

Model Toxics Control Act

1995 Annual Report

Ecology Publication 95-611

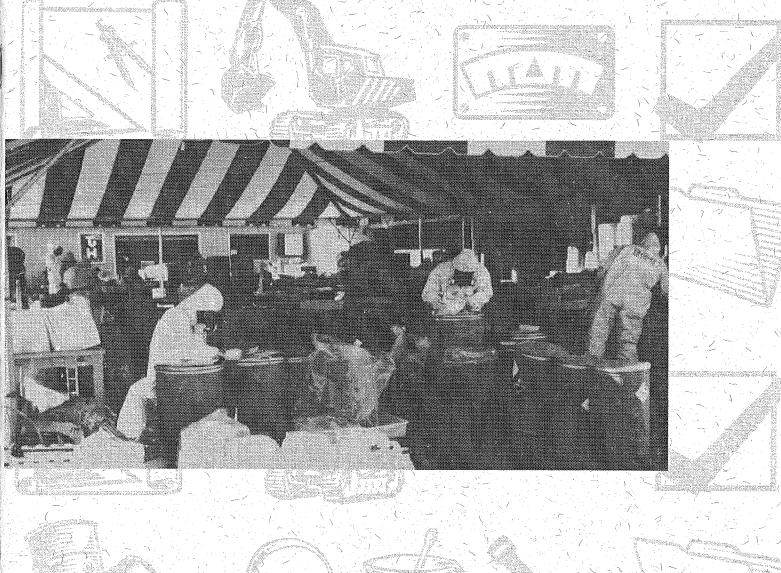








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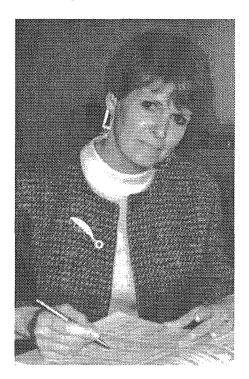
Director's Message

Members of the Toxics Cleanup Program took a new look at the Model Toxics Control Act in 1995, set some bold environmental objectives, and worked around budget shortages and legislative changes to set the course for faster, cheaper and more innovative cleanups. Among the priority objectives were:

- ** Get cleanup underway at all known contaminated sites;
- ** Complete cleanups on the most highly contaminated of these sites by the year 2001; and
- * Prevent new sites from being created.

The program walked its talk by expanding on new ways of doing business, creating new tools to speed cleanup, offering new incentives to prevent future contamination, and trying new ways to measure success.

For example:



New Ways of Doing Business

Contaminated industrial sites known as "brownfields" are being redeveloped as the program expands the use of agreed orders, redefines industrial properties, and offers prospective purchaser agreements to get properties cleaned up and restored to productive use more quickly. A new bill clarifying an exemption from liability for lenders should also help to speed property redevelopment, improvement and title transfer of contaminated properties.

New Tools to Speed Cleanup

A "quality" team evaluated the speed of cleanups and found that negotiations often slowed the process. As a result the team developed a new model for negotiations. The model, being used this year, is designed to lead to more timely and effective site cleanups.

New Incentives to Prevent Future Contamination

Our Central Regional Office piloted a program that is now slated to go statewide. The program allows underground storage tank owners a one-time technical assistance inspection that helps to identify any areas of operation or maintenance that need improving. The purpose is to prevent releases and future contaminated sites. Owners or operators who participate in the program can submit their inspection report to their insurance carrier and, depending on the risk posed, may receive a premium reduction of up to 10 percent.

New Ways to Measure Success

This year the Toxics Cleanup Program took on a new initiative to measure our success. The program collected information on three environmental indicators: area of land and water that is returned to productive use after a cleanup has taken place; amount of contaminants that have been treated, removed, recycled, or isolated from the environment; and volume of land or water that was cleaned up or managed. Data collected in just the southwest portion of the state and data from Department of Defense sites throughout the state, showed amazing results: enough metal contaminants to fill 20 box cars have been removed from the environment; and enough drinking water for 90 million people a day has been cleaned up.

Its nearing the end of 1995 and we're still moving at a quick pace to improve upon our successes. Legislation this year charged Ecology and a newly formed Policy Advisory Committee to examine the Model Toxics Control Act implementation, and to recommend any new ways to improve the states cleanup process. Two key issues the committee is currently addressing are risk assessment and independent cleanups. As we gear up for 1996, we plan to work hard on these issues and others as they arise. We hope to build on our existing partnerships among government, industry, and citizens to forge new ground in meeting our environmental objectives — getting sites cleaned up and preventing new sites from being created.

Revenue and Expenses

Hazardous Substance Tax

Funding for the Model Toxics
Control Act (MTCA) activities is
provided through two accounts:
The State Toxics Control Account
for state programs, and the Local
Toxics Control Account for state
grants to local governments. The
primary source of revenue to these
accounts is the Hazardous Substances Tax. Currently over 8,000
different hazardous substances are
subject to the tax. Additional revenue is generated through cost
recovery actions, penalties, and
other legislative appropriations.

The Department of Revenue oversees collection of the tax, which is imposed on the first in-state possessor of hazardous substances at a rate of 0.7 percent or \$7 per \$1,000 of wholesale value. More than 85 percent of receipts from the tax come from petroleum products.

Current Revenue Trends are:

In Fiscal Year 1995 Hazardous Substances Tax revenue amounted to \$38.8 million, an 11 percent increase from FY 1994.

Current projections are for the fund to maintain a moderate growth rate. To better prioritize spending, the Toxics Cleanup Program undertook a budget and priority setting exercise in 1995, maintained a hiring freeze for new positions, cut some of the program's existing positions, and used fewer contract dollars for cleanup and other programs funded through the state account.

Cost Recovery

As of July 1995, Ecology was pursuing active cost recovery actions on 110 sites. Recovered funds are placed back into the Toxics Control Account and are available for future cleanup activities. The amount billed from potentially liable persons during Fiscal Year 1995 was slightly over \$3.0 million, down from \$3.7 million billed during the previous fiscal year.

Cost recovery dollars have declined due to the conversion of 19 defense sites from cost recovery to direct federal funding. Federal grants via the Defense-State Memorandum of Agreement (DSMOA) are covering these costs. Cost recovery amounts should remain constant during the next year. Emphasis during the coming years will be on improving the payment rate which currently stands at about 80%.

How Money is Spent

Legislative appropriations are made for both the State Toxics Control Account and the Local Toxics Control Account based on the expected balances in the accounts as well as revenue estimates. Through the legislative process, a determination is made regarding which agencies and programs receive funds.

Currently, funds from the state account are allocated to the departments of Ecology, Agriculture, Health, Revenue, and the Office of Marine Safety (see Figure 1). Money is spent on activities authorized by the Model Toxics Control Act including site cleanup, health assessments, waste pesticide identification and disposal, and oil spill prevention. Many of the Toxics Cleanup Program's costs are recoverable from potentially liable persons. Recoverable amounts include "program support costs" defined in the cleanup regulation. The recoverable support costs are included in Table 1 under TCP State Toxics Control Account (STCA) Expenditures Ecology Conducted Cleanups, and Oversight of Potentially Liable Person Conducted Cleanups.

Funds from the local account are given to local governments through state grants (see Figure 2). Ecology administers the grants program. Local governments may use grants for cleanup of contaminated sites and for plans and programs designed to reduce solid and hazardous waste. Funds from this account can also be used to provide drinking water supplies to local jurisdictions with wells affected by contamination from contaminated sites.

Figure 1: State Toxics Control Account Expenses

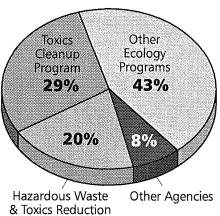


Figure 2: Local Toxics Control Account Expenses

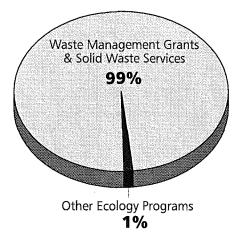


Table 1: MTCA 1995 Annual Report Financial Analysis

	Local	State
Revenue	Toxics	Toxics
Taxes	\$20,714,288	\$18,097,485
Hanford Decree		\$3,877,244
Penalties		\$45,299
Cost Recovery		\$3,003,063
Miscellaneous		\$626,178
Total Revenue	\$20,714,288	\$25,649,269
Ecology Expenditures:		
Air Program		\$8,738
Agency Administration	\$319,175	\$4,152,618
Central Programs		
Environmental Investigations and Lab Services		\$884,913
Water Quality		
Water Quality Financial Assistance Program		
Nuclear Waste		\$3,061,900
Hazardous Waste and Toxics Reduction		\$4,829,046
Toxics Cleanup Program (TCP)		
Solid Waste Services	\$1,023,718	\$553,491
Waste Management Grants		
Ecology Expenditure Total	\$27,555,228	\$22,669,758
Other Agency Expenditures:		
Agriculture		\$217.682
Health		
Marine Safety		
Revenue		\$35,523
All Agency Expenditure Total		
	•	

TCP State Toxics Control Account (STCA) Expenditures Ecology Conducte	d Cleanups
Interim Actions	\$295,297
Pre-Remedial	\$529,037
Remedial Investigation/Feasibility Studies	
Cleanup Actions	
Operations and Maintenance	
Permits	\$46,876
Total Ecology Conducted Cleanups	\$2,279,673
Oversight of Potentially Liable Person Conducted Cleanups:	
Interim Actions	\$62,71
Pre-Remedial Actions.	
Remedial Investigation/Feasibility Studies	\$1,665,40
Remedial Design	
Technical Assistance	\$368,731
Cleanup Actions	\$320,110
Operations and Maintenance	\$30,07
Permits	
Natural Resource Damage Assessment	\$111,863
Hazard Assessment	\$93,400
Total Potentially Liable Person Cleanups	\$3,202,859
General Operations and Management:	
Public Information	\$138,688
Program Development	\$383,675
Program Support	\$781,787
Training	\$64,592
Total Operations and Management	\$1,368,747
Subtotal TCP State Toxics Control Account Expenditures	\$6,951,279
Ecology Federal Grant Match	
Leaking Underground Storage Tank Activity	\$199,099
Total TCP STCA Expenditures	\$7,228,48

Site Cleanup: The Process... The Results

Toxics Cleanup Program Progress Through Fiscal Year 1995

The Model Toxics Control Act allows a contaminated site to be cleaned up through a formal process directly overseen by the state at the expense of potentially liable persons or independent of Ecology oversight. Figure 3 shows the universe of known and suspected sites that are undergoing cleanup through an independent process or through formal oversight from July 1988 to September 1995. The following information describes the cleanup process for sites undergoing formal Ecology oversight and shows the results to date for each step in the process.

An important element of the Model Toxics
Control Act is including the public throughout the decision-making process for all interim and final cleanup actions. Public comment is considered during the process as indicated below.

Site Discovery 6351 Known or Suspected



Sites where contamination has resulted from a history of improper hazard-

ous materials handling or disposal practices must be reported to Ecology's Toxics Cleanup Program. Potentially liable persons may choose to conduct independent cleanups without assistance from the department, but cleanup results must be reported to Ecology. Special reporting requirements apply to leaking underground storage tanks.

