10th Annual Environmental Cleanup Report

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submitted to:

Governor John Kitzhaber

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Oregon Legislative Assembly

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Environmental Quality Commission

by:

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10th Annual Environmental Cleanup Report

Introduction

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 on cleanup activities of the previous fiscal year
- forecast accomplishments for the current fiscal year
- generally report on the status of cleanups in Oregon
- provide a program plan, which is updated every 4 years

The report's primary focus is DEQ's hazardous substance cleanup program; some information is also provided on cleanups of leaking underground storage tanks, which are conducted under separate statutory authority. The 1999 report includes the third Four Year Plan.

The Evolution of Environmental Cleanup in Oregon

Environmental cleanup in Oregon today is quite different than when the state's first cleanup legislation was passed in 1987. Initially, limited resources forced DEQ to focus on only a handful of the most contaminated sites. We typically relied on enforcement authority to cause parties to take action, and significant staff resources were assigned to oversee each step of these complicated cleanups. Many additional sites were identified but we lacked sufficient staff to evaluate them.

In 1991, we established one of the nation's first voluntary cleanup programs. This alternative allows property owners who volunteer to meet their cleanup obligations a quicker route than the "enforcement" process. In a voluntary cleanup, responsible parties reimburse DEQ for its costs of overseeing or reviewing their cleanup actions. If the site is cleaned up to a level that protects human health and the environment, DEQ issues a "No Further Action" letter. This document alleviates many concerns that can hinder the sale, use or development of commercial or industrial properties. The voluntary approach has cleaned up far more sites than would otherwise have been done and as a result, more of Oregon's citizens and its environment are protected from exposure to toxic and hazardous substances.

The cleanup process has changed significantly and improved in other ways as well. There has been an evolution to a risk-based approach. Initially, the goal was to remove or treat as much contamination as possible. Now the aim is to minimize the risk that pollutants will harm people or the environment. This means that some contamination may be left at the sites, but the process ensures that the risk of exposure to any remaining contamination is controlled. This change was reflected in the amendments to the cleanup law enacted by the 1995 Legislature, which also introduced other modifications aimed at speeding up and reducing cleanup costs.

The cleanup program continues to evolve. Over the last several years, innovations have been introduced to the voluntary process in an effort to meet business needs while still affording

environmental protection. Also, a growing number of real estate developers and lending institutions have shown a willingness to invest in and clean up under-valued contaminated properties. In these cases, we can limit liability with prospective purchaser agreements.

Cleanup of petroleum leaks from underground storage tanks (USTs) has undergone changes as well. A risk-based cleanup option was introduced in 1996 and UST cleanup administrative rules were extensively revised in 1998, making them more consistent with the statute and rules governing hazardous substance cleanups.

Achievements: 1995-99

By the end of the current fiscal year, we expect to have exceeded most of our goals for the 1995-99 Four-Year Plan. The 1995 Plan did not include an estimate for completed projects (no further action determinations, or NFAs). However, we estimated we could begin only 100 voluntary sites; we will actually complete about 175. Similarly, in the site response program (enforcement cases and "orphan sites," described below), we expect to complete 14 sites, compared to an estimate of 7 sites. We project a total of 190 completed projects in the period, not including the sites where the initial investigation phase reveals that no cleanup is necessary.

Because the Voluntary program is flexible, many projects are approved without completing all phases of a traditional cleanup. For example, a remedial investigation sometimes provides sufficient information to determine that the site doesn't exceed acceptable risk levels, and some sites are independent cleanups, in which the responsible party cleans up without DEQ oversight and requests review and sign-off after the fact. As a result, we completed fewer actions than planned in some categories, in spite of the increasing number of sites cleaned up.

The increase in completed cleanups has occurred without an increase in staff. Increased experience, a flexible and successful voluntary cleanup program, and revisions in the cleanup process have all contributed to these achievements.

Where We're Heading

In spite of the achievements of the cleanup program's first decade, we are still striving to make improvements. We continue to add to the list of known or potentially contaminated sites much more quickly than we can complete them. In the 1997-99 biennium, we expect to add almost 330 sites, but will be able to finish work at fewer than half that number. Our aim is to focus on sites posing the most serious threats to human health and the environment, while maintaining our work at voluntary party sites, where the environment, the economy and the health of our communities can all benefit. We will be concentrating our site discovery and assessment efforts on the most environmentally vulnerable areas, and we have set goals intended to more quickly achieve results at high priority sites.

