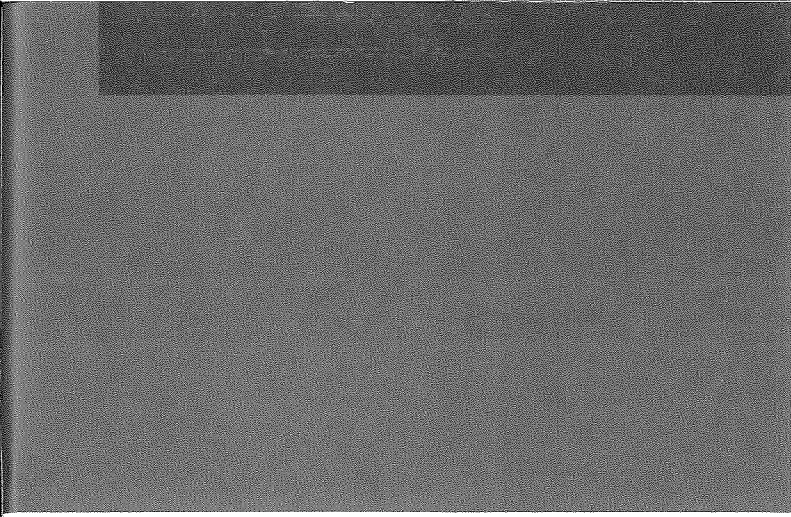


Model Toxics Control Act 1990 Annual Report





Washington State
Department of Ecology
Model Toxics Control Act
1990 Annual Report

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Department of Ecology Mission Statement

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.

To accomplish this mission, Ecology will:

Recognize its most valuable asset is its dedicated and committed employees and it will provide necessary support, training and professional development.

Promote prevention and conservation as the most effective ways to preserve our natural resources and protect the environment.

Enforce environmental laws and regulations in a fair and firm manner.

Provide public education programs to promote wise use of our natural resources and encourage environmental protection.

Offer information, technical and financial assistance to help the public, governments, businesses and industries comply with environmental laws and regulations.

Promote recognition that compliance with environmental laws and regulations is compatible with a sound economy.

Promote meaningful public involvement in the development of rules, regulations and new initiatives.

Provide leadership in addressing emerging problems and strive to bring public agencies and diverse interest groups together to address environmental issues.

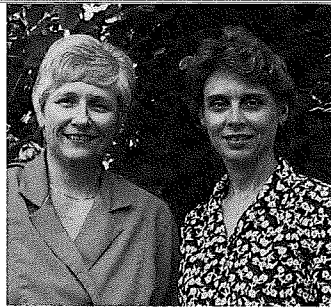
Use an integrated approach to resolve environmental issues.

Place special emphasis on educating and working with youth to create a strong environmental ethic.

Help state agencies set an example in environmental protection.

Work with executive and legislative branches to promote sound environmental policy.

(Adopted 1988)



**Carol Fleskes
and Christine Gregoire**

Introduction

Where We Are and Where We're Going

Ecology's 1990 fiscal year launched the Toxics Cleanup Program into a new decade that promises unprecedented progress toward solving one of the toughest problems facing this state: the cleanup of hazardous waste sites.

Although many of the hazardous waste issues we must deal with in this decade are not necessarily new, they have become more complicated and solutions are difficult. We face the challenge of cleaning up environmental problems resulting from years of inadequate hazardous waste management practices.

A lack of cleanup funds and the inability to force cleanup actions have hindered our cleanup efforts in the past. However, armed with revenues from a relatively new toxic substances tax, a comprehensive enforcement law and public support, the Department of Ecology enters the 90's equipped to face this challenge. We have rolled up our sleeves and started the long process of cleaning up and eliminating toxic environmental hazards.

During the 1990 fiscal year, the Toxics Cleanup Program moved ahead on several key fronts. With the help of a citizen work group, the rules and regulations for the cleanup process were drafted and then adopted on May 4, 1990. A citizen work group and the Science Advisory Board also helped Ecology make significant progress toward issuing the rules and regulations governing cleanup standards and leaking underground storage tanks. At the time of this publication, the proposed cleanup standards were being reviewed by the public. Working with the science advisory board, we developed the innovative Washington Ranking Method to evaluate sites and set priorities for cleanup. We also appointed citizens from throughout the state to serve on regional cleanup advisory committees. Representing diverse interests, these citizen advisory committees will help improve public education and understanding of cleanup efforts as well as make recommendations to Ecology regarding cleanup priorities.

Our progress this year will have far-reaching impacts on how hazardous waste sites are cleaned up in Washington. The next two years also will be pivotal for Ecology's Toxics Cleanup Program. We will complete development of the cleanup standards and site work will accelerate around the state as we move more sites from study phases to actual cleanup. A stable source of funding over the next few years is critical to the success of future cleanup efforts.


We know it will take decades and millions of dollars to clean up all the problems caused by hazardous waste in Washington. With the help of the Model Toxics Control Act and the support of the public, we will continue to generate innovative solutions to hazardous waste problems.

Looking ahead, we want to become proactive rather than reactive regulators. We want to eventually work ourselves out of the cleanup business. To do this we must ensure no new hazardous waste sites are being created. The state has set a goal of reducing the amount of waste generated in Washington by 50 percent in the next five years. We will be working hard with business and industry and individual citizens to achieve this goal. After emphasizing waste reduction, the state will push for recycling and treatment of hazardous waste as top priorities for the 90's.

Ecology's Toxics Cleanup Program, as it exists today and as you help it evolve, will be a compelling force in eliminating hazardous waste sites in the years to come.

Christine O. Gregoire,
Director

Carol Fleskes,
Toxics Cleanup
Program Manager



It is estimated that close to \$730 million will be needed over the next decade to clean up just the 50 worst hazardous waste sites in Washington.

Model Toxics Control Act

"Each person has a fundamental and inalienable right to a healthful environment, and each person has a responsibility to preserve and enhance that right. The beneficial stewardship of the land, air, and waters of the state is a solemn obligation of the present generation for the benefit of future generations."

—Model Toxics Control Act Declaration of Policy

When Washington voters passed the Model Toxics Control Act as Initiative 97 in 1988, they provided Ecology with not a pre-packaged solution for hazardous waste cleanup, but rather the basic framework for a toxics cleanup program. The backbone of the Model Toxics Control Act — how hazardous substances will actually be cleaned up and how well it will work — would depend largely on how the law was implemented.

Although the election campaign surrounding Initiative 97 was spirited, there has been a strong cooperation and public and industry backing of the Model Toxics Control Act. The slow and cumbersome cleanup mechanisms of the past are being replaced by a new cleanup process that promises to initiate and see through more cleanups than ever before. This, in turn, is resulting in a more positive attitude by citizens and businesses towards cleaning up hazardous waste. It is also encouraging responsible parties to voluntarily come forward and clean up. In addition, the Model Toxics Control Act has given Ecology the necessary enforcement power to require cleanup. If the responsible party refuses, the department can take action and later recover costs. Already, more businesses are independently cleaning up their sites because it makes good business sense as well as good environmental sense.

The Model Toxics Control Act cleanup regulation (Chapter 173-340 WAC) is being developed in two phases. Ecology has spent the past two years working closely with environmental, business and agricultural groups, tribal and local governments, and the general public to ensure the Model Toxics Control Act is implemented in a fair and effective manner. During the 1990 fiscal year, citizen work groups and Ecology completed work on Phase I of the Model Toxics Control Act cleanup regulation — the rules necessary to implement the law. This phase, adopted on May 4, 1990, addresses the cleanup process that will typically occur at a hazardous materials site or suspected site.

The rules are based on the fundamental policies contained in RCW 70.105D.010 and WAC 173-340-100, 130, and 510, namely that cleanup should be effective and expeditious. The best way to achieve this is for potentially liable persons to initiate and propose remedial actions. Both the law and rules provide ample authority for the Department of Ecology to take enforcement action if necessary.

Proposed phase II regulations include provisions for establishing cleanup levels, selecting cleanup actions and performing leaking underground storage tank corrective action. At the heart of the issue of defining minimum cleanup levels is the question, "How clean is clean?" The adoption of cleanup standards will modify existing approaches to answering this question. The phase II cleanup standards are completed and ready for public review and comment. The regulations are scheduled to be adopted and implemented in the coming fiscal year.