Initial Investigation 3258 Completed



The Initial Investigation is Ecologys first look at a

contaminated site. Within
90 days of receiving a
report of a possible site,
Ecology will visit the site
and investigate available
historical information.
Sites are added to
Ecology's site information
system, given a "No
Further Action" determination, or referred to the
appropriate local, state, or
federal authority for action.

Currently, 645 sites are
the Hazardous Sites Li
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going cleanup indeper
of Ecology oversight.

Figure 3:
Total All Known & Suspence of Suspence of Ecology oversight.

Site Hazard Assessment 24 In Progress; 817 Completed



A Site Hazard Assessment is an early study to provide preliminary data regard-

ing the relative potential hazard of a site. Ecology gathers information to 1) confirm or rule out contamination, 2) identify hazardous substances, 3) identify the site's environmental characteristics, 4) evaluate potential threats to human health and the environment.

Ecology determines either that no further action is needed or ranks the site relative to others that have undergone the same scrutiny. Sites needing cleanup are placed on the Hazardous Sites List and prioritized for further action. Currently, 645 sites are on the Hazardous Sites List. Some of the sites are undergoing cleanup independent of Ecology oversight.

Interim/Emergency Cleanups 40 In Process; 105 Completed

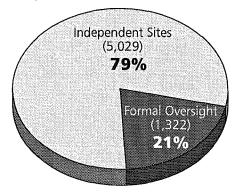


The goal of all hazardous waste cleanups is to

reduce risk to humans and the environment. Interim and emergency cleanups are used to *speed risk reduction* on portions of a site that pose the greatest threat without waiting for an in-depth study to be finished. Interim or emergency cleanups usually occur early in the cleanup process—at the same time other long-term cleanup strategies are being developed.

Public notice and comment required.

Figure 3: Total All Known & Suspected Contaminated Sites (7/1/88 -9/30/95): 6,351



Remedial Investigation/ Feasibility Study 78 In Process; 143 Completed



Eliminating human health and environ-

mental impacts at a contaminated site is a sizable engineering project. Careful study and planning are needed to make sure the chosen cleanup methods make sense environmentally and economically.

The remedial investigation provides specific and detailed information about the extent of contamination at a site. During the feasibility study, Ecology and the potentially liable persons use that information to develop and evaluate options for the cleanup.

Public notice and comment required.

Cleanup Action Plan 23 In Process; 91 Completed

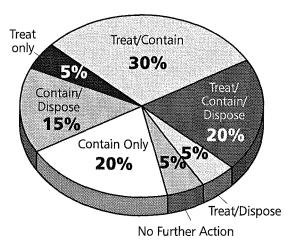


Ecology chooses a preferred cleanup op-

tion from alternatives in the feasibility study and presents its decision for public comment as a "cleanup action plan." The plan identifies a preferred method of cleanup and specifies cleanup standards ("how clean") and other requirements at the site.

Public notice and comment required.

Figure 4: Cleanup Methods at Ecology-Supervised Sites



Cleanup Construction 24 In Progress; 66 Completed



Actual cleanup begins once the cleanup

action plan is finalized and a consent decree or enforcement order is issued. Cleanup includes plan design, construction, and the operation and monitoring of cleanup actions.

Ecology requires the use of permanent cleanup methods whenever practical. Techniques for handling hazardous substances on a site are listed in preferred order:

- 1. Reuse or recycle
- **2.** Destruction or detoxification
- **3.** Removal and treatment/destruction of contaminants
- 4. Immobilization
- **5.** Disposal in a properly designed landfill
- **6.** Isolation or containment in place
- **7.** Deed/access controls and monitoring

Figure 4 shows the percent of times various methods or combination of methods have been used. It demonstrates the flexibility of the Model Toxics Control Act to select the appropriate cleanup methods.

Public notice and comment required.

Operation & Maintenance/ Monitoring 46 In Process; 12 Completed



Before removal from the

Hazardous Sites List, many sites go through a period of performance monitoring to make sure the cleanup was effective. Many sites also require operation and maintenance of the chosen cleanup method. For example, cleanup of contaminated ground water may require the operation of a "pump and treat" system for many years.

Removal from the Hazardous Sites List 18



A site may be removed from the list once cleanup

standards have been met or containment and control of contaminants have proven effective.

Public notice and comment required.

Site Cleanups Independent of Ecology Oversight

Independent Cleanup Sites 5029

Independent cleanups are encouraged for sites such as leaking underground storage tank sites where established methods and technology can be applied predictably. This allows hundreds of smaller or less complex sites to be cleaned up quickly without having to go through the formal process. Figure 5 shows the majority of independent cleanups are tank sites, but that other sites are also sometimes cleaned up independently. A potentially liable person may take independent action without oversight or approval from Ecology when the site is not under an order or decree, and when the site is not subject to cleanup negotiations.

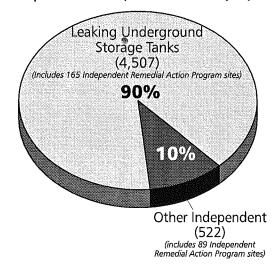
Release Reports Received on Underground Storage Tanks 4507

The law requires that a release from an underground storage tank be r eported to Ecology upon discovery of the release. The property owner or potentially liable person can choose to do an independent cleanup of the release.

Final Cleanup Reports Received 1659

Property owners of a leaking underground storage tank site who decide to do an independent cleanup must report the results of the cleanup actions within 90 days of completion. Ecology may require additional remedial actions if an independent cleanup is found to be inadequate.

Figure 5: Total Independent Sites (7/1/88 - 9/30/95): 5,029



Independent Remedial Action Program Reports Received 254

The Independent Remedial Action Program (IRAP), initiated two years ago, offers a timely review of independent cleanup reports for a fee which varies depending on the cost of the cleanup. Sixty-five percent of the IRAP reports concern leaking underground storage tanks. Once the IRAP review is complete, staff provide a written determination indicating whether the cleanup meets Model Toxics Control Act standards. If the cleanup is considered satisfactory, the property owner is provided with a written determination of No Further Action (NFA). This can benefit property owners by expediting the sale, transfer, or development plans for their property. Eighty-four percent of the IRAP reports reviewed resulted in a determination of No Further Action.

Of the 144 IRAP Reports Reviewed:

- ** IRAP Sites for No Further Action (121)
- ** IRAP Sites Awaiting Monitoring Data (8)
- ** IRAP Sites that Need Further Action (15)

Other Independent Cleanup Sites 433

Although most independent cleanup sites are the result of a release from an underground storage tank, some are the result of other discharges to the environment. Usually these sites begin with the formal process of Ecology investigating a complaint received, and conducting a site hazard assessment. Ecology can place the site on the ranked Hazardous Sites List if it requires further action. The potentially liable person can decide to conduct an independent cleanup at any stage during this process.

What's New in MTCA Implementation?

Speeding the Cleanup Process

Cleanup at contaminated sites in our state is on a faster track this year as a result of a new negotiations model developed by the agency's Quality Environmental Leadership team. The team was charged with identifying any potential delays in the cleanup process and finding ways to overcome those barriers. Data was collected from interviews with Toxics Cleanup Program staff, the Ecology Division of the Office of the Attorney General, and those involved in the process — communities, businesses, consultants, and attorneys.

What the team discovered was that, on average, it takes 322 days to complete negotiations for a Remedial Investigation and Feasibility Study (RI/FS). An RI/FS identifies the extent of the contamination and the feasible alternatives for cleanup. To speed the negotiations process, the team designed two new tools for site managers to prepare for and to conduct negotiations: the Model Toxics Control Act Negotiations Model, and the Negotiations Confirmation Letter.

The Negotiations Model helps speed the process by describing elements which add to successful negotiations and lead to timely and effective site cleanups. The model uses a conceptual framework for the site and for remediation. The conceptual site element of the model takes the knowledge of site history and use, and aids the site manager in developing a hydrogeologic and contami-

nant geochemistry model that can be applied to the site. The remediation element looks at data quality objectives, the potential cleanup alternatives, whether there is a bias for early interim actions, and how negotiations with potentially liable persons may progress to action on the site.

Policy Advisory Committee

This year, the Legislature asked Ecology to establish a Policy Advisory Committee to study and reevaluate how the state Model Toxics Control Act (MTCA) is working. The goal of the committee is to review how MTCA is carried out, and provide advice to the Legislature and Ecology on any administrative or legislative actions that could make the process more effective.

The committee is formed of 22 members representing a wide range of interests from both the public and private sectors as specified by the legislation. Membership of the committee and the interest each represents are:

- ** The Honorable Karen Fraser Senate, Legislature
- ** The Honorable Dan Swecker Senate, Legislature
- ** The Honorable Gary Chandler House of Representatives, Legislature
- ** The Honorable Nancy Rust House of Representatives, Legislature
- ** Len Barson Friends of the Earth, Citizen/Environmental

- ** Rod Brown WA Environmental Council Citizen/Environmental
- ** Jeff Parsons *People for Puget Sound*, Citizen/Environmental
- ** Laurie Valeriano Toxics Coalition, Citizen/Environmental
- ** Kevin Godbout Weyerhaeuser Company, Large Business
- ** Taryn McCain Boeing Company, Large Business
- ** Rick Griffith Stoel Rives, Small Business
- * Mike Sciacca WA Oil Marketers Association, Small Business
- ** Terry Austin Yakima County, Counties
- ** Sharon Metcalf City of Seattle, Cities
- ** Eric Johnson WA *Public Ports*Association, Ports
- ** Julie Wilson GeoEngineers, Science Advisory Board
- ** Gerald Smedes Smedes & Associates, Environmental Consulting
- ** Dan Ballbach *Perkins Coie*, Chairperson
- ** Jody Pucel SAFECO, Additional Member, Finance
- ** Scott McKinnie Farwest Fertilizer, Agriculture
- ** Mary E. Burg Department of Ecology, State Agency
- ** Jim W. White *Department of Health*, State Agency

By mid-December of this year, the committee will submit a preliminary report to the Legislature that identifies the questions and issues the committee will address. At a minimum, the committee will make recommendations on the following subjects:

- ** Cleanup standards and cleanup levels, including the use of sitespecific risk assessment;
- ** Policies, rules, and procedures, including cost, current and future land use, and selection of cleanup remedies;
- * Program implementation including staff training and accountability for cleanup decisions;
- ** Incentives to potentially liable persons;
- * Ecologically-based cleanup standards and levels; and
- * Effectiveness of independent cleanups.

The committee is also charged with evaluating alternative methods of carrying out the requirements of the MTCA to accomplish faster, less-expensive, and equally protective cleanups at complex sites. To do this, the committee has selected two pilot sites to study: the L-Bar Products site in Chewelah and the Yakima Valley Spray site in Yakima.