A key cleanup issue in the coming years will be how to address contaminated sediments in the state's waterbodies, particularly in light of the endangered species listing of salmon populations.

We will also continue to be involved in activities that further cleanup of abandoned or underused contaminated properties that detract from community health and well-being.

Cleanup Accomplishments and Challenges: Fiscal Year 1998

Cleanup Activities

DEQ's cleanup actions made significant improvements in the safety and livability of Oregon communities during the past fiscal year. More hazardous substance contaminated sites cleanups were completed in the year ending June, 1998 than in any year since the program started and significant progress was made at several long-term cleanup sites. Total underground storage tank cleanups fell somewhat short of recent projections, but estimated cleanups for the current fiscal year will put us back on target and will far exceed the levels in the 1995-99 Four-Year Plan. Details can be found in the chart on page 10.

Hazardous Substance Cleanups

In the fiscal year ending June, 1998 (FY 1998), DEQ signed off on 57 hazardous substance cleanups, indicating that no further action is required to protect human health and the environment. In addition to the sites where cleanups were completed, we also determined in the initial assessment phase that 16 sites suspected of being contaminated do not require cleanup. Since Oregon's cleanup law was passed in 1987, no further action determinations (NFAs) have been made at nearly 470 sites. There are also a total of 16 sites in the "operations and maintenance" phase, where construction of a remedy, such as groundwater treatment, is finished, but where we won't be certain for some time that the site is clean.

During FY 1998, 162 sites were added to DEQ's database of sites known or suspected to be contaminated with hazardous substances. The list now includes nearly 2100 sites, including the approximately 470 sites not requiring further action. The cleanup process has been initiated at about 400 of the remaining 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[1]. One is the Confirmed Release List of sites – where we've verified that hazardous substances have been released to the environment. In FY 1998, 57 sites were added to this list; there are now 411 sites on the Confirmed Release List. The other list is the Inventory of Hazardous Substance Sites – those that need additional investigation or remediation. Twenty-nine sites were added to the Inventory in FY 1998; there are now 212 sites on the Inventory.

Underground Storage Tank Cleanups

In FY 1998, DEQ approved a total of 702 underground storage tank cleanups. Of these, 261 were regulated underground storage tanks (USTs) – large petroleum fuel tanks at retail service

[1] 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/listing.htm. The page provides more information about the listing process and contains links to the lists, which are updated quarterly.

stations and other commercial establishments. This figure was somewhat less than the 393 regulated UST cleanups completed in FY 1997. However, we estimate we will approve 460 in FY 1999.

The other 441 tank cleanups approved were heating oil tanks, which are usually at residential locations. Leaks from these tanks have become a growing problem as large numbers of aging tanks fail. Although they 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. The 1997 Legislature provided funding for DEQ to offer grants, technical assistance, and oversight of cleanups and decommissionings (removing tanks from service). This use of the heating oil assessment has been challenged in court. The Legislative Emergency Board approved alternate funding to enable DEQ to offer limited assistance in the 1997-99 biennium, but this funding problem must be resolved for us to continue the authorized program in 1999-2001.

Recent Hazardous Substance Site Cleanup Activities

At most contaminated sites, there is an owner or operator that is legally responsible to pay for the cleanup. DEQ has authority to require responsible parties to clean up under enforcement orders or cleanups can be carried out voluntarily. 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. Because orphan site funding is limited, only sites posing serious risk to people or the environment become orphans. DEQ also works with the federal Environmental Protection Agency (EPA) at the 10 Oregon sites on the **National Priorities List**, commonly known as Superfund.

With current staff, the cleanup program manages more than 300 sites at a time. About 100 of these are enforcement or "site response" sites, including about 20 orphans, and more than 200 are voluntary cleanups.

Site Response: Sites cleaned up under enforcement orders are often among the most complicated cleanups and investigation and cleanup may take place over a number of years.

