11th Annual Environmental Cleanup Report

January, 2000

submitted to:

Governor John Kitzhaber

•

Oregon Legislative Assembly

•

Environmental Quality Commission

by:

Langdon Marsh, Director
Department of Environmental Quality

Paul Slyman, Administrator
Environmental Cleanup Division

11th Annual Environmental Cleanup Report

Introduction

The Department of Environmental Quality (DEQ) is statutorily required (ORS 465.235) to report annually to the Legislature, the Governor and the Environmental Quality Commission. The purpose is to:

- report cleanup accomplishments of the previous fiscal year
- forecast activities for the current fiscal year
- report on the status of cleanups in Oregon
- update the program plan every 4 years (last updated in the 1999 report)

This report's primary focus is DEQ's hazardous substance cleanup program; information is also provided about cleanups of leaking underground storage tanks, which are conducted under separate statutory authority.

Highlights

This report covers significant events of the past year and continuing activities, including:

- Cleanups and spill events, including high priority cleanups, such as work on Portland Harbor's sediment contamination
- 1999 changes to the state's cleanup laws; new rules and guidance for regulated petroleum tank cleanups; implementation of legislative changes governing heating oil tank cleanups
- Introduction of a formal Independent Cleanup Pathway
- Initiatives to improve the cleanup process
- Improving spill response and prevention through partnerships
- Activities related to returning the state's brownfields to productive use, including continued use of prospective purchaser agreements
- Outreach to local communities and groups potentially affected by contamination

Accomplishments – Fiscal Year 1999

In the fiscal year ending June, 1999 (FY 1999), DEQ gave "No Further Action" (NFA) designations[1] to 41 hazardous substance cleanup sites, indicating that these sites are sufficiently clean to protect human health and the environment. We also concluded, after the initial assessment phase, that 11 other sites suspected of being contaminated do not require cleanup. Since 1989, DEQ has made more than 550 NFA determinations.

[1] In this report, the term NFA generally includes "'conditional" NFAs, where the determination depends on long-term operation and maintenance actions, or the on-going application of engineering or institutional controls. There are currently 20 sites with conditional NFAs.

For additional information or to download this report, visit our web site at: **www.deq.state.or.us/wmc/cleanup/clean.htm**.

During FY 1999, 156 sites were added to DEQ's database of properties known or suspected to be contaminated with hazardous substances. The list now includes nearly 2250 sites, including the 550 completed sites.

Once identified, sites in the cleanup database are evaluated for their potential impact on human health and environment, and if they meet certain criteria, they are added to one of two statutorily required lists[2]. One is the Confirmed Release List of sites – where DEQ has verified that hazardous substances have been released to the environment. In FY 1999, 93 sites were added to this list; as of October, 1999 there were a total of 441 sites on the Confirmed Release List. The other list is the Inventory of Hazardous Substance Sites – the confirmed release sites that need additional investigation or remediation. Forty sites were added to the Inventory in FY 1999, the total on the Inventory now stands at 225 sites.

Cleanups vary in complexity and in the type of DEQ involvement. The box on this page describes the various "routes to cleanup" and defines terms used in this report. A statistical summary of FY 1999 cleanup actions and projected FY 2000 activities is included on page 15.

Site Response: Sites cleaned up under enforcement orders and orphan sites are among the most complicated cleanups so it often takes a number of years to complete investigation and cleanup. During FY 1999, 6 sites were completed (given NFAs), including one orphan site.

Orphan Sites: Because orphan funding is

Routes to Cleanup in Oregon

At most contaminated sites, there is an owner or operator who is legally responsible to pay for the cleanup. DEQ has authority to require responsible parties to clean up through enforcement orders – these are called **site response** actions. More often, however, responsible parties address the contamination voluntarily. DEQ's **voluntary cleanup** program provides an avenue for the property owner or operator to investigate and clean up, with DEQ overseeing the process. Recently, DEQ formalized another option, called the **independent cleanup** pathway, in which the investigation and cleanup is done with a much reduced level of DEQ involvement. (See page 10 for more information.)

When the responsible party has not been identified or is unable or unwilling to pay for cleanup, DEQ can use "**orphan site**" funds to take necessary cleanup action. In addition to orphan funding, in 1995 the Oregon Legislature authorized a special account, funded by the dry cleaning industry, for cleaning up contamination at **dry cleaning sites**. DEQ also works with the federal Environmental Protection Agency (EPA) at the 9 Oregon sites currently on the **National Priorities List**, commonly known as Superfund sites.

Cleanups involving only releases of petroleum products from **underground storage tanks (USTs)** are managed within DEQ separately from other hazardous substance sites. Cleanups of large petroleum fuel tanks, primarily located at gas stations, are **regulated tank cleanups** under state and federal law. Cleanups of leaks from **heating oil tanks**, often at residential locations, have different requirements.