The L-Bar Products site has magnesium flux bar waste piles and magnesium flux bar processing residues from the previous operations of a mineral processing plant. Key policy issues to be addressed as the committee studies the site include: the role of ecological considerations

in determining cleanup standards; how shallow ground water contamination should be handled; and how to establish cleanup standards for non-carcinogens.

Yakima Valley Spray site investigations show the presence of pesticides, herbicides, metals, solvents, and petroleum products. Key policy issues addressed with this site are: the role of treatment versus removal or containment in site remediation; how land use should affect soil cleanup levels; how ground water contamination in an area served largely by a public water system should be addressed; and how to establish soil cleanup levels that are protective of ground water.

Information the committee acquires from studying the pilot sites and from other sources will be included in a final report to both Ecology and the Legislature by December 1996.

Lender Liability

Property redevelopment, improvement, and title transfer of contaminated properties should occur more smoothly as a result of new legislation entitled the "Lender Liability Bill," House Bill 1856.

Ecology and an external workgroup presented the consensus bill to clarify the existing Model Toxics Control Act statutory exemption for lenders. The new language describes the limitations of a lender's actions in order to maintain the exemption from liability. Lenders are exempt during the time they have ownership in the property, primarily to protect their security interest both prior to and after foreclosure. Limitations to the exemption are outlined in the new statutory language. Lenders are encouraged to contact Ecology for more information about how the exemption from liability applies to their institution.

Enhanced Initial Investigations

Toxics Cleanup Program staff at the Eastern Regional Office reduced the need for formal Ecology follow-up at independent cleanup sites by 69 percent this year by providing added technical assistance for nine months. Staff conducted a pilot project to determine the benefits, drawbacks, and final site decisions that enhanced technical assistance would provide during the initial investigation phase of an independent cleanup. Independent cleanups represent the majority of cleanups in Washington.

Ecology found that the assistance significantly reduced the number of sites requiring formal Ecology follow-up, helped speed real estate transactions and construction projects, and facilitated more timely and credible site investigations and cleanups. Clients responded with enthusiasm to the project, finding that it reduced their costs, provided timely access to Ecology, and provided guidance that helped them reach cleanup faster.

Ecology is now looking at how to balance the demands of additional staff time with the benefits of the added technical assistance to offer enhanced technical assistance statewide.

Underground Storage Tank Program

The Underground Storage Tank (UST) Program is a part of the Toxics Cleanup Program. The majority of the UST budget comes from permit fees — \$75 per tank per year. Federal funds from the Environmental Protection Agency's Office of Underground Storage Tanks makes up the rest of the state UST program budget.

Although not funded by the Model Toxics Control Account, the activities of the UST program link with the goals and objectives of the entire cleanup program — especially the goal of preventing new sites from being created.

This year, new strides were made by the UST program to prevent new releases from underground storage tanks - and to ensure that if releases did occur, the tank owner or operator — not the taxpayer — was financially responsible for cleanup. At the urging of tank interest groups, tank owners, and operators, Ecology decided to require proof of "financial responsibility" before tank renewals or new permits were issued. Financial responsibility ensures that tank owners and operators can cover sudden and accidental releases to the environment. An important consideration in making this decision was the availability of tank insurance through the state's Pollution Liability Insurance Agency, which was formed to make affordable premiums available to tank owners.

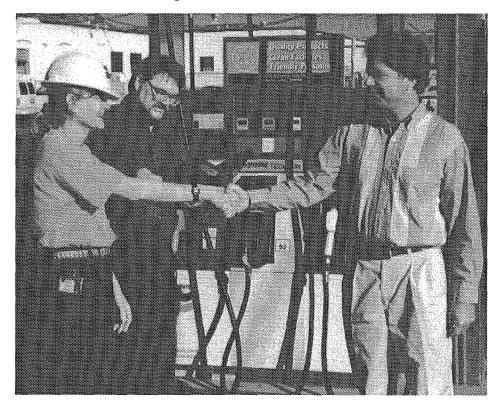
Underground Storage Tank requirements are aimed at preventing releases. By 1998 all tanks must be upgraded to meet pollution prevention requirements in order to stay permitted. Ecology's chief strategy for helping tank owners and operators get to, and stay in, compli-

ance is technical assistance, education, and incentives. For example:

Ecology's Central Regional Office piloted a program to offer technical assistance inspections upon request. The program was designed to help tank owners identify areas of tank maintenance or operation that may need improvement. Tank owners who participated were guaranteed an inspection without the fear of penalty. In return, they received written documentation of the inspection which they could submit to their insurance company for a premium reduction. Depending on the amount of risk posed, some insurance companies offered a premium reduction of up to 10 percent. The program was so well received that Ecology is now offering it statewide.

Two other major changes to the UST program took place this year in an effort to shave costs and improve service to clients. The changes are:

- ** The state Department of Licensing has assumed the responsibility of collecting tank fees and issuing tank permits. An endorsement on the tank owner or operators master business has replaced a separate tank permit. Tank renewals are now timed to coincide with the business incorporation dates and other state permit and license renewals an added convenience to business owners. This change allows Ecology to focus on providing technical assistance and outreach rather than administrative activities.
- ** Tank rules have been amended to rely on the International Fire Code Institute, a non-profit organization, to certify persons who install or decommision tanks, or provide other tank services. This privatization of certification was made to reduce administrative costs.



Ecology workers shake hands with a gas station owner after completing an underground storage tank inspection.

Restoring Contaminated Properties

Tacoma Re-Develops Property Along the Thea Foss Waterway

Since April 1995, cleanup has been underway for the Morris Property in Tacoma, the planned site for an international glass museum. The property is situated along the Thea Foss Waterway and is included in one of Ecology's most innovative consent decree agreements under the state Model Toxics Control Act.

The city of Tacoma bought the Morris Property as part of a 26-acre waterfront property purchase in 1991. Most of the 26 acres are contaminated with a variety of hazardous materials dating to past industrial activities. Most of the industrial activity along the waterway has ceased, but the legacy of contamination it left behind casts a shadow of doubt about the reuse of the waterfront properties.

The visionary step the city of Tacoma made in purchasing the property and the cooperative agreement between the city and the Department of Ecology provide a framework that allows cleanup to take place concur-

rent with redevelopment. As a result, cleanup crews have been removing polluted soil and reclaiming the first parcel — the Morris Property — to make way for private waterfront development. The city will clean up each parcel along the waterway to allow for redevelopment.

The consent decree which drives the cleanup is innovative in that it establishes the cleanup levels common to all the properties to eliminate the need to negotiate on each parcel. This offers potential developers a level of certainty regarding cleanup expectations that they can consider when making investment decisions. The decree also provides a matrix of remedy selections for parcels based on what the expected re-use of the property will be — keeping cleanup costs down and again providing a higher level of certainty. The Morris Property cleanup is also benefitting from a state cleanup grant for more than \$500,000.

This common-sense approach to the overall cleanup of the waterway makes cleanup easier and faster. The result is a cleaner environment and a more viable urban waterfront.

Officials from Ecology, the city of Tacoma, and others participate in a groundbreaking ceremony at the Morris Property.

Bridging the Past & Future in Seattle's International District

Cleanup is more than halfway done at a vacant bus fueling and maintenance facility in Seattle's Chinatown International District. As part of another innovative consent decree which outlines cleanup expectations and provides for 40 percent of the cleanup costs from a state grant, contamination will be cleaned up and construction will be underway by early next year.

King County Department of Metropolitan Services (Metro) bought the property at South Dearborn and 8th Avenue South to operate a bus fueling and maintenance facility. The property had been used for similar business operations by a variety of owners since the 1940s. Metro closed their Dearborn operations in the late 1980s and discovered petroleum contamination when removing an underground storage tank. Soil and ground water are contaminated by leaks of diesel, oil, and leaded and unleaded gasoline.

Metro and Ecology entered into this consent decree to remove the soil for treatment, and used new technology to remove petroleum contaminants from the ground water. The agreement outlines the expectations for cleanup and provides financial assistance to Metro through the state's Waste Management Grants Program for local governments.

Construction of the International District Village Square is slated for next spring. The Village Square will be developed, managed, and owned by the Seattle Chinatown International District Preservation and Development Authority and will provide needed housing

and expanded services to the community including:

- ** Seventy-five apartments for elderly who need assistance with services that meet their language and cultural needs;
- ** New storefront retail space to foster the economic vitality of the International District and serve the needs of the Village Square residents and surrounding community; and
- ** Health care, child care, mental health, and senior and employment services for a multi-ethnic population throughout greater Seattle and the surrounding area.

The Village Square is slated to have 225 staff speaking 45 languages and serving 27,000 clients each year, mostly immigrant and low-income residents.

The agreement between Metro and Ecology allows protection of the environment and a fast-track cleanup, allowing the site to become an economic anchor for the International District, and a revitalization for the entire community. The project has been called the biggest capital improvement project in the International District in years.

Yakima Gears Up for New Police Station and Legal Center

The City of Yakima's long-awaited new police station and legal center are close to being a reality, thanks to cooperation among Goodwill Industries, the city of Yakima, and the Washington State Department of Ecology. The city of Yakima negotiated with Goodwill Industries to buy the property at 222 South Third Street, where Goodwill had a retail store. Soil and ground water contamination from at least 15 different chemicals were found at the site during a site assessment for the real estate transactions. One of these included perchloroethylene (PCE), the solvent that has polluted the ground water in this area, known as the Yakima Railroad Area. The Yakima Railroad Area is the name given to a several-square-mile area that is potentially affected by the presence of PCE in ground water. Over 1200 homes in the area have ceased using ground water for drinking purposes and are being hooked up to city water under an Ecology grant. Under the Model Toxics Control Act, the city could have become potentially liable for the cleanup of the property once they bought it.

Because building a new Law and Justice Center is clearly in the public interest, Ecology negotiated a prospective purchaser agreement with the city of Yakima. The agreement, in the form of a consent decree, kept the construction within schedule while protecting human health and the environment. After a public comment period and public hearing, the consent decree was finalized and entered before the court on September 15th, 1994. Under the decree, the City agreed to clean up the contaminated soil during excavation and construction work for the new center, and then to monitor the ground water for two years.

During cleanup, the city employed a consultant that used an onsite laboratory to assist in segregating soils into hazardous and nonhazardous components. This on-site capability for laboratory work concurrent with soil excavation proved to be an efficient, cost-effective cleanup strategy.

The police station and legal center will house

- (1) the Yakima Police Department and all of its support services,
- (2) the legal department,
- (3) the 911 emergency communications service, and
- (4) a holding facility for criminal defendants. Construction of the Law and Justice Center is nearly complete.



Bulldozer excavating petroleum contaminated soils at the Metro South Dearborn former bus fueling and maintenance facility in the Seattle Chinatown International District.

Measuring Our Success

Environmental Indicators

Did you know that in just a portion of our state, over 10 million pounds of metal contaminants have been removed from the earth — enough to fill 20 box cars? Or that nearly 9 billion gallons of contaminated ground water have been cleaned up — enough water for 90 million people a day or 250,000 people a year?

