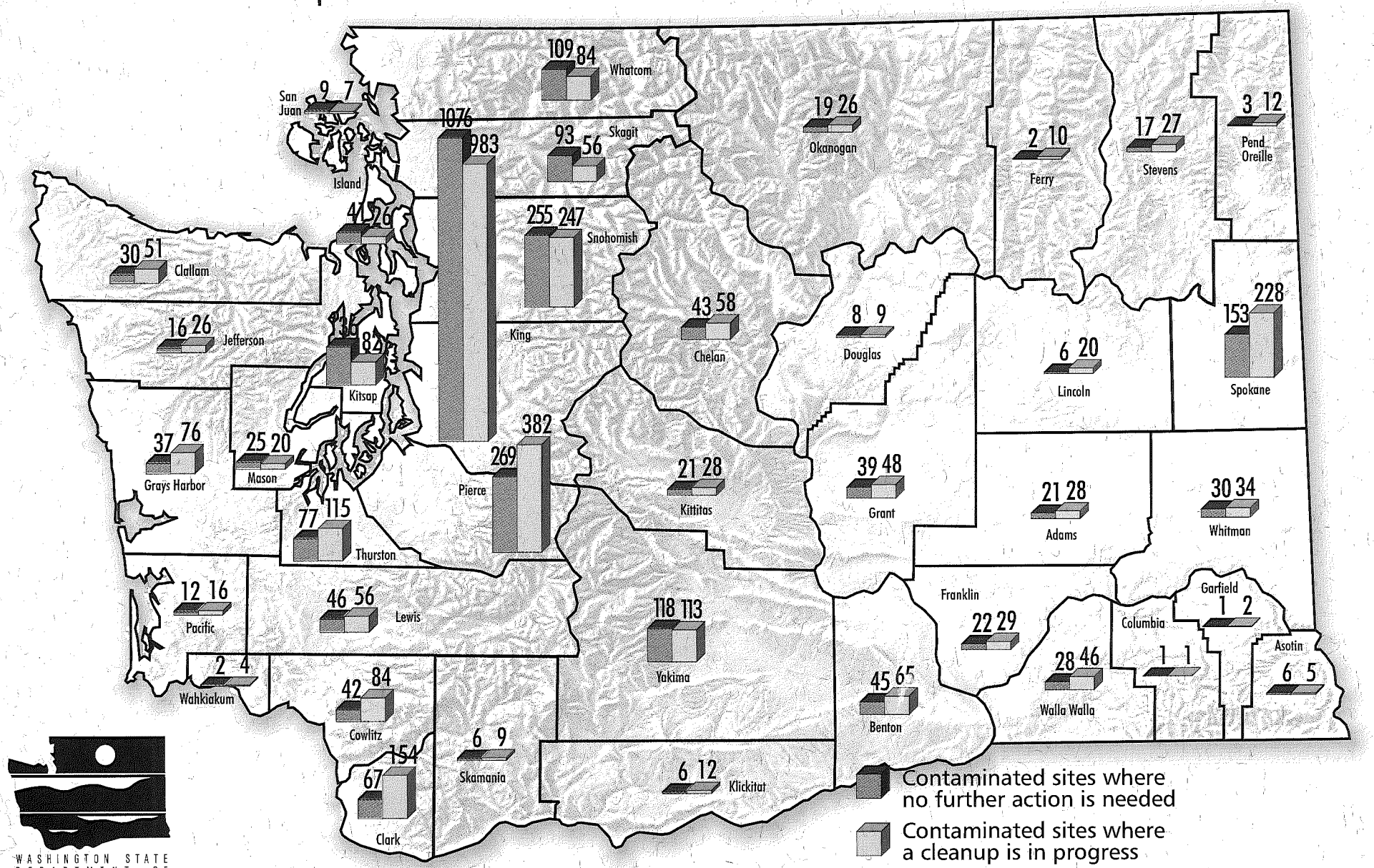
# Model Toxics Control Account
## 1998 Annual Report

Ecology Publication no. 98-603




WASHINGTON STATE DEPARTMENT OF ECOLOGY

## Washington State Department of Ecology's Mission

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

## Purpose of this Report

The purpose of this report is to give you an update on how state agencies and programs spent Toxics Control Account funds in Fiscal Year 1998 (July 1, 1997 through June 30, 1998). Specifically, this report will show:

- How much revenue was generated in Fiscal Year 1998 for the Toxics Control Account (via the Hazardous Substance Tax, cost recovery, fine and penalties, Voluntary Cleanup Program fees and mixed waste fees);
- Which governmental entities received funds from the Toxics Control Account in Fiscal Year 1998;
- What accomplishments were achieved as a result of receiving funds.

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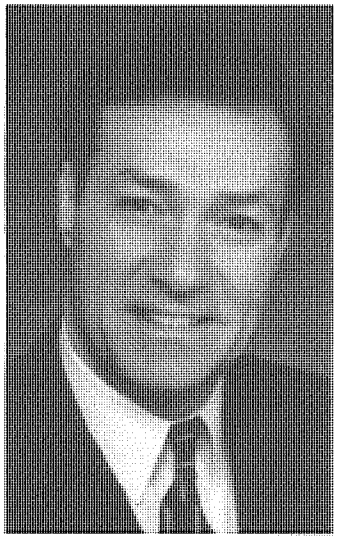
# Message from the Director



Christine Gregoire was the director of the Department of Ecology, and Booth Gardner was in his first term as governor of the state of Washington. The year was 1988, and the Model Toxics Control Act (MTCA), RCW 70.105D was adopted as the state's new cleanup law.

The new law began as a citizens' initiative, with the goal of preventing pollution and cleaning up existing pollution. A Toxics Control Account was established to provide funding to local and state agencies to help them do the work to meet these goals.

It has been 10 years since its passage, and the departments of Ecology, Health, Revenue and Agriculture, and the Washington State Patrol have made tremendous progress in meeting the goals of the act. This is due in large part to funds appropriated to them via the Toxics Control Account.

Since 1988:

- 3,279 contaminated sites have been cleaned and put back to productive use. That's more than one-third of the total number of contaminated sites in the state of Washington.
- More than 220 million pounds of contaminants, including metals and petroleum products, have been remediated or contained.
- Between 1995 and 1997, about one billion gallons of drinking water were remediated.

Using Toxics Control Account funds, the Department of Health took steps to protect Washington residents from exposure to toxic substances released into the environment. The Department of Ecology is providing a further boost to these efforts by pursuing a strategy to virtually eliminate the discharge of many toxic chemicals into the environment.

This is just a glance at what has occurred, but it doesn't stop there. Through the Model Toxics Control Act and other efforts, citizens and businesses have greatly increased the awareness of the hazards of toxic chemicals – and they are going to greater lengths than ever to reduce the risk of release or exposure.

Of course, there's still much more to do, and the Department of Ecology plans to continue carrying forward the legacy of the citizens' initiative into the next decade.

This year's revision to the regulations that implement the Model Toxics Control Act is an excellent start.

Our employees have worked with interested groups to make the regulations easier to read, and we hope they will lead to even better environmental decisions. Through the process, the regulation has maintained the strength and integrity of the citizens' initiative.

It is truly a product of, by, and for the people of the state of Washington. We appreciate the responsibility that has been vested in the Department of Ecology to support the spirit that generated it.

Tom Fitzsimmons
Director, *Washington State Department of Ecology*

# History of the Toxics Control Account

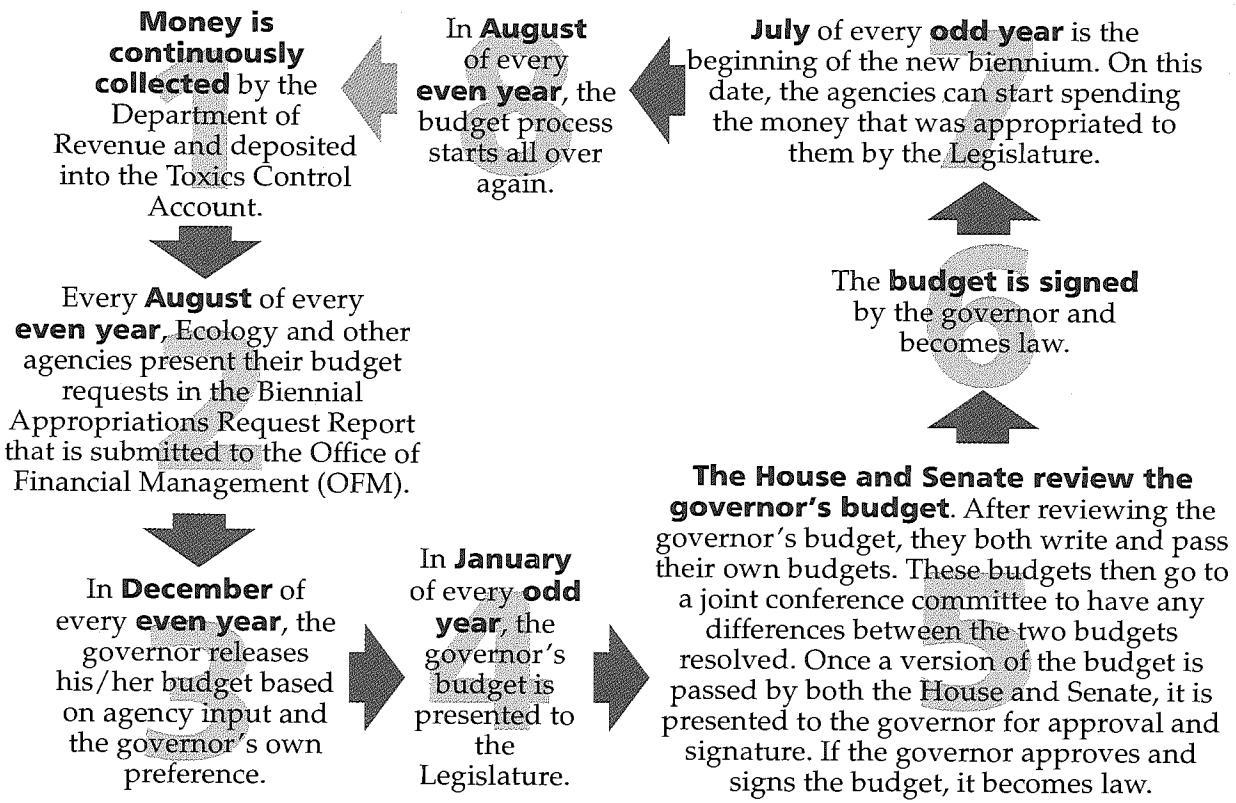
The Model Toxics Control Act became law in 1988 with the passing of Initiative 97. The purpose of the Act was to:

- Clean up contaminated sites;
- Improve management of hazardous wastes;
- Prevent future contamination through pollution prevention.

