DEQ Report to the Legislature

State of Oregon
Department of
Environmental
Quality

16th Annual Environmental Cleanup Report

Submitted to:

Governor Ted Kulongoski

Oregon Legislative Assembly

Environmental Quality Commission

by

Stephanie Hallock, Director

January 2005

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Introduction

The Department of Environmental Quality (DEQ) is required by statute (ORS 465.235) to report annually to the Legislature, the Governor and the Environmental Quality Commission on DEQ's Environmental Cleanup Program. The purpose of this report is to identify cleanup accomplishments from the previous fiscal year; forecast activities for the current fiscal year; report on the status of DEQ's Environmental Cleanup Program; and update the four-year Environmental Cleanup Program Plan.

Highlights

This report includes:

- Statistics on Environmental Cleanup Program activities in fiscal year 2004;
- Descriptions of Environmental Cleanup Program components; and
- The 2003-2007 Environmental Cleanup Program Plan.

Major Projects and Initiatives

- DEQ is working with communities and developers to bring contaminated properties back into productive use through our "Brownfields" initiative. DEQ assessed 15 properties for the presence or absence of contamination during 2004. Several of these sites are taking the first steps towards redevelopment.
- DEQ is working closely with the Oregon Economic and Community Development Department (OECDD) and the Economic Revitalization Team to evaluate properties where application has been made to designate them as "Certified Industrial Lands." OECDD certification includes a neutral, third-party verification, and it means that the properties can secure all government permits and approvals within six months.

For More Information

More information about many of the items covered in this report is available from the Land Quality section of DEQ's web site, DEQ Online: http://www.deq.state.or.us/wmc/index.htm. Information can be found under the Emergency Response, Environmental Cleanup, and Underground Storage Tank headings.

Accomplishments – Fiscal Year 2004

Sites Discovered

DEQ has identified approximately 3,300 contaminated and potentially-contaminated sites in Oregon since 1988. 170 new sites were identified in Fiscal Year 2004 (FY 2004). DEQ added these sites to its Environmental Cleanup Site Information System (ECSI) for tracking and public-reporting purposes.

Sites on the Confirmed Release List

Of the approximately 3,300 sites recorded in ECSI, 639 are on the Confirmed Release List . The Confirmed Release List is a list of sites where the presence of contamination has actually been documented (rather than just being suspected). DEQ added 33 sites to the Confirmed Release List in FY 2004. DEQ removed 10 other sites from the Confirmed Release List in FY 2004. (Sites are removed from the list when contamination at the site has been eliminated or reduced to levels that pose no unacceptable risks to human health or the environment.)

Sites on the Inventory

The Inventory of Hazardous Substance Sites is a list of sites where contamination has been confirmed and where further investigation or cleanup is necessary. There are 379 sites currently listed on the Inventory. Of those, 15 sites were added in FY 2004. Five other sites were removed from the Inventory in FY 2004 after they were cleaned up. All sites on the Inventory are also on the Confirmed Release List.

Cleanups by Removal

At sites where contamination is fairly extensive, and the best method for cleaning up the contamination is not in dispute, removal of the contamination may take place. A removal is essentially a cleanup action that occurs before a Remedial Investigation or Feasibility Study has

The Cleanup Process in Oregon

Sites where a hazardous substance is suspected to have been released are **evaluated** by DEQ to determine their priority for further action. If a release appears to have occurred, a **preliminary assessment** may be conducted to confirm or deny the presence of contamination. A **site investigation** may also be conducted to delineate the extent of the contamination. However, if an emergency situation exists, a **removal action** may be necessary to stabilize the site before any investigations occur.

Sites that are known to be contaminated proceed through a three-step investigation process to determine how (or whether) they are to be cleaned up. A **remedial investigation** is performed to determine the full nature and extent of the contamination. A **risk assessment** looks at the threats posed by the contamination to human health and the environment. Finally, a **feasibility study** evaluates various options for cleaning up the site. From this information, a determination is made as to whether the site needs to be cleaned up, and if so, how it should be done. A **removal action** may be conducted at any time during this process to quickly reduce the amount of contamination.