That's what Ecology staff found when they began compiling information in response to requests about contamination in Washington.

As part of the Toxics Cleanup Program's ongoing efforts to document program efficiency and effectiveness, these environmental indicators were selected:

- * Area of land and water that is returned to productive use after a cleanup has taken place;
- * Amount of contaminants that have been treated, removed, recycled, or isolated from the environment; and
- * Volume of land or water that was cleaned up or managed.

The first round of data based on these indicators reflects information collected from the time Ecology first began managing a site to January 1, 1995. All of the sites have been undergoing site investigation and cleanup. Sites that were cleaned up or transferred to the Environmental Protection Agency for oversight were excluded, as were the areas in and around the Hanford Reservation.

Gas stations temporarily close to remove and replace aging underground storage tanks.

What part of the State has compiled information to date?

Ecology's Southwest Regional Office (SWRO), which conducts cleanups in the southwest portion of the state, and the Site Cleanup Section, which works primarily with Department of Defense sites throughout the state, compiled their data first. Plans are underway to study data collected in the Northwest, Central and Eastern parts of the state and will be highlighted in next year's report.

Would you recognize one of our sites?

Probably everyone has driven past or seen a contaminated site undergoing cleanup — but has not recognized it as a cleanup site. The following descriptions help shed light on what a typical cleanup site "looks" like in Washington state — and what the impacts are of the environmental indicators data collected.

Gas Stations

It is not uncommon to find a gas station that is temporarily closed for tank removal. As the tanks age, they can start to leak. Depending on the location of the station, the leaking fuel can contaminate drinking water sources of the community. Today, station owners test their tanks for "tightness," and tanks have become more sophisticated in their construction. Requirements to monitor tanks and prevent corrosion and leaks are now in place to prevent future cleanup sites.

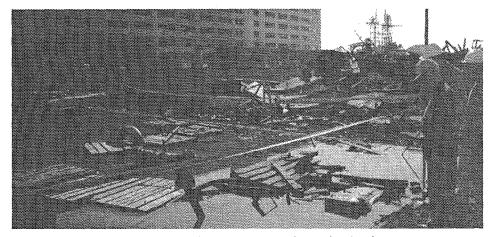


Landfills

It wasn't that long ago that the impacts of landfills were unknown. Now we know that the mixture of trash that ends up in a landfill decomposes over time and can create problems such as methane gas and contaminated ground water. Methane gas can become explosive if it accumulates, and contaminated ground water can rob a community of its drinking water supply.

Landfill problems are not entirely solved yet, but precautions are in place to reduce the negative effects and prevent further problems. For example, contaminated ground water is being pumped out of the ground and treated — and methane gas is being removed via pipes installed throughout the landfill.

To prevent contaminants from reaching the ground water, landfills are now lined. When a landfill is closed, it is capped and covered with earth. Some are being slowly returned to productive uses, such as parks or open spaces.



Military sites often contain contamination from past practices and are undergoing cleanup.

Wood Treatment Sites

Have you ever wondered why telephone poles last so long without decaying? Historically, wood treating facilities pressure treated the poles with pesticides and preservatives. However, years of drippage from treated logs, overfilling of chemical tanks, and waste water discharges have contaminated the soils, sediments, and ground water at many of these facilities. Facilities where soil, sediments, and ground water contain these contaminants are being cleaned up so that they are no longer a threat to the environment or public health.

Military Sites

Mention military or Department of Defense sites to many people and images of exotic chemicals often come to mind. In reality, the contaminants most often seen at defense sites are petroleum products, metals, paints, and solvents. These contaminants have impacted soils, surface water, ground water, and sediments. Most of these sites are past the site investigation phase and are undergoing cleanup.

While it is true that defense sites often contain contamination from past practices, it is also true that some of the largest, undisturbed areas of forested corridors in Washington are located on military-owned property.

How this information will help

The data collected in this first round established a baseline that will be used to gauge the success of cleanup efforts in the following years. In addition, the data will aid Toxics Cleanup Program efforts to make cleanup quicker and more efficient.

Wood treatment facilities, where soil, sediments, and/or ground water is contaminated are being cleaned up.



Model Toxics Control Act 1995 Annual Report

What we found

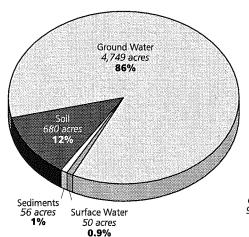
Three main environmental indicators have been used to portray the information collected to date. They include:

Area in acres of land or water returned to productive use:

When describing land and water in acres, the concept is fairly simple. We look at the flat surface area of the land and water and measure the expanse in acres. When measuring ground water and sediments, the concept of depth is included. Since ground water is underneath the earth's surface and sediments are below surface water, we look at the area that has been restored and "project" that area up to the surface. We then measure the flat surface area on the ground or surface water.

When calculating the measurements of land or water returned to productive use, we looked at soil, surface water, ground water, and sediments (see Figure 6).

Figure 6: Land or Water Returned to Productive Use (in acres)



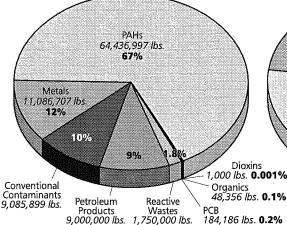
Amounts and types of contaminants:

The contaminants addressed in this report (and some of their more well-known uses) are:

- ** Organics (dry cleaning fluid, solvents)
- * Metals (lead, arsenic, chromium)
- ***** PCBs (transformer oil)
- * Pesticides (bug and weed spray)
- * Petroleum (gasoline, diesel)
- * Phenolic compounds (plastic resins)
- ***** Dioxins (associated with PCBs)
- * PAHs (creosote)
- ***** Inorganics (fertilizer)
- * Asbestos (insulation)

The results were converted into pounds for both solids and liquids for ease of comparison. Figure 7 shows the amount of pounds calculated for the above contaminants. Quantity isn't always a measurement of toxicity. Some compounds are much more toxic than others and much more difficult to extract from the environment. Totals in pounds represent only a portion of what is expected to be found statewide.

Figure 7: Amount and Types of Contaminants (in pounds)



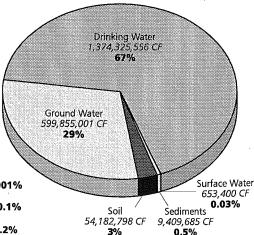
Volume of land or water that was cleaned up or managed:

Throughout the life of a cleanup, the scope of accomplishments depends on the make-up and complexity of the site. A site that is completely cleaned up by meeting our state cleanup levels is considered to be *remediated*. Sites are considered to be *contained* or *managed* under the following conditions:

- ** Limitations (such as present technology or site conditions) prevent any cleanup action, and legal restrictions on land use are applied;
- ** A cleanup action has limited the contamination and kept it from further impacting an area;
- ** The site is not yet fully cleaned up, but an interim action has kept contamination from spreading.

Figure 8 shows, in cubic feet, the combined volume of land or water that has been remediated, contained, and managed. Measurements shown were derived from soil, surface water, ground water, drinking water, and sediments.

Figure 8: Land or Water Cleaned up or Managed (in cubic feet)



Other Ecology Programs

Solid Waste Services Program

Ecology's Solid Waste Services
Program supports and supplements
local government efforts to handle
"moderate-risk waste" (hazardous
waste from households or businesses
that generate only small quantities
of hazardous waste). Statewide, local
jurisdictions are operating under
approved plans for managing solid
and hazardous wastes. The plans
allow government to manage
moderate risk waste.

In 1995, Ecology helped local governments:

- * establish three new facilities,
- ** operate 35 permanent or mobile moderate-risk waste collection systems,
- ** provide assistance in establishing/operating 410 oil collection sites, and
- * host 129 household hazardous waste collection events.

In addition, information on household hazardous waste collection was provided to more than 6,100 households and businesses who called in to Ecology's 1-800-RECYCLE lines. Businesses received information and referral opportunities regarding toxic waste reduction or recycling in coordination with local government moderate-risk waste activities. Most of the businesses served generate small quantities of waste.

Hazardous Waste and Toxics Reduction Program

The Hazardous Waste and Toxics Reduction (HWTR) Program promotes pollution prevention and fosters safe waste management. In Fiscal Year 1995 the Hazardous Waste and Toxics Reduction Program spent \$4.83 million from the State Model Toxics Control Account.

Funds helped hazardous waste generators learn about technical and regulatory issues and assistance opportunities through workshops, publications, and the "Shoptalk" newsletter. Staff responded to over 7,500 requests for information. Five hundred pollution prevention technical assistance visits were made. Fifty-four technical assistance visits were made to businesses which had newly notified Ecology of their status as generators of hazardous waste.

An additional 322 federally mandated or state priority inspections were conducted. Most enforcement actions were informal warning letters. Four compliance/enforcement orders were signed, and two penalties were assessed totaling \$38,000.

Program staff assisted 629 businesses in preparing pollution prevention plans or annual progress reports identifying waste reduction opportunities. Assistance was provided using on-site visits, workshops, presentations, and one-on-one meetings.

Staff in the Yakima area made technical assistance visits to all dangerous waste generators to help them with compliance issues and to improve communication and relationships with generators. The visits were prearranged and were not enforcement related. Generators who evaluated the visit said the purpose of the visits was clear, they had a chance to discuss concerns and issues with staff, and received useful information. Generators became more comfortable with Ecology, were better able to understand the dangerous waste regulations, and said they were more likely to look into waste reduction techniques.

Lower Columbia River Bi-State Water Quality Program

The Lower Columbia River Bi-State Water Quality Program is a joint effort between the states of Washington and Oregon acting cooperatively to assess overall water quality of the lower Columbia River. The bi-state program is administered by Ecology and Oregon Department of Environmental Quality (DEQ). In Washington the program is funded exclusively through the Model Toxics Control Account. A 20-member steering committee also assists with implementing the program. Bi-state representation on the committee includes environmental groups, industry, private citizens, public ports, local governments, commercial and recreational fishing interests, Native American Tribes, the Northwest Regional Power Planning Council, and several federal agencies.

The bi-state program has four goals:

- ** To identify water quality problems
- * To determine if beneficial/ characteristic uses are impaired
- * To develop solutions to problems in the lower river
- ** To make recommendations on a long-term bi-state framework

To accomplish these goals, the bistate program has retained technical consultants to conduct a variety of basic and advanced water quality studies on the Columbia River, from Bonneville Dam to the Pacific Ocean. Projects completed to date include a compilation of information from historical and more recent research studies, and a general reconnaissance survey for contaminants in water, sediments, and fish tissue from both the main channel and backwater areas.

Advanced studies are now underway and nearing completion. They include an assessment of risk to human health, the identification of risks to fish and wildlife, and an ambient monitoring project. Draft results from most of these projects are currently available. All technical studies will be completed by January 1996. A final technical report, integrating the results from the several individual studies, will be completed by August 1996.