[2] Copies of the two lists are available from the Waste Management and Cleanup program at (503) 229-5913 or DEQ's toll-free number, (800) 452-4011. They can also be viewed through DEQ's web site at www.deq.state.or.us/wmc/cleanup/sas0.htm. The page provides more information about the listing process and contains links to the lists, which are updated quarterly.

limited, only sites posing significant risk to people or the environment become orphans. Two sites were added to the list of orphan sites in the past year. One of these sites, the Killingsworth Fast Disposal landfill in Portland, is the first solid waste site to be declared an orphan. Solid waste orphans differ from "industrial" orphans in that they are located at municipal or other landfills and are financed by a fee on disposal of solid waste.

Since 1991, when DEQ first started doing cleanup work at state-funded orphan sites, 35 orphans have been declared. Orphan fund financed cleanup activities are on-going at 18 of these sites. Three sites have received NFAs, including the Chambers Oil Site in North Bend, which was completed recently. At the other 14, either the high priority work has been completed, or further cleanup is being conducted by the responsible party or another funding source, such as the federal Superfund.

Over the past 8 years, DEQ has spent about $23 million on orphan site cleanups. We have reimbursed the fund for about $3.3 million through cost recovery, insurance settlements and prospective purchaser agreements. Much more orphan work remains: We currently have about 18 sites on our "potential orphan" list, including significant areawide work in Portland Harbor.

Dry Cleaner Sites: To date, we've completed work and issued NFA letters for four dry cleaner sites. Cleanup is currently under way at eight dry cleaner sites and eight more are in the assessment phase. Three of these sites have afforded DEQ the opportunity to team with private industry to demonstrate a way to enhance bioremediation, which should be less expensive than the "pump and treat" method. The availability of the dry cleaner fund has enabled DEQ to work with dry cleaners to reduce the risk of future releases of dry cleaner solvent and to investigate and clean up more sites than would otherwise have been possible.

Current Cleanup Projects

- Using orphan site funds, DEQ has taken interim steps to protect against gasoline-like vapors that have troubled businesses in **downtown Prineville**. DEQ's extraction system began operation on the east side of town in October, and a responsible party installed a system to address the plume on the west side. The situation will continue to be monitored as final cleanup levels are determined.
- With DEQ oversight through the voluntary program, **a Madras business** completed an expedited investigation concerning possible dumping of pesticide-contaminated truck wash water. The company needed the expedited process in order to replace its truck wash water lagoon with a new zero discharge treatment plant in the planned time frame. In only five months, the firm was able to complete sampling, prepare a risk assessment, develop construction plans and obtain DEQ's approval of the risk assessment and construction plans.
- In the summer of 1999, DEQ's contractor treated over 27,000 gallons of contaminated groundwater and excavated more than 11,000 tons of contaminated soil from a **used oil recycling facility north of Bandon**. These actions have reduced the threat from site runoff to the Coquille River, which is a drinking water source and is used to flood cranberry bogs.

Voluntary Cleanups: Since this cleanup program was initiated in 1991, DEQ has issued NFA letters for more than 212 voluntary cleanup sites, far more than would have been possible under the enforcement (site response) program alone. About five new sites now enter the program each month, about 70% more than planned for current staffing levels.

More Current Cleanups

- DEQ's long-term cleanup at the **McCormick & Baxter** site in North Portland reached a major milestone as nearly 33,000 tons (about 350 rail gondola cars) of contaminated soil and debris were excavated and hauled to a hazardous waste landfill in the spring of 1999. The excavated areas were backfilled with clean soil and reseeded. The next steps are design and implementation of the final components of the cleanup, including innovative creosote recovery techniques to clean up the groundwater, covering the entire site with clean soil and remedies to prevent release of contaminants into the Willamette River.
- The cleanup technology being used by the Cascade Corporation and Boeing of Portland to address areawide groundwater contamination in **East Multnomah County** is performing better than expected. Within a year of operation, concentrations of the solvent TCE declined by up to 50% in some areas of the aquifer.
- Based on investigation at a dental equipment manufacturing company in **Newburg**, DEQ has determined that no further action is needed. This site applies the risk assessment principles included in the 1995 changes to Oregon's cleanup laws. Solvent contamination remains in the soil and shallow groundwater at this site, but based on the property's use and because the groundwater isn't used, the likelihood that anyone would be exposed to it is very low.
- DEQ is continuing to oversee environmental investigations underway by Ross Island Sand and Gravel and the Port of Portland to assess potential human health and ecological impacts from many years of **sediment disposal at Ross Island**. Both a panel of technical experts and the public provided input to the Port's work plan to assess releases of hazardous substances from their confined sediment disposal cells in Ross Island Lagoon. The Port has completed much of the field sampling work. Ross Island Sand and Gravel is continuing their assessment of a breach of one of the Port's cells discovered in 1998, and has begun planning a comprehensive assessment of both fill and processing areas at the island. Some preliminary investigation work has been initiated in conjunction with the Port's investigation. DEQ is also working with state and federal agencies to help develop a coordinated, long-term management plan for Ross Island that will be consistent with the existing reclamation plan. This effort will be particularly important as the company phases out mining activities at the site within 5 years.