Orphan Sites: Six sites were added to the list of orphan sites in the past year. Since 1991, when DEQ first started doing cleanup work at state-funded orphan sites, 33 sites have been declared orphans. Orphan fund financed cleanup activities are on-going at 22 of these sites. At the other 11, 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.

Voluntary Cleanups: Since voluntary cleanups first began in 1991, NFA determinations have been made at more than 170 voluntary cleanup sites, far more than would have been possible under the enforcement program alone. About 6 new sites now enter the program each month, almost double the figure in earlier years.

Examples of cleanups under these programs include:

- In Prineville, DEQ investigated the source of benzene vapors at several downtown businesses and installed ventilation systems to protect workers. We are now working with owners of two service stations to address probable sources of leaked fuel.
- At a used oil recycling facility on the South Coast, DEQ removed 500,000 gallons of waste oil and wastewater from 79 tanks. Currently conducting investigation to determine the extent of contamination of the site.
- At a former marine repair facility located on an environmentally important slough of Coos Bay, we removed several hundred containers of abandoned solvents and paints, used sandblast grit and waste oil tanks. Investigation continues.
- A helicopter maintenance and repair facility in Southern Oregon is using an innovative system for treating solvent-contaminated groundwater. The system is the eighth of its type to be installed in the nation.
- The owner of the former Springfield Airport removed about 1900 tons of soil contaminated with DDT and other pesticides as a result of the facility's previous use by a crop dusting business. Risk assessments show that the cleanup is sufficient for likely future uses; a deed restriction will limit the site to non-residential uses. The owner plans a commercial/retail development.
- After several years spent installing equipment, a fork lift manufacturer began groundwater and soil vapor extraction to clean up solvent contamination at its Portland facility.
- In a joint project with EPA, an estimated 10,000 cubic yards of sediments heavily contaminated with dioxins and other pollutants were dredged from East Doane Lake, located in an industrial area along the Willamette River in Northwest Portland.
- DEQ stepped in to remove leaking tanks from a bankrupt service station in Crescent that contaminated the city's water supply until the former owners installed a bypass line. Investigation continues to determine whether the leaks threaten the Little Deschutes River.
- A soil cap will prevent exposure to contaminants remaining in the former rail yard of Portland's Union Station. The Portland Development Commission is constructing residential units at the site.
- A major redevelopment of Bend's Old Mill District is moving forward as DEQ works on the developer's schedule to address several different parcels. Soils contaminated with heavy metals, pentachorophenol and dioxins were removed from one former wood treating area; investigation and cleanup continues on other segments of the property.

Other Activities

Prospective Purchaser Agreements

Prospective purchaser agreements (PPAs) are becoming an increasingly important tool that DEQ uses to encourage cleanup that otherwise might not occur. Through these agreements, DEQ can limit a buyer's liability when purchasing contaminated property. As required by the law authorizing PPAs, the purchaser agrees to provide a substantial public benefit, such as contributing to cleanup costs, creating jobs or returning the idle property to productive use. Providing the purchaser with a limit on cleanup costs and liability often gives the certainty

needed to make an investment decision or to secure financing. Twenty-seven PPAs have been signed since the Legislature enacted this provision in 1995.

Brownfields

Brownfields – abandoned or underutilized commercial or industrial properties where redevelopment or reuse is hampered at least in part by real or perceived contamination – are becoming an increasingly visible issue nationwide and in Oregon. Brownfields involve economic, development and environmental issues. 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. All of DEQ's cleanup efforts help address brownfields; some actions dealing directly with the issue include:

- EPA brownfields grants pay for DEQ to conduct site assessments at government-owned properties. We recently completed work on the Harlan Mill site, located in a remote part of Lincoln County, which county government hopes to reuse to increase employment opportunities. The assessment provides information about the extent of soil and water contamination, enabling the county to more accurately predict redevelopment costs.
- A provision of the 1997 federal Tax Relief Act created tax incentives for new investors in certain brownfield properties to clean up contamination. DEQ's role is to certify that sites meet the legislation's criteria.
- Work with governmental, community and environmental justice groups to identify contaminated sites and to assist in efforts to get them cleaned up.