State Cleanup Process

Phase I: Guideposts

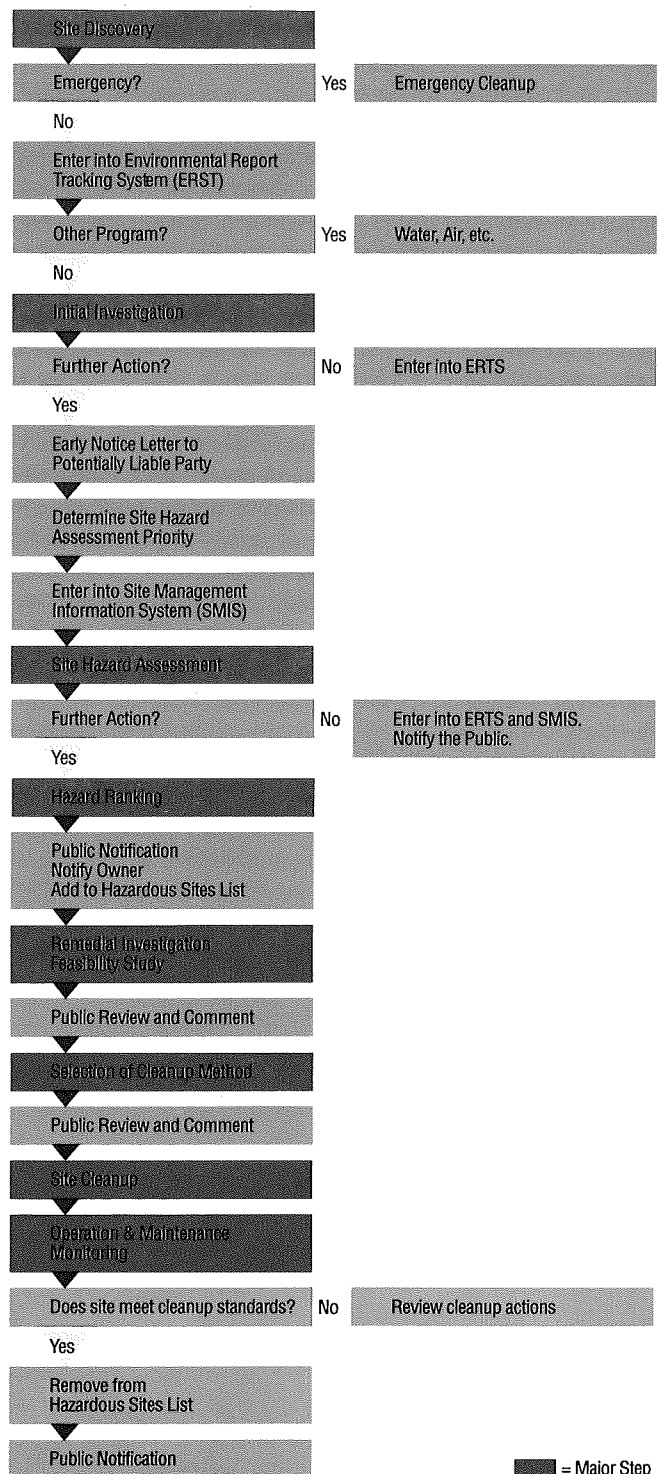
The first phase of the Model Toxics Control Act cleanup regulation was completed this year and became effective on May 4, 1990. More commonly known as the cleanup process, this phase defines the administrative process for identifying, investigating and cleaning up hazardous waste sites.

Although Ecology has laid out in some detail how each step in the cleanup process is to be carried out, it is important to note that the steps set forth under phase I are guides to cleaning up a site. They are the steps followed at a typical hazardous waste site. Not all sites go through these steps in the same way. The rules have built-in flexibility so that the scope of study and the recommended cleanup actions are appropriate for the site or problem. Flexibility is also allowed in combining steps in the process since not all sites require all the steps to remedy the problem.

At any time during the cleanup process, potentially liable persons can propose remedial actions or Ecology can take emergency or enforcement actions. Interim actions (partial cleanup activities) may also be initiated to protect health and the environment.

Public participation is a key element in ensuring that the goals of the Model Toxics Control Act are met and that Ecology is aware of public concerns regarding human health and the environment. Notices and information are sent to interested and affected citizens to keep them informed of site investigation activities throughout the cleanup process. A public review and comment period of at least 30 days is required for most major cleanup steps.

The Site Cleanup Process:
Assures orderly and thorough cleanup, keeps the public informed.



State Cleanup Process

Steps in a Typical Cleanup

Site Discovery

As part of the program to identify hazardous waste sites, past releases of hazardous substances that may pose a threat to human health or the environment must be reported to Ecology's Toxics Cleanup Program within 90 days of discovery. Identification of current releases are covered by reporting requirements in other statutes. Hazardous waste sites are also identified through historical research, review of current local and state government records and files.

A potentially liable party or parties may choose to conduct an independent cleanup without assistance from the department. However, the owner or operator must report that cleanup to Ecology within 90 days of completion.

If a responsible party cannot be identified or is unwilling to cooperate, Ecology is authorized to conduct any remedial actions necessary to protect the public and the environment.

Initial Investigation

Ecology is required to conduct an initial investigation of the site within 90 days of receiving a report on the release of a hazardous substance. Based on information obtained about the site, a decision must be made within 30 days to determine if the site requires additional investigation, emergency remedial action, interim action or no further action. Ecology sends early notice letters to owners, operators or other potentially responsible persons inviting them to review the data and work cooperatively with the department if further action is needed.

At this point, information about the site is entered into the Site Management Information System (SMIS), which accommodates a wide range of data on more than 500 confirmed and potential sites throughout the state. The SMIS will eventually include a site's hazard ranking score.

Site Hazard Assessment

If more information is necessary, Ecology will conduct a site hazard assessment to confirm the presence of hazardous substances and to determine the potential risk to human health and the environment. Ecology will work closely with the owner or operator during this step to identify hazardous substances and characterize the potentially affected area. The site hazard assessment can be combined with other steps if the release can easily be addressed. If Ecology determines no further action is required, the public will be notified through the state Site Register.

Washington Ranking Method and Site Listing

The Model Toxics Control Act requires that sites be ranked according to the relative public and environmental risk each site poses. Working with the Science Advisory Board, Ecology created the Washington Ranking Method to categorize sites using environmental data from the site hazard assessment. Using this method, sites are ranked on a scale of 1 to 5 according to the potential threat they pose to human health and the environment. A score of one represents the highest level of relative risk and five the lowest.

This method is designed to provide a consistent, objective means for determining the risk posed by contaminated sites. Information about the site, such as the types and amounts of hazardous substances present, migration potential, and the proximity of the site to populated areas and sensitive environments, is organized and compared to other sites to determine a site's relative risk. The ranking method will also help Ecology target where to spend limited cleanup funds and staff resources.

During the 1990 fiscal year, Ecology contracted for a ranking of 93 sites. All ranked sites needing further remedial action will be listed on the state's Hazardous Sites List. Hazard ranking scores and site status will be listed for all sites. Public notice and the opportunity to comment will be provided whenever Ecology proposes to remove a site from the list.



A cleanup worker prepares Atochem North America's site for treatment of contaminated groundwater. The project is part of a voluntary action under an Ecology consent agreement.

Interim Actions

Interim actions are initiated to reduce or eliminate exposure and lessen the possibility of a problem growing out of control if action is delayed. An interim cleanup action usually involves either partial cleanup of the entire site or total cleanup of a portion of the site, such as the removal of source materials or the temporary capping of a site. Interim actions may occur at any time during the cleanup process and are followed by additional remedial actions unless compliance with cleanup standards has been confirmed at the site.

State Remedial Investigation/ Feasibility Study

A state remedial investigation and feasibility study is necessary to define the extent and magnitude of a site's contamination and to evaluate cleanup options. All aspects of the environment, including surface water and sediments, soils, ground water, geology, air, land use and natural resources, are examined in the study. The scope of study and investigation depends on the extent of the problem at the site. This prevents collection of unnecessary information and ensures cleanup proceeds quickly.

The study must be completed before a final cleanup action is selected, except in the case of emergency or interim actions. A 30-day public review period is provided for every study to give citizens the opportunity to comment on the findings.

Cleanup Action Plan

Using information gathered during the study, a draft cleanup action plan is developed which identifies the preferred cleanup action and specifies cleanup standards and other requirements at the site. The Model Toxics Control Act has established a priority of preferred cleanup methods: 1) reuse or recycling, 2) destruction or detoxification, 3) separation or volume reduction followed by treatment, 4) immobilization, and 5) on-site or off-site disposal. The cleanup plan must include justification for using lower priority cleanup methods.

Once the public has had the opportunity to review and comment on the draft plan, Ecology will issue a final plan. A 30-day public review and comment period is also provided for the final plan. The comment period may be in conjunction with the comment period for an order or decree.