Brownfields:

Over the last several years, brownfields – abandoned or underutilized commercial or industrial properties where redevelopment or reuse is hampered at least in part by contamination – have become an increasingly visible issue nationwide and in Oregon. Cleaning up and reusing these properties not only protects people and the environment, but also increases employment, creates vibrant communities and lessens the need to build in undeveloped "greenfield" areas. Unlike

other states, Oregon DEQ has not developed a separate brownfields program, but rather has made returning these properties to productive use a key goal of existing cleanup programs.

One of the primary tools available to encourage brownfield redevelopment is the prospective purchaser agreement (PPA). A PPA is an agreement between DEQ and a buyer of contaminated property which limits the buyer's cleanup liability in exchange for a "substantial public benefit", such as assisting with cleanup or providing new jobs. For example, in a recently completed agreement, the new owner of the former orphan site, Rogue Valley Circuits in Medford, has agreed to complete all necessary cleanup work remaining and may reimburse some of DEQ's orphan costs if the property is sold at a profit within 5 years. DEQ completed 12 new agreements in FY 1999; agreements have been signed covering 39 properties since 1995.

Recent Brownfield Redevelopments

- Three new buildings – home to a bank, insurance agency and restaurant – have gone up in **downtown Ontario** on the site of a former furniture store that was vacant for 11 years due to low-level groundwater contamination. Under a prospective purchaser agreement, the new owner is not only making new jobs possible, but is also reimbursing DEQ for past oversight costs, and performing additional required cleanup work, including installation of monitoring wells, additional sampling and assessing the risk to human health.
- In 1999, a prospective purchaser completed investigation and cleanup at the site of a former electric power company maintenance site in **downtown Corvallis** that had been vacant since 1976. The power company undertook investigation and cleanup in the past, but the work wasn't finished. Under the prospective purchaser agreement, the buyer of the property has completed cleanup activities and will be redeveloping the property, providing additional jobs. Typically, such redevelopment also increases a jurisdiction's tax revenues. DEQ has determined that no further action is necessary on this parcel as long as the site remains in commercial use and the groundwater isn't used.
- A new specialty grocery store opened in **Northeast Portland** in 1999, in a project that is expected to serve as a catalyst for economic revitalization and community stabilization. The most significant contaminant at the site was solvent from the dry cleaning facility on the site. The grocery's owner is performing cleanup work under a prospective purchaser agreement. If contamination remains after the agreement's requirements are fulfilled, DEQ plans to use the dry cleaner fund to complete the cleanup. To date, the new owner has removed a source of contamination and installed a system to extract vapors from the soil. In addition, the purchaser also worked with DEQ's UST cleanup program to address contamination from a gas station formerly located on one portion of the site.
- DEQ is a participant in much of the redevelopment in the area around **Portland's former railyards**. The area, contaminated by more than 100 years of industrial and railroad use, is undergoing intensive new construction. Three of the five developments planned by the Portland Development Commission on former Union Station property are complete and occupied by housing developments, both low income and market rate, and an Oregon State University research facility. Cleanup decisions on the largest development area, the 16-block former Burlington Northern railyard, will be made in March. DEQ continues to work in cooperation with responsible parties and developers to address contamination in a way that facilitates the construction plans.

Spill Response:

DEQ typically receives each year about 1500 reports of spills possibly involving hazardous substances from the Oregon Emergency Management System. Because DEQ does not have sufficient resources to respond to many spill events, DEQ staff determine, based on reported information, the appropriate response. Response ranges from minimal, at events where the risk is low or it appears the responsible party is responding appropriately, to full coverage at major or significant spills.

Calendar year 1999 brought a fairly typical number of spill reports, but they included a large proportion of significant events. While DEQ plans for about 10 to 15 such events a year, there were 24 in 1999. In addition to the well-publicized grounding of the New Carissa, a major spill event, there was an unusually large number of vessel groundings and other significant spills.

