Model Toxics Control Act 2001 Annual Report

Gas Works Park Reopening Celebration

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After a nine-month closure for cleanup activities, Gas Works Park in Seattle reopened on June 30, 2001 to blue skies and smiling faces. The cleanup of the site's upland area involved treating benzene-contaminated ground water, placing a 12-inch thick soil cover, and installing an irrigation system.

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 2001 (July 1, 2000, through June 30, 2001). Specifically, this report will show:

- How much revenue was generated during Fiscal Year 2001 for the Toxics Control Account fund via the Hazardous Substance Tax, cost recovery, fines and penalties, Voluntary Cleanup Program fees, and mixed waste fees;
- Which governmental entities received funds from the Toxics Control Account in Fiscal Year 2001;
- What accomplishments were achieved as a result of receiving funds.

A Message from the Director

Since its inception in 1970, the Department of Ecology has been charged with protecting our state's natural environment. In 1989, a funding source to help achieve this goal became available when the citizens of Washington passed the Model Toxics Control Act in the fall of 1988.

The fund — called the Toxics Control Account — has not always been a predictable or stable source. Because it relies on a .7 percent tax on the sale of hazardous substances — chiefly petroleum, the amount of dollars available varies each year. Nevertheless, it has allowed Ecology, along with the departments of Health, Agriculture, Revenue, and the Washington State Patrol, to make significant progress toward protecting and preserving our air, land, and water.

When the fund first came into full use in Fiscal Year 1990, much of the focus was on development and implementation, because many programs were new. Back then, generators of hazardous waste were not required to prepare waste-reduction plans, and there was no Community Right-to-Know Program to let people know about toxins in their communities. No standards for cleaning up contaminated sites had been written yet, only three counties had pesticide disposal programs, and not all firefighters were trained to respond to incidents involving hazardous materials. All of these programs had to be initiated or expanded.

Many programs that did exist were in their early stages, and funding from the Toxics Control Account allowed them to progress significantly. Some of the achievements are staggering:

- There were 183 sites on Ecology's Hazardous Sites List in 1990. Today, Ecology has investigated more than 1,300 sites. Of those, 1,004 have been placed on the list, and close to 70 percent of the worst sites on the list are getting cleaned up. Fourteen percent are already there. Surprisingly, many site owners are cleaning up their sites voluntarily.
- In 1990, Ecology employees visited 183 businesses that generate or treat hazardous waste. Last year, they made more than 1,600 such visits.
- Twelve years ago, Ecology issued 87 enforcement actions to businesses with hazardous-waste management problems. Last year, the agency issued just two enforcement actions.

In 2001, efforts were also aimed at reducing dioxins in fertilizers, cleaning up and restoring contaminated sediments, managing aquatic pesticides in lakes and other water bodies, and studying chemicals found in fish and their effect on human health once consumed. But just as we make progress, new problems and issues emerge elsewhere.

For example:

- In the first six months of last year, 1,033 drug labs were reported—compared to a total of 38 in 1990.
- Concerns over area-wide contamination of arsenic and lead in residential areas from former industrial practices and in former agricultural lands have become a major concern to the people of this state. How do we address this concern that may affect thousands of acres of land?
- A five-mile stretch of the Duwamish River became a Superfund site.
- And the Spokane River – a health advisory and fish consumption advisory were both issued to citizens because of lead concentrations found in the shoreline and PCBs discovered in fish.

Ecology is working with the departments of Health and Agriculture, the EPA, tribes, local governments, and citizens to solve these problems. And as it has for 12 years, the Toxics Control Account will play a pivotal role in getting the job done.

Tom Fitzsimmons, Ecology Director

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.

