, St. Helens

A limited liability company that entered into a PPA so that they could acquire a 138-acre property with 38 acres of upland industrial land. RestorCap will remediate and redevelop the site for use as a data center and renewable battery storage facility.

North Anchor Residential, Portland

A limited liability company that purchased a former dry cleaner site which had also been used as a fueling station and machine shop. NAR will redevelop the 0.28-acre Portland property into multifamily residential apartments along with ground floor retail space in addition to removing a 550-gallon underground storage tank and further remediating the site.

The PPA program portfolio now includes over 235 PPAs around the state. The program continues to be effective in helping local governments, nonprofit organizations, and private entities acquire properties that provide a variety of public benefits in exchange for protection from liability for legacy contamination. More information on the PPA program on DEQ's Prospective Purchaser Agreement page.

Industrial Orphan sites

Industrial Orphan sites are contaminated properties where DEQ has determined the parties responsible for the contamination are unknown, unwilling, or unable to undertake all required removal or remedial action. These sites include individual contaminated properties as well as area-wide sites where hazardous substances have affected sources of drinking water and other waterbodies.

DEQ generally designates a site an orphan when contamination at the site poses serious threats to people or the environment. DEQ may designate contaminated sites with significant but unrealized reuse potential (e.g., brownfields) as orphans if federal funding is unavailable or is inadequate to characterize and clean up the contamination to a level that is protective of human health and the environment. DEQ may also refer large and complex orphan sites to EPA for listing on the National Priorities List and use the Industrial Orphan Site Account to pay the state's required 10 percent share of remedial action costs and ongoing oversight and maintenance. Since 1992, DEQ has declared 120 sites Industrial Orphans. 51 of these sites have been cleaned up to No Further Action status, with many now supporting enhanced uses through redevelopment. The remaining orphans are in various stages of investigation and cleanup, including long-term monitoring and/or operation and maintenance (such as ongoing

treatment systems to protect drinking water resources). During fiscal year 2024, DEQ worked actively on ten Industrial Orphan sites.

In the 2023 legislative session DEQ sought funding for General Obligation Pollution Control bonds to replenish the Industrial Orphan Site Account for the next two biennia. DEQ received a total authorization of $10.3 million to pay for both orphan remediation work and expenses associated with the bond sales. DEQ will strategically time our bond sale to maximize revenue, minimize associated costs, and ensure uninterrupted access to funding for the investigation and cleanup of known and new high priority sites through the 2025-2027 biennium.

DEQ will continue funding industrial orphan sites presenting significant risks to people or the environment where responsible-party resources are unavailable. Subject to the availability of funds, DEQ will also consider using orphan funds to complete site cleanups rather than simply stabilize contamination, and to address eligible sites where development potential is significant.

Since 1991, DEQ has recovered in excess of $10.5 million of past expenditures from responsible parties and their insurance companies. While prospects for additional cost recovery are limited, DEQ pursues recovery of past orphan expenses to maximize funding available to perform cleanup activities at current and future orphan sites.

As mentioned above, states must contribute 10 percent of EPA’s remedial-action costs and 100% of long-term monitoring and maintenance costs at NPL sites with no viable responsible parties. Subject in part to the cost and timing of EPA’s remedial activities at NPL sites in Oregon, DEQ anticipates the need for $5 - $10 million of additional orphan funding to meet its estimated federal match requirements and long-term monitoring and maintenance costs over the next 10 years. In the coming years DEQ will continue to face a very significant issue in paying for orphan site cleanups, in large part due to the required state share of remedial action costs at NPL sites, and is evaluating options to address this funding need.

3. Cleanup milestones and projections

This section summarizes Environmental Cleanup program achievements in fiscal year 2024 (July 1, 2023 to June 30, 2024) and projections for the fiscal year ahead.

Accomplishments – fiscal year 2024

Sites in DEQ's database

Since 1988, DEQ has identified approximately 6,064 contaminated and potentially contaminated sites in Oregon and compiled information regarding these sites in the Your DEQ Online database. DEQ identified 42 new sites in fiscal year 2024.

Overall, the universe of future cleanup sites in Oregon is unknown. State law does not require reporting of contaminated sites to DEQ (except for underground storage tank releases and current active spills above reportable quantities). Thus, there are "legacy" contaminated sites that DEQ may not learn about until: 1) they come into the Voluntary Cleanup program (described in Section 2); or 2) a third party reports them to DEQ; or 3) they are discovered by DEQ's Cleanup staff conducting research in various parts of the state. Additionally, new releases still occur, unexpected contamination found during construction or other activities, new contaminants of concern emerge, and the scientific understanding of risks associated with exposure to current hazardous substances change – events that DEQ cannot predict.