Spill Events

- Shortly after the New Carissa grounding, a tanker truck spilled its load of gasoline into a stream on the **Warm Springs Reservation**. The spill impacted a tribal fish hatchery, resulting in a major salmonid fish kill. Because the spill was on tribal land, EPA was the primary responder, but DEQ assisted by meeting the tribe's request for technical assistance.
- During a 10 month period in 1999, four serious marine vessel accidents occurred in the **Columbia River**, all with high potential for great environmental damage: Three large vessels ran aground under power: one loaded oil tanker, an 800 foot container ship and a 600 foot cargo ship. The fourth lost power and ran into a dock at Kalama, Washington. Because the events occurred on the Columbia, Oregon spill staff prepared to respond, but we were fortunate – this time – that the groundings happened on the Washington side.
- 1700 gallons of heating oil were mistakenly delivered into a sewer line in **Astoria**, traveling through the sewage system to its settling ponds. DEQ's role as the state's lead spill responder is often to coordinate the actions of various parties, ensuring that all environmental issues are properly addressed. In this case, the Oregon Department of Fish and Wildlife bore the primary burden of addressing the waterfowl contaminated by the oil in and around the ponds.
- In August, a 4500 gallon gasoline spill threatened **Knowles Creek**, near Mapleton, a prime spawning and rearing habitat for salmonids. An immediate concern was the risk of explosion. DEQ staff, with assistance from local government officials, oversaw the responsible party's emergency response, which included soil removal. The on-going cleanup, under DEQ supervision, consists of additional soil treatment and stabilization and the installation of extraction wells to prevent small seeps from reaching the creek.
- A Joint Federal investigation with EPA emergency response personnel culminated in the emergency removal of 400 gallons of oil from a **Klamath Lake** barge situated in a wildlife area inhabited by endangered species.
- DEQ assisted an **Klamath County** property owner who found that a newly purchased barn contained unidentified chemicals. After the hazardous material crews stabilized the materials, DEQ assisted by arranging for their removal from the site.

Underground Storage Tanks: In FY 1999, DEQ approved a total of 944 underground storage tank cleanups. Of these, 412 were regulated underground storage tanks (USTs) – large

petroleum fuel tanks at retail service centers and other commercial establishments. The other 532 tank cleanups approved were heating oil tanks, primarily residential ones. Leaks from these tanks are a growing problem, as large numbers of aging tanks fail. Although heating oil tanks are smaller than regulated USTs and thus pose somewhat less danger to the environment, they are of concern because of the proximity to residences and work locations and because actual or suspected leaky tanks decrease the value of real estate.

Major Projects and Initiatives

Portland Harbor

Portland Harbor, in the Willamette River, continues to be a major focus of DEQ's cleanup activities. Findings from a 1997 joint DEQ-EPA study of harbor sediments led the EPA to consider declaring the harbor a Superfund site. Preferring to address cleanup using the state's authority and management, DEQ has pursued a course of action to bring together interested parties to solve the problem.

In June DEQ completed the Portland Harbor Sediment Management Plan, which is a harbor-wide framework for evaluating and managing the contaminated sediments and which outlines the state's plan to satisfy EPA's requirements for deferring Superfund listing. The Plan was developed with input from EPA and other federal and state agencies, and both input and funding from the Portland Harbor Group, a coalition of 10 private and public entities owning property or conducting business in the harbor area.

Although DEQ made significant progress towards meeting deferral criteria, EPA has postponed its decision until March, 2000. DEQ continues to work on two unresolved areas: coordination with natural resource trustees and tribal involvement. Meanwhile, DEQ has begun implementing the Plan, including:

- Continuing investigation at specific sites
- Identifying potentially responsible parties to sign on to a consent decree, which will require parties to participate in the harbor-wide investigation
- Developing a Sediment Investigation Workplan, with advice and input from a broad spectrum of technical and policy workgroups, to guide further sediment investigation. Implementation is scheduled for late summer 2000.
- Public outreach and community involvement tailored to meet the needs of the affected community, with opportunities for environmental and community group participation in workplan development and continued communication with affected neighborhoods.

Coos Bay

In December, 1998, the EPA agreed that DEQ should continue its state-led cleanup effort at three Coos Bay locations, rather than place the sites on the National Priorities (Superfund) List. EPA determined that the three sites have polluted the area with a variety of contaminants that threaten the bay's highly productive aquatic resources.

DEQ is cleaning up one of the sites, Mid-Coast Marine, a former marine construction and repair operation, using state orphan site funding. In 1999, DEQ's contractor removed soils

contaminated with arsenic and chromium from the site. In the first half of 2000, DEQ plans to remove sediments containing various metals and tributyltin, which pose a continuing threat to both the fishing and shellfish industries and to marine life in the bay.

Responsible parties at the other two shipyards are working under consent orders requiring them to both address existing contamination and implement practices to prevent future recontamination of the shipyards and the surrounding area. One, Southern Oregon Marine, has completed an interim sediment removal, an investigation and a risk assessment and has started work on a feasibility study of possible cleanup methods. The Port of Coos Bay completed the investigation and risk assessment phase at its Charleston Shipyard in September. The Port has also implemented a number of Best Management Practices to prevent continued release to the environment.