Working closely with stakeholders to achieve environmental results

Many varied groups are affected by contaminated sites or are involved in the cleanup process, including commercial and industrial property owners, environmental contractors, financial and real estate professionals, many facets of local government, local communities and environmental groups. We continue to make it a priority to provide information about individual cleanup sites and to keep all parties up to speed about the recently revised cleanup regulations and other cleanup-related information. In addition, in order to maintain the effectiveness of the cleanup process, we seek input from various participants about how the program can be improved. Recently, supplemental EPA grant funds have greatly increased these outreach efforts. Activities this biennium include:

- Conducted meetings and/or participated in numerous workshops, conferences and other gatherings throughout the state to explain various aspects of cleanup to local governments, including planning, community development, public works officials and city managers, and to private sector groups such as real estate professionals, attorneys and bankers.
- Strengthened communication efforts to ensure that affected people understand cleanup work taking place and feel assured that their health and environment are adequately protected.
- In late 1997, sponsored a focus group meeting with 24 voluntary cleanup participants to identify areas of possible program improvement. Resulted in changes including:
  - more flexible voluntary cleanup agreements; termination clause added
  - clear project strategies developed at beginning of process
  - providing more detailed billing information

- formation of Cleanup Early Warning Team, a cross-section of cleanup stakeholders, to identify issues arising from implementation of the revised cleanup rules and associated guidance; met four times in 1998
- continuing dialog, including second voluntary cleanup focus group meeting, held in December, 1998 and a survey of voluntary participants planned for early 1999

- Began providing cost and schedule estimates to participants entering voluntary cleanup agreements, as requested by the 1997 Legislature.
- Formed partnerships with local governmental and community organizations to work together to address cleanup issues. For example, we are working with the City of Portland and the Environmental Justice Action Group – a group working on environmental issues facing minority and low income neighborhoods – to identify brownfield properties in North/Northeast Portland.

Providing tools to enable cleanup

In 1998, DEQ substantially completed a nearly 2-year effort to create guidance to assist parties in implementing the new rules adopted by the Environmental Quality Commission in January, 1997. DEQ relied on input from technical, policy and legal experts in the cleanup profession and solicited public comment.

DEQ has also taken other steps to further the effectiveness of cleanups carried out under the revised cleanup law:

- Issued a "generic remedy" for cleaning up polychlorinated biphenyls (PCBs), a frequently occurring group of substances previously used for insulating electrical equipment. Generic remedies streamline the normal cleanup requirements for common classes of sites or contaminants. The PCB remedy includes acceptable soil cleanup levels for eligible sites.
- Held training sessions for environmental consultants and others involved in cleanups, to enhance understanding of the new guidance.
- Provided ready access to guidance documents on DEQ's web site, both for reviewing drafts during the comment period, and in final form.
- Reviewed implementation of revised cleanup regulations to determine the need for modifications to meet the intent of the law and/or allow more effective cleanups. DEQ's Cleanup Advisory Committee concluded in mid-1998 that no changes are needed at this time. DEQ continues its internal review of program implementation.

Sediment Contamination – An Emerging Issue

There is growing emphasis nationwide on the effect of river and other waterbody sediments, contaminated by years of industrial activity and other sources. In Oregon, there is particular concern about the impact of sediments on salmon. Attention is currently focused on two Oregon locations: Coos Bay and the lower Willamette River.

In Coos Bay, several areas have been contaminated by marine industry activity. Of particular concern is tributyltin, a pesticide used to remove marine life from ship hulls and which has been identified as the probable source of deformities in the bay's pacific oysters. DEQ is using orphan

funds to clean up one of the sites and is working with other responsible parties at other likely sources.

There are two problem areas on the Willamette. One is Portland Harbor, where a joint EPA-DEQ study in early 1997 revealed areas of significant contamination from wood preservatives, pesticides, metals and other pollutants. The data raised questions about the effect of harbor-area contaminated sites on river sediments and caused EPA to consider adding the Harbor to the National Priorities List, or Superfund. DEQ and responsible parties at current and pending cleanup sites are stepping up efforts to investigate sediments. Several businesses and the City and Port of Portland have formed a group to work with DEQ in developing a sediments management plan by May 1999. EPA has agreed to defer its Superfund listing decision pending the outcome of the planning process. Many business, environmental, governmental and community groups have a strong interest in this project and DEQ will be actively seeking consensus among them.