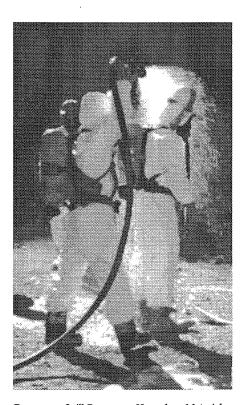
The bi-state program is scheduled to sunset in June 1996. However, work on the lower Columbia River will continue, as Washington and Oregon have recently joined with the U.S. Environmental Protection Agency to implement a water quality management effort through the National Estuary Program.

Central Programs

Central Programs makes significant contributions to cleanup and pollution prevention with Model Toxics Control Account funds. Aquatic sediment cleanup is administered by the Sediments Section, while the Industrial Section focuses on the cleanup of industrial sites listed on the state's Hazardous Sites List. The Emergency Spill Response Section receives a majority of the funds provided to Central Programs.

Emergency Spill Response

Ecology is the lead state agency responsible for environmental emergencies statewide. The responsibilities include policy and plan development; plan review, approval, and inspections; drills and enforcement; emergency response and cleanup; education; and resource damage assessments. During Fiscal Year



Emergency Spill Response - Hazardous Materials Teams from Ecology and EPA undergo decontamination after collecting samples from abandoned drums.

1995 the State Toxics Control Account provided \$1,115,725 to help pay for 16 FTEs and for cleanup contractor costs.

1995 Program Accomplishments:

- ** Responded to 816 spills of oil or hazardous substances and conducted successful cleanups and resource damage assessments as needed.
- ** Implemented procedures for identifying hazardous substances in the field which reduced the need for expensive contractor costs, resulting in an estimated savings of \$115,660.
- ** Performed a lead role in representing the state during federal oil and hazardous substances contingency planning.
- ** Participated in 58 emergency response drill exercises with other agencies and industry.
- ** Completed a formal policy and procedure for using in-situ burning as a response tool for combating oil spills.

Waste Management Grants Program

Cleaning up contaminated sites and preventing future pollution poses an expensive problem for cities, towns, and counties, and their taxpayers. Grants from the Local Toxics Control Account ease this burden, and, for some of the smaller local governments, provide the foundation of their entire waste management program. These grants support the ongoing partnership between Ecology and local governments in Washington state to deal responsibly with waste.

The Local Toxics Control Accounts funded \$6,442,036 in new grants in Fiscal Year 1995 (see Table 2). This grant funding resulted in \$13,627,058 worth of cleanup and pollution prevention projects. The cleanup projects helped local governments:

- * design or carry out cleanups at eight sites,
- ** provide clean drinking water to four communities where hazardous waste sites had contaminated the drinking water supply, and
- * investigate possible hazardous waste sites in eight counties.

The pollution prevention projects helped local governments:

- ** provide safe ways for people to dispose of hazardous waste from their homes and businesses,
- * close three old landfills to meet current standards,
- ** plan for their waste management needs, and
- ** educate and help people generate less waste at home and work, while reducing its toxicity.

Citizen groups and not-for-profit organizations also used grant funding to educate and involve the public in waste issues through the Public Participation Grants Program. The Model Toxics Control Act established this program and designated one percent of the revenues to the State and Local Toxics Control Accounts to fund it. In Fiscal Year 1995, this amounted to \$466,208 for new, one-year projects.

Besides new grants to local governments and citizen groups, the accounts also provided \$1,160,640 in amendments to existing grants. While these new grant projects were getting underway, work continued throughout the state on hundreds of existing projects. All together, the Local Toxics Control Account paid out \$26,173,135 and the State Toxics Control Account paid out \$146,108 for grant activity during Fiscal Year 1995.

Table 2: Grants Status Report

Granto Status Neport					
Recipient	Grant Number	Date Signed	Total Proj. Cost	STCA Fund Dollars	Dollars
Recipient	Mumber	Signed	Proj. Cost	Donais	Dollars
Public Participation Grants					
Assoc Industries of the Inland NW				\$17,500	
Brackett's Landing Foundation				\$12,500	
Cascadia Revolving Fund				\$9,500	
Citizens for a Healthy Bay				\$12,500	-
Clark Co Haz Wst Citizen Task Force					
Columbia River United Community Services Work Group				\$10,000 \$1,125	
Environmental Coal of South Seattle					
Environmental Works				\$20,000	
Hanford Education Action League				\$7,500	
Heart of America Northwest					
Mountaineers The				\$4,890	
Painting Industry Partnership				\$17,500	
Pnw Aerial Application Ed Found				\$1,492	
Puget Soundkeeper Alliance	G9500225	3/30/95.	\$35,000 .	\$17,500	\$17,500
Skookum Inc	G9500204	2/22/95.	\$40,000 .	\$20,000	\$20,000
South Puget Intertribal Plan Agency	G9400317	7/14/94.	\$50,000 .	\$25,000	\$25,000
Three Rivers Children's Museum				\$1 <i>,7</i> 60	
Wa Dental Service Association				\$20,000	
Wa State Pest Control Association	G9500214	3/7/95		<u> \$8,760</u>	
Total			\$466,208	\$233,104	\$233,104
Remedial Action Grants					
Bainbridge Island City of	G9500107	10/19/94	\$911 <i>.</i> 042.		\$455.521
Everett City of					•
Grant County Health Dept					
King Co Metro	G9500206	4/3/95	\$1,407,630.		\$563,052
Kitsap County	G9500085	10/17/94	\$623,230.		\$311,615
Kittitas County	G9500189	2/9/95	\$100,000.		\$100,000
Okanogan Co Health Dist			-		-
Pierce Transit					
Port Angeles Port of					-
Skamania County Public Works Dep			-		•
Snohomish Co Health District					
Spokane Co Water Dist #3					
Sunnyside City of					
Sw Washington Health Dist Tacoma City of					
Tacoma Port of					
Thurston County Public Health					
Tumwater City of				************************	
Yakima County Health District					
Total			\$11,214,027		\$5,329,800
Considerated Duramenting County (C	'DC'		,		
Coordinated Prevention Grants (C	-	T/44/04	# 224 E 22		d1 F0 40F
Garfield County				***************************************	
Ferry County					
Jefferson County					•
King County Lincoln County Highway Dept					
Woodinville City of					
Total	G9400210	/ / 1 1 / /1.	\$1,946,823	************************	\$1,112,236
Grand Total of above Grant Categories			\$13,627,058	\$233,104	\$6,675,140
,			\$10,0 <u>2</u> ,,000	Ψ200,101	ψο,ο,ο,110
Breakdown of CPG Grants By Task					
Groundwater Monitoring Wells				\$180,000	
Household Hazardous Waste Collect					
Household Hazardous Waste Plan In	_				
Landfill Closure				\$821,425	
Small Quantity Generator Implemen					
Solid Waste Planning Waste Reduction & Recycling Activity				\$9,750	
		•••••••	• • • • • • • • • • • • • • • • • • • •		
Total				\$1,112,236	

Other Agencies

Department of Agriculture

Waste Pesticide Identification and Disposal Program

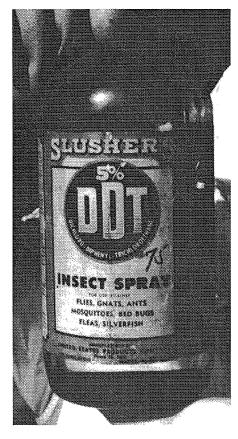
The Department of Agriculture's Waste Pesticide Identification and Disposal Program has two goals. One is to significantly reduce and eventually eliminate the backlog of prohibited and otherwise unusable pesticides stored by users, especially those stored on farms and other rural locations. The other is to pre-

vent future accumulations of unusable pesticides through education focused in the areas of product storage and handling as well as improved planning prior to purchase.

In the program's seven years, 459,597 pounds (230 tons) of unusable pesticides have been collected and properly disposed of from 1,540 participants. One regional and eight special collections were held during FY 1995, with 13,434 pounds collected from 52 participants at a total contractor cost of \$71,237.

Table 3:Top 12 Banned Pesticides Collected as of June 1995

Active Ingredient	Pounds Collected	Date Cancelled	Primary Reason(s) for Cancellation
Dinoseb	41,412	6/10/88	Reproductive Effects
DDT	37,483	7/7/72	Hazard to Wildlife / Bioaccumulation
Endrin	19,552	10/24/84	Secondary & Non- Target Poisoning
Zineb	16,152	12/4/89	Reproductive & Development Effects
Parathion	14,844	1994- most crops	Worker Exposure - Acute Toxicity
Lead Arsenate	7,880	8/1/88	Reproductive & Development Effects
Aldrin	7,131	5/15/87	Hazard to Wildlife / Bioaccumulation
Toxaphene	6,620	11/29/82	Chronic Effects to Wildlife
Dieldrin	5,140	5/15/87	Hazard to Wildlife / Bioaccumulation
Carbon Tetrachloride	5,016	11/12/86	Liver and Kidney Damage
Ethylene Dibromide (EDB)	4,854	3/27/85	Reproductive Effects - Groundwater Contamination
Chlordane	4,810	4/15/88	Possible Tumor Formation



DichloroDiphenylTrichloroethane (DDT), a colorless contact insecticide, was banned in 1972 because of its hazard to people and wildlife.

Pesticide storage and handling worksheets and factsheets were distributed and presented to over 1,200 pesticide license holders at recertification training in January and February 1995. This information helps applicators assess their operations and find ways to improve storage and handling to prevent future accumulations of waste pesticides or spills that could contaminate water supplies.

The use of many pesticides is now banned or restricted. Table 3 shows the top 12 banned pesticides collected by the program as of June 1995.

Department of Health

The Department of Health evaluates actual and suspected environmental exposures through a process called health assessment. This includes collection, analysis, and dissemination of information on health status, personal health problems, population groups at greatest risk, availability and quality of services, resource availability, and concerns of individuals. Assessment leads to policy development, a complex process of considering alternatives for action and deciding which to pursue. After policies are formulated the next step is assurance, seeing that those policies are carried out.

During Fiscal Year 1995, the department received \$1,447,946 in State Toxics Control Account funds to perform program activities. In addition to routine technical assistance and consultation to numerous individuals and agencies at the federal, state, and local level, some of the more significant program accomplishments were:

Health Assessment

- ** Developed and distributed an Environmental Health Resource Directory for health care providers near hazardous waste sites.
- ** Collected and studied information about specific health outcomes from exposure to nitrate in drinking water.
- * Provided technical assistance to local health jurisdictions on two lead-based paint studies.
- ** Completed a study to determine the prevalence of health symptoms in two communities near compost facilities.

- ** Investigated and assessed reported and/or potential health impacts associated with ambient air emissions in three communities.
- ** Coordinated biological monitoring and analysis of environmental data at a former smelter site.
- ** Conducted indoor air quality studies at three school districts.
- ** Assessed the toxic effects of aquatic herbicide applications in lakes.
- * Determined the adequacy of tissue contaminant data to assess potential human health impacts from eating chemically contaminated fish.
- ** Designed, reviewed, and collected data for six fish consumption studies.
- ** Provided technical assistance for the School Indoor Air Quality Best Management Practices Manual.
- ** Monitored 12 sites considered at significant risk for contaminated water.
- ** Conducted 17 health investigations at contaminated sites.
- ** Provided technical assistance to local heath jurisdictions for their drug lab cleanup programs.