Columbia Slough

DEQ continues to work with the City of Portland to address the contaminated sediments in the 30-mile long Columbia Slough. The Slough is one of Portland's largest open spaces and is home to several threatened and endangered species. Contaminants in the Slough are persistent and tend to bioaccumulate in higher level organisms. Investigation has been completed at several of the sixteen areas identified as high priority. Investigation and cleanup is complicated for several reasons, including the large number of cleanup sites and continuing discharges from storm sewers and other outfalls. Cleanup staff, working with DEQ's water quality program, plan to develop a comprehensive approach that allows for some interim actions at cleanup sites coupled with methods to address the combined sewer and stormwater outfalls.

Partnering with others

DEQ tries to maximize its effectiveness by partnering with other interested parties to achieve cleanup work. A recent example is a cooperative investigation with the Portland Water Bureau to sample soil and groundwater in the city's backup wellfield, where volatile organic compound (VOC) contamination has been detected at low levels in the shallow groundwater, but the source is unknown. DEQ assisted the city by using its new hydraulic "direct-push" equipment, funded by an EPA grant, to obtain the samples. The city agreed to pay DEQ's costs for technical staff to operate the equipment. DEQ and city representatives continue to meet regularly to plan ways to combine resources and pursue the common objective of protecting this critical groundwater source.

Focusing our work on the most vulnerable areas

As a part of the cleanup program's strategic planning process, we have been developing a new approach to help us prioritize our work. Traditionally, we have looked at individual sites as they were referred to the cleanup program and ranked their priority for further action. The new Vulnerable Areas approach looks at sites statewide based on a number of factors, such as places with a high concentration of domestic or community wells, or areas surrounding streams identified as "water quality limited[3]" because of the presence of toxic substances. Focusing our effort to find and evaluate sites in these areas helps ensure that we're maximizing protection of human health and the environment.

[3] A federal and state Water Quality program designation.

The Vulnerable Areas approach can affect our work in many ways. For example, one of the Vulnerable Area categories is salmon streams located in historic mining districts. This criterion has led DEQ to partner with several other state and federal agencies (such the Oregon Department of Geology and Mineral Industries and the federal Bureau of Land Management) in a project to prioritize former mine sites for cleanup and environmental restoration.

Program Changes and Improvements

Changes to Oregon's Cleanup Statutes and Rules

- The 1999 Legislature expanded the use of orphan funds to include investigation and cleanup of contamination in "submerged lands" – the sediments in Oregon's rivers and other waterbodies. This will enable DEQ to continue work in Portland Harbor, where responsible parties are not yet clearly identified. Projected expenditures in Coos Bay do not appear to be necessary at this time.
- Another change will expedite DEQ's approval of excavation and removal remedies at areas of hazardous substance contamination defined as "hot spots" under cleanup law. Previously, the law specified a preference for treatment in these areas – in other words, the use of technologies that permanently eliminate or reduce the level of contamination. For hot spots in soil, the revised law expands the preference for treatment to include "digging and hauling" to an authorized hazardous waste landfill.
- A third bill revised Oregon law related to insurance coverage for cleanup of environmental contamination. The bill provides that 1) Oregon law applies to claims when cleanup of contaminated sites occur in Oregon, unless the policy provides that the laws of other states apply; 2) cleanup agreements with DEQ and EPA are equivalent to lawsuits when those terms are used in insurance policies; and 3) fees and costs under voluntary cleanup agreements and consent orders with DEQ or EPA are not considered voluntary payments when insurance claims are made.
- The Legislature enacted administrative changes intended to improve collection of the fees used to pay for dry cleaner cleanups. Industry-sponsored proposals to increase program revenue, which has lagged expectations, were not successful.
- The Environmental Quality Commission adopted a temporary rule classifying methane from abandoned landfills as a hazardous substance when there is a danger of explosion. This change enabled orphan site funds to be used at the Killingsworth Landfill, where methane is a hazard. DEQ has initiated discussions with interested parties to determine whether a permanent rule is needed to address methane risks.
- Two bills affected heating oil tank cleanups: One eliminated the 1997 law that would have provided grants to homeowners with heating oil tank problems and requires DEQ to form an advisory committee to investigate ways to lower cleanup costs. This bill also requires the oil to be pumped out when tanks are taken out of service, as a way of avoiding future leaks. Another bill provided funding for DEQ to develop a new heating oil tank program, using DEQ-licensed contractors to certify that leaks are properly cleaned up. Draft rules implementing these changes were released for public comment in November.

The cleanup program's budget for the 1999-2001 biennium is shown on page 16.