The second issue is how to safely dispose of contaminated sediments that are dredged from the river to maintain shipping channels. The recent focus on contaminated sediments has brought into question the past practice of dumping dredge spoils, in particular on Ross Island, on the south side of the city. Further study of previous disposals is needed to devise a short-term solution for upcoming dredging projects and in the long-term, a plan for managing dredged contaminated sediments.

Spill Management

In addition to cleaning up historical releases, DEQ's cleanup program also responds to current spills of hazardous substances and petroleum products. It is important that spills of these materials be cleaned up promptly, not only to protect environmental resources, but also because cleanup is cheapest when done before pollution spreads. DEQ's role is to ensure that those responsible for the spill take the appropriate cleanup action. For many spills, DEQ monitors the event through telephone contact with the responsible party and local authorities. If a spill is significant and likely to impact environmental resources, DEQ personnel report to the scene to ensure the response is appropriate. DEQ staff is on-call 24 hours a day to deal with the 1500 to 1600 events reported to us annually through the Oregon Emergency Response System.

In the 1997-99 biennium, DEQ has operated with a reduced spill response staff, due to budget cuts necessitated by a decline in hazardous waste disposal fees. As a result, DEQ has greatly curtailed its response activities. Relying on information as reported from the scene, DEQ staff determine the likely environmental risk and respond accordingly: Full response only occurs for the most significant spills. Most spills are only monitored by telephone and minor spills receive no oversight or follow-up. In addition, except for oil spill planning activities required on the coast and lower Columbia and Willamette Rivers, we have eliminated almost all of the education and planning activities that can prevent spills or minimize the impact.

Examples of spill events in FY 1998 include:

- A train derailment near Pendleton spilled 11,000 gallons of toluene, a toxic and highly mobile chemical. Prompt response prevented exposure to salmon in the Umatilla River, 300 feet away. As a precautionary measure, salmon were barged around the site. Soil and groundwater were treated; only small amounts of diluted toluene reached the river.
- Because the responsible party was unable to perform cleanup after a serious truck accident at the Keizer exit of I-5, DEQ arranged for cleanup in order to prevent 180 gallons of diesel fuel from spreading across a rain-saturated field into a nearby creek.
- A train wreck along a slough of the Yaquina River near Toledo spilled 3800 gallons of diesel fuel. Action was taken immediately to minimize the fuel reaching the slough, wetlands and the river itself. Contaminated soil was removed and tests were conducted to determine the impact on vegetation and wildlife.

1999 Projections

Projected cleanup actions for the current fiscal year, ending June 1999, are shown in the table on page 10. We estimate that we will complete about the same number of hazardous substance cleanups, but more of them will be at higher priority site response sites, where we expect to issue 7 NFAs. Completed actions will increase in all categories for site response, as more of our long-term cleanups begin making significant progress through the process. We forecast voluntary cleanup activity to be about the same as in FY 1998. Initial site screenings will return to normal levels, after a temporary drop in the past fiscal year. Completed cleanups of both regulated USTs and heating oil tanks are both projected to return to FY 1997 levels or above.

1999-2003 Four-Year Plan

The table on page 11 displays the cleanup programs' Four-Year Plan covering the period from July, 1999 through June, 2003. The Plan is based on the Governor's proposed cleanup budget for the period 1999-2001 and assumes that resources will continue at that level through 2003. Long-term funding for hazardous substance cleanup is likely to be an issue after the 1999-2001 biennium as the hazardous waste disposal fee, the primary revenue source covering cleanup costs not paid for by responsible parties, continues at a reduced level.

The Governor's Recommended Budget is included on page 12. The approved budget includes 5 new positions to deal with the more extensive sediment cleanup efforts and 8 new heating oil tank positions. The heating oil positions will administer grants and provide technical assistance and decommissioning oversight; they not substantially increase the number of tank cleanups.

The Plan, like FY 1999 projections, forecasts an increase in site response activity and completed cleanups, because of a stronger focus on high priority sites and as many long-term actions near completion. Voluntary cleanup and site assessment activities will remain at the FY 1999 levels. Regulated tank cleanups approved will stay about the same through 2001 and then begin to decline, because the cleanups remaining will be the more difficult ones, typically involving groundwater contamination. Heating oil tanks are expected to remain at the current level as older tanks continue to fail.