The Toxics Control Account was created under the Model Toxics Control Act. The primary source of money to the account is through a tax on petroleum products, pesticides and certain chemicals. This tax is known as the "Hazardous Substance Tax."

The Toxics Control Account is divided into two accounts: the State Toxics Control Account and the Local Toxics Control Account. By statute, of the total Hazardous Substance Tax collected, 47 percent goes into the State Toxics Control Account and 53 percent goes into the Local Toxics Control Account. Other sources of money to the State Toxics Control Account include cost recovery, Voluntary Cleanup Program fees, fines and penalties, mixed waste fees and miscellaneous.

**Figure 1:** How Agencies receive Appropriations rom the Toxics Control Account




*Local governments and local citizen groups apply to Ecology's Solid Waste & Financial Assistance Program for grant money from the Local Toxics Control Account. There are specific application periods for each of the grant programs.*

## The Hazardous Substance Tax

The Hazardous Substance Tax is calculated by taking 0.7 percent ($7 per $1,000) of the wholesale value of the hazardous substance. The tax is imposed on the first in-state possessor of the hazardous substance. There are currently 8,000 different hazardous substances subject to the tax. However, over 85 percent of the money is collected from petroleum products. So when gas prices are down, hazardous substance tax revenues are also down. Due to the current trend of lower petroleum prices, sufficient revenue could be a concern in the next biennium.

# Toxics Control Account Revenue & Expenditures: FY 1998

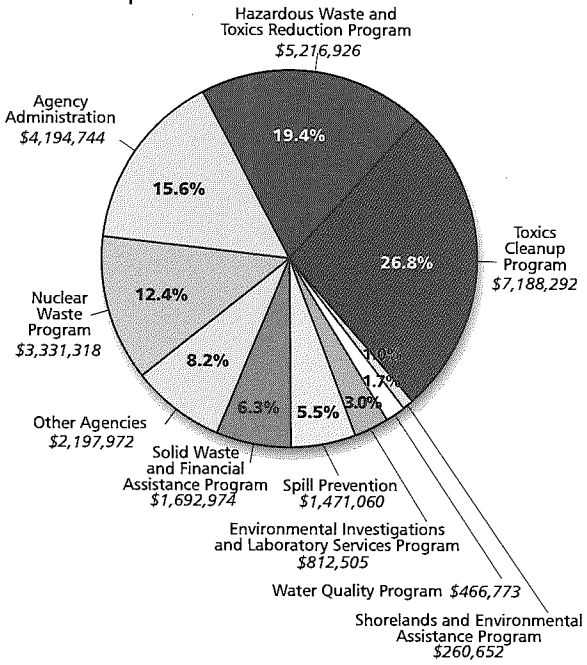
## State Toxics Control Account

The State Toxics Control Account helps fund activities of state agencies. In Fiscal Year 1998, the departments of Ecology, Health, Agriculture, Revenue and Washington State Patrol received funds from the State Toxics Control Account.

### State Toxics Control Account Revenue

| | |
|---|---|
| Taxes | $20,397,000 |
| Mixed Waste Fees | $4,104,903 |
| Cost Recovery | $3,049,246 |
| Miscellaneous | $282,516 |
| VCP Fees | $278,126 |
| Fines and Penalties | $171,560 |
| *Total* | *$28,283,351* |

**Figure 2:** State Toxics Control Account Expenditures




In addition to Hazardous Substance Tax collections, the State Toxics Control Account receives money through the following sources:

- **Cost Recovery:** Ecology recovers the costs it incurs (from liable parties) for actions taken at contaminated sites.
- **Mixed Waste Fees:** Ecology collects fees from facilities that manage mixed waste.
- **Fines & Penalties:** Ecology issues fines and penalties to liable parties for not complying with the law.
- **Voluntary Cleanup Program (VCP) Fees:** Ecology reviews site workplans, sampling plans, cleanup plans, and gives technical assistance to liable parties for a fee.

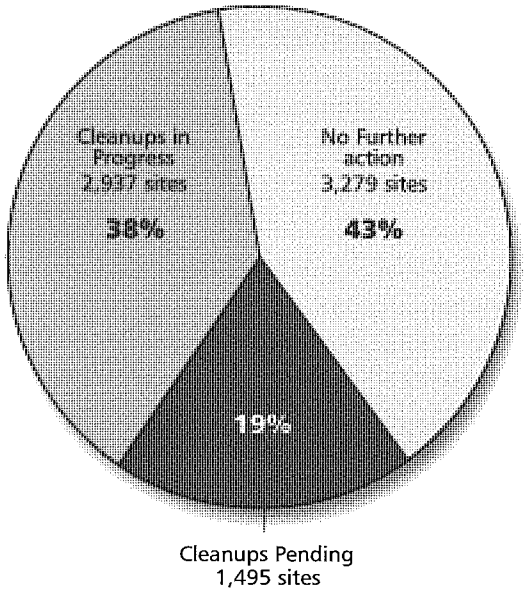
**Table 1:** Toxics Control Account Revenue and Expenditures

| **Toxics Control Account Revenue** | Local Toxics | State Toxics |
|---|---|---|
| Hazardous Substance Tax | $23,001,000 | $20,397,000 |
| Mixed Waste Fees | | $4,104,903 |
| Cost Recovery | | $3,049,246 |
| Miscellaneous | | $282,516 |
| Voluntary Cleanup Program Fees | | $278,126 |
| Fines & Penalties | | $171,560 |
| *Total Revenue* | *$23,001,000* | *$28,283,351* |
| **Ecology Expenditures** | | |
| Toxics Cleanup Program | | $7,188,292 |
| Hazardous Waste and Toxics Reduction Program | $39,815 | $5,216,926 |
| Agency Administration, Facility & Related Costs | $348,751 | $4,194,744 |
| Nuclear Waste Program | | $3,331,318 |
| Solid Waste and Financial Assistance Program | $19,571,254 | $1,692,974 |
| Spill Prevention, Preparedness and Response Program | | $1,471,060 |
| Environmental Investigations and Laboratory Services Program | | $812,505 |
| Water Quality Program | | $466,773 |
| Shorelands and Environmental Assistance Program | $443,000 | $260,652 |
| *Total Ecology Expenditures* | *$20,402,820* | *$24,635,244* |
| **Other Agency Expenditures** | | |
| Health | | $1,304,289 |
| Agriculture | | $641,735 |
| State Patrol | | $219,000 |
| Revenue | | $32,948 |
| *Total All Agency Expenditures* | *$20,402,820* | *$26,833,216* |

# Department of Ecology: Toxics Cleanup Program

Of all the Ecology programs that received State Toxics Control Account funds in Fiscal Year 1998, the Toxics Cleanup Program received the most money — almost 27 percent of the account. The Toxics Cleanup Program was also responsible for generating the most revenue for the account. Through cost recovery and the Voluntary Cleanup Program, the Toxics Cleanup Program generated over three million dollars for the State Toxics Control Account. During Fiscal Year 1998, the program used State Toxics Control Account funds primarily on:

**Figure 3:** Known & Suspected Contaminated Sites (July 1988 through October 1998)
*Total Sites: 7,711*




- Cleaning up Superfund sites and sites Ecology has ranked 1 or 2;
- Cleaning up sites Ecology has ranked 3, 4 or 5;
- Providing technical assistance to those cleaning up sites;
- Investigating, and if necessary, ranking new sites;
- Providing support to staff working on the above-mentioned activities.

## Cleaning Up Superfund Sites and Sites Ecology Has Ranked 1 or 2

High-priority sites are comprised of Superfund and sites Ecology has ranked 1 or 2. Because of limited resources, Ecology is generally able to work on only high-priority sites.

What makes these sites high-priority? The contaminants, the amount, how toxic they are, and how easily they can come into contact with people and the environment are the main reasons for making a site high-priority. However, public concern, a need for immediate response and the availability of cleanup staff also affect which sites get top priority.

There are currently 419 high-priority sites in the state of Washington. The Toxics Cleanup Program cost recovers about 75 percent of the money it spends on these sites.

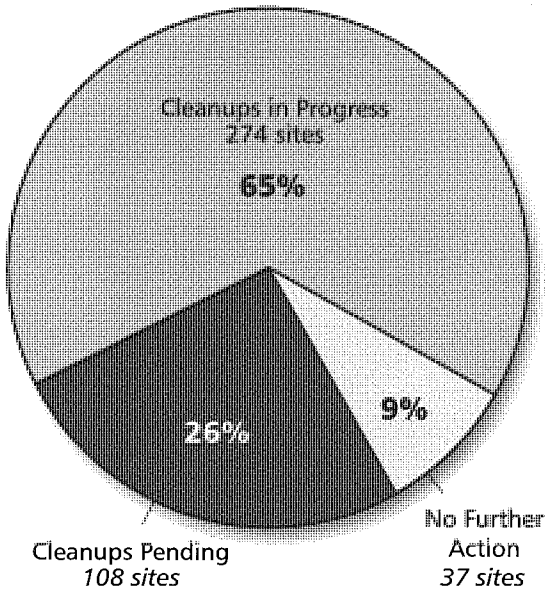
The Hazardous Sites list, Ecology's complete list of ranked sites, is available on the internet at *www.wa.gov/ecology/tcp/cleanup.htm*

### Natural Resource Damage Assessments (NRDA) Sites:

A site becomes involved in the NRDA process when its natural resources (such as fish and shellfish) are damaged as a result of site contamination. To date, sites with natural resource damage activities have mainly been in marine areas and are often Superfund sites.