Of note, the U.S. EPA's finalized listing of two PFAS as hazardous substances under CERCLA and finalized Maximum Contaminant Levels (legally enforceable levels in drinking water) for six PFAS in 2024, this may result in discovery of more contaminated sites.

Preliminary assessments

A preliminary assessment is an investigation of a site, its surroundings, and plants and animals potentially affected by pollution. DEQ reviews a site's history and conducts a walk-through to determine whether contamination is likely and what its effects could be. DEQ uses this information to determine the site's priority for further investigation and cleanup. In fiscal year 2024, DEQ or parties working with DEQ completed two Preliminary Assessments.

Removal actions

A formal removal is a cleanup that occurs before, during, or in lieu of, a remedial investigation, feasibility study or a final cleanup remedy. An informal removal is a cleanup that occurs to address low priority contamination in the absence of a remedial investigation, feasibility study and Record of Decision. Parties working within DEQ's Voluntary Cleanup program typically perform informal removals and receive No Further Action determination letters. Removals are commonly used to address "hot spots" of contamination. Removals help protect public health by preventing exposure to contaminants and the further spread of contamination. Removals are typically short-term activities over several months but on occasion may take several years to complete. In fiscal year 2024, DEQ initiated four and completed three formal removal actions.

Remedial investigations

A remedial investigation involves the characterization of hazardous substances, characterization of the facility, performance of baseline human health and ecological risk assessments, and collection and evaluation of information relevant to the identification of hot spots of contamination. In fiscal year 2024, DEQ approved two remedial investigation as final. Remedial investigations often take more than a year to complete so investigations started in a given fiscal year are generally completed in a subsequent fiscal year.

Feasibility studies

Feasibility studies provide detailed comparisons of possible cleanup methods for site contamination posing unacceptable levels of risk. Various remedial approaches or technologies are developed and evaluated for protectiveness. Options that would protect human health and the environment are then evaluated for effectiveness, ease of implementation, reliability, implementation risk and reasonableness of cost, as the law requires. DEQ recommends an option as the cleanup strategy and makes the selection after consideration of public comment. DEQ approved one Feasibility Studies in fiscal year 2024.

Records of Decision

A Record of Decision documents DEQ's decision on a site's cleanup method, based on the options evaluated in the feasibility study. DEQ finalizes the record of decision after evaluating public comments on the proposed approach and adjusting it as needed. The ROD draws upon remedial investigation and feasibility study findings to summarize the nature and extent of contamination and any risks it poses, the alternatives considered in the feasibility study, and the selected cleanup alternative to be implemented. DEQ finalized no RODs in fiscal year 2024. It takes several months to write a ROD, open it for public comment, and approve it. Many simpler sites are addressed using staff memos and reports rather than a ROD.

Remedial actions

A remedial action is the final cleanup action at a site. Remedial actions may involve eliminating contamination from a site by excavation or treatment, mitigating exposure to contamination through institutional controls, such as deed restrictions that limit certain land or water uses to prevent exposure; or using engineering controls such as caps, fencing or subsurface barriers. DEQ provided oversight for six remedial actions initiated in fiscal year 2024 and determined that four were complete.

No Further Action decisions

DEQ makes an NFA decision after concluding that a site no longer poses risks to human health or the environment, and no additional investigation or cleanup is needed. During fiscal year 2024, DEQ issued NFA decisions for 12 sites. The number of NFA decisions exceeds the number of records of decisions and remedial actions because many simple sites are cleaned up independently and then request DEQ review that the site is now protective in order to issue a NFA decision. In other cases, DEQ determines that low levels of contamination do not threaten human health or the environment.

Cleanup actions initiated and completed for fiscal year 2024; forecast for fiscal year 2025

The following table summarizes actions completed by DEQ's Environmental Cleanup program during fiscal year 2024. A forecast for fiscal year 2025 is also included.

Site actions	Fiscal Year 2024 (Actual)		Fiscal Year 2025 (Forecast)	
	Initiated	Completed	Initiated	Completed
Suspected Release Sites Added to ECSI Database		42		45
Site Screenings	5	5	5	5
Preliminary Assessments	2	2	2	2
Removal Actions (formal)	4	3	4	4
Remedial Investigations	1	2	2	2
Feasibility Studies	1	1	2	2
Records of Decision	0	0	2	2
Remedial Actions	6	4	6	6
No Further Action Decisions (including informal removal actions)		12		12

Note 1: Fiscal year 2024 forecasts are based on best professional judgement of the Environmental Cleanup program management team. One-time actions show data in the "completed" columns only.