For sites where the necessary cleanup is relatively straightforward and simple, an initial removal action may be all that is required. However, if the cleanup will be more difficult and complex, a formal cleanup decision (called a **Record of Decision**) will be adopted by DEQ after a **public comment period.** The resulting cleanup is referred to as a **remedial action**. In addition to (or instead of) removing or eliminating the contamination, an **engineering control** (such as a cap or fencing) may be put in place to isolate the contamination. Or an **institutional control** may be recorded to limit future activities at the site so that people don't come into contact with the contamination.

A site receives a **No Further Action** designation when DEQ determines that it poses no significant threat to human health or the environment. This may occur at any point during the investigation and cleanup process.

been completed. Fourteen removals were initiated under DEQ supervision in FY 2004, and 12 were completed. Since some removal actions may take months or years to complete (such as extracting contaminated groundwater), the removal actions completed in FY 2004 may be different from those that were started.

Preliminary Assessments

A Preliminary Assessment is an investigation of a site and its surrounding area. The history of a site is reviewed to determine whether any contamination is likely to be present. Certain characteristics of the surrounding area (population and land use, nearby streams, depth to groundwater, etc.) are also reviewed to determine the likelihood of any contamination migrating off-site. DEQ uses all of this information to determine whether the site is a high, medium, or low priority for further investigation and cleanup.

Preliminary Assessments were initiated by DEQ or other parties at 32 sites in FY 2004, and 37 assessments were completed in FY 2004. Because Preliminary Assessments generally take only a few months to complete, the majority of assessments started in FY 2004 were also completed in FY 2004.

Remedial Investigations

A Remedial Investigation is a detailed examination of a site to determine the nature and extent of the contamination. Extensive sampling is conducted to determine what contaminants are present, where the contaminants are located, and how concentrated they are. The investigation also includes a detailed assessment of the risks to human health and the environment posed by the contamination. DEQ reviews and approves the investigations. DEQ initiated 14 Remedial Investigations in FY 2004, and completed 6. Because Remedial Investigations often take more than a year to complete, the investigations started and completed during a given time period are generally not the same.

Feasibility Studies

Feasibility Studies are conducted to evaluate various methods of cleaning up a site. Because various approaches or technologies can be used to clean up a site, each is evaluated for effectiveness, protectiveness, and cost, among other criteria. A preferred option is then chosen and recommended as the final cleanup strategy. Five Feasibility

Routes to Cleanup in Oregon

The Environmental Cleanup Program has many components to help owners and operators of contaminated property move through the investigation and cleanup process. One of the most popular options is **Voluntary Cleanup**. Willing parties and their contractors essentially hire DEQ staff to oversee their projects, to ensure that their work meets all appropriate requirements. Parties can choose the standard Voluntary Cleanup approach or an Independent Cleanup approach, depending on the amount of oversight they wish to receive.

DEQ also “discovers” contaminated properties through **Site Assessment**. DEQ learns about potential contamination from phoned-in complaints, unsolicited reports, and from other government agencies, in addition to conducting its own inquiries. Sites are evaluated and ranked according to their potential threats. Responsible parties are often encouraged to address their contamination through Voluntary Cleanup.

If a site is a high priority, however, it may not be prudent for DEQ to wait for the responsible parties to take action. DEQ can require cleanups to be conducted through **Site Response**. (Parties can also voluntarily enter Site Response if they want to conduct their cleanup under a legally-enforceable order or decree). If no responsible parties are able or willing to clean up a high-priority site, DEQ may designate the site as an **Orphan Site** and conduct the cleanup using funds from the Orphan Site Account. **Dry Cleaner** sites are also addressed through their own separate account.

Other types of cleanups are conducted under separate statutory authority. Hazardous materials spills are cleaned up through **Emergency Response**. Releases of petroleum from regulated **Underground Storage Tanks** are likewise addressed through their own separate program.