Settlements for natural resource damages have totaled more than 50 million dollars – and more are likely. Currently, the state, federal, and tribal trustees are very much involved in restorations and restoration planning. For example, during Fiscal Year 1998, an Environmental Impact Statement (EIS) was completed for Commencement Bay.

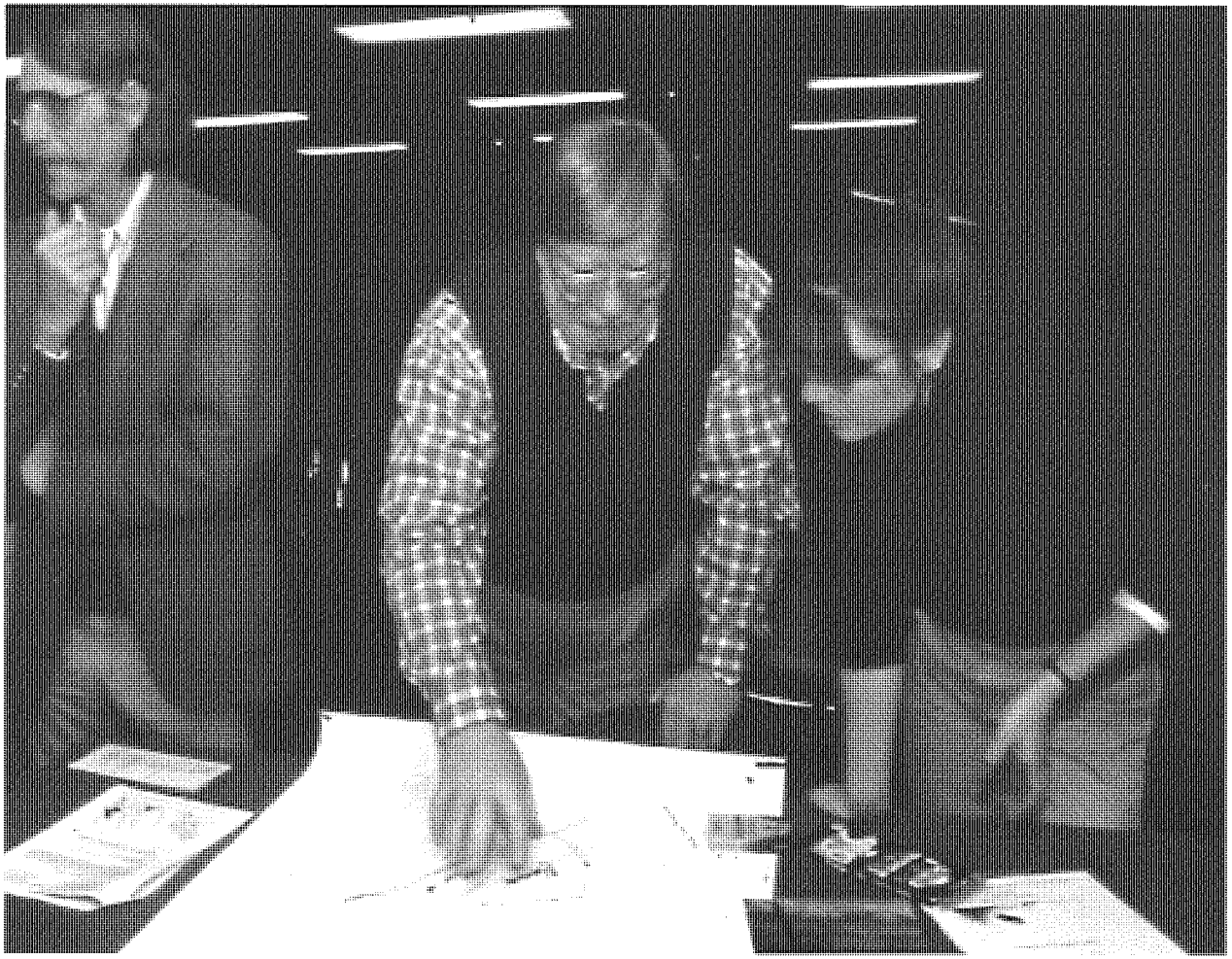
**Figure 4:** Status of Superfund and State Ranked 1 or 2 Sites (July 1988 through October 1998)
*Total Sites: 419*



The EIS study helped determine the best alternative for restoration of Commencement Bay. Two of the restoration sites in Commencement Bay are the Simpson/ Champion cap restoration and the Middle Waterway site. Five sites are currently being proposed for restoration activities with the city of Tacoma.

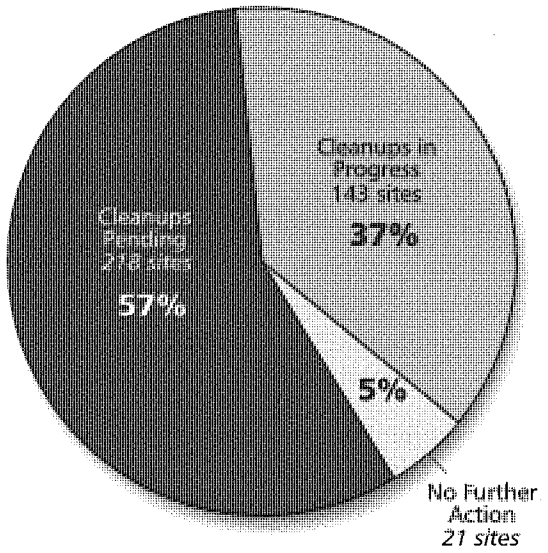
## Cleaning Up Sites Ecology Has Ranked 3, 4 or 5

Three-hundred eighty-two sites with a ranking of 3, 4 or 5 are on the Hazardous Sites List. One-hundred forty-three of these sites are in the cleanup process and another 21 have been cleaned up.



*Fred Gardner, Ecology's NRDA representative, explains restoration opportunities at a public hearing in Tacoma.*

**Figure 5:** Status of State Ranked 3,4 or 5 Sites (July 1988 through October 1998)
*Total Sites: 382*




## Providing Technical Assistance

The Voluntary Cleanup Program, within the Toxics Cleanup Program, provides assistance on sites that have a low environmental priority to the agency but are a high priority to be cleaned up by the owner or prospective property owner. This program allows agency staff to advise people before, during and after their cleanup.

The Voluntary Cleanup Program is made up of three components: Ecology consultations, prepayment agreements and prospective purchaser agreements.

### Ecology Consultation:
Ecology consultations are best for routine cleanups where a cleanup technology is easily identified, such as a leaking underground storage tank site. One may participate in the program by submitting a cleanup report to Ecology. For a fee, Ecology staff will review the report and provide a site determination, such as no further action or further action needed. Since October 1997, 211 sites have entered the Voluntary Cleanup Program. Seventy-two have received a determination of "No Further Action (NFA)." Another 122 are still in the review process.

### Prepayment Agreement:
A prepayment agreement is an agreement whereby an individual agrees to pay Ecology in advance for its oversight. It can be negotiated in the form of an agreed order or a consent decree. A consent decree protects a party from future liability. Unlike Ecology consultations, prepayment agreements are used on larger, more complex sites.

### Prospective Purchaser Agreement:
These agreements are settlements entered into by the state and a person or company that wants to purchase and redevelop contaminated property. A prospective purchaser's liability for the known contamination is settled before the property is purchased. In return, the prospective purchaser provides resources to clean up the contamination at the site.

## Investigating, and if Necessary, Ranking New Sites

### Initial Investigations:
The first step in the cleanup process is to investigate the site. Once the Toxics Cleanup Program receives a complaint about a piece of property or the practices of an owner or operator, a program inspector will go to the site and conduct an initial investigation. An initial investigation involves looking at the present conditions of the site for signs of possible spills or discharges and the use and storage of hazardous waste. Some sampling may be involved. During Fiscal Year 1998, approximately 380 initial investigations were conducted.

### Site Hazard Assessments:
If it is determined that further work is required at a site after the initial investigation, a site hazard assessment may be conducted. A site hazard assessment provides the Toxics Cleanup Program with basic information about a site. The program then uses the Washington Ranking Method to estimate the potential threat the sites poses, if not cleaned up, to human health and the environment. A score of one represents the highest level of concern relative to other sites, and a score of five represents the lowest. Hazard ranking helps the Toxics Cleanup Program target where to spend State Toxics funds. During Fiscal Year 1998, 88 site hazard assessments were conducted.

## Program Support
There are many individuals who work behind the scenes to get sites cleaned up. They include computer staff, budget and planning staff, policy staff, public involvement staff, attorney general staff and administrative staff. All of these positions are funded in whole or in part by money from the State Toxics Control Account. Some support costs are cost recovered from liable parties.

### The Model Toxics Control Act Rule Revision:
In 1995, the Legislature directed Ecology to establish a policy advisory committee (PAC) to develop recommendations to improve the Model Toxics Control Act (the cleanup regulation). The PAC made its recommendations to the Legislature in December 1996 and in February 1998, staff from the Toxics Cleanup Program presented a discussion draft to the PAC of proposed rule revisions. Since then, the Toxics Cleanup Program's policy staff have been working with an external advisory workgroup to develop a final draft to be presented to the public early next year. Overall, the rule revision should lead to better environmental decision-making.

# Department of Ecology: Hazardous Waste & Toxics Reduction Program

The Hazardous Waste and Toxics Reductions Program's goal is to prevent hazards due to improper disposal of hazardous wastes into the state's air, land and waters. Their two primary objectives are to reduce the amount of hazardous waste generated and to safely manage hazardous waste.