Remedial Design/Cleanup Action

Actual cleanup of a site begins when the cleanup action plan is implemented. This includes design, construction, operation and monitoring of cleanup actions. Some types of remedial actions presently used around the state are bioremediation, carbon adsorption, air stripping, groundwater pumping and treatment, capping and removal actions.

Compliance Monitoring

Monitoring a site to assure that a cleanup action meets the cleanup standards is called compliance monitoring. It includes protection monitoring, performance monitoring and confirmational monitoring at a site. An example of compliance monitoring would be ground water wells around a site which are periodically tested for contaminants.

Protection monitoring of a site is required to confirm that human health and the environment are not jeopardized during the cleanup and operation and maintenance phases. Performance monitoring ensures interim actions or cleanup actions meet cleanup standards. Confirmational monitoring occurs after cleanup of a site to confirm the long-term effectiveness of cleanup actions. If hazardous substances are allowed to remain at a site, Ecology will review the site at least once every five years to ensure that the cleanup action continues to protect human health and the environment. A site may be taken off the hazardous sites list after a cleanup is completed and cleanup standards are met.

State Cleanup Process

Phase II: Setting the Standards

Ecology, citizen work groups and the Ecology Science Advisory Board worked together to develop the phase II regulations, which are amendments to the Model Toxics Control Act cleanup regulation, Chapter 173-340 WAC. The amendments include rules for establishing cleanup levels, selecting cleanup actions, and performing leaking underground storage tank corrective actions. The main focus of the phase II regulation is the establishment of cleanup standards. The projected implementation date is December, 1990.

Cleanup Standards

During the 1990 fiscal year (July 1989—June 1990), Ecology, citizen work groups and the Science Advisory Board developed draft cleanup standards which address the critical question, "How clean is clean?" Using what is known as the health-risk approach, clean generally means cleaned up to the point that the site's contents no longer pose an unacceptable risk to human health and the environment.

The cleanup standards identify cleanup levels for contaminants in various environments, establish a process for developing site-specific cleanup levels where numerical standards or criteria are not available, and establish requirements for the selection of cleanup actions to comply with cleanup levels.

The development of the cleanup standards involved the consideration and balancing of a number of issues and interests to meet Ecology's six principal goals:

- Cleanup must protect human health and the environment
- Cleanup standards must be scientifically and legally defensible
- Cleanup actions must be consistent with existing state and federal laws
- Standards must promote efficient clean up of contaminated sites
- Cleanup standards must provide a consistent level of protection
- Cleanup standards must allow flexibility to address individual site characteristics

During the 1991 fiscal year, Ecology will work with the Science Advisory Board to determine the acceptable risk levels for plant and animal life. The risks to the health of an ecosystem from contamination are not as easily determined as human health risks because different plant and animal species respond differently to hazardous substances. In addition, some species respond differently to certain hazardous substances in varying environmental conditions, such as acidity, chemical hardness of the water, and temperature.

Once an ecological risk method is developed and reviewed by the public, it will be adopted as an amendment to the Model Toxics Control Act cleanup regulation.

Leaking Underground Storage Tank Regulation

Underground storage tank owners and operators are subject to corrective action requirements under federal rules if a release of petroleum or other hazardous material is confirmed at their site. These rules require owners and operators to report confirmed releases to Ecology, investigate and clean up the site, and send written reports on corrective actions to Ecology within a specified time. Owners and operators of leaking underground storage tanks must also comply with the state Model Toxics Control Act, passed by Washington voters as Initiative 97 in 1988 (Chapter 70.105D RCW).

During the 1990 fiscal year, Ecology developed draft regulations for leaking underground storage sites which outline what owners and operators must do to meet both state and federal requirements at the same time. These rules also apply to underground storage tank systems containing heating oil with a capacity of greater than 1,100 gallons. The regulations are scheduled to be added to the Model Toxics Control Act cleanup regulation later this year, at the same time the cleanup standards are to be added.

Under the proposed regulations, underground storage tank owners and operators will be required to perform specific actions in addition to what other site owners and operators must do. Such additional actions include reporting a confirmed release within 24 hours, doing a follow-up investigation, removing free products and immediately assessing the threat to human health and the environment at the site. A written report describing the site and the actions taken must be submitted within 90 days of release confirmation. Depending on the results of these actions, additional remedial actions may be required under state regulations (WAC 173-340-450).



Toxics Cleanup Program manager Carol Fleskes speaks to concerned citizens and legislators about cleanup at Cascade Pole.

Public Involvement

Public involvement was a critical element in the passage of the Model Toxics Control Act in 1988 and it continues to play an important role in making the law work. In developing and implementing the law, Ecology has encouraged on-going public participation. The result has been the development of a comprehensive public involvement process based on cooperation.

A public participation plan will be implemented for various phases of cleanup. Public input is encouraged at all times. Public notices are required on all consent decrees, orders, selection of cleanup actions, and agency-conducted actions.

Citizen Advisory Committees

Ecology appointed 41 citizens from throughout Washington to four regional advisory committees in 1990.

The advisory groups will promote public understanding and involvement, and advise Ecology of citizen and community concerns regarding hazardous waste cleanup. The citizens' committees are required to meet at least twice a year. Every other year, the committees will review Ecology's proposed cleanup priorities and make recommendations regarding planned activities for the next biennium.

The following citizens were chosen from more than 100 applications to serve on the advisory committees:

Central Regional Office:

Wallace C. Budke
Harold H. Jones
Kurt Layman
Hermann G. Thoennissen
Donald E. Wiens

Eastern Regional Office:

Chan Bailey
Lloyd R. Bourne
Richard E. Ellis
Dale C. Hill
Micki L. Martin
LeAnna Dee Pulham
Salley A. Simmons
John C. Sims, Jr.
Barbara A. Skyles
Mari Webb
Larry West
Denise Williamson

Northwest Regional Office:

Michael Booth
Beth Elpern Burrows
Jeff Daub
Jean Edelhertz
Robert B. Edwards, Jr.
Yvonne Kuperberg
Vonda McIntyre
Michael P. Miller
Ann Robison
Dave Salzer
Terry Slatten
Terry Smith

Southwest Regional Office:

Dr. Virginia Clark
Dr. Timothy Craven
Matthew Cole
John T. Day
John Dickerman
Karen Harding
Jacquiline Kettman
Bruce Lachney
Jack Micheau
Mark Miller
Jack Roberts
Darius Rogers

Site Register

The Site Register is another means of providing information about cleanup efforts to the public and increasing public involvement. The Register is published every two weeks to inform citizens of public meetings and comment periods, discussions or negotiations of legal agreements, the availability of completed reports, key steps in the cleanup process, hazard ranking of sites and other activities related to the investigation and cleanup of hazardous waste sites.

Entries in the Register include short descriptions of sites with a contact person for each site. To regularly receive the Site Register contact the Department of Ecology, Toxics Cleanup Program, Mail Stop PV-11, Olympia, WA 98504.

Model Toxics Control Act Financial Analysis

The success of Ecology's Toxics Cleanup Program is dependent on the ability of the Model Toxics Control Act to provide a sound and stable financial structure. Two years after its passage, the Model Toxics Control Act is beginning to provide this stability through a .7 percent tax on hazardous substances and increased authority to recover cleanup costs and issue penalties.

The Model Toxics Control Act receives funds from tax collection, cleanup cost recovery and penalties. Tax monies are allocated to two accounts: 53 percent to the Local Toxics Control Account and 47 percent to the State Toxics Control Account. The hazardous substance tax is the principal source of revenue for both toxics control accounts. Funds collected from cost recovery and penalties are disbursed to the State Toxics Control Account.

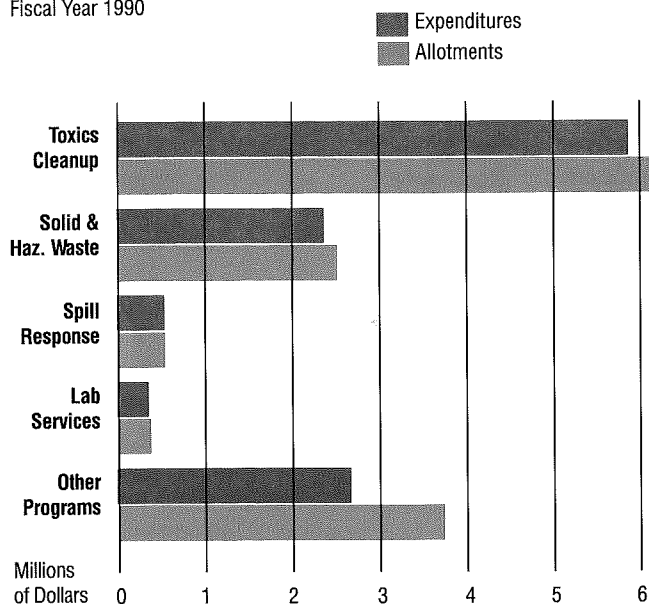
Money from the local account is disbursed to local governments in the form of grants and loans. The funds are used by local government for remedial actions at hazardous waste sites, solid and hazardous waste plans and programs, solid waste disposal and management facilities, and public participation grants. (See page 17 for more information on local government grants)

The state account pays for a variety of activities within Ecology and other state agencies pertaining to solid and hazardous waste planning, management and reduction, and hazardous waste cleanup. The funds are used for site cleanup, emergency spill response, hazardous materials training, environmental and public protection, and public participation. Money is also used to provide state matching funds for federal Superfund site cleanups. In addition, state account funds also can help provide technical and financial assistance to persons, households, small business owners and farmers who must pay for cleanup activity. Development of alternative management technologies, pesticide disposal programs, collection of the hazardous substances tax, and exposure and health effects assessments are also assisted by state account funds.