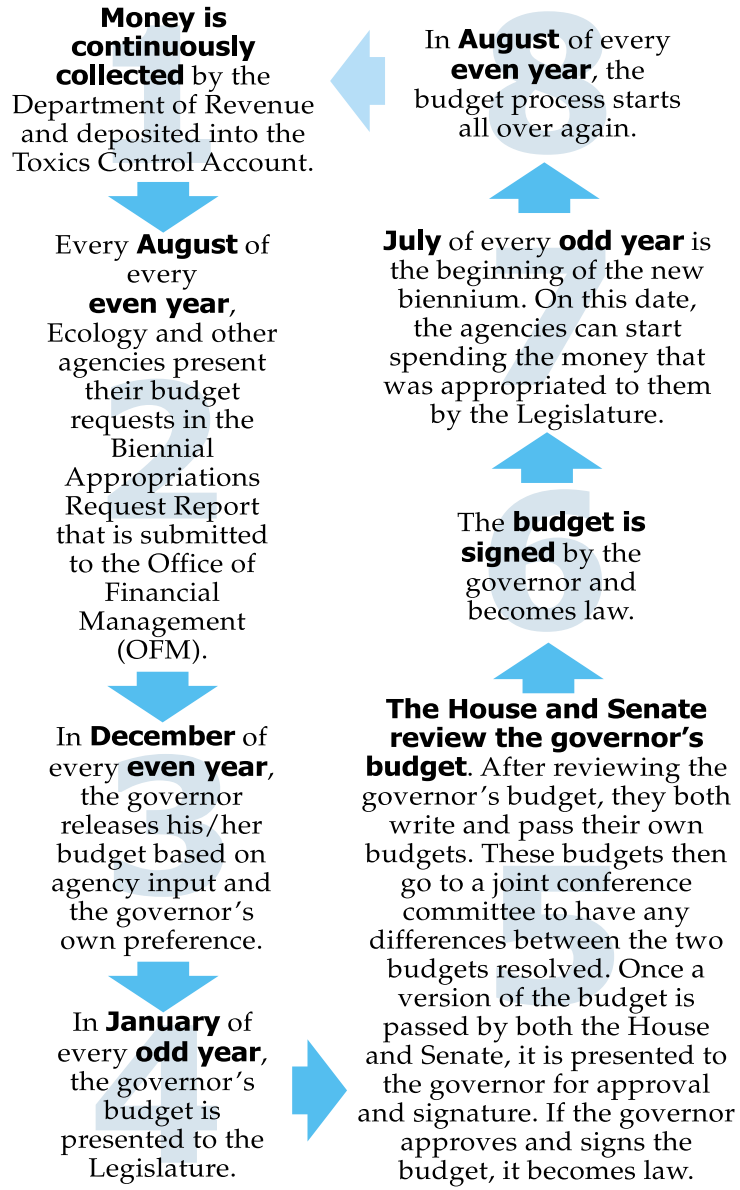
The Toxics Control Account was created under the Model Toxics Control Act. The primary source of money into the account is through a tax on petroleum products, pesticides, and certain chemicals. This tax is known as the "Hazardous Substance Tax."

The Toxics Control Account is divided into two accounts: the State Toxics Control Account and the Local Toxics Control Account. By statute, 47 percent of the tax collected goes into the State Toxics Control Account and 53 percent goes into the Local Toxics Control Account. These percentages do not change. However, there are other sources of money to the State Toxics Control Account. They are cost recovery, Voluntary Cleanup Program fees, fines and penalties, mixed waste fees, and miscellaneous.

The Hazardous Substance Tax

As mentioned earlier, the Hazardous Substance Tax is a tax imposed on petroleum products, pesticides, and certain chemicals. The tax is calculated by taking 0.7 percent or $7 per $1,000 of the wholesale value of the hazardous substance. It 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 collected is based on petroleum products.

Figure 1: How agencies receive appropriations from the Toxics Control Account



Toxics Control Account: Revenue and Expenditures Fiscal Year 2001

State Toxics Control Account

The State Toxics Control Account helps fund activities of state agencies. In Fiscal Year 2001, the departments of Ecology, Health, Agriculture, Revenue, and Washington State Patrol received funds from the State Toxics Control Account.