There are several major activities designed to accomplish these objectives.

## Visiting Businesses that Generate Hazardous Waste

The Hazardous Waste and Toxics Reduction Program is concentrating on providing information to businesses through face-to-face visits, with an emphasis on providing technical assistance to help businesses both reduce and safely manage hazardous waste. Last year, program staff conducted 1,120 visits.

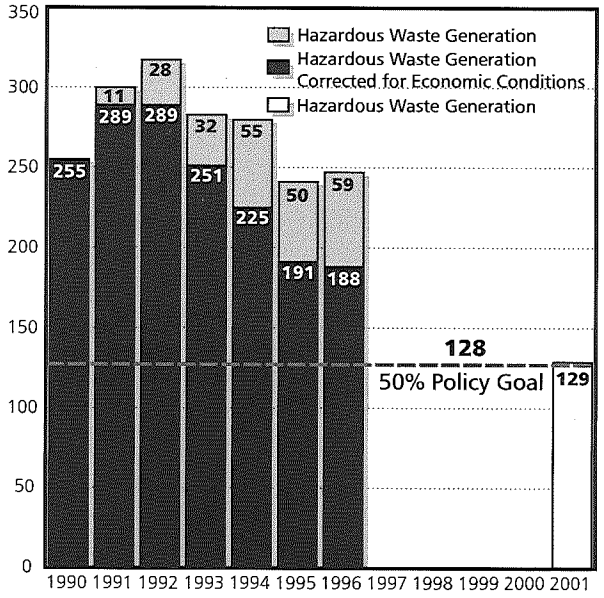
During Fiscal Year 1998, program staff teamed up with staff from the agency's Water Quality Program to conduct stormwater technical assistance visits. These visits were aimed at providing businesses with the information necessary to prevent hazardous contaminants from getting into the stormwater. In some cases, this resulted in businesses eliminating the need for a stormwater permit.

## Promoting Pollution Prevention

It's a state law that businesses producing more than 2,640 pounds of hazardous waste annually complete a "pollution prevention plan." The purpose of preparing a plan is to determine if the business can reduce their waste and chemical use. Staff from the Hazardous Waste and Toxics Reduction Program provide technical assistance to businesses preparing plans. Some 619 businesses in Washington currently participate in this program.

Progress towards waste reduction is displayed in the following chart. The amounts shown are from all generating facilities (except commercial treatment, storage and disposal facilities which manage wastes generated by others). The graph also shows the data adjusted for the changing economy. The adjustments show estimated levels of waste generation assuming the economy remained constant. This process, called "normalizing data" makes waste totals more comparable from year to year.

**Figure 6:** Progress Toward the 50% Hazardous Waste Reduction Goal




## Making Common Sense Hazardous Waste Management Decisions

The Hazardous Waste and Toxics Reduction Program is using creative ways to make the Dangerous Waste Regulations workable while still protecting human health and the environment. For example, the program has determined that etchants (sludge resulting from using etchant solution in manufacturing circuit boards) can be safely used as a substitute for a raw material due to its high copper content. This allows the etchants to be recycled, rather than disposed of as a hazardous waste.

The Hazardous Waste and Toxics Reduction Program also works to close or clean up businesses that once managed hazardous waste. Staff worked with businesses to complete eight site closures during Fiscal Year 1998.

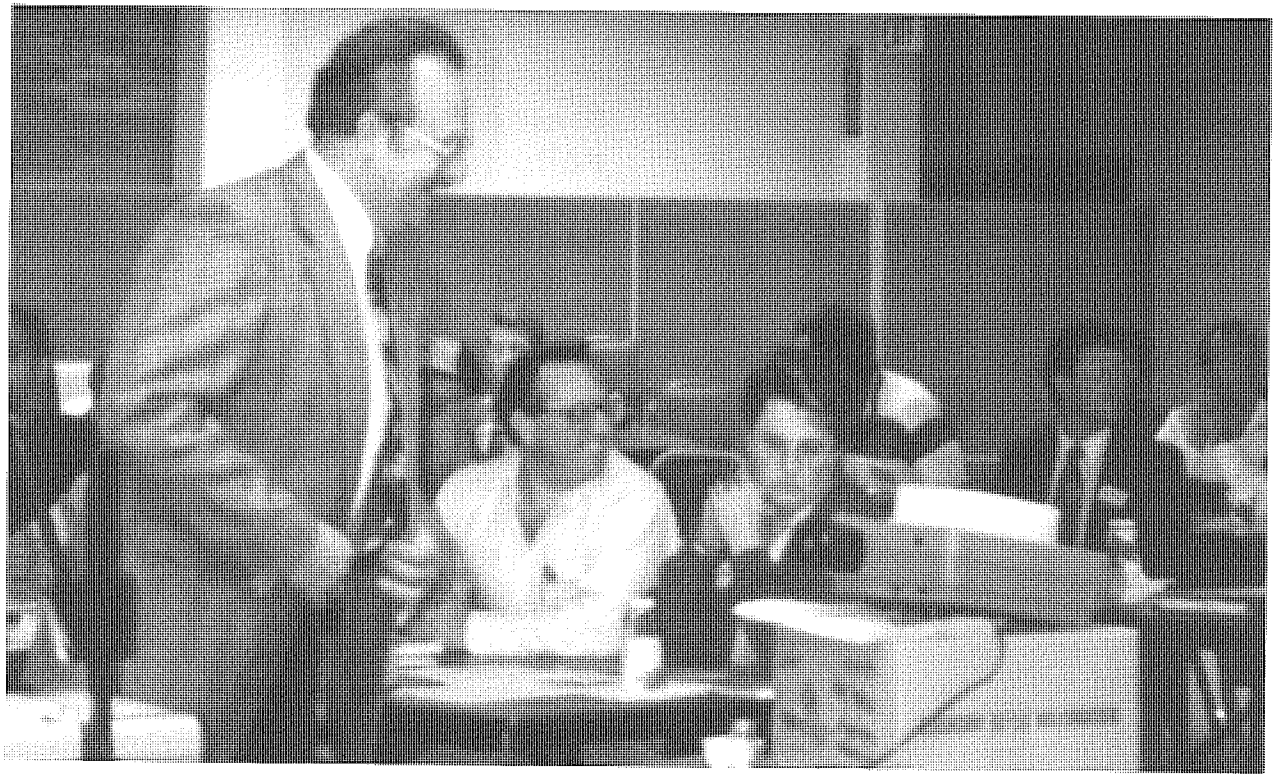
## Conducting Enforcement When Necessary

Maintaining a credible enforcement capability is essential to keeping technical assistance effective. In most cases, unless there is an immediate threat to human health and/or the environment, assistance is offered to help a business correct the problem before resorting to an enforcement action. During Fiscal Year 1998, the program issued six hazardous waste enforcement actions totaling $232,000.

## Keeping the Public Informed

The Hazardous Waste and Toxics Reduction Program has several efforts underway to provide information to the public. During Fiscal Year 1998, staff responded to more than 18,750 telephone calls on hazardous waste issues. Staff conducted 61 workshops on safe waste management and pollution prevention attended by 2,992 people. Staff also prepared a quarterly newsletter "Shoptalk" to provide the public with current tips on reducing and safely managing hazardous waste.

The program also collects a variety of data on hazardous waste generation/management, hazardous substance use and release, and pollution prevention. The public can use this information to monitor hazardous waste in their communities.



*Hazardous Waste Inspector, Dave Saunders, conducts a hazardous waste generator workshop in Thurston County.*

## Permitting Facilities that Treat, Store or Dispose of Hazardous Waste

Staff issue permits to facilities that treat, store or dispose of hazardous waste and that operate in a manner protective of human health and the environment. The major elements of a permit include waste description and analysis plans, storage and processing designs, contingency plans, inspection plans, and closure and post closure plans.

## Conducting Cleanups and Site Closures at Treatment, Storage or Disposal Sites

This activity involves cleanup up and closing facilities that have become contaminated with hazardous waste. In Fiscal Year 1998, staff worked with businesses to complete 15 site closures.

# Department of Ecology: Other Programs

## Department of Ecology: Program Administration

During Fiscal Year 1998, 28 percent of Ecology's administration costs were funded with Toxics Control Account funds. Administrative costs include:

- *Executive management* oversee the Department's mission, goals and policies;
- *Regional directors* represent the director in local communities and provide coordination on complex local issues;
- *Legislative and intergovernmental relation staff* coordinate legislative activities, represent agency policy to other governments, and coordinate rule development;
- *Education and public information staff* provide primary leadership in environmental education, community outreach, public involvement and media relations;
- *Additional costs* include computer support, telecommunications, budget and central planning, accounting and fiscal services, records management, mail handling, facility planning and maintenance, warehousing and motor pool services.

These services provide the foundation from which Ecology is able to address the goals of the Model Toxics Control Act.

## Department of Ecology: Nuclear Waste Program

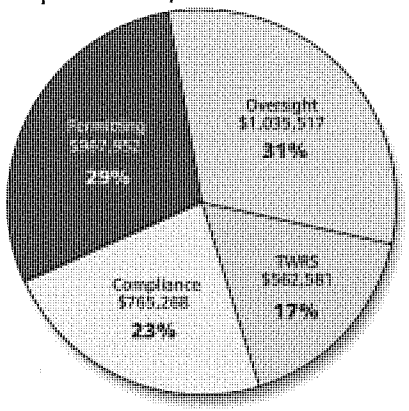
The Nuclear Waste Program regulates the storage, treatment and disposal of dangerous and mixed waste at Hanford and certain non-Hanford facilities. Mixed waste contains both a hazardous and radioactive component.

In Fiscal Year 1998, Toxics Control Account funds helped pay for compliance inspections, regulatory oversight, technical assistance, review and approval of mixed waste permit applications, and providing oversight of the Tank Waste Remediation System (TWRS). The TWRS project addresses environmental risks at the Hanford Tank Farm.