It is often difficult for a new and expanding governmental effort with a relatively new funding source to accurately predict either revenues or expenditures during the first year or two of operation.

Ecology's Toxics Cleanup Program expenditures in fiscal year 1990 may seem conservative when compared with revenue collected during that period. However, Ecology's expenditures were proportional to the legislature's original biennial appropriations. The legislature's budget appropriations were based on revenue estimates which have since been substantially exceeded. Approximately half the original appropriation was spent in fiscal year 1990. The 1990 legislature responded to the increased revenue collection with a supplemental budget appropriation. Fiscal year 1991 expenditures will show a substantial increase over those of the 1990 fiscal year.

State Toxics Control Account
Expenditures vs. Allotments
Fiscal Year 1990



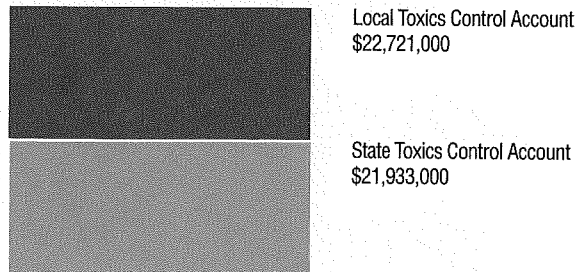
Model Toxics Control Act

Statement of Revenue and Expenses

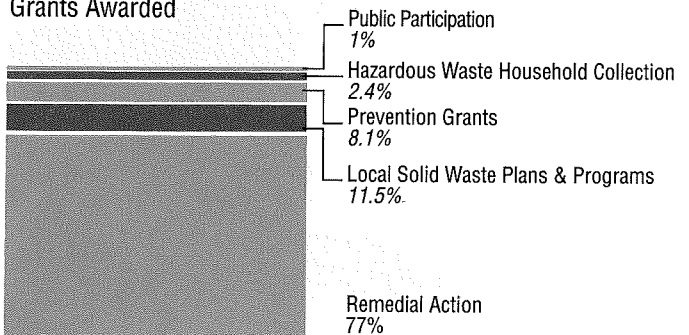
Fiscal Year Ended June 30, 1990

| | Local | State |
|--|---------------------|---------------------|
| TOXICS CONTROL ACCOUNT REVENUE: | | |
| Tax Collections: | \$22,179,000 | \$19,668,000 |
| Cost Recovery | — | 358,000 |
| Penalties | — | 131,000 |
| Hanford Consent Decree | — | — |
| One Time Audit Receipts (taxes due in previous years but collected in FY 90) | 542,000 | 1,127,000 |
| TOTAL REVENUE: | \$22,721,000 | \$21,284,000 |
| TOXICS CONTROL ACCOUNT EXPENSES: | | |
| Department of Ecology: | | |
| Air Program | \$ — | \$ 4,325 |
| Agency Administration | 258,935 | 1,791,618 |
| Central Program Spill Response | — | 539,945 |
| Environmental Investigations and Lab Svcs. | — | 357,404 |
| Nuclear & Mixed Waste | — | 662,412 |
| Solid & Hazardous Waste Management | 4,024,767 | 2,368,618 |
| Toxics Cleanup Program (breakdown below) | 12,844,829 | 5,871,717 |
| Waste Reduction, Recycling & Litter Ctrl. | 493,226 | 215,650 |
| Total Department of Ecology | \$17,621,754 | \$11,811,689 |
| Other Agencies: | | |
| Department of Agriculture | — | 210,418 |
| Dept. of Community Development | — | 273,144 |
| Department of Health | — | 477,515 |
| Department of Revenue | — | 11,300 |
| TOTAL EXPENSES | \$17,621,757 | \$12,784,066 |
| TOXICS CLEANUP PROGRAM EXPENSES: | | |
| Oversight of Potentially Liable Person Conducted Cleanups: | | |
| Interim Action | \$ 943,000 | \$ 14,002 |
| Pre-remedial/Site Hazard Assessments | — | 112,161 |
| Remedial Investigation/Feasibility Studies | 2,426,069 | 1,162,301 |
| Cleanup Action: | 9,475,760 | 582,072 |
| Total Potentially Liable Person Cleanups: | \$12,844,829 | \$ 1,870,536 |
| Ecology Conducted Activities: | | |
| Technical Assistance | — | \$ 1,142,333 |
| Pre-remedial/Site Hazard Assessments | — | 129,365 |
| Remedial Investigation/Feasibility Studies | — | 96,805 |
| Urban Bay Action Team Activities | — | 185,078 |
| Total Ecology Conducted Cleanup: | — | \$ 1,553,581 |
| General Support and Management: | | |
| Administrative Support | — | \$ 318,487 |
| Public Information | — | 93,246 |
| Program Development | — | 973,455 |
| Program Support | — | 252,964 |
| Management | — | 613,030 |
| Regional Directors | — | 52,865 |
| Training | — | 143,553 |
| Total General Support and Management | — | \$ 2,447,600 |
| TOTAL TOXICS CLEANUP PROGRAM: | \$12,844,829 | \$ 5,871,717 |

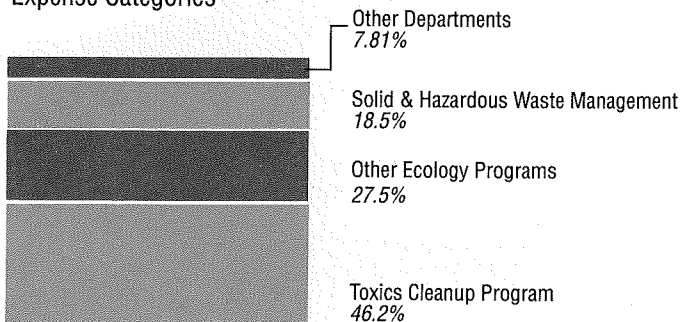
Toxics Control Revenue Fiscal Year 1990



Local Toxics Control Account Grants Awarded



State Toxics Control Account Expense Categories



Toxics Cleanup Program Site Cleanup Highlights



Significant progress was made in fiscal year 1990 toward cleaning up many of the confirmed hazardous waste sites across the state. A record number of 213 initial investigations were conducted and with the completion of the cleanup process rules this year and the cleanup standards next year, more sites will now begin moving to actual cleanup phases.

Cleanup actions at the following sites during the 1990 fiscal year deserve particular attention:

Maralco Aluminum Company

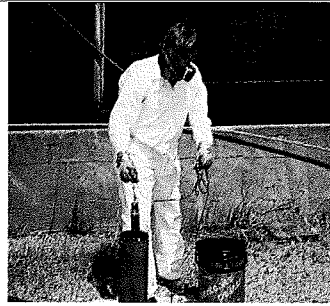
The Maralco Aluminum Company operated an aluminum recycling/refinery facility in Kent from 1980 through 1986. The recycling and refinery process used by Maralco created the hazardous wastes black dross (salt and impurities) and baghouse dusts (particulate matter). Black dross is considered dangerous waste because of salt contents of up to 50 percent. Baghouse dust is categorized as hazardous waste because of high acidity levels.

Maralco filed for bankruptcy in 1986, relinquishing its responsibility at the site. At that time, a lack of funds prevented Ecology from initiating cleanup. Cleanup efforts started during the 1990 fiscal year are a direct result of the Model Toxics Control Act which provides money to clean up sites with no potentially liable person, known as "orphan sites."

A state remedial investigation/feasibility study was initiated at Maralco's 13-acre site in 1990. Environmental concerns to be addressed as the study continues include contamination of ground water by black dross salt and diesel from a 50,000-gallon underground storage tank, and contamination of soil by dust from a black dross waste pile. Also of concern are ten tons of chromium-bearing dross and 5,000 tons of aluminum oxide, a by-product of the recycling/refinery process.