Studies were initiated in FY 2004, and 3 were completed. Because Feasibility Studies often take more than a year to complete, the studies started and completed during a given time period are generally not the same.

Records of Decision

A Record of Decision is a final cleanup decision on a site, signed by both DEQ and the responsible parties. The Record of Decision incorporates information from the Remedial Investigation and Feasibility Study to summarize the nature and extent of contamination at the site, the risks posed by that contamination, and the agreed-upon method for addressing the contamination. DEQ initiated 3 Records of Decision in FY 2004, and also completed 3. It generally takes several months for a Record of Decision to be written, released for public comment, and approved. As a result, for a given period of time, the Records of Decision that were started are generally not the same ones that were completed.

Remedial Actions

A Remedial Action is the final cleanup action taken at a site; it may involve actually eliminating contamination from a site, or isolating the contamination through institutional controls (deed restrictions, etc.) or engineering controls (caps, fencing, barrier walls, etc.). DEQ initiated 13 Remedial Actions and completed 11 in FY 2004.

No Further Actions

DEQ will issue a No Further Action letter to the responsible parties when the agency concludes that a site no longer poses risks to human health or the environment, and no further investigation or cleanup is necessary. This may occur at any point in the process. DEQ's Cleanup Program has issued 893 site No Further Action letters since 1988. In other words, DEQ has "signed-off" on 27% of the 3,300 sites in the ECSI database. During FY 2004, DEQ issued No Further Action letters at 59 sites, after completing investigations and/or cleanups.

Brownfield Redevelopment

A brownfield is a vacant or underused property where expansion or redevelopment is complicated by actual or perceived environmental contamination. These sites are often community eyesores where there is pressure to "do something," but where uncertainty about the costs to clean up contaminated property keeps potential redevelopers at bay. DEQ's Brownfields effort emerged from a cross-program workgroup in 1996, in response to requests from local communities and prospective purchasers to help investigate and clean up these abandoned sites.

DEQ strives to work with communities, public organizations, other government agencies, and private parties to facilitate and encourage the redevelopment of brownfields. For example, the program works with staff from the Oregon Economic and Community Development Department (OECDD) to find available state and federal funding sources to investigate and/or clean up brownfields. Recently, DEQ's Brownfields Program has provided technical assistance to 14 local governments and non-profit organizations that applied for EPA brownfield grants in late 2004. Brownfields redevelopment is also an integral part of the mission of the Economic Revitalization Team (ERT), of which DEQ is a member.

Brownfields redevelopment projects in Oregon that DEQ has been involved with were regional winners of the national "Phoenix Awards" between 2000 and 2003. The Phoenix Awards recognize outstanding brownfields redevelopment projects across the country. The Yards at Union Station housing development in Portland won in 2000, and the redevelopment of the Astoria Plywood Mill into Mill Pond Village won in 2001. The Old Mill District in Bend was the winner for 2002. The Old Mill District covered 250 acres along the Deschutes River south of downtown Bend, and was the site of an active lumber mill from 1922 to 1994. When the mill went out of business, River Bend LP purchased the property for redevelopment. Working with DEQ, the site was investigated and cleaned up in sections, thus allowing redevelopment to occur in stages. The formerly vacant industrial property has now been largely transformed into a mixed commercial and residential development. The City of Portland's South Waterfront project was the winner for 2003; it is the location of a lot of redevelopment activities, including satellite campus facilities for Oregon Health Sciences University.

Orphan Sites

Orphan sites are highly contaminated properties or areas where persons responsible for the contamination are either unknown, unwilling, or unable to clean it up. The 1991 Legislature authorized the Orphan Site Account to help DEQ clean up contamination at Orphan sites where contamination posed a potentially serious threat to human health or the environment. The Account is funded through the sale of long-term bonds. Since 1992, DEQ has issued bonds totaling $38 million.