The Nuclear Waste Program collects fees from facilities that manage mixed waste in the state. This money goes into the State Toxics Control Account where it is appropriated to the Nuclear Waste Program.

The following pie chart demonstrates how the Nuclear Waste Program spent its appropriation in Fiscal Year 1998.

**Figure 7:** Nuclear Waste Program Toxics Control Account Expenditures, Fiscal Year 1998




## Department of Ecology: Solid Waste & Financial Assistance Program

Ecology's Solid Waste and Financial Assistance Program supports and supplements the work of local governments to properly manage and dispose of solid waste. There are more than 300 permitted solid waste facilities in the state from landfills to recycling businesses.

The authority and responsibility to plan for and permit solid waste activities in Washington rests with the local jurisdictional health departments. The Solid Waste and Financial Assistance Program establishes statewide regulations, addresses statewide issues, approves local plans, reviews local permits and provides technical assistance to these local jurisdictions. This partnership helps to protect the environment and human health, while making the best possible use of resources. In 1998, the program provided the following services:

- Provided professional engineering and hydrogeologic support to local health departments;
- Provided technical assistance for solid waste inspections at the request of local health departments;
- Reviewed, updated, and interpreted solid waste regulations to accommodate changes. At the direction of the Legislature, staff completed a review of solid waste permitting systems to determine how the use and reuse of materials can be improved;

- Assisted counties in developing solid and moderate risk waste plans, and in putting these plans to practice. ("Moderate risk waste" is hazardous waste from households or from businesses that generate only small quantities.)

## Department of Ecology: Spill Prevention, Preparedness and Response Program

Ecology's Spill Prevention, Preparedness and Response Program is a new program to the agency. Last fiscal year, some of its functions were completed by the former Office of Marine Safety. One responsibility of the program is to respond to oil or hazardous substance spills. This involves ensuring cleanup by responsible parties, cleaning up "orphan" spills, acting as on-scene coordinator, investigating and issuing penalties when appropriate, participating in drills and working close with federal spill programs. Emergency cleanup at hazardous waste sites and emergency cleanup at drug labs are included in this activity. Cost recovery is pursued whenever there is an identifiable responsible party.

The program is also responsible for working with industry in developing oil spill contingency plans. The program informs the industry of necessary requirements of plans and evaluates them for completeness.

*Ecology's spill response staff retrieved drug-related materials from a pile of garbage dumped in rural Pierce County.*

## Department of Ecology: Environmental Investigations and Laboratory Services Program

*(renamed Environmental Assessment Program, October 1998)*

Ecology's Environmental Investigations and Laboratory Services Program is responsible for monitoring land and water to measure environmental status, trends and results. One way program staff accomplish this goal is by conducting evaluations to identify sources of toxic substances in priority watersheds. Staff quantify the loading of the pollutants to surface waters and recommend pollutant load reductions necessary to achieve compliance with state water quality standards.

Other examples of activities funded with State Toxics Control Account funds include:

- Determining the nature and extent of contamination from leaking underground storage tanks;
- Monitoring the long-term effectiveness of ground water cleanup;
- Monitoring changes in sediment contamination in Puget Sound urban bays;
- Analyzing trace metals found in surface water;
- Identifying and tracking pesticide residues found in fish and shellfish tissues and sediments;
- Monitoring metal contamination in rivers.

## Department of Ecology: Water Quality Program

The Water Quality Program received State Toxics Control Account funds to pay for activities that help protect Washington's water from contaminants.

### Lower Columbia River National Estuary Program

The lower Columbia River has been part of the National Estuary Program since 1995. The National Estuary Program was established by Congress in 1987 to identify nationally significant estuaries that are threatened by overuse, development and pollution, and to aid in the development of local management plans to protect and preserve these estuaries.

Staff from the Water Quality Program provide assistance to the program's management team involved in the estuary program. The management team consists of representatives from Ecology, the Oregon Department of Environmental Quality, the U.S. Environmental Protection Agency and citizens. The management team has identified seven priority issues and is in the process of identifying goals and objectives for solving the problems associated with each issue. Toxic contaminants in sediments and fish were among the priorities.

### Aquatic Pesticide Program

This program is aimed at reducing the risk to public health and aquatic life from pesticides that are used to manage aquatic weeds, invasive plants and pests. Water Quality staff develop and interpret rules that pertain to aquatic pesticides and provide technical assistance to pesticide applicators, lake associations, state agencies and others to ensure the wise use of aquatic pesticides. Staff also assist chemical manufacturers and pesticide applicators and their clients with information regarding permit conditions. They provide educational materials on specific pesticides and aquatic pest control methods.

### Water Quality Standards for Toxics

Staff provide technical support in developing water quality standards for toxic substances. Water Quality staff have worked on risk assessment issues related to toxics and provided technical assistance to permit writers on using the water quality standards for setting effluent limits in wastewater discharge permits. Staff chair or co-chair committees addressing the reduction of toxic substances, including the intra-agency committee developing Ecology's strategy on bioconcentratible chemicals of concern and the interagency marine toxics workgroup. The Water Quality Program also helps fund a project with the University of Washington's Economics Department. Students from the Economics Department are researching the economic value of Washington's fish resources. The results of this research will be used in writing Benefit-Cost Analyses and Small Business Economic Impact Statements for several rules.

### Contaminated Sediment Runoff Environmental Initiatives

Water quality in the Yakima River is heavily impacted by irrigation return flows that contain pesticides and other toxic substances. The goal of this project is to provide in-field education and technical assistance to irrigators about the impacts to water quality from improper irrigation practices and to provide assistance to reduce these impacts.

## Department of Ecology: Shorelands & Environmental Assistance Program

The Shorelands and Environmental Assistance Program received State Toxics Control Account funds to help pay for activities that protect Washington's sediments.

### Sediment Cleanup

Staff from the Shorelands and Environmental Assistance Program provide technical assistance and oversight to the cleanup of sites with contaminated sediments. This currently involves implementing guidelines for disposing of relatively clean sediments.

Shorelands and Environmental Assistance Program staff are co-managing a demonstration project in Bellingham Bay to implement a cooperative approach to the cleanup of contaminated sediments. They have also established and maintain a list of contaminated sediment sites in Washington state.

### Permit Assistance Center

At the Permit Assistance Center, staff provide assistance and information on environmental permitting to businesses, the public and other government agencies. The center is designed to help users comply with environmental permitting requirements, such as for solid waste and hazardous waste permits. Staff answer permit-related questions from phone or in-person inquiries. In addition, staff work with federal, state and local permitting agencies to facilitate timely and coordinated project permitting.

# Department of Health

The Department of Health (DOH) receives funds from the State Toxics Control Account to perform environmental health protection, monitoring and assessment activities with the goal of protecting the public's health from exposures to toxic substances released into the environment.

The following is a detailed description of some of the DOH accomplishments during Fiscal Year 1998.

## Hazardous Waste

### Northern Whatcom County

Historical use of soil fumigants used to protect crops, such as raspberry and potato, has resulted in a contaminated aquifer in northern Whatcom County. Recent ground water sampling indicates that some of these pesticides are at concentrations above federal and state drinking water standards. In addition, nitrates and coliform bacteria from agricultural practices are at elevated levels and may pose a health threat. DOH is developing a public health assessment to evaluate the health risks posed by the pesticides EDB, 1,2-DCP, and other contaminants in the ground water. DOH is also conducting a cancer cluster investigation in the area and has met with concerned citizens to address their health concerns.

### Bainbridge Island Drinking Water Wells

Ecology asked DOH to evaluate potential human health threats from exposure to contaminants in public and private drinking water wells located near the Bainbridge Island Landfill in Kitsap County. After evaluation of the data, DOH staff concluded that there was no immediate short-term health risk and a very low long-term health risk from exposure to contaminants in some of the wells. The Department is recommending continued monitoring of the wells and will continue to evaluate test results.

### Able Pest Control (former)

DOH developed a health consultation for Ecology regarding the (former) Able Pest Control site (the site had been converted into apartments). Initial health complaints from a tenant resulted in the discovery of pesticides in soil along the foundation of the apartments and the property boundary of the nearby Lake Forest Park Preschool.

### MTCA Rule Revisions

DOH is providing technical support to Ecology regarding inclusion of the dermal route of exposure for contaminants in soil into methodology used in MTCA for cleanup level derivation. Both agencies recognize that failure to assess the dermal route may underestimate exposure under certain circumstances.

### Fertilizers

DOH has been involved in evaluating possible public health exposures related to the practice of recycling hazardous waste into fertilizers. DOH participated in the development of the state's new fertilizer legislation that was passed in early 1998, which included new standards for heavy metals. DOH is also involved in designing and interpreting several fertilizer studies that were specified in the new fertilizer legislation; including a metals plant uptake study, a study of metals in agricultural lands and studies of dioxins in fertilizers and Washington State soils.

### Everett Smelter Site

Ecology requested technical help from DOH to assess cleanup options at the Everett Smelter site. DOH has continued to evaluate scientific information that could be used to set action levels for arsenic in both surface and subsurface soil.

### Drinking Water

In addition to the direct support of drinking water investigations at suspected contaminated sites, the Department continued to assess and assign vulnerability or contaminant risk ratings for public drinking water sources across the state. This is an on-going program that evaluates a water source's individual hydrologic susceptibility to contamination as well as its overall vulnerability to organic chemical contamination. To date, the program has developed ratings for over 3500 group A community and non-transient public water sources. These ratings are used by DOH and other agencies as a tool to evaluate contaminant risk within a variety of resource management activities.

## Department of Agriculture's Waste Pesticide Identification and Disposal Program

The Washington State Department of Agriculture's (WSDA'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 similar rural locations. The other is to prevent future accumulations of unusable pesticides through education focused in the areas of product storage and handling, as well as improved planning before purchase.