Once the study is completed Ecology will propose a cleanup action plan. The plan will undergo public review and comment before cleanup actions begin.

**Recovered contaminants
are recycled or treated
before disposal.**



Technician Mark Remlinger recovers floating contaminants from ground water at Cascade Pole.

PACCAR

Pacific Car and Foundry (PACCAR) completed a remedial investigation of its Renton site in November, 1989. The investigation confirmed that soil at the PACCAR site is contaminated with low to moderate levels of heavy metals and petroleum products and the ground water showed low levels of metals, petroleum and solvents.

PACCAR has submitted a draft feasibility study to Ecology which evaluates potential cleanup solutions. Ecology is currently reviewing the document. The next step is developing a proposed cleanup action plan. Ecology will make the proposed plan available for public review and comment prior to making final cleanup decisions on this site.

Walla Walla Farmers Co-Op

Over fifty different types of pesticides, herbicides and a variety of fertilizers have been processed through the Walla Walla Farmers Co-Op facilities since it began operation in the late 1940's. In 1985, Ecology discovered that sludge from a septic tank containing water used to rinse pesticide sprayers was contaminated with chlordane, an insecticide used to kill termites. Pesticides containing chlordane are no longer permitted for agricultural use because of cancer risks and the chemical's persistence in the environment and bioaccumulation throughout the food chain.

A remedial investigation/feasibility study has been completed and the public was given the opportunity to comment on the draft cleanup plan. Implementation of the final cleanup plan is expected in early 1991.

The cleanup plan proposes that the contaminated soils beneath the abandoned site be excavated and removed to an on-site treatment facility. These soils would then be land farmed on an impermeable liner, bermed and then processed so that biological actions can reduce the contaminants to approved levels. The former drainfield area where pesticide sprayers were rinsed would be paved to prevent precipitation from further infiltrating into the soils.

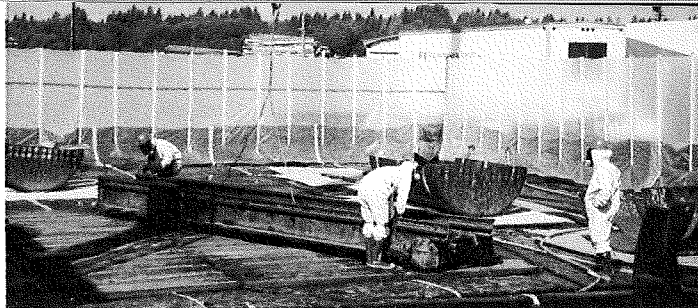
Cascade Pole

Years of controversy surrounding cleanup of Cascade Pole Company's former wood treating plant in Olympia came to an end this year when Cascade Pole, the Port of Olympia and Ecology negotiated a cleanup agreement under the Model Toxics Control Act.

A number of toxic substances and suspected carcinogens have been found in soils, ground water, clam tissue and sediments near the site. Among these substances are dioxins, polynuclear aromatic hydrocarbons and pentachlorophenol (PCP).

Worker checks for contamination.





Piece by piece, Cascade Pole's former wood treating plant in Olympia was taken apart and the structures decontaminated.

The first step in cleaning up this site involves removal of buildings and equipment which contain residues of PCPs and creosote. Following a public review and comment period, Ecology instructed Cascade Pole to test and treat water used to clean the structures before discharging the water into Budd Inlet. Cascade Pole will reuse much of the treated cleaning water.

Future cleanup will include remediation of contaminated ground water and soil on the property and confirmational monitoring of the site.

Leaking Underground Storage Tank Sites

Over the last year and a half, the Model Toxics Control Act has helped initiate significant cleanup actions at leaking underground storage tank sites throughout Washington. By assigning liability for contamination to current and past owners, the Model Toxics Control Act has increased the number of voluntary and independent cleanups as businesses try to avoid future liability from past contamination.

Leaking underground storage tank cleanup actions reached a record high during the 1990 fiscal year. At the same time, the amount of enforcement actions necessary to initiate cleanups declined:

- Initial investigations: 705
- Enforcement actions: 20
- Cleanups started: 654
- Cleanups completed: 155

Unocal's independent cleanup at its eastern Washington sites is a good example. When eight of Unocal's service stations were found to have significant petroleum contamination as a result of leaking underground storage tanks, Unocal chose to independently conduct site cleanup without the involvement of Ecology. Five of those sites were reported as cleaned up in the last year. Unocal plans to clean up its bulk filling stations in Spokane, Walla Walla and Othello next year.

Port of Vancouver

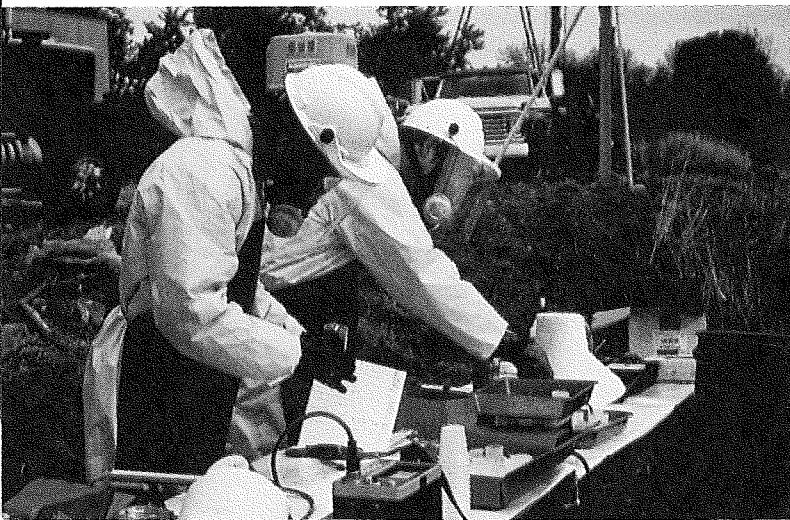
Copper ore concentrate and copper contaminated sediments were removed from the Columbia River this year under an enforcement order issued to the Port of Vancouver by Ecology.

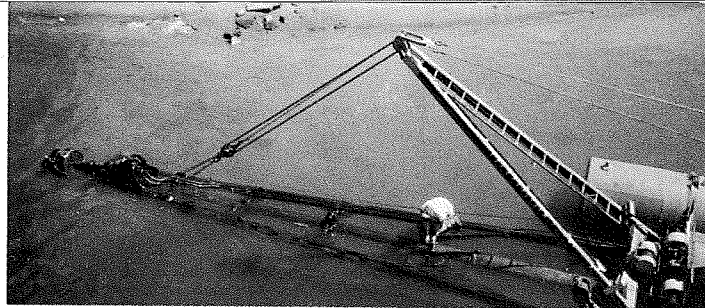
The port has operated an ore concentrate transfer facility at its dockfront site on the Columbia River since 1982. In August 1987, Ecology discovered a release of copper ore to the river and initiated an investigation.

Approximately 5,000 cubic yards of sediments were removed from the bottom of the river using a hydraulic dredge. Roughly 500 cubic yards of the sediment was considered dangerous waste due to a high level of copper contamination.

Sediments considered dangerous were released into a lined, diked pond where the copper could settle to the bottom. After being tested to assure that stringent water quality standards were met, the water was discharged into the river. The recovered copper ore was returned to the port for future copper export shipments. The remaining sediment was stored on port property.

A sampling analysis is necessary to determine the extent of contamination, if any, at a site. Testing usually occurs during the initial and remedial investigations.





The Port of Vancouver dredged approximately 5,000 cubic yards of copper contaminated sediments from the Columbia River.