Cleanup Phases Completed and Initiated
Actual and Projected, July, 1997 – June, 1999

Actions	Completed		Initiated	
	7/97-6/98	Projected 7/98-6/99	7/97-6/98	Projected 7/98-6/99
Suspected Releases Added	162	165	NA	NA
Added to Confirmed Release List	57	60	NA	NA
Added to Inventory	29	32	NA	NA
Site Screenings	130	175	145	175
Preliminary Assessments	101	85	126	85
Voluntary Cleanup				
Removals	21	21	21	21
Remedial Investigations	32	30	44	35
Feasibility Studies	6	6	13	8
Remedial Designs	0	2	1	2
Remedial Actions	7	7	13	7
No Further Action Determinations*	57	50	NA	NA
Site Response				
Removals	8	14	18	14
Remedial Investigations	3	15	4	15
Feasibility Studies	4	16	4	12
Remedial Design	3	5	5	6
Remedial Actions	0	10	3	7
No Further Action Determinations	0	7	NA	NA
Underground Tanks				
Regulated Tank Releases Reported	376	450	NA	NA
Regulated Tank Cleanups	261	460	196	250
Heating Oil Releases Reported	1,018	1,140	NA	NA
Heating Oil Tank Cleanups	441	475	407	550

* Includes "conditional NFAs," where contamination is left in place, but controls are in place to prevent exposure.
Since the beginning of program operations, 14 sites have been removed from the Confirmed Release List and 10 from the Inventory.

Note that 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.

4 Year Plan of Actions Completed & Initiated
7/1/1999 - 6/30/2003

Actions	1999 - 2001		2001 - 2003	
	Completed	Initiated	Completed	Initiated
Suspected Releases Added	325	NA	325	NA
Added to Confirmed Release List	120	NA	120	NA
Added to Inventory	65	NA	65	NA
Site Screenings	350	350	350	350
Preliminary Assessments	175	175	175	175
Voluntary Cleanup				
Removals	45	50	48	50
Remedial Investigations	58	60	62	62
Feasibility Studies	11	15	13	15
Remedial Designs	2	4	3	4
Remedial Actions	13	14	15	14
No Further Action Letters	100	NA	100	NA
Site Response				
Removals	22	23	23	23
Remedial Investigations	24	25	25	25
Feasibility Studies	20	21	21	21
Remedial Design	24	25	25	25
Remedial Actions	24	25	25	25
No Further Action Letters	7	NA	9	NA
Underground Tanks				
Regulated Releases Reported	325	NA	120	NA
Regulated Tank Cleanups	930	180	875	65
Heating Oil Releases Reported	1,800	NA	1,600	NA
Heating Oil Tank Cleanups	900	865	900	770

Note that 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.

Governor's Recommended Budget
1999-2001
(Dollars in millions)

Activity	Funding Sources	Budget*
Hazardous Substance Cleanups		
Enforcement and voluntary sites, program management	HSRAF[2], including cost recoveries, General Fund, EPA grants	$ 15.03
Orphan cleanups	Orphan Site Account	9.15
McCormick & Baxter Superfund site	Federal Superfund	8.33
Dry cleaner cleanups[3]	Dry Cleaner Account	1.89
	103.41 FTE	$ 34.40
Underground Storage Tank Cleanups		
Regulated tank cleanups	Federal grant, cost recoveries, HSRAF (grant match)	$ 3.13
Heating oil tank cleanup and decommissioning	Heating oil assessment, voluntary cost recovery	.95
	29.25 FTE	$ 4.08
Spill Management		
Spill Response	General Fund	$ .40
Highway Spills	Petroleum Load Fee	.06
Drug Lab Cleanups	Asset forfeitures, cost recoveries, law enforcement reimbursements	.31
Oil spill prevention, preparedness	Marine vessel & facility fees	.45
	5.50 FTE	$ 1.22
Cleanup Total	**138.16 FTE**	**$ 39.70**

* Does not include agency indirect charges.

[2] Hazardous Substance Remedial Action Fund
[3] Includes hazardous waste minimization portion of program