Three hundred and seventy-five tons of unusable pesticides have been collected and properly disposed of from 2,607 participants in the program's nine years. Eleven regional and six special collections were held during the last fiscal year with 97,953 pounds collected from 399 participants at a total contractor cost of $337,505.

The unusable pesticides are collected at two types of events, regional and special site. The majority of pesticides are collected at regional events. These events are held on a rotating basis around the state and are similar to household hazardous waste (HHW) collections in that the participant transports their unusable pesticides to a collection site where a hazardous waste contractor packages them into hazardous waste disposal containers. Since the pesticides brought to these sites are fully regulated, unlike HHW, WSDA prepares and mails a specific bill-of-lading to each of the participants based upon an inventory they submit before the event. This document must be in the participant's vehicle while on a public road and available to emergency personnel in case of a spill or accident. WSDA also assists the participants with packaging materials (to enhance safe transportation) and with chemical analysis of unlabeled containers. The remainder of the pesticides are collected at special site events. These events are usually held at the participant's pesticide storage location due to numerous containers of unknown chemicals, hazards associated with transportation due to container condition and type, or pesticides that could pose a risk to other participant's if brought to a regional event.

After the contractor packages the pesticides, they transport them to a permitted disposal facility. Most of the pesticides are disposed of by high temperature thermal destruction. Only pesticides containing metallic ingredients that can't be destroyed by heat (such as arsenic, lead and mercury) are disposed of at hazardous waste landfills.

**Table 2:** A Summary Of The Pesticide Collection Events Held During Fiscal Year 1998

| Collection Event | When | Participants | Pounds | Disposal Cost | Per pound |
|---|---|---|---|---|---|
| Puyallup Regional | 8/26/97 | 31 | 12,701 | $30,414.50 | $2.39 |
| Bremerton Regional | 9/17/97 | 10 | 2,540 | $5,467.96 | $2.15 |
| Pullman Regional | 10/1/97 | 27 | 7,893 | $25,643.25 | $3.25 |
| Centralia Regional | 10/23/97 | 18 | 5,852 | $14,132.50 | $2.41 |
| Pasco Regional | 10/29-30/97 | 43 | 10,601 | $49,600.75 | $4.68 |
| Walla Walla Regional | 3/25/98 | 46 | 13,389 | $38,570.00 | $2.88 |
| Yakima Regional | 04/15-16/98 | 110 | 27,413 | $62,860.00 | $2.29 |
| Kettle Falls Regional | 5/13/98 | 16 | 1,503 | $4,120.00 | $2.74 |
| Davenport Regional | 5/14/98 | 26 | 4,983 | $12,609.00 | $2.53 |
| Underwood Regional | 6/17/98 | 6 | 1,209 | $4,203.00 | $3.48 |
| Vancouver Regional | 6/18/98 | 18 | 5,690 | $14,929.00 | $2.62 |
| Regional total FY 1998 | 11 events | 351 | 93,774 | $262,549.96 | $2.80 |
| Spokane 2 Special Site | 8/22/97 | 1 | 87 | $8,722.70 | $100.26 |
| Chelan County Special Site | 10/14/97 | 43 | 1,727 | $6,470.75 | $3.75 |
| Island 1 Special Site | 10/20/97 | 1 | 1,400 | $2,538.75 | $1.81 |
| Walla Walla 4 Special Site | 5/15/98 | 1 | 730 | $53,035.00 | $72.65 |
| Royal 1 Special Site | 5/16/98 | 1 | 200 | $2,357.00 | $11.79 |
| Fife 1 Special Site | 5/21/98 | 1 | 35 | $1,831.00 | $52.31 |
| Special site total FY 1997 | 6 events | 48 | 4,179 | $74,955.20 | $17.94 |
| *Total FY 98* | 17 events | 399 | 97,953 | $337,505.16 | $3.45 |

*Pressurized pesticide cylinders were collected as a part of these events. Special handling and disposal was required.*

# Other State Agencies

## Washington State Patrol

State Toxics Control Account funds appropriated to the Washington State Patrol were used by the Fire Protection Bureau/Fire Training Academy for training purposes. The primary focus of the Fire Training Academy is to work in partnership with Washington State's communities, industrial complexes, private industry and military forces to provide live fire training that can't otherwise be delivered. The training helps reduce the risk to both firefighters and the property they protect.

State Toxics Control Account funds are dedicated to instructors, equipment, fuel and support personnel required to deliver classroom instruction and live fire training. This training is designed to include academic and hands-on training for first responders and also enhances emergency preparedness planning, response skills and incident command training necessary to mitigate a hazardous materials incident. Courses start at the basic awareness level and follow through successively higher levels of required expertise. Other supportive training – such as incident command, breathing apparatus, and search and rescue — are also provided. This training is vital to ensure minimal loss of life and property to all citizens throughout the state of Washington.

46,480 hours of practical and classroom instruction were given to students on-site during the period of July 1, 1997, through June 30, 1998.

## Department of Revenue

The Department of Revenue oversees the collection of the Hazardous Substance Tax on petroleum products, pesticides and certain chemicals. Over 85 percent of the money collected comes from petroleum products.

*Students participate in drill at Fire Training Academy in North Bend.*

# Local Toxics Control Account

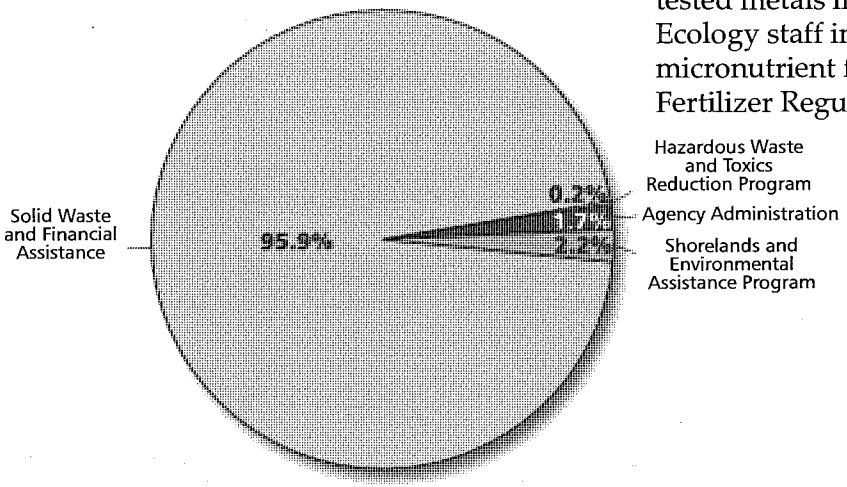
The Local Toxics Control Account is used to fund grants to local governments. The Department of Ecology, specifically the Solid Waste and Financial Assistance Program, administers the grants program.

Local governments may use grants for the cleanup of contaminated sites or for programs to manage solid and hazardous waste. Funds from this account can also be used to provide drinking water to local jurisdictions whose wells have been contaminated as the result of a contaminated site.

Local Toxics Control Account Revenue

*Total* *$23,001,000*

**Figure 8:** Local Toxics Control Account Expenditures




*Total* *$20,402,820*

## Department of Ecology: Hazardous Waste and Toxics Reduction Program

In 1998, the Legislature passed the Fertilizer Regulation Act; amending RCW 15.54 (Washington Commercial Fertilizer Act) and RCW 70.95 (Solid Waste Management Act). Ecology staff wrote the fertilizer review criteria and began setting up the soil amendment process during the spring of 1998. Other tasks include:

- Investigating lack of compliance with existing hazardous waste regulations for one fertilizer product;
- Working with Department of Agriculture on fertilizer bill implementation, including fertilizer registration procedures and crop uptake study;
- Helping design an EPA-funded study that tested metals in fertilizers. Study will assist Ecology staff in review of waste-derived and micronutrient fertilizers as required by the Fertilizer Regulation Act.

## Department of Ecology: Shorelands and Environmental Assistance Program

This program is working with the Environmental Protection Agency, US Army Corps of Engineers, Department of Natural Resources, Puget Sound Action Team and the Washington Public Ports Association to design and construct a multi-user disposal facility for contaminated sediments.

The lack of readily available disposal options represents a significant barrier to completing sediment cleanup actions, waterfront development projects and routine navigational dredging actions. Local Toxics Control Account monies were and are being used to help fund the technical studies and programmatic environmental impact statement for siting one or more disposal facilitates.

# Coordinated Prevention Grants

Coordinated Prevention Grants are awarded to local governments to help prevent pollution from improper management and disposal of solid waste and moderate risk waste. The grant program runs on a two-year cycle. Awards for current projects ($14.9 million) were made in 1998, with the grant-funded work continuing through 1999.

Combined with local match dollars, this grant funding helped leverage $23,715,642 or 63 percent of the total costs of pollution prevention projects. Local match rates range from 25 to 40 percent of project costs eligible for grant funding depending on the local economic situation.