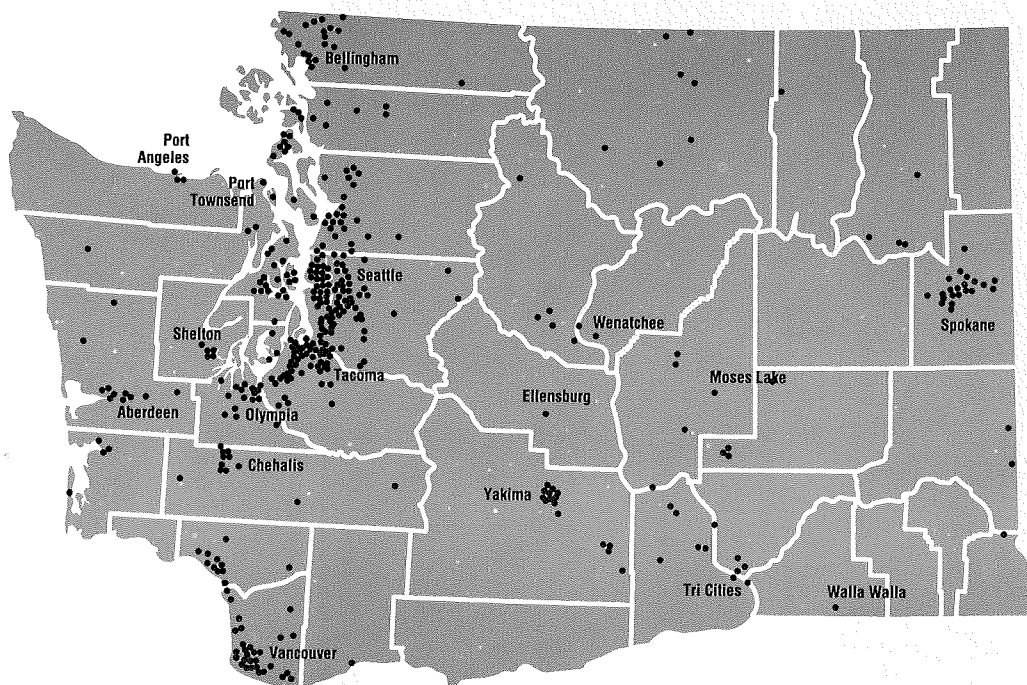
Federal Facility Sites

After much negotiation, Ecology signed federal facility agreements with six military sites and a Department of Energy site in 1990, leading the way for extensive hazardous waste cleanup to begin.

Signing the agreements were McChord Air Force Base, Fort Lewis Army Base, Fairchild Air Force Base, the Naval Air Station at Whidbey Island, Bangor Submarine Base, the Naval Undersea Warfare Engineering Station at Keyport, and the Bonneville Power Administration Ross Complex in Vancouver.

The agreements will recover in excess of \$500,000 per year of the money spent by Ecology on remedial cleanup efforts at the six sites. Remedial investigations are expected to be underway or completed at each of the sites by December of 1990.

Locations of High Priority Hazardous Waste Sites in Washington



Waste Reduction and Recycling

Working Our Way Out of the Cleanup Business



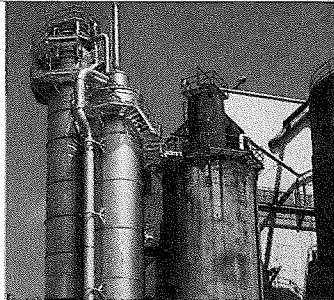
Washington continues to lead the nation in recycling with more than 28 percent of all solid waste being recycled statewide. The 1990 fiscal year saw increased attention on the reduction of hazardous and toxic waste, under the Model Toxics Control Act and the recently passed ESHB 2390, the Hazardous Waste Reduction Act. The state already has a goal of 50 percent recycling of all solid waste by 1995. The Hazardous Waste Reduction Act sets a similar goal to reduce hazardous waste generation by 50 percent over the same period.

The Waste Reduction, Recycling and Litter Control Program received \$493,226 from the Local Toxics Control Account and \$215,650 from the State Toxics Control Account to provide programs for the safe reduction, recycling and disposal of hazardous wastes from households, businesses and agriculture.

The program experienced steady growth throughout 1989 and 1990. This growth reflected the program's increased responsibilities in virtually every area of waste reduction, the leading edge philosophy in environmental problem solving. The program is divided into four sections: Support Services, Litter and Recycling Information, Solid Waste Reduction/Recycling and Toxics Reduction.

At Hytec, residuals are removed following the recycling of acetone through distillation.

Oxygen bleaching has replaced the more traditional chlorine bleaching at Weyerhaeuser's Cosmopolis Pulp Mill, eliminating the flow of dioxin into the water.



Minimizing spills and drips during chemical packaging helped Inland Technology, Inc. reduce its wastes by 65%.

Aspects of the program that deal specifically with hazardous waste issues include:

- A recycling and hazardous waste information line
- Technical waste reduction advice and assistance to business and industry
- Statewide public education and information campaigns focusing on waste reduction and recycling
- Support of major recycling and safe disposal efforts for used motor oil, waste tires and vehicle batteries.

Highlights of hazardous waste reduction efforts for 1990:

- Began implementation of ESHB 2390, the Hazardous Waste Reduction and Recycling Act, which requires larger users and generators of hazardous waste to prepare waste reduction plans. Through fees revised by this legislation, Ecology will provide direct technical assistance to industry and local government.
- Researched, with the help of an EPA grant, innovative technologies for waste reduction in business and industry.

—Published and distributed a compendium of business waste reduction "success stories" highlighting special achievement by Washington businesses.

—Initiated an effective waste reduction measurement program for evaluating the effectiveness of specific reduction programs. Funding for this project was obtained through an additional EPA grant.

—Produced a waste reduction manual entitled "Waste Reduction in Your Business" outlining specific reduction and recycling strategies and techniques.

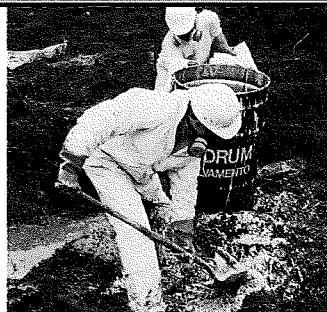
—Coordinated a statewide symposium entitled, "Achieving Waste Reduction: The Next Steps" to discuss the latest in waste reduction technology, planning and implementation. Held in Yakima, the symposium attracted more than 180 public officials, waste managers, business leaders, educators and environmental representatives.

—Conducted statewide hazardous waste reduction and recycling workshops for metal platers, automobile repair shops, dry cleaners, printers and photo processors.

—Conducted on-going site visits and assisted in industrial waste audits to demonstrate the latest waste reduction and recycling techniques.

—Continued a statewide local government recycling coordinator's support group to discuss community recycling and household hazardous waste collection projects, public information and education campaigns, and related issues.

Emergency Spill Response Coordinating Cleanup



Illegally disposed hazardous paint wastes are recovered at the Hoquiam Drum Site.

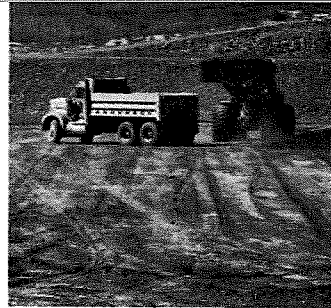


Whether its an oil spill off the coast, a diesel spill on I-90 or a drug lab bust, staff from the Emergency Spill Response program are responsible for coordinating cleanup of hazardous materials at the scene. In 1990, spill response crews responded to a record 954 emergency spills.

Much of the cleanup work at emergency spills and drug labs is contracted to cleanup companies. The number of emergency spill responses as well as the cost per cleanup saw a marked increase in 1990. During the fiscal year, the program received \$585,000 from the State Toxics Control Account for cleanup contractor payments.

More than \$30,000 of the fiscal year 1990 contractor cleanup cost has been recovered from responsible parties.

The Spill Response Program responds to many spills resulting from traffic accidents, such as this one near the Port of Tacoma Road.



A \$4.85 million Ecology grant at Seattle's Midway Landfill helped move the site into the final cleanup stage.

Local Government Grants Supporting Local Cleanup

The cost to a local government of cleaning up a contaminated landfill or other type of hazardous waste site is often more than a city or county can afford. As a result, cleanup at such sites could be potentially delayed for years. In an effort to avoid this, Local Toxics Control Account funds are set aside for local governments to help pay for the cost of cleaning up a site.

In 1990, Ecology awarded over \$16.5 million in grants from the Local Toxics Control Account. The grants were matched with local funding to pay for more than \$45 million in waste management projects.

Grants were awarded in the following categories:

| | |
|---|-------------------------|
| Remedial action: | \$12,820,329 (7 grants) |
| Local hazardous waste planning: | \$457,282 (9 grants) |
| Recycling facilities: | \$438,198 (3 grants) |
| Ground water monitoring wells: | \$375,629 (8 grants) |
| Local solid waste enforcement: | \$1,049,630 (28 grants) |
| Local solid waste planning: | \$859,709 (11 grants) |
| Household hazardous waste collection events: | \$398,882 (19 grants)* |
| Hazardous waste pilot projects: | \$21,750 (1 grant) |
| Citizen proponent negotiation: | \$50,000 (1 grant)** |
| Public participation: | \$79,235 (4 grants)*** |

*Includes two grants awarded in 1989 but omitted from the 1989 Annual Report.

**Includes \$25,000 contributed to LTCA by facility proponent.

***LTCA share only; these grants are also funded by the State Toxics Control Account.

The largest share of the grants continues to support remedial actions. A \$4.85 million Ecology grant at Seattle's Midway landfill and a \$3.9 million Ecology grant at Spokane County's Colbert Landfill helped move those sites into the final cleanup stage.