Note 2: The Environmental Cleanup program continues to manage personnel challenges and opportunities associated with retirements and new positions (funded by EPA grant funding). In addition, program modernization initiatives focused on climate change, environmental justice, and diversity, equity, inclusion, and belonging are affecting project management capacity.

4. Environmental Cleanup Program modernization

As Oregon's population grows and its industries evolve, DEQ's Environmental Cleanup program faces new opportunities and new challenges. Statewide, former industrial sites are being redeveloped for new purposes, and DEQ often now works on smaller sites that require quick turnaround to facilitate real estate transactions. Meanwhile, DEQ is called to engage residents in neighbouring communities while it performs essential oversight of cleanup activities.

Over the past two decades, revenue sources have remained static while costs have increased. DEQ has adjusted programs and responsibilities to meet changing needs and expectations. The Environmental Cleanup program is operating with fewer filled positions, despite greater pressures on staff and management. To address this situation, DEQ is modernizing its program by stabilizing funding and strategically planning our work ahead.

Funding stabilization

The Environmental Cleanup program relies on a complex variety of revenue sources, including cost recovery, fees, federal grants, and bond sales. The internal systems and funding structure of the program have remained largely the same since its inception over 30 years ago, while the world has changed dramatically. The current heavy reliance on cost recovery in a "polluter pays" model becomes increasingly challenging as new contaminants of concern emerge, and scientific understanding of the risks associated with exposure to hazardous substances over time changes. As many large, highly visible and complex sites move through the cleanup process, the focus moves increasingly to smaller sites. These smaller and less visible sites present additional challenges, as they may be more difficult to find, the historical uses may be less well known, and there may be less incentive to redevelop the site. Owners and operators of smaller sites are also less likely to be familiar with DEQ and our processes or to have access to the resources needed to fund an expensive cleanup. Overall, the level of effort needed to protect human health and the environment by ensuring cleanup continues in a manner that equitably serves those most impacted increases. Even as the level of effort resulting in increased programmatic costs and direct cleanup costs increase, the revenue has remained static or is anticipated to decline.

To address the unsustainable funding situation and realize a modernized program that is capable of holistically addressing the needs of all communities in the state of Oregon in a rapidly changing world, both the internal systems and funding structures need to change. There is no path to a stable funding model for a modernized Environmental Cleanup Program that does not require future legislative action.

Strategic planning

The Environmental Cleanup Program is engaged in an effort to develop a 2050 vision for the future of the Cleanup Program and a strategic plan to turn that vision into reality. Strategic planning will allow the Environmental Cleanup Program to understand partner and community expectations while also reevaluating the use of tools and methodologies that have developed since the program's inception in the 1980s.

The future Cleanup strategic plan will allow the program to identify potential rulemaking, and/or statutory changes, plan for staffing needs, and evaluate appropriate funding mechanisms. As part of this process, we are developing a 2050 Vision for the program. Engaging in robust conversations with the regulated community and new partners who are impacted by the program on what the program should look like in the future is a pivotal component of this visioning. The Environmental Cleanup program intends to bring an environmental justice and equity lens to all these efforts, which will require different types of public engagement than the agency has historically employed. Further, the program intends to center input received from disproportionately impacted communities and tribes in the development of this vision.

Cleanup Steering Committee/2050 Visioning Project

The Cleanup Steering Committee was established in spring 2023 to begin the work of modernizing the Environmental Cleanup program, re-evaluating the program's ability to do work that is not billable to specific responsible parties, and developing new policies. In 2023, the Steering Committee developed a process to inclusively prioritize and implement the program's work and to inform strategic planning for the program. This process included documenting the current state of the Environmental Cleanup program (phase 1), developing a vision for the program (phase 2), and developing a framework for action (phase 3). Much of the funding, in the form of supporting positions, contracting dollars, and staff time for the strategic planning effort, is currently provided by the IIJA grant mentioned above.

Beginning in January 2024, the group worked with staff from across the program to complete Phase 1 of this process and initiate Phase 2. In Phase 1, project leaders worked with staff from across the program to write briefing papers establishing the baseline and current status of the following five core aspects the program: regulatory framework, financial health and funding sources, policies and guidance, program structure, and decision-making. These papers will be invaluable resources for the program and will serve as resources to guide the strategic planning process moving forward.

In 2024, this group also began the transition into Phase 2 of the process to begin developing the vision for the program. By June 2024, the Phase 2 work included beginning conversations with contractors from Portland State University to facilitate internal and external listening sessions to inform the vision, as well as developing teams of staff internally to support this effort. As part of the external engagement, the Cleanup Program intends to prioritize engaging disproportionately impacted communities and tribes to inform the vision for the future of the program. The Steering Committee anticipates this work will continue throughout Fiscal Year 2025 and into the following years.