The program funded the following type of projects:

- Inspecting facilities and pursuing illegal dumpers;
- Permitting facilities and activities;
- Collecting and disposing of household hazardous waste;
- Working with businesses to find ways to reduce and recycle their moderate risk waste;
- Teaching people how to prevent waste and to recycle;
- Providing curbside and drop box collection of recyclables;
- Providing yard waste composting.

| Fiscal Year 1998 Recipients | Grant # | Date Signed | Total Project Cost | LTCA Dollars |
|---|---|---|---|---|
| Adams County Health District | G9800219 | 5/3/98 | $61,540 | $40,001 |
| Adams County Solid Waste | G9800220 | 3/24/98 | $179,469 | $116,655 |
| Arlington, City of | G9800121 | 3/12/98 | $9,823 | $5,894 |
| Asotin County Health District | G9800203 | 6/19/98 | $100,000 | $60,000 |
| Asotin County Landfill | G9800202 | 4/3/98 | $146,190 | $87,714 |
| Bellevue, City of | G9800126 | 5/13/98 | $223,513 | $140,108 |
| Benton County | G9800097 | 2/13/98 | $570,125 | $342,075 |
| Benton-Franklin District Health Department | G9800099 | 3/5/98 | $230,769 | $150,000 |
| Bremerton-Kitsap County Health District | G9800130 | 2/27/98 | $304,274 | $190,256 |
| Burien, City of | G9800096 | 12/31/97 | $56,563 | $33,938 |
| Burien, City of | G9800214 | 4/30/98 | $63,455 | $38,073 |
| Chelan County | G9800163 | 4/14/98 | $231,542 | $150,502 |
| Chelan-Douglas Health District | G9800114 | 1/30/98 | $230,769 | $150,000 |
| Clallam County Dept. of Community Development | G9800134 | 2/6/98 | $276,375 | $165,825 |
| Clallam County Road Department | G9800136 | 2/15/98 | $15,000 | $9,000 |
| Clark County | G9800139 | 2/15/98 | $1,081,708 | $649,025 |
| Covington, City of | G9800191 | 2/27/98 | $29,982 | $17,990 |
| Cowlitz County | G9800103 | 1/26/98 | $280,000 | $168,000 |
| Cowlitz County Health Department | G9800100 | 1/26/98 | $153,846 | $100,000 |
| Des Moines, City of | G9800190 | 6/10/98 | $40,662 | $24,397 |
| Douglas County | G9800176 | 2/27/98 | $158,438 | $102,985 |
| Duvall, City of | G9800257 | 5/29/98 | $29,570 | $17,742 |
| Edmonds, City of | G9800144 | 2/27/98 | $57,972 | $34,783 |
| Everett, City of | G9800173 | 3/28/98 | $137,500 | $82,500 |
| Federal Way, City of | G9800223 | 5/9/98 | $169,711 | $101,827 |
| Ferry County | G9800221 | 4/19/98 | $138,906 | $104,180 |
| Garfield County | G9800218 | 4/30/98 | $46,250 | $30,063 |
| Grant County Health District | G9800210 | 4/19/98 | $84,422 | $63,317 |
| Grant County Public Works | G9800209 | 4/3/98 | $214,900 | $161,175 |
| Grays Harbor County | G9800131 | 1/22/98 | $133,333 | $100,000 |
| Grays Harbor County | G9800140 | 2/23/98 | $270,069 | $202,552 |
| Island County | G9800169 | 3/12/98 | $213,148 | $127,888 |
| Island County Health Department | G9800145 | 3/12/98 | $153,846 | $100,000 |
| Issaquah, City of | G9800193 | 4/10/98 | $22,927 | $13,756 |
| Jefferson County | G9800132 | 2/23/98 | $208,198 | $124,919 |
| Jefferson County Health & Human Service | G9800133 | 2/27/98 | $93,370 | $60,690 |
| Kelso, City of | G9800105 | 1/12/98 | $39,288 | $23,573 |
| Kent, City of | G9800109 | 2/27/98 | $138,842 | $83,305 |
| King County Solid Waste Division | G9800217 | 5/13/98 | $938,178 | $562,907 |
| Kirkland, City of | G9800189 | 6/2/98 | $98,388 | $59,033 |
| Kitsap County | G9800197 | 4/10/98 | $677,985 | $406,791 |
| Kittitas County Health Department | G9800164 | 3/5/98 | $133,334 | $100,000 |
| Kittitas County Solid Waste | G9800152 | 2/12/98 | $210,891 | $158,168 |
| Klickitat County | G9800175 | 3/24/98 | $207,901 | $155,926 |
| Klickitat County Health Department | G9800168 | 3/23/98 | $133,334 | $100,000 |

| Fiscal Year 1998 Recipients | Grant # | Date Signed | Total Project Cost | LTCA Dollars |
|---|---|---|---|---|
| Lake Forest Park, City of | G9800149 | 2/4/98 | $29,367 | $17,620 |
| Lewis County | G9800116 | 1/26/98 | $331,646 | $248,735 |
| Lincoln County Health District | G9800159 | 2/27/98 | $60,000 | $39,000 |
| Lincoln County Public Works Department | G9800207 | 3/13/98 | $145,750 | $87,450 |
| Longview, City of | G9800101 | 1/12/98 | $111,819 | $67,091 |
| Lynnwood, City of | G9800146 | 4/3/98 | $54,048 | $32,429 |
| Marysville Parks Department, City of | G9800122 | 4/3/98 | $20,620 | $12,372 |
| Mason County | G9800106 | 1/8/98 | $116,539 | $87,404 |
| Mason County Health Department | G9800102 | 5/3/98 | $133,333 | $100,000 |
| Monroe, City of | G9800120 | 1/22/98 | $45,522 | $27,313 |
| Mountlake Terrace, City of | G9800143 | 2/8/98 | $33,278 | $19,966 |
| Newcastle, City of | G9800194 | 6/23/98 | $20,438 | $12,263 |
| Normandy Park, City of | G9800195 | 4/19/98 | $17,423 | $10,454 |
| Okanogan County | G9800129 | 1/26/98 | $90,399 | $67,799 |
| Okanogan County Health District | G9800115 | 2/23/98 | $133,000 | $99,750 |
| Pacific, City of | G9800180 | 3/10/98 | $13,713 | $8,228 |
| Pacific County | G9800113 | 1/8/98 | $278,373 | $208,780 |
| Pend Oreille County | G9800158 | 2/6/98 | $129,068 | $96,801 |
| Pierce County Public Works and Utilities | G9800154 | 4/10/98 | $1,248,455 | $749,073 |
| Port Angeles, City of | G9800135 | 1/26/98 | $143,300 | $85,980 |
| San Juan County | G9800213 | 5/29/98 | $141,175 | $84,705 |
| San Juan County Health & Community Services | G9800171 | 3/3/98 | $99,400 | $64,610 |
| SeaTac, City of | G9800125 | 4/3/98 | $52,997 | $31,798 |
| Seattle-King County Public Health Department | G9800147 | 3/24/98 | $166,667 | $100,000 |
| Seattle-King County Public Health Department | G9800148 | 3/28/98 | $2,033,818 | $1,220,291 |
| Seattle Public Utilities | G9800128 | 3/24/98 | $1,231,823 | $739,094 |
| Shelton, City of | G9800104 | 12/23/97 | $53,333 | $40,000 |
| Shoreline, City of | G9800216 | 6/19/98 | $113,121 | $67,873 |
| Skagit County | G9800172 | 3/3/98 | $380,464 | $228,278 |
| Skagit County Health Department | G9800142 | 3/20/98 | $153,846 | $100,000 |
| Snohomish County | G9800198 | 4/10/98 | $1,376,151 | $825,691 |
| Snohomish County Health District | G9800170 | 2/27/98 | $319,679 | $199,500 |
| Southwest Washington Health District | G9800204 | 3/25/98 | $220,513 | $150,000 |
| Spokane Regional Health District | G9800174 | 2/23/98 | $153,846 | $100,000 |
| Spokane Regional Southwest System | G9800208 | 3/25/98 | $1,468,448 | $881,069 |
| Stevens County | G9800206 | 3/20/98 | $217,980 | $163,485 |
| Tacoma-Pierce County Health Department | G9800155 | 3/13/98 | $344,450 | $206,670 |
| Tacoma-Pierce County Health Department | G9800156 | 3/13/98 | $166,667 | $100,000 |
| Thurston County Public Health | G9800098 | 2/2/98 | $534,675 | $320,805 |
| Thurston County Water & Waste Management Dept. | G9800095 | 1/8/98 | $351,340 | $210,804 |
| Tukwila, City of | G9800124 | 2/4/98 | $33,412 | $20,047 |
| Walla Walla and Columbia Counties | G9800153 | 2/8/98 | $522,800 | $313,680 |
| Whatcom County | G9800123 | 2/23/98 | $797,776 | $478,666 |
| Whitman County | G9800239 | 6/19/98 | $184,452 | $110,671 |
| Woodinville, City of | G9800196 | 4/3/98 | $23,745 | $14,247 |
| Yakima County | G9800177 | 3/16/98 | $277,333 | $208,000 |
| Yakima County Health District | G9800178 | 2/27/98 | $133,334 | $100,000 |
| *Total* | | | *$23,715,642* | *$14,876,025* |

An additional $3,226 was spent on amendments to existing grants.

## Breakdown of Coordinated Prevention Grants by Task:

| | |
|---|---|
| Hazardous Waste Planning | $83,650 |
| Household Hazardous Waste Implementation | $663,259 |
| Household Hazardous Waste Collection and Disposal | $4,979,005 |
| Small Quantity Generator Implementation | $1,018,099 |
| Solid Waste Planning | $334,559 |
| Solid Waste Enforcement | $2,676,225 |
| Ground Water Monitoring Wells | $25,800 |
| Waste Reduction and Recycling Activities | $4,284,312 |
| Waste Reduction and Recycling Capital | $811,116 |
| *Total* | *$14,876,025* |

# Remedial Action Grants

The Remedial Action Grants Program provides funding for local governments facing cleaning up contaminated sites. There were five categories of remedial action grants awarded to local governments in 1998:

- Seven local governments received grants for study and remediation of typical contaminated sites; including landfills and sites with future public use (total $4,106,889);
- Four ports received Brownfields grants (*Brownfields are abandoned or underused properties that are contaminated from past industrial or commercial practices.*); (total $8,049,065)
- Thirteen local governments, mostly school districts, received grants for the removal of underground storage tanks and cleanup of related soil or ground water contamination (total $335,262);
- Six county health departments received grants to continue or begin investigating contaminated sites and preparing Site Hazard Assessments (total $901,000);
- One grant was awarded to provide clean drinking water to residents whose water supply was contaminated by a contaminated site (total $553,500).