Policy Development

- ** Participated in the formation of a *Center for Research and Assessment* for patients with chemically related illness.
- ** Worked with Ecology to develop human health based sediment quality criteria.
- ** Participated in Ecology's study of environmental equity.

Assurance

- * Conducted training on practices outlined in the air quality manual.
- ** Revised agency guidelines for the cleanup of clandestine drug labs.

Exposure to environmental hazards can be a major contributing cause of disease, injury, and death. A major thrust for the Department of Health over the next several years will be the development, integration, and coordination of data between programs and agencies, and the development of adequate environmental monitoring systems.

Office of Marine Safety

Washington's Office of Marine
Safety (OMS) was established as an
independent agency by the 1991
Legislature in the wake of the
Exxon Valdez spill in Prince William
Sound. In FY 1995, OMS received
\$141,426 from the State Toxics Control Account to be used strictly for
vessel oil spill contingency planning.

Funds were used to:

- ** Evaluate 15 vessel oil spill contingency plans for completeness and review 39 completed contingency plans.
- ** Inform industry of the necessary requirements and negotiate safety provisions as appropriate.
- * Approve five primary spill response contractors.
- Finalize and publish response planning benchmarks.
- * Evaluate required spill exercises.
- * Coordinate monthly contingency plan review meetings with Department of Ecology and the Oregon Department of Environmental Quality.
- * Participate in northwest geographic oil spill response planning efforts.

Hazardous Sites List

One of the first steps in the process for cleaning up a hazardous waste site is a Site Hazard Assessment. During a site hazard assessment, Ecology collects environmental data about a site to determine the type and extent of contamination. If further action is needed, Ecology ranks the site using the Washington Ranking Method and places it on the state's Hazardous Sites List. Property owners, operators, and potentially liable persons are noti-

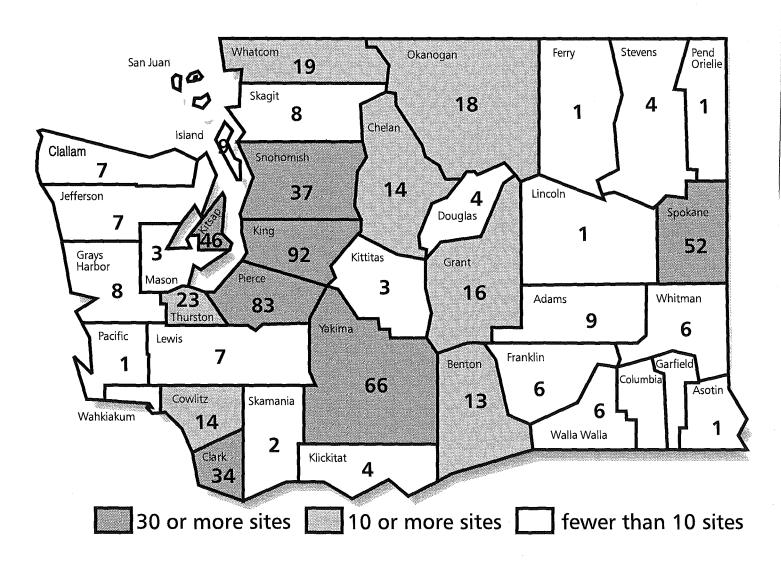
fied when their site is ranked and placed on the list.

Sites are ranked relative to each other on a scale of one to five. A ranking of one represents the highest level of concern to human health and the environment, relative to all other sites; and five the lowest. Hazard ranking helps Ecology make priority decisions on where to target cleanup funds. Actual health and environmental impacts, public concern, a need for immediate re-

sponse, and available cleanup staff and funding also affect which sites get first priority for cleanup.

The Hazardous Sites List is updated twice a year (February and August) and includes all sites statewide which have been assessed and ranked. A total of 625 sites are now on the list. In 1995, 88 were ranked and added to the list, 46 were determined to require no further action, and five were removed from the list.

Figure 9: Distribution of Hazardous Sites List Sites



Hazardous Sites List

ounty	Site Name	Nearest City	Rank	Status
dams	Adams Co. Maint. Shop (Othello)	Othello	3	Independent RA
	Burlington Northern (Othello)	Othello	1	RA in Progress
	CMC Real Estate (Othello)			
	Harold's Deli			
	Puregro (Othello)			
	Puregro (Ritzville)			
	Soil and Crop			- C
	T-16 Ranch			
	WWT Batum Facility			
_41				
otin	Asotin County Landfill			=
nton	Ben Franklin Transit Co.			•
	CENEX, Kennewick			
	HANFORD - 100-AREA (DOE) (includes 24 operable units)	Richland	0*	RA in Progress
	HANFORD - 1100-AREA (DOE) (includes 4 operable units)	Richland	0*	RA in Progress
	HANFORD - 200-AREA (DOE) (includes 43 operable units)	Richland	0*	RA in Progress
	HANFORD - 300-AREA (DOE) (includes 5 operable units)	Richland	*	RA in Progress
	J.R. Simplot Company	Prosser	4	Independent RA
	New City Cleaners			
	Oggies Mini Mart			
	♦ Pacific Recycling			
	Pump, Pak & Eatery	Konnowick	3	Awaiting RA
	Sagetree Electric, Inc.	Vonnerviels	2	Arraiting DA
	Wellsian Way Well Field			
elan	Cascade Helicopter			
	Cashmere Landfill			
	Dryden Landfill	Dryden	4	Awaiting RA
	Glacier Park (Boyd-Cascade)	Leavenworth	1	RA in Progress
	Glacier Park (Budget Fuel)	Leavenworth	1	RA in Progress
	Holden Mine Tailing/Wenatch			
	Manson Landfill			
	Unocal Bulk Plant #0082			
	Unocal Bulk Plant #0853			
	Unocal Service Station #4942			
	♦ WSU - Smith Tract			•
	WSU Tree Fruit Research Unit			O
				*
	♦ Wenatchee Elem Proposed			
	* Wenatchee Middle School - Prop			
allam	Chevron Bulk Plant #61001372			
	Daishowa America Company Ltd	Port Angeles	5	Independent RA
	ITT Rayonier PA Finish Rm Site	Port Angeles	2	RA in Progress
	PenPly (ITT Rayonier)	Port Angeles	5	RA in Progress
	Pt of Port Angeles Marine Terminal (formerly Log Yard)	Port Angeles	1	Awaiting RA
	Truck Town			
	Unocal Bulk Plant #0601	Port Angeles	1	Independent RA
ırk	❖ 2001 NE Roosevelt Av Prop			
ir K	ALCOA-Vancouver (includes 4 operable units at various stages of clean			
	BN Maintenance Yard	•		-
				U
	Boomsnub/BOC Gases			•
	Carborundum Company			•
	♦ Chevron Bulk Plant	Camas	2	Awaiting RA
	Chevron Bulk Plant #61001854	Vancouver	1	Awaiting RA
	Circle C Landfill	Ridgefield	1	Construction Complet
	Colf Landscaping	Vancouver	4	Awaiting RA
	Columbia Marine Lines			
	Custom Care Cleaners	Vancouver	5	Awaiting RA
	Fargher Lake Grocery			o o
	Frontier Hardchrome			-
	GATX Terminals Corporation			
	±			9
	Gen. Chemical Corp-Vancouver			
	Jim's BP			Ų
	♦ Koch Tractor	~		
	Larch Mountain (DNR)			•
	Leichner Brothers Landfill	Vancouver	3	RA in Progress
	Orbit Industries	Washougal	4	Awaiting RA
	Robertson's Paint Shop	Vancouver	5	Awaiting RA
	Tidewater Barge Lines			
	Time Oil/Handy Andy #8			
	Take Conj taking tally 10 mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm		0▲	

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^{▲ =} Superfund Site: Federal (EPA) has lead on site

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County	Site Name	Nearest City	Rank	Status
Clark (cont.)	Vancouver Water Station #1	Vancouver	0s	RA in Progress
	Vancouver Water Sta #4	Vancouver		RA in Progress
	Vancouver Wellfield #3	Vancouver	2	Construction Complet
	Walnut Grove Ind. Park	Vancouver		Awaiting RA
Cowlitz	Chevron USA, Longview	Longview	1	Awaiting RA
	Cliff Koppe Metals	Kelso	2	Awaiting RA
	Gardner Forest Products	Longview	4	Independent RA
	❖ Groat Brothers Trucking			Awaiting RA
	Longview Fibre	Longview	5	Awaiting RA
	Olympic Pipeline Company	U		O
	Ostrander Rock Disposal			
	Reed Landfill	0		U
	Reynolds Metals - Longview			
	Unocal Bulk Plant #0321			•
	❖ Unocal Bulk Plant #0885			
	West Coast/Mobil Oil Co.			v
		Ü		Ü
	Weyerhaeuser (Wyco) Co (includes 1 operable unit)	•		•
ouglas	Beebe Orchard Dump			U
	Inland Air Service			O
	Silicon Metaltech (Lab Site			
	Silicon Metaltech{Lagoon			
erry	Hecla Knob Hill Mine	•		· ·
ranklin	♦ BNRR Pasco Railyard			
	Glen's Metals			
	Pasco Landfill	Pasco	▼0	RA in Progress
	Port of Pasco	Pasco		RA in Progress
	Puregro (Pasco)			v
	Smith Canyon Haz Waste Site			•
irant	♦ Cenex Bulk Plant			. *
	City of Moses Lake Maint. Facil			
	Duncan Crane Service, Inc			•
	Full Circle			
				*
	Grant Co Ephrata Landfill 1	•		•
	Grant Dangerous Waste Site	, ,		U
	International Titanium			•
	Larson Substation - Grant Co PUD			U
	Moses Lake WF (includes 1 operable unit)			•
	Northwest Pipeline - Moses Lake			· ·
	Port of Moses Lake Pumphouse 1			
	Puregro (Moses Lake)	Moses Lake	5	Awaiting RA
	Puregro (Quincy)	Quincy	5	Awaiting RA
	Puregro (Warden)	Warden	5	Awaiting RA
	Vista Corner Texaco	Moses Lake	3	Independent RA
irays Harbor	& Berg's Marine Const. & Repair	Hoquiam	2	Awaiting RA
•	Hungry Whale Grocery	*		U
	ITT Rayonier (Sawmill)	*		e e
	Most Western Laundry	*		•
	Roderick Timber Co			
	Saginaw Mill	-		-
	Snook Residence			
	♦ Virgil Foster			U
امسما	·			_
sland	Cornet Bay Marina			o o
	USN Whidbey (includes 6 OUs with 1 OU with a WARM Score of 1)			u u
	Unocal/Coupeville Bulk Plant	*		•
efferson	Chevron Bulk Plant		1	•
	Olympic Testing Lab			
	Port Townsend Texaco	Port Townsend	2	Awaiting RA
	USN Port Hadlock (includes 3 operable units)	Port Hadlock	0*	RA in Progress
ing	ARCO - Tank Farm	Seattle	2	RA in Progress
	Ace Galvanizing, Inc	Seattle	4	Awaiting RA
	Advance Electroplating	Seattle	5	Awaiting RA
	Alaska Pacific Fisheries			•
	Asko Processing, Inc.			•
	Auburn Abandoned Fire Station			
	BNR Maint. & Fueling Facility			
	BP Station #11352			C C
	Balmer Yard/BNR			
	Boeing Co North Field	Seattle	5	Independent RA
•	Boeing Co Plant 2			
	Borden Chemical Company			
	C and F Auto Wrecking			