Independent Cleanup Pathway

In April 1999, DEQ formalized the Independent Cleanup Pathway, which lays out the process for parties who want to clean up contaminated sites without on-going DEQ oversight. This alternative to the existing voluntary process was a result of feedback from site owners and other stakeholders in the Voluntary Cleanup Focus Group, with whom DEQ has been working for the past several years. Although it has always been possible for a responsible party to clean up a site and ask DEQ to approve the cleanup after the fact, the Independent Cleanup Pathway (ICP) adds more definition and certainty to the process.

The Independent Cleanup Pathway provides a more expeditious route to cleanup approval. If the responsible party gives DEQ sufficient notice (90 days) before submitting a final report, DEQ's goal is to complete its review within 60 days. Although the Independent Cleanup Pathway eliminates the usual step-by-step DEQ oversight, there is still a provision for the party to pay for the amount of technical consultation it desires. By consulting with DEQ, the party may avoid cleaning up either more or less than would be required, or preparing an incomplete final report.

This option is available only for sites ranked as low or medium priority for further investigation or cleanup. Because these sites represent less risk to human health and the environment, they generally lend themselves to appropriate cleanup without DEQ oversight. In addition, more complex sites usually require more review, and DEQ would not be able to meet the expected turn-around time.

Since the inception of the ICP in the spring of 1999, 19 sites have signed up for the new option. Some property owners have notified DEQ they are cleaning up completely independently and will be submitting final reports, while others are choosing to take advantage of the technical consultation provision. One example is a former foundry and machine shop site in Northwest Portland, where DEQ is providing technical consultation tailored to the new owners needs as they perform an independent investigation of the property.

Cleanup Improvement Initiatives

DEQ has embarked on a series of new initiatives to improve communication with and to better serve those participating in site cleanups. The goal is to increase the cleanup program's ability to work effectively with responsible parties to protect Oregon's environment.

We are continuing to work with three existing groups of varying memberships designed to address issues from different perspectives:

- The **Environmental Cleanup Advisory Committee,** originally established to help draft administrative rules resulting from the 1995 cleanup law revision, has broad membership including local government, environmental and industry representatives. It continues to advise DEQ on overall program direction.
- DEQ will increase its interaction with the **Voluntary Cleanup Program (VCP) Focus Group**, which has met annually since 1995. The mission of the group is to evaluate the program's policies and operations and recommend improvements. There is no set membership of the Focus Group; participants are those involved in the state's voluntary cleanup program, including representatives of industry and local government, environmental consultants, attorneys and lenders.

- The **Early Warning Team** is comprised of DEQ's cleanup managers and individuals representing parties responsible for conducting cleanups. This team's mission is to provide a forum for sharing information and discussing site cleanup implementation issues.

Initiatives and their status are:

- In November, DEQ hired an independent consultant to conduct a confidential survey of a wide audience, primarily of past, present and potential future cleanup participants, to identify program elements that are working and those that need improvement. The Environmental Cleanup Advisory Committee and the VCP Focus Group have helped the consultant develop the survey. We expect that the confidential nature of the survey will provide useful information.
- In early January, 2000, DEQ announced the formation of a 3-member citizen group to examine the way Oregon finances cleanup of hazardous substance sites. The group will review current financing mechanisms, seek advice from experts, and look at other programs around the country. In addition, in order to facilitate this fresh look at cleanup in Oregon, DEQ has formed a new headquarters division to will focus solely on cleanup.
- DEQ is also designing a dispute resolution process for independent cleanups. The Environmental Cleanup Advisory Committee and VCP Focus Group are participating in this effort as well. DEQ intends to begin implementation of the alternative dispute resolution process in Spring, 2000.
- DEQ will also be addressing two areas where we've already heard concerns. Staff will be trained so that they better understand how work to with clients to simultaneously meet business and environmental needs. And DEQ will be improving its invoices so that they better explain oversight charges.

Separate from these efforts, DEQ has reconvened its Dry Cleaner Advisory Committee to explore programmatic issues and to seek a solution to the program's revenue shortfall.

Spill Response and Prevention

DEQ is also leading or participating in a number of efforts aimed at preventing spills and improving preparedness.

- DEQ has participated as an ex officio member of the New Carissa Review Committee, appointed by Governor Kitzhaber to study issues related to the grounding of the New Carissa. The group was charged with examining local, state, and volunteer involvement and identifying ways to improve oil spill planning, prevention and response by state and federal agencies. The Committee's report to the Governor, which is expected to be completed by January 2000, will likely make some recommendations and refer other topics for further work by expert committees. The final report will be available on its DEQ-supported web page (www.deq.state.or.us/wmc/nc/ncrc).
- DEQ is an active member of several Pacific Northwest groups that meet to exchange information, develop response plans, and coordinate resources. They include:
  - The Northwest Area Committee, formed as a result of the federal Oil Pollution Act of 1990 and which includes state and federal environmental and response organizations, is responsible for maintaining the Northwest Geographic Response Plans. These documents form the state's oil and hazardous material contingency plans for its navigable waterways – coastal areas and most of the Columbia River.