Investigation/cleanup of 75 sites has been funded, in whole or in part, with funds from the Orphan Site Account since 1992. This includes 12 sites that were designated as Orphan projects in FY 2003, and 9 additional sites designated in FY 2004. Orphan sites include a range of contaminated sites such as: small businesses; abandoned mines; and areas where drinking water supplies are contaminated with hazardous substances.

Voluntary Cleanups

The 1991 Legislature authorized Voluntary Cleanup to provide willing parties with DEQ oversight while they investigated and, if necessary, cleaned up contamination from their properties. Parties pay for a DEQ Project Manager who oversees their work and makes sure that it meets requirements of the Environmental Cleanup Law. This cooperative process helps parties to move through the process efficiently, to meet sometimes tight funding and redevelopment deadlines.

In 1999, DEQ formally added a second "pathway" through the Voluntary Cleanup process. ***Independent Cleanup*** is a process by which parties complete their own investigations and cleanups with minimal DEQ oversight. If a party provides DEQ with 90 days' notice, DEQ staff can arrange to review and approve a final cleanup report within 60 days after the report is submitted. This process allows parties to proceed at their own pace. The Independent Cleanup option is available for low- to moderately-contaminated sites that do not pose an imminent threat to human health or the environment.

There are 368 active Voluntary Cleanup sites, with 292 sites following the traditional pathway, and 76 in Independent Cleanup. Since 1991, Voluntary Cleanup has completed cleanups at 445 sites, far more than Site Response alone could have completed.

Cleanup Phases Completed and Initiated
Actual and Projected, Fiscal Years 2004 and 2005

	Completed		Initiated	
Actions	**7/03 - 6/04**	**Projected 7/04 - 6/05**	**7/03 - 6/04**	**Projected 7/04 - 6/05**
Suspected Releases Added to Database	170	150	NA	NA
Added to Confirmed Release List	33	40	NA	NA
Added to Inventory	15	20	NA	NA
Site Screenings	63	80	128	95
Preliminary Assessments & Equivalents	37	40	32	45
Voluntary Cleanup				
Removal Actions	7	5	10	6
Remedial Investigations	5	8	11	10
Feasibility Studies	3	5	4	6
Records of Decision	3	5	3	6
Remedial Actions	10	7	12	10
No Further Action Determinations	54	50	NA	NA
Site Response				
Removal Actions	5	7	4	6
Remedial Investigations	1	3	3	3
Feasibility Studies	0	1	1	2
Records of Decision	0	1	0	1
Remedial Actions	1	3	1	4
No Further Action Determinations	5	8	NA	NA

Note: Site Response figures include dry cleaners and orphan sites.

Four-Year Plan of Actions Completed and Initiated
7/1/2003 – 6/30/2007

Actions	2003-2005		2005-2007	
	Completed	Initiated	Completed	Initiated
Suspected Releases Added to Database	350	NA	350	NA
Added to Confirmed Release List	90	NA	90	NA
Added to Inventory	60	NA	60	NA
Site Screenings	225	225	225	225
Preliminary Assessments & Equivalent	140	140	140	140
Voluntary Cleanup				
Removal Actions	14	16	15	17
Remedial Investigations	25	27	28	30
Feasibility Studies	13	15	14	15
Records of Decision	13	15	14	15
Remedial Actions	10	15	12	15
No Further Action Determinations	80	NA	80	NA
Site Response				
Removal Actions	12	16	12	16
Remedial Investigations	7	14	7	14
Feasibility Studies	8	8	8	8
Records of Decision	8	8	8	8
Remedial Actions	3	8	3	8
No Further Action Determinations	10	NA	10	NA

This four-year plan assumes stable funding over the next two biennia, and is based on the number of actions actually initiated and completed over the past four years. Voluntary Cleanup sites are both more numerous and (generally) simpler than Site Response sites, and so move through the investigation and cleanup process much faster. No Further Action determinations are often made during the site screening and preliminary assessment phase, and therefore no removals, remedial investigations, etc. are conducted at these sites.