A report detailing the status of specific local government grants is available on page 34.

Ecology began preliminary work in 1990 to consider new directions for waste management grants. Some of these are:

- A "coordinated," area-based approach; single grants would be awarded to lead local governments for a variety of projects.
- Project eligibility based on approved hazardous and solid waste management plans.
- Grants awarded on a biennial basis.
- Grant amounts determined primarily by a formula that considers both a base amount and a per capita amount for all jurisdictions.
- Grant project officers assigned to jurisdictions, administering a variety of grants.

Public participation grants are a new program offered under Model Toxics Control Act requirements. These small grants (no more than \$50,000) go to groups of private citizens or not-for-profit public interest organizations. These groups and organizations use the money to make it easier for citizens to be involved in the investigation and clean up of hazardous substance releases or threatened releases. Public participation grants are also used to help implement the state's solid and hazardous waste management priorities. They must include an element of public information and involvement.

The first public participation grant awarded is being used by the Hanford Education Action League to hire technical assistance to review and comment on information generated by the Hanford cleanup effort. The group will share this information with all Washington residents through a series of public announcements, meetings, and published reports. The Washington Citizens for Recycling are using a public participation grant to produce an educational poster that will be sent to all Washington public schools. The poster will depict the state's priorities for managing solid waste: reduction, recycling, energy recovery or incineration, and landfilling.

Solid and Hazardous Waste Program

Regulating and Managing Today's Wastes

In 1990, \$2.4 million from the State Toxics Control Account was spent on regulating and managing hazardous wastes and administering a federally authorized program under the Resource Conservation Recovery Act (RCRA). The funds were also used to provide educational and technical assistance to the regulated community and the public.

35 full-time employees in the Solid and Hazardous Waste Program were funded by the toxics tax in the following work groups:

- Hazardous waste regulation development and support
- Hazardous waste information and planning
- Hazardous waste program support
- Hazardous waste permits
- Regional Offices
- Solid waste support

Major activities and accomplishments in the regulatory program for FY 1990 included:

Technical Assistance

- Provided technical assistance, guidance and education to the regulated community and other interested persons
- Operated a resource library on hazardous wastes
- Assisted facilities throughout Washington in achieving waste reduction and recycling goals

Inspections and Enforcement

- Inspected 144 hazardous waste generating facilities and 49 hazardous waste treatment storage and disposal facilities
- Issued 87 enforcement orders and 20 administrative penalties to prevent further environmental damage and recover costs for environmental damage

Permitting

- Reviewed five hazardous waste facility permits
- Participated in developing the Northwest Corrective Action Strategy

Planning

- Completed phase I of the State Hazardous Waste Plan
- Developed criteria for the siting of hazardous waste management facilities
- Responded to 3,500 hazardous waste information requests on the Hazardous Waste Hotline
- Developed a strategy for implementation of corrective action elements of the Hazardous and Solid Waste Amendments
- Continued work on the state Capacity Assurance Plan to assess the state's ability to reduce, recycle, treat, store, and dispose of hazardous wastes during the next 20 years

Information Management

- Installed a nationwide information system designed to track the handling of hazardous waste (RCRIS)
- Developed a community right-to-know program

Moderate Risk Wastes

- Assisted local jurisdiction in development of 30 hazardous waste plans
- Reviewed 18 local hazardous waste plans
- Provided 30 local governments with guidelines and support for zoning standards development for treatment/storage facilities
- Assisted local governments hosting 25 household hazardous waste collection events

Solid Waste

- Developed a proposed operator certification program for landfill and incinerator operators
- Updated the Local Solid Waste Planning Guidelines
- Completed first phase of the State Solid Waste Plan
- Assisted local governments in interpreting minimum functional standards and developing local solid waste management plans
- Hosted first-ever workshop for local Solid Waste Advisory Committees

Future plans for the program include early implementation of the 2010 Action Agenda, an emphasis on public education and technical assistance, and further development of the RCRA core program.

Water Quality Permit Fee Program

Protecting Our Drinking Water

The Department of Ecology issues water quality permits to organizations and industries discharging water containing hazardous materials into Washington's streams or lakes. In fiscal year 1990, Ecology billed \$3.7 million in fees to approximately 700 industrial dischargers and 300 municipal wastewater treatment plants.

The permits require dischargers to reduce the toxics in their water to comply with stringent water quality standards established by Ecology. The cost of a permit varies according to the type of permit a discharger is required to have. There are currently about 44 different permit categories, based primarily on the volume of discharge. In the next fiscal year, Ecology plans to look at the possibility of including the amount of toxics contained in the discharged water in determining permit fees. The Efficiency and Accountability Commission began a study of the water quality permit fee program during the year.

Under the Model Toxics Control Act, Ecology uses these permit fees to offset program administration and compliance monitoring. Other costs, such as enforcement and program development are covered by general fund allocations. Almost 98% of fees billed, or \$3.6 million, were collected by June 30, 1990.

To administer the program, including fee-eligible and non-eligible elements, \$7.3 million was spent to fund 149.3 full-time employees in the following budget categories:

Permit processing, monitoring, and inspection:

\$3,398,000

Laboratory: \$477,000

Pretreatment Program

Oversight: \$146,000

Program Development:

\$511,000

General Overhead:

\$2,768,000

Ecology administers waste discharge programs under the Federal Clean Water Act and the State Water Pollution Control Act. Approximately 1,000 dischargers have National Pollution Discharge Elimination system (NPDES) permits or state waste discharge permits. These facilities include municipal sewage treatment plants and industrial dischargers.

The water quality permit fee program conducts regular testing of water that is discharged into streams or lakes to ensure compliance with strict water quality standards.

During the year, the permit fee program:

- Expanded its time accounting system (a system on the leading edge of new cost distribution and tracking systems in state government as evidenced by its adoption by other state agencies). Identified unpermitted dischargers and brought them into the program.
- Continued a study to determine the feasibility of developing a variable fee component within the fee schedule. Such a system would tie fees to such factors as complexity of permit, pollutant loading, and toxicity.
- Identified, tracked, and documented all expenditures funded by discharge permit fee revenues. This information will be used to improve program administration and direct services to the regulated community.

Actions taken during the past year will help shift the burden of funding for the discharge permit program from the general fund to the holders of discharge permits. Ecology's water quality program remains committed to an administrative and regulatory effort that assures water quality to the citizens of the state, and accountability to permit holders.

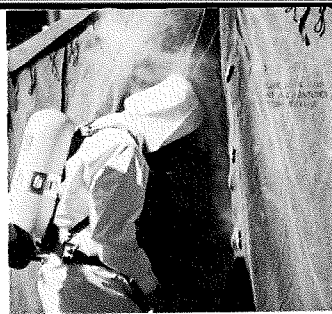
For additional information on the water quality permit fee program, call (206) 459-6000 and request the separate Ecology report to the legislature.



Department of Community Development Emergency Response Training

The number of fire fighters and first responders receiving hazardous waste incident response training through the Department of Community Development more than doubled during the 1990 fiscal year.

The department spent \$273,144 from the State Toxics Control Account to train 4,600 local responders in 180 classes. The more than 34,600 class hours focused on various aspects of planning and executing hazardous waste incident response. The Washington State Hazardous Materials Training Program was coordinated through the Department's Division of Fire Protection Services.



Properly trained fire fighters face danger forewarned.

The emphasis for the hazardous materials program is to train not only the first responder who becomes directly involved with the "hands-on" procedures, but supervisors as well.

Trained response teams currently exist along the Interstate-5 corridor from south Puget Sound to Vancouver, in the Tri-Cities area, and in the Spokane area. The Department is working to expand the response training program to large portions of the state not covered by the existing 16 response teams.

The challenge ahead for the Department of Community Development is reaching all the first responders to provide them with the basic awareness courses, and establishing a system to provide immediate coverage of the entire state in case of hazardous materials incidents.



The Department of Community Development trains fire fighters to respond to hazardous materials spills.

Department of Health

Protecting the Community

The Department of Health (DOH) has expanded both the numbers and types of health assessment activities provided to Ecology and the citizens and local health departments near potential and actual hazardous waste sites. During the 1990 fiscal year, DOH spent \$477,515 responding to concerns from Ecology, citizens, community groups, and local health departments.