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King (cont.)	Cedar Hills Landfill	Maple Valley	5	Independent RA
	Cenex Valley Supply Coop	Auburn	3	RA in Progress
	Central Painting			_
	Champion Intnatl-Ballard Mill (includes 1 OU at the RA in Progres Chemcentral Solvents Co			
	♦ Chevron Bulk Plant #61002620			
	Christensen Petroleum			C .
	Circle K Station #1461			•
	Earle M. Jorgensen Co.			
	Eastern Supply Co			
	GACO Western, Inc.			
	Gas Works Park (WA Nat'l Gas)	Seattle	1	KA in Progress
	Great Western Chemical	Saattla	1	R A in Progress
	Harbor Island			
	Hydraulic Repair & Design, Inc			
	Interbay BNR	Seattle	1	Independent RA
	JH Baxter & Company, Inc.	Renton	1	RA in Progress
	James Oil Company			
	Kenmore Industrial Park			
	Kent Highlands Landfill			9
	LIDCOLaidlaw			e
	Lake Union Dry Dock Co			
	Lake Union Steam Plant	Seattle	5	Independent RA
	Lake Washington School District			
	Landsburg Mine-Rogers Seam			
	Lindal Property	Kent	4	Awaiting RA
	Lockheed Shipbldg Co. Yard 2			
	Longview Fibre Company			
	Malarkey Asphalt Company			
	Maria V. V. V. Carrier Tra			o o
	Marine Vacuum Service, Inc			
	Metro Lake Union Facility			
	Metro South Base			
	Midway Landfill			
	Mobil/BP Bulk Facility	Renton	5	Independent RA
	Monterey Apartments Site	Seattle	3	Construction Complete
	Newcastle/Coal Creek Landfill			
	Northwest Cooperage Co., Inc	Seattle	4	Awaiting RA
	Northwest Market Street Site			
	Northwest Powder CoatsOld Lawson Road			ų –
	PACCAR			Ü
	Palmer Coking Coal Company			
	Pioneer Enamel Manufacture			
	Precision Engineering			
	Queen City Farms A (includes 3 operable units)	Issaquah	0▲	RA in Progress
	Queen City Farms B	-		3
	Quendell Terminals			-
	Reichold Chemical/Lone Star			•
	S. 252nd St. /Pacific Hwy S			-
	Shell-Old Terminal 18/Port of Sea	1 7		C
	Shell - Tank Farm			- J
	Slag Disposal/Beckwith Property			- C
	Sternoff Metals			•
	Sunset Park/Tub Lake Dump	SeaTac	3	Independent RA
	Texaco Marketing & Refining - HI			
	Tiki Car Wash			
	UNIMAR/Northlake Shipyard			-
				Awaiting RA
	Union Station Site			-
	Union Station Site	Woodinville	3	Awaiting RA
	Union Station Site	WoodinvilleSeattle	4	Awaiting RA RA in Progress
	Union Station Site	WoodinvilleSeattleSeattle	4	Awaiting RA RA in Progress Independent RA
	Union Station Site	WoodinvilleSeattleSeattleSeattleSeattle	34	Awaiting RA RA in Progress Independent RA Independent RA
	Union Station Site			Awaiting RA RA in Progress Independent RA Independent RA RA in Progress
	Union Station Site	Woodinville	3	Awaiting RA RA in Progress Independent RA Independent RA RA in Progress Awaiting RA
Kitsap	Union Station Site	Woodinville	353	Awaiting RA RA in Progress Independent RA Independent RA RA in Progress Awaiting RA Awaiting RA

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County	Site Name	Nearest City	Rank	Status
itsap (cont.)	♦ Bremerton National Airport	Port Orchard	5	Awaiting RA
	Chevron Tank Farm/Port WA Nar			
	Country Junction Store			· ·
	Day Road Industrial Park	· ·		1
	Eagle Harbor (includes 4 operable units)			
	* Evergreen Park			
	Hansville General Store			•
	Hansville Landfill			•
	Lofthus Bulk Plant			U
	Navy City Metals, Inc.			Ü
	Norseland Site			
	♦ Old Bremerton Gasworks			U
	Olympic View Sanitary Landfill			
	Sesko Property			
	Stone Property	Bainbridge Island	4	Awaiting RA
	Strandley/Manning Site	Port Orchard	3	RA in Progress
	USACE Manchester Annex	Port Orchard	*	RA in Progress
	USN Jackson Park (includes 2 operable units)			_
	USN Keyport (includes 2 operable units)			_
	USN PSNS (includes 6 operable units)			
	USN Subase (includes 6 operable units at various stages of cleanup)			
	USN Supply Center			
	Big B Mini-Mart			
ttitas	Bingo Fuel Stop			
	Mid-State Aviation	±		
ickitat	Columbia Aluminum Corporation			
ickitat	NW Pipeline St Hood River			
	NW Pipeline St White Salmon	- C		~
	Town Pump Station	3		_
wis	American Crossarm & Conduit			ū
	Centralia Landfill			· ·
	Cowlitz BP			
	Grange Supply, Chehalis/CENEX	Chehalis	1	RA in Progress
	Packwood Lumber Company	Packwood	4	Awaiting RA
	Trailer Village	Centralia	2	Awaiting RA
	Utility Transformer Service			
ncoln	Puregro (Wilbur)	Wilbur	5	Awaiting RA
ason	❖ Olympic Wood Products			
	Pt of Shelton (All Star Aero)			
	❖ Spike's Hydraulic			
kanogan	Alder Mill			
	Arden's Country Store			
	Brett Pit			9
	Coca Cola Dist. Co			
	Gebber's Farm			
	Jackpot Food Mart 01-081			
	Lloyd's Logging - Exc. Soil			
	Lloyd's Logging - Equip Yd			*
	Loomis Chevron	-		-
	Minnie Mine			•
	Molson Dump			_
	Oroville Dump			
	Pariseau Farm			
	Silver Mountain Mine	Loomis		RA in Progress
	Tonasket Post & Rail	Tonasket	5	Awaiting RA
	Unocal #0855	Omak	2	Independent RA
	USDOI-BLM Kaaba Texas Mine	Nighthawk	1	RA in Progress
cific	Weyerhaeuser Truck Shop			
nd Oreille	Cusick School District			
erce	ASARCO (includes 3 operable units)			
	Aladdin Plating Co., Inc.			
	Alpine Plating Co			
	B & L Woodwaste Landfill			
	Buffalo Don Murphy-Waller Road	Tacoma		Awaiting RA
	Calhoun's Service Station			
	Cascade Pole - Tacoma			
	Cascade Pole - McFarland/Sitcum			
	Cascade Timber #1	Tacoma		Construction Complet

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County	Site Name	Nearest City	Rank	Status
Pierce (cont.)	Chevron Bulk Plant	Tacoma	3	RA in Progress
	Comm. Bay-Nearshore/Tideflats			
	Cascade Timber #3 - POT			-
	Cascade Timber #3 - US Oil			· ·
	PRI Northwest			
	Sound Battery			
	Superior Oil Tacoma Coal Gasification			
	Tacoma Redevelopment Property			
	Taylor Way Properties, Inc.			
	Thorne Road Slag Site			
	USG Plant Site			
	Coski Industrial Dump			
	D Street Petroleum			
	Dorman Tire Yard (fire)			
	ERS Trucking			
	Elf Atochem - 2901 Taylor Way			
	Frederickson Industrial Park			
	General Metals			
	Hidden Valley Landfill (Thun Field)			
	Lakewood/Ponders Corner			
	Landscaping by Pat Boring			
	Lewis Auto Wrecking			
	Lincoln Avenue Ditch			
	Louisiana-Pacific			
	Manke Lumber Co. Sumner Plant			
	Murray Pacific #1			
	Music Machine, The	Tacoma	2	RA in Progress
	Nalley's Fine Foods	Tacoma	2	Independent RA
	National Oil Dump			Ü
	Occidental Chemical, Marine View			
	Parkland Cleaners			
	Petroleum Reclaiming Service			
	Puget Power-Electron Power			
	❖ Puget Power Maintenance			
	Robert Rosch Property			
	Ruston/North Tacoma			
	Seaport Chemical Company			
	Seattle Transfer			
	South Tacoma Field			
	Suburban Realty, Inc.	Tacoma	1	Awaiting RA
	Summit Exxon	Tacoma	1	Independent RA
	Sumner National Auto Parts			
	TAM Engineering Corporation			
	Tacoma Landfill			
	Tacoma Metals, Inc.			
	Tacoma Storm Drains			
	Tacoma Tar PitsUSA Ft. Lewis LF5			
	USA Ft. Lewis LF 4/SCRPP			
	USA Ft. Lewis Log Center			
	USAF MAFB Am Lk Gdn			
	♦ USAF MAFB MTCA LF-01			
	♦ USAF MAFB MTCA LF-02	Tacoma	3	Construction Complete
	❖ USAF MAFB MTCA SS-34	Tacoma	3	RA in Progress
	♦ USAF MAFB MTCA WP-44			
	♦ USAF MAFB MTCA WP-61			*
	♦ USAF MAFB MTCA WP-64			*
	USAF MAFB Washrack			
	Union Pacific RR Tunnel			
	Unocal Service Station (Conan)			
	WA St. Nat'l Guard/Camp Murray			
	WSU Buckley Dairy			
	Wasser Winters			
	Well 12A	Tacoma		Construction Complete
	Weyerhaeuser Dupont #1			
	Xytec Plastics (includes 1 operable unit in the independent cleanup process)			
Skagit	❖ Chevron/Mt. Vernon Bulk Plant			
•	EDB 2 Skagit County	Mt. Vernon	1	Construction Complete
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County	Site Name	Nearest City	Rank	Status
Skagit (cont.)	Nasty Jack's Antiques			
	Skagit Manufacturing	Sedro Woolley	3	Independent RA
	Texaco February Oil Spill	Anacortes	2	Construction Complete
	Truck City Truck Stop	Mt. Vernon	3	RA in Progress
	Unocal/Mt. Vernon Bulk Plant	Mt. Vernon	1	Independent RA
	Whitmarsh Siding			
kamania	Skamania Rd Dist. 1	Prindle	5	RA in Progress
	Unocal Bulk Plant #0761	Stevenson		Awaiting RA
nohomish	Bill Pearson Timber	Sultan		Awaiting RA
	Chevron/Hill Tank Farm			
	Christianson Company			
	East Waterway			
	Everett Landfill/Tire Fire			U
	Everett Smelter/Slag Site			O
	Fishermen's Boat Shop, Inc.			
	JH Baxter & Company			
	Ken's Radiator Service			
	Lynnwood Plating			
	McCollum Park			
	Monroe Auto Salvage			U
	* Nic - L - Silver			O
	Nord Door Company			-
	Northwest Pipeline/N. Seattle			Q
	Northwest Pipeline/Snohomish			
	❖ Pallister Paint			
	Parson's Diesel			
	Pop's Automotive/Roloff Prop			
	Pump Crete	Lynnwood	5	Awaiting RA
	Rubatino's Truck Care	Everett	5	Independent RA
	Snohomish Co. PUD	Lynnwood	2	Independent RA
	Stan's Radiator	Everett	4	Awaiting RA
	Tulalip Landfill	Marysville	0	Awaiting RA
	US - Defense Fuel Supply Point	Mukilteo		RA in Progress
	Unocal Bulk Plant			· ·
i.	Unocal Edmonds Bulk Fuel Term			
	Urban Accessories			- U
	Verax Chemical Company			U
	Wallace River Park Well			U
	Washington Natural Gas	•		•
	Wellington Hills Association			•
	Weyerhaeuser-Everett (includes 3 operable units in various s			•
	Yttri/Wozow Property	0 , ,		•
	* *			· ·
ookane	A-1 Auto Wrecking	*		*
	Alaska Steel and Supply	*		O
	Aluminum Recycling Corp	*		Ü
	American Tar Company			
	Argonne Road	1		U
	BJ Carney & Company			
	Burlington Northern - Hillyd			
	Chemcentral	Spokane	2	Independent RA
	❖ Chevron Spokane Bulk Plant			
	Colbert Landfill	Spokane	0	RA in Progress
	Cummins Northwest	Spokane	5	Independent RA
	Four Lakes Tire Fire	Four Lakes	5	Awaiting RA
	Geiger -SIA- Fuel Farm	Spokane	3	Independent RA
	Geiger Electric - Old Site	•		-
	Greenacres Landfill	*		•
	Inland Empire Plating	•		9
	Inland Pit	•		•
	Jeld-Wen, Inc			
	Kaiser Aluminum Mead Works	4		•
	Koch Materials - Thor St.	*		· ·
		•		•
	Koch Materials - Trent Ave.	•		-
	Marshall Landfill			· ·
	Mica Landfill			
	NW Pipeline - Mead			*
	NW Pipeline - Medical Lake			-
	North Market Street	Spokane		RA in Progress
	Northside Landfill	Spokane	0🛦	Construction Complete
	Sheraton-Spokane Hotel Property	*		
	Sicilia Trucking			