| Fiscal Year 1998 Recipients | Grant # | Date Signed | Total Project Cost | LTCA Dollars |
|---|---|---|---|---|
| Anacortes, Port of | G9800280 | 6/10/98 | $71,198 | $35,599 |
| Benton County Fire District #4 | G9800270 | 6/2/98 | $15,622 | $7,811 |
| Bremerton-Kitsap County Health District | G9800033 | 9/2/97 | $100,000 | $100,000 |
| Central Kitsap School District | G9800295 | 6/23/98 | $29,904 | $14,952 |
| Cheney School District | G9800237 | 4/21/98 | $58,200 | $29,100 |
| Columbia School District | G9800247 | 4/30/98 | $24,200 | $29,018 |
| Grays Harbor County | G9800244 | 4/21/98 | $29,229 | $21,992 |
| Grays Harbor, Port of | G9800281 | 6/19/98 | $323,000 | $290,700 |
| Kent School Dist #415 | G9800283 | 6/19/98 | $200,000 | $100,000 |
| Mead School District | G9800246 | 5/9/98 | $58,036 | $29,018 |
| Medical Lake School District | G9800045 | 9/17/97 | $37,500 | $18,750 |
| Moses Lake, Port of | G9800009 | 8/8/97 | $738,000 | $553,500 |
| Nine Mile Falls School District | G9800235 | 4/14/98 | $28,700 | $14,350 |
| North Kitsap School District | G9800279 | 6/19/98 | $33,604 | $16,802 |
| Northport School District | G9800236 | 4/21/98 | $20,200 | $15,150 |
| Pasco, Port of | G9800036 | 10/9/97 | $1,183,432 | $887,574 |
| Port Angeles, City of | G9800035 | 9/3/97 | $33,440 | $25,080 |
| Ridgefield, Port of | G9800025 | 9/10/97 | $1,842,280 | $921,140 |
| Ridgefield, Port of | G9800273 | 5/20/98 | $6,001,000 | $3,900,000 |
| Seattle-King County Public Health Department | G9800010 | 9/22/97 | $336,000 | $336,000 |
| Seattle Parks & Recreation Department | G9800076 | 11/21/97 | $423,978 | $211,989 |
| Snohomish County Health District | G9800157 | 1/26/98 | $180,000 | $180,000 |
| Southwest Washington Health District | G9800229 | 4/19/98 | $80,000 | $80,000 |
| Spokane County | G9800008 | 10/23/97 | $5,000,000 | $2,500,000 |
| Spokane Public School District 81 | G9800230 | 5/27/98 | $21,000 | $10,500 |
| Tacoma, City of | G9800222 | 6/19/98 | $1,606,800 | $803,400 |
| Tacoma, Port of | G9800034 | 9/2/97 | $1,735,702 | $867,851 |
| Tacoma-Pierce County Health Department | G9700264 | 7/9/97 | $125,000 | $125,000 |
| Tacoma Public Utilities Department | G9800284 | 6/19/98 | $497,756 | $248,878 |
| Tumwater, City of | G9800041 | 9/23/97 | $60,000 | $30,000 |
| Vancouver, Port of | G9800276 | 6/10/98 | $2,945,000 | $1,472,500 |
| Whitman County Health Department | G9800111 | 1/8/98 | $80,000 | $80,000 |
| *Total* | | | *$23,918,781* | *$13,945,716* |

*An additional $941,161 was spent on amendments to existing grants.*

# Public Participation Grants

The Public Participation Grants Program provides citizen groups and not-for-profit organizations with funding for projects that educate and involve the public in waste issues. These grant monies are provided by up to one percent of the revenue in the State and Local Toxics Control Accounts. For Fiscal Year 1998, all Public Participation Grants were funded with Local Toxics Control Account funds. In 1998, the program provided grants for 18 projects, which helped people:

- Understand and comment on cleanup proposals at six cleanup sites;
- Prevent pollution and encourage good environmental stewardship;
- Learn about chemical and integrated pest management in and outside the home;
- Recognize businesses that prevent and reduce hazardous waste.

| Fiscal Year 1998 Recipients | Grant # | Date Signed | Total Project Cost | LTCA/STCA Dollars |
|---|---|---|---|---|
| Brackett's Landing Foundation | G9700274 | 7/31/97 | $20,000 | $20,000 |
| Citizens for a Healthy Bay | G9700212 | 7/17/97 | $25,000 | $25,000 |
| Citizens for a Healthy Bay | G9800282 | 6/19/98 | $20,000 | $20,000 |
| Clark County Hazardous Waste Citizen Task Force | G9700225 | 7/2/97 | $25,285 | $25,285 |
| Columbia River United | G9800272 | 6/1/98 | $30,000 | $30,000 |
| Community Services Work Group | G9800254 | 5/13/98 | $1,250 | $1,250 |
| Energy Outreach Center | G9800228 | 4/16/98 | $8,050 | $8,050 |
| Environment Group of Klickitat | G9800253 | 6/22/98 | $25,000 | $25,000 |
| Heart of America Northwest | G9700279 | 9/10/97 | $32,000 | $32,000 |
| Heart of America Northwest | G9800297 | 6/29/98 | $30,000 | $30,000 |
| IBPAT District Council #54 | G9800260 | 6/22/98 | $7,500 | $7,500 |
| Methow Conservancy | G9800242 | 5/3/98 | $5,886 | $5,886 |
| NE Everett Community Org. | G9800211 | 3/2/98 | $60,000 | $60,000 |
| Puget Soundkeeper Alliance | G9800243 | 4/21/98 | $28,000 | $28,000 |
| Puget Soundkeeper Alliance | G9800268 | 5/29/98 | $25,000 | $25,000 |
| Re Sources | G9800265 | 5/29/98 | $24,922 | $24,922 |
| Skykomish Environmental Coalition | G9700164 | 9/2/97 | $23,000 | $23,000 |
| Three Rivers Children's Museum | G9800266 | 5/29/98 | $20,000 | $20,000 |
| *Total* | | | *$410,893* | *$410,893* |

# Environmental Indicators: The Results of Our Work

How healthy is Washington's environment? To help answer this question, Ecology developed *environmental indicators*, measures of environmental quality. Below are environmental indicators for the Toxics Cleanup Program calendar year 1997. The numbers reflect values reported by staff and are considered conservative. There are cleanups not captured by our present system for reporting environmental indicators.

## Number of People at Reduced Risk as a Result of Site Cleanup

This is the most powerful and complex of the environmental indicators. In 1997, an estimated 1,500 directly affected people and 2,700 indirectly affected people were subject to less risk due to the cleanup of contaminated sites.

What is the difference between "directly affected" and "indirectly affected?" An example of the difference could be a site with surface contamination and a quarter-mile long, ground water plume that may have directly impacted 20 people – 10 on-site workers and 10 private well owners. The plume, if not abated, may reach a city well that serves 20,000 people. The latter would be the indirect number.

## Land and Water Returned to Productive Use

These are acres of land that were previously unusable due to contamination. After cleanup, these acres are usable – though some restrictions (such as a restrictive covenant) may exist on the property.

| | |
|---|---|
| *Unrestricted soil* | 68 acres |
| *Restricted soil* | 172 acres |
| *Unrestricted ground water* | 5 acres |
| *Restricted ground water* | 68 acres |

## Amount of Contaminants Treated, Removed, Recycled or Contained

| | |
|---|---|
| Base/Neutral Organics *(found at chemical manufacturing plants and refineries)* | 3,778 lbs. |
| Halogenated Organics *(found at auto repair shops and dry cleaners)* | 22,085 lbs. |
| Metals – Priority Pollutants *(found at machines shops and foundries)* | 131,588 lbs. |
| Metals – Other *(found at smelters)* | 6,440 lbs. |
| Polychlorinated biPhenyls (PCBs) *(found at old electrical shops)* | 6,531 lbs. |
| Pesticides *(found at farms and orchards)* | 1,293 lbs. |
| Petroleum Products *(found at refineries, transfer station and gas stations)* | 3,000,000 lbs. |
| Phenolic Compounds *(found at plastic manufacturing plants)* | 10,750 lbs. |
| Non-Halogenated Solvents *(found at auto repair shops and dry cleaners)* | 6 lbs. |
| Polynuclear Aromatic Hydrocarbons *(found at asphalt plants)* | 119,689 lbs. |
| Corrosive Wastes *(found at chemical manufacturing plants)* | 110,975 lbs. |
| Asbestos *(found at old buildings – was used as insulation)* | 64,000 lbs. |
| Other/Mixed Contaminants *(found at industrial sites)* | 1,050 lbs. |
| Total pounds | 3,658,304 lbs. |

The total number of contaminants addressed in 1997 (3,658,304 lbs.) is comparable to that of 1996, when a total of 3,673,200 lbs. Of contaminants was treated, removed, recycled or contained. Some 1997 numbers that standout are *petroleum products* – the total is up 2 million lbs. from 1996, *corrosive wastes* – up almost 106,000 lbs. since 1996, and *asbestos* – up 45,000 lbs. since 1996.

## Volume of Contaminated Media Remediated

The following numbers show the volume of contaminated media (such as soil, sediment, ground water, drinking water) that was cleaned up.

| | |
|---|---|
| *Soil* | 4,488,300 cubic feet |
| *Sediment* | 40 cubic feet |
| *Ground water* | 155 million gallons |
| *Drinking water* | 74 million gallons |

## Volume of Contaminated Media Contained

The following numbers show the volume of contaminated media that was contained (such as through capping or institutional controls).

| | |
|---|---|
| *Soil* | 3,632,814 cubic feet |
| *Ground Water* | 12 million gallons |

## What do these figures mean?

Below are some comparisons.

- The amount of contaminants treated, removed, recycled or contained in 1997 equals the weight of 366 Keikos (the killer whale).
- The amount of drinking water remediated in 1997 is enough to provide drinking water for one day to 150 million people — that's the population of Russia.

Environmental indicators were developed to track the results of site cleanups. In these early stages of information collection and scrutiny, we have not seen clear trends in all of the information. We will continue to monitor the contaminants that have been treated, removed, recycled or contained at a site. Eventually, we should be able to measure environmental status and trends at cleanup sites.

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