Major expense categories were:

Monitoring drinking water supplies potentially affected by hazardous waste releases:
\$140,808

Testing drinking water supplies for organic chemicals:
\$67,722

Conducting health assessments, health studies and health education services for Ecology and communities near hazardous waste sites:
\$268,985

The drinking water monitoring staff collected 739 water samples during the fiscal year. Of the 36 sites investigated, DOH discovered 25 sites, roughly 70 percent, with contaminated water supplies. Immediate action was required at the following sites to eliminate or reduce exposure to as many as 7,000 nearby residents:

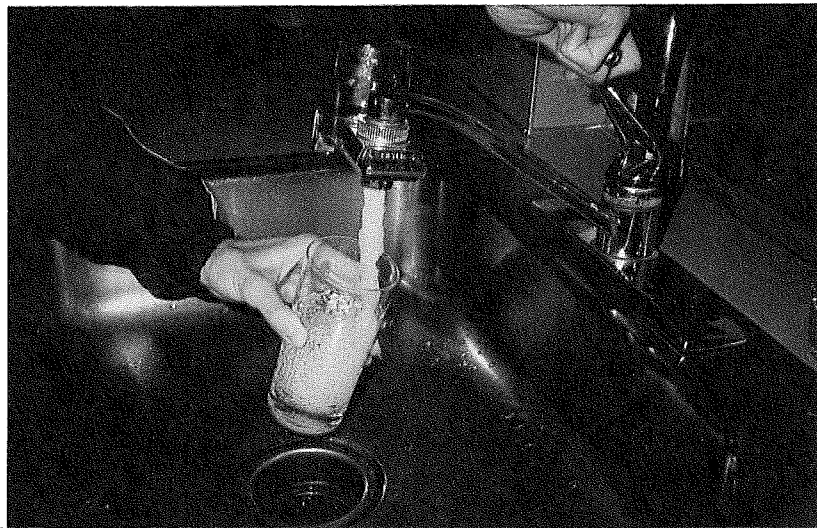
Pattison Lake, Thurston County
Fargher Lake, Clark County
Clallam Bay Corrections Center, Clallam County
Brown's Well, Clark County
Bainbridge Industrial Park, Kitsap County
Stanton Well, Thurston County
Bethel Well, Kitsap County
Meyhrich Well, Whatcom County
Shaw Island, San Juan County
Dolphin Bay, San Juan County
East Trent (Inland Empire Plating), Spokane County
Town of Warden, Grant County

In addition, a number of drinking water wells statewide were found to be contaminated with PCBs from leaking lubricating oil used on some types of older, two wire, submersible pumps. The threat posed by the contaminated water was substantial enough to require immediate action.

The Health Assessment Unit of the Office of Toxic Substances conducted four health risk assessments and provide health consultation to Ecology on ten sites. Health services were conducted at Midway Landfill and Kent Highlands Landfill in King County, Bangor Navy Station in Kitsap County, Greenacres Landfill in Spokane County, Thun Field Landfill in Pierce County, and Cascade Pole in Thurston County.

DOH and Ecology developed and signed a document outlining specific tasks and procedures of the Department of Health in the assessment of health impacts at state lead hazardous waste sites during the year. DOH continued to work with Ecology in developing both the state hazard ranking system and the cleanup standards.

In fiscal year 1990, the Department of Health tested 739 samples of drinking water.



Department of Revenue

Hazardous Substance Tax Collection

Collection of the hazardous substance tax mandated by the Model Toxics Control Act is carried out by the state Department of Revenue. The hazardous substance tax is imposed on the first in-state possessor of hazardous substances at the rate of .7 percent, or \$7 per \$1,000. The tax is applied to the wholesale value of hazardous substances and monies collected from the tax are used to fund a number of programs involved in clean up under the Model Toxics Control Act.

The Department of Revenue spent \$11,300 during the period of July 1, 1989 to June 30, 1990 to administer the collection of the hazardous substance tax. Tax collections for the 1990 fiscal year totalled \$41,847,000. In addition, \$1,669,000 in taxes that were due in previous years were collected during the fiscal year.

There are currently three broad categories of products or substances which are defined as taxable hazardous substances:

1. Petroleum products, including crude oil and crankcase motor oil
2. A group of about 700 chemicals listed by the Environmental Protection Agency in the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
3. Pesticides required to be registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (about 8,600)

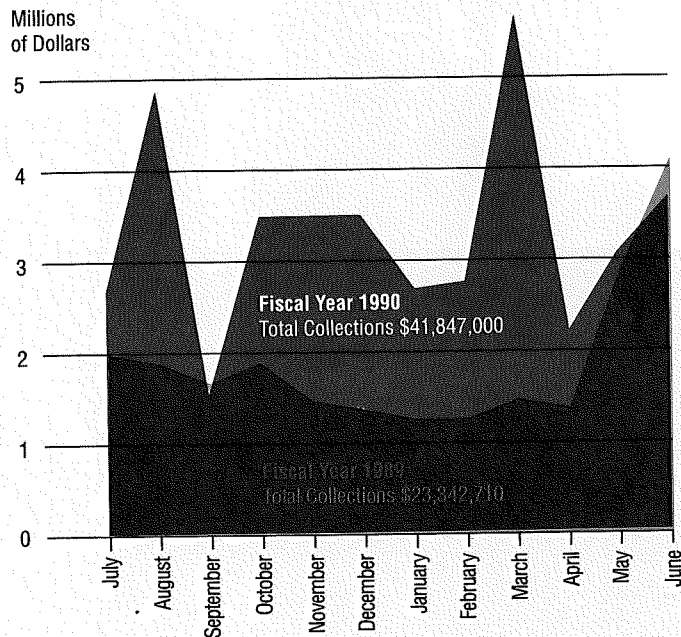
In addition, the Ecology director may designate additional substances, based on specific criteria, following public review.

Where does the tax go?

Once collected, the hazardous substance tax goes into two accounts established by the Model Toxics Control Act. Forty-seven percent goes into the State Toxics Control Account. Fifty-three percent goes into the Local Toxics Control Account.

The tax was first implemented in late 1988 and subsequently revised in FY 1989. Revenues from the tax were low in FY 88 and 89 because a number of businesses did not realize their products were subject to the new tax. Since then, the Department of Revenue has sponsored programs to educate the industry and consumers about the tax, thus increasing voluntary compliance with the tax. Audits conducted during the 1990 fiscal year to ensure taxpayers were paying the correct amount of tax also proved to be an educational tool. Revenue collections from the tax are expected to level out over the next several years with increases resulting mainly from rising rate of consumption of hazardous substances.

Hazardous Substances Tax Collection



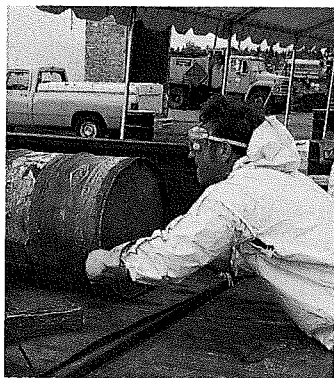
Department of Agriculture Waste Pesticide Program

In fiscal year 1990, the Department of Agriculture held waste pesticide collection days in Snohomish, Whitman and Thurston counties. A total of 117 people participated and 22 tons of unusable pesticides were collected and properly disposed of. It is estimated that several thousand more tons of waste pesticides are still stored on farms throughout the state. Since the program's inception in 1987, a total of 47 tons of waste pesticides have been collected.

The waste pesticide program is carried out with funds from the Model Toxics Control Act. In 1990, contractor costs for packaging, transport and disposal of waste pesticides totalled approximately \$189,000. A supplemental budget appropriation for fiscal year 1991 of \$400,000 will allow the department to carry out several more collections during the current biennium.

Waste pesticide collection events sponsored by the Department of Agriculture provides farmers with a safe and free solution for disposal of unusable pesticides.

The program is aimed at farmers, Christmas tree growers, private forestry and small scale or "hobby" farmers. Waste pesticides are collected at no charge in order to eliminate the backlog of unusable pesticides which has accumulated on farms over the last 40 years. The Department of Agriculture screens the pesticides and pays the full cost of packaging, transport and disposal. Collections have been held in six counties to date. Some other counties have asked to participate in future collections.



In addition to collecting waste pesticides, the program has an education element aimed at eliminating this waste stream in Washington. Pesticide users are informed of their obligations under state and federal law pertaining to hazardous waste. The program also provides information on waste reduction through proper management of pesticides. A department newsletter with a circulation to 27,000 licensed pesticide applicators also targets waste pesticide disposal and reduction issues.

Under the Model Toxics Control Act, the waste pesticide program has allowed the Department of Agriculture to gain expertise in the area of hazardous waste as related to pesticides and to provide information and technical assistance to the agriculture community, other state agencies and local governments. In 1990, the waste pesticide coordinator was invited to serve on the Yakima County Hazardous Waste Advisory Committee and the program provided information to consultants working with counties on hazardous waste planning.