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County	Site Name	Nearest City	Rank	Status
Spokane (cont.)	Spokane Fire Dept Training Fac	Spokane	3	Awaiting RA
	Spokane Junk Yard	Spokane	0🛦	Awaiting RA
	Spokane Transit Authority Bus Barn	Spokane	5	Independent RA
	URM Stores, Inc	Spokane	5	Independent RA
	US FAA Mica Peak	Spokane	4*	RA in Progress
	USAAC Geiger Field{GF001			
	USAAC Geiger Field(GF003	-		•
	USAAC Geiger Field(GF004	-		· ·
	USAAC Geiger Field{GF005			
	USAAC Geiger Field{GF006			
	USAF (FAFB) Fairchild AFB (includes 8 operable units)	-		ū
	USDOE-BPA Bell Substations	*		-
	United Parcel Service	*		•
	Washington Air Nat'l Guard	*		•
Stevens	Colville Post and Pole			-
	L-Bar Products			
	❖ Le Roi Smelter			
	Whitten Oil Exxon			•
hurston	Black Lake Grocery	, ,		Ŭ
	Cascade Pole, Inc McFarland			
	Cedar Creek Corrections (DNR)			<u>.</u>
	EDB 1 Thurston County	, ,		*
	Fourth Street Mobil	, i		Ų.
	Hytec, Littlerock			
	Hytec, Tumwater			O
	Lacey Compound (DNR)	Lacey	4	Independent RA
	Lacey Laundromat	Lacey	1	Awaiting RA
	Lacey Valve Grinding	Lacey	3	Awaiting RA
	Minitrie Tire Fire	Rochester	1	Awaiting RA
	Monarch Bullet	Rochester	1	Independent RA
	Old Olympia Municipal Dump	Olympia	4	Awaiting RA
	Pattison Lake EDB			
	Puget Sound Power & Light	Olympia	5	Independent RA
	Restover Truck Stop	Tumwater	3	RA in Progress
	Rhodes Chemical Company	Rochester	3	Awaiting RA
	Rhodes Chemical Company-Barn	Rochester	3	Awaiting RA
	Texaco Bulk Plant	Tumwater	3	Independent RA
	Unocal (Hulco)	Olympia	4	Awaiting RA
	Weyerhaeuser Co Box Plant	Olympia	4	Awaiting RA
	Wolph's Second Hand Store	Olympia	2	Awaiting RA
	Wood Fabricators	Yelm	4	Awaiting RA
Nalla Walla	Corps of Engineers Motor Pool	Walla Walla	2	Independent RA
	♦ Martin Field	College Place	1	Awaiting RA
	Pantorium Cleaners	Walla Walla	3	Independent RA
	Walla Walla Farmers Coop	Walla Walla		Construction Complete
	♦ Washington State Penitentiary	Walla Walla	3	Awaiting RA
	♦ Whitman College	Walla Walla	5 ,,	Awaiting RA
Nhatcom	Boulevard Park	Bellingham	1	Awaiting RA
	Cornwall Avenue Landfill	· ·		•
	EDB 3 Whatcom County	_		_
	Georgia Pacific Airport Landfill	•		•
	Georgia Pac-Bio Trtmt Lgn	Č .		•
	Georgia Pacific Corporation	S S		•
	♦ Holly Street Landfill	ě .		•
	❖ Maritime Contractors, Inc	- C		
	♦ Maritime Heritage Center Park	· ·		•
	Murray Chris-Craft Cruisers			
	NW Transformer-Harkness	· ·		*
	NW Transformer-Mission Pole			
	Oeser Cedar/Little Squalicum CRK			
	R.G. Haley Intl Corp	9		
	❖ Roeder Avenue Landfill	· ·		•
	Sunshine Cleaners (former)			
	Trans Mountain Oil Pipe Line	U		•
	♦ Whatcom Co. Public Works Gl Yd			
		· ·		*
	Whatcom Waterway Wilder Landfill			
Mhitma				
Whitman	Endicott School District			•
	Garfield School District			-
	Palouse Producers			
	WA State Univ Landfill	Pullman		Awaiting RA

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Vhitman (cont.)	❖ WSU Power Plant Oil Bulking	Pullman	2	Awaiting RA
(* WSU Scrap Metal Yard			
Yakima	Alder's Chevron			
	Bay Chemical	Yakima	2	RA in Progress
	Bee-Jay Scales	Sunnyside	1	Awaiting RA
	Briar Development Company	Yakima	2	Construction Comple
	Buena LUST			
	CMX Corporation			Ü
	Carlos Motors			*
	Cascade Natural Gas	•		Q
	Circle L	•		U
	Cliff's Battery Service			
	Comet Trailer			
	Consolidated Freightways			
	Evergreen Products			
	FMC Yakima			
	Irwin Research & Development			v
	J.C. Penney Auto Service			
	Jackpot Station			
	Johnny's Texaco			
	Kellogg's Korner			
	Kelly OilKershaw Orchard			
	La Rosita			•
	Maid O'Clover	•		Ü
	Maid O'Clover - Sunnyside			•
	Manhole 34	-		•
	NW Pipeline StGrandview			· ·
	NW Pipeline St Sunnyside			
	NW Pipeline St Yakima			U
	Northwest Truck Repair			•
	Old Selah Dump	*		
	Outlook School			
	Pederson Farm			•
	Pit Stop - Naches			*
	* Railroad Roundhouse			•
	Rainier Plastics Company			•
	Richardson Airways, Inc.			
	Roza Irrigation Ditch			
	Section 18 Dump			
	Shields Bag & Printing Co.	Yakima	5	Awaiting RA
	Snipes Mountain Landfill	Sunnyside	4	Awaiting RA
	Southgate Laundry	Yakima	3	Awaiting RA
	Sunnyside Municipal Well			
	Superior Asphalt	Yakima	1	RA in Progress
	Terrace Hts Landfill(pesticide	Yakima	5	Awaiting RA
	Texaco Bulk Plant/R.E. Powell			
	Tiger Oil (16th St. & Nob Hill)	Yakima	2	Awaiting RA
	Tiger Oil (North First Street)	Yakima	3	Awaiting RA
	Tiger Oil (24th & Nob Hill)	Yakima	1	RA in Progress
	Toppenish School District	Toppenish	2	Awaiting RA
	❖ USA Yakima Training Center	Yakima	2	Awaiting RA
	Unocal Bulk Plant #0766			
	Valley Dry Cleaners			
	VanCleave Body Shop	Yakima	1	Awaiting RA
	WA DOT - Rimrock			
	WA DOT - Union Gap	Union Gap	3	Independent RA
	Yakima Railroad: (the following ten sites make up the Yakima Railroad si			
	Agri-Tech/Yakima Steel Fab	Yakima	2	RA in Progress
	Cameron - Yakima Inc			
	Crest Linen (former)			
	Frank Wear Cleaners	Yakima	1	RA in Progress
	Halm Motor Company	Yakima	5	RA in Progress
	Nu-Way Cleaners	Yakima	1	RA in Progress
	Paxton Sales Corporation	Yakima	1	RA in Progress
	Westco Martinizing	Yakima	3	RA in Progress
	Woods Industries (Crop King)	Yakima	1	RA in Progress
	Yakima Valley Spray Co	Yakima	1	RA in Progress
	Zwight Logging	Yakima	3	Awaiting RA

OU = operable unit

^{□ =} Superfund site: The EPA and State co-lead on site
▼ = Superfund Site: State has lead on site

^{▲ =} Superfund Site: Federal (EPA) has lead on site * = The site is under a Federal Facilities Agreement

^{❖ =} New site added to the ranked list, August 1995

Department of Ecology Mission Statement

The mission of the Department of Ecology is to protect, preserve and enhance Washingtons Environment and promote the wise management of our air, land and water for the benefit of current and future generations.

Credits

Editor:

Denise Clifford

Researcher:

Michael Soper

Design:

Tom Leonard

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Photo contributions:

cover photo: Joe Hoffman (Department of Agriculture)

page 9: Dick Bassett

page 10: Mary Coleman

page 11: Maura O'Brien

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page 13, upper right: Barry Rogowski; lower left: Charles Pitz

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Washington State
Department of Ecology
PO Box 47600
Olympia WA 98504-7600