- Among the activities of the States/British Columbia Oil Spill Task Force are researching the potential for a west coast traffic plan that would move non-tanker vessels farther away from the shoreline and updating its Field Operations Guides, which describe procedures, roles and responsibilities for spill events.

Underground Storage Tank Cleanup

There were several changes to tank cleanup rules and guidance in the past year:

- The regulated tank cleanup rules were revised in 1998 to provide for the development of "generic remedies" or streamlined approaches to cleanup. In December of 1998, tank staff finalized a generic remedy for "low-impact" sites which allows a business to remain in operation while managing the potential risk from contamination. In September of 1999, the guidance document "Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites" was issued in final form. Included in this document is a new generic remedy for simple risk-based cleanups. The generic remedy options and the use of risk-based decision-making provides more flexibility in the tank cleanup process.
- There has been considerable activity related to heating oil tank cleanups since the 1999 Legislature adjourned. A generic remedy for cleaning up heating oil releases was released for public comment in September of 1999 and is in the process of being finalized. DEQ has drafted administrative rules for implementing the requirements of HB3107, to license companies providing heating oil tank services. Until those rules are finalized, DEQ is offering the opportunity for tank owners to participate, on a voluntary basis, in a trial program using contractors to certify cleanups.

Other Activities

Brownfield Activities

In addition to normal cleanup work that supports cleanup and reuse of brownfield sites, DEQ supports a number of brownfield-specific activities, such as:

- EPA brownfields grants pay for DEQ to conduct site assessments at government-owned properties and private property where the redevelopment plans promise significant public benefits. Grant funds were recently used to conduct further investigation at the former Rose City Plating site in Portland. DEQ had previously used orphan funds to remove toxic metal plating wastes from the abandoned site. The brownfield investigation showed that only moderate contamination remains, providing sufficient information for the prospective purchaser to continue with final cleanup work and redevelopment.
- In September, Oregon State University hosted an EPA-funded conference in Bend, which focused on brownfields issues affecting the state's rural areas. DEQ assisted with conference development and several staff members attended both to provide information and to learn more about rural community needs.
- DEQ supports the federal brownfields tax incentive, by serving as the state agency certifying property eligibility. Unfortunately, only two taxpayers have requested certification since the provision became effective in 1997.
- DEQ participates in and provides support to several brownfield or brownfield-related efforts such as the Portland Showcase project, a federally supported redevelopment effort.
- DEQ is working closely with the Oregon Department of Community and Economic Development to provide assistance so that individuals can return brownfields to productivity.

Outreach

A key component of DEQ's cleanup program is education and involvement designed to help people understand the potential risks from contamination, what is being done to address the risks, and what the public can do to help protect the environment. This outreach takes many forms:

- For most cleanup sites, project managers develop a public involvement plan, to ensure that keeping the community informed and addressing their concerns are an integral part of the cleanup process. For many sites, providing fact sheets and an opportunity to comment on the cleanup plan is sufficient. For others, where community concern about the site's risk is high, DEQ may conduct a series of public meetings to thoroughly explain the science and address concerns about past exposures, and to discuss the effectiveness and risks of the proposed remedy. For example, DEQ staff meet monthly with the Oregon State Penitentiary Community Group to address issues related to solvent contamination in its Salem neighborhood.
- The cleanup staff in DEQ's Eastern Region have embarked on a special outreach campaign to better inform communities of cleanup program activities and services. Tailored information packets are being distributed to each county and to communities with a population of 4,000 or more. The packets are followed by presentations to local interested parties, such as the Community Solutions Teams, to exchange information.
- In November, the threat of groundwater contamination in Prineville was reduced through a DEQ-sponsored "tank pump-out" day. The event was a pilot project funded by an EPA pollution prevention grant. About 1,800 gallons of diesel fuel and heating oil was pumped from twelve tanks no longer being used by their owners.
- The cleanup program continues to enhance its internet presence to provide more information to Oregonians about cleanups and how the state's cleanup laws are carried out. (Address: www.deq.state.or.us/wmc/cleanup/clean.htm.) The internet helps us to provide, more quickly and cost effectively, the information we have traditionally supplied, and it enables us to reach a wider audience. We'll be working in the coming months to get feedback from users to continue to increase the web site's usefulness.
- The legislation that created the dry cleaner cleanup program also set new standards for dry cleaning operations designed to prevent future releases of dry cleaning solvent into the environment. In the summer of 1999, DEQ staff visited nearly 440 dry cleaner establishments to provide technical assistance in meeting those standards. DEQ was pleased to find that 95% of the businesses visited were in compliance with the law's requirements.

Cleanup Phases Completed

Sites with a release of hazardous substance or those suspected of being contaminated move through several stages of investigation and cleanup. The chart on the page 15 reports the number sites that have completed each of the stages in the past fiscal year; the number beginning each phase is also shown.

Sites added to DEQ's Environmental Cleanup Site Information (ECSI) database are first **screened**, or evaluated, based on readily available information, to determine the site's priority for further investigation. If warranted, many sites then undergo additional analysis called a **preliminary assessment**. Sometimes this investigation is all that is necessary to determine that the site does not pose significant risk. Sites with significant contamination go through the entire

process, starting with a **remedial investigation**, involving sampling and site characterization, and **feasibility study** to evaluate cleanup options. Once a proposed cleanup alternative is approved by DEQ's director, the cleanup method is fully planned in a **remedial design**. The phase where cleanup is carried out, which in some cases takes many years, is called **remedial action**. At a number of sites, interim cleanup actions may be taken prior to full investigation and design, in order to protect people and/or the environment from immediate threats. This is known as a **removal action**. A site receives a **no further action** (NFA) designation when DEQ determines that it poses no significant threat to human health or the environment.

For More Information

To obtain additional copies of this report, or for additional information about DEQ's cleanup programs, contact:

Address: Waste Management and Cleanup Division
811 SW Sixth Avenue
Portland, OR 97204
Telephone: (503) 229-6413

Or visit our web site at www.deq.state.or.us/wmc/cleanup/clean.htm

Cleanup Phases Completed and Initiated
Actual and Projected, July, 1998 – June, 2000

Actions	Completed		Initiated	
	7/98-6/99	Projected 7/99-6/00	7/98-6/99	Projected 7/99-6/00
Suspected Releases Added to Database	156	163	NA	NA
Added to Confirmed Release List	93	60	NA	NA
Added to Inventory	40	33	NA	NA
Site Screenings	105	165	104	165
Preliminary Assessments	79	100	61	100
Voluntary Cleanup				
Removal Actions	14	18	16	21
Remedial Investigations	31	29	23	26
Feasibility Studies	6	6	7	7
Remedial Designs	2	1	2	2
Remedial Actions	8	7	6	7
No Further Action Determinations*	35	45	NA	NA
Site Response				
Removal Actions	20	11	16	12
Remedial Investigations	7	11	11	13
Feasibility Studies	1	5	4	4
Remedial Design	3	4	1	4
Remedial Actions	0	3	4	6
No Further Action Determinations	6	4	NA	NA
Underground Tanks				
Regulated Tank Releases Reported	518	400	NA	NA
Regulated Tank Cleanups	412	375	480	400
Heating Oil Releases Reported	1330	1700	NA	NA
Heating Oil Tank Cleanups	532	600	727	1600

* Includes "conditional NFAs," where contamination is left in place, but controls are in place to prevent exposure.

Notes:

- Since the beginning of program operations, 23 sites have been removed from the Confirmed Release List and 17 from the Inventory.
- Site Response actions include cleanups that are not "enforcement" sites under a consent order; these include those financed by the dry cleaner fund and orphan site cleanups.
- Regulated UST cleanups initiated are those reported by the responsible party and do not include ones initiated by DEQ action. As a result, actions completed exceed those initiated.

Legislatively Adopted Budget
1999-2001
(Dollars in millions)

Activity	Funding Sources	Budget*
Hazardous Substance Cleanups		
Enforcement and voluntary sites, program management	HSRAF[4], including cost recoveries, General Fund, EPA grants	$ 15.11
Orphan cleanups	Orphan Site Account	9.16
McCormick & Baxter Superfund site	Federal Superfund	8.33
Dry cleaner cleanups[5]	Dry Cleaner Account	1.90
	103.50 FTE	$ 34.50
Underground Storage Tank Cleanups		
Regulated tank cleanups	Federal grant, cost recoveries, HSRAF (grant match)	$ 3.15
Heating oil tank cleanup and decommissioning	General fund, contractor licensing fees	.47
	25.25 FTE	$ 3.62
Spill Management		
Spill Response	General Fund	$ .40
Highway Spills	Petroleum Load Fee	.05
Drug Lab Cleanups	Asset forfeitures, cost recoveries, law enforcement reimbursements	.31
Oil spill prevention, preparedness	Marine vessel & facility fees	.46
	5.50 FTE	$ 1.22
Cleanup Total	**134.25 FTE**	**$ 39.34**

* Does not include agency indirect charges.

[4] Hazardous Substance Remedial Action Fund
[5] Includes hazardous waste minimization portion of program