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.
- **Fines & Penalties:** Ecology issues fines and penalties to liable parties that do not comply with the law.
- **Voluntary Cleanup Program (VCP) Fees:** For a fee, Ecology reviews liable parties' site work plans, sampling plans, cleanup plans, and provides technical assistance.
- **Mixed Waste Fees:** Ecology collects fees from facilities that manage mixed waste.

Starting on page 4, this report contains a brief narrative by each agency or program that received State Toxics funds in Fiscal year 2001. Details on how the funds were spent are provided.

State Toxics Control Account Revenue

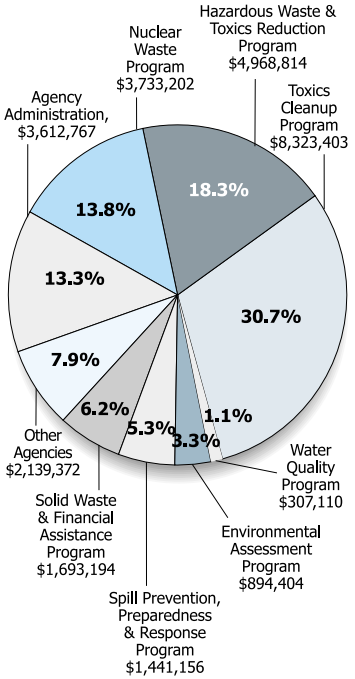
Hazardous Substance Tax	$34,624,799
Mixed Waste Fees	$4,589,488
Cost Recovery	$1,006,566
Miscellaneous	$521,617
Voluntary Cleanup Program Fees	$248,033
Fines & Penalties	$119,078
Total Revenue	$41,109,581

Table 1: Toxics Control Account Revenue and Expenditures, Fiscal Year 2001

Toxics Control Account Revenue	Local Toxics	State Toxics
Hazardous Substance Tax	$40,063,483	$34,624,799
Mixed Waste Fees		$4,589,488
Cost Recovery		$1,006,566
Miscellaneous	$4,274	$521,617
Voluntary Cleanup Program Fees		$248,033
Fines & Penalties		$119,078
Total Revenue	$40,067,757	$41,109,581
Ecology Expenditures		
Toxics Cleanup Program	$828,679	$8,323,403
Hazardous Waste & Toxics Reduction Program	$71,886	$4,968,814
Agency Administration, Facility & Related Costs	$290,112	$3,612,767
Nuclear Waste Program		$3,733,202
Solid Waste & Financial Assistance Program*	$19,666,397	$1,693,194
Spill Prevention, Preparedness & Response Program		$1,441,156
Environmental Assessment Program	$29,430	$894,404
Water Quality Program		$307,110
Total Ecology Expenditures	$20,886,504	$24,974,050
Other Agency Expenditures		
Agriculture	$65,896	$683,778
Health		$1,199,665
State Patrol		$223,565
Revenue		$32,364
Total All Agency Expenditures	$20,952,400	$27,113,422

**The grant program that is governed by the Solid Waste and Financial Assistance Program runs on a two-year cycle. The majority of funds are issued during the first year of the cycle. FY 2001 was the second year of the cycle.*

Figure 2: State Toxics Control Account Expenditures



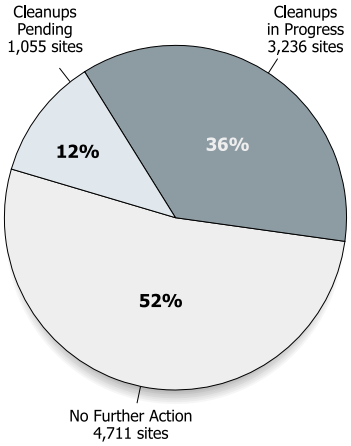
Toxics Cleanup Program Mission: *To get and keep contaminants out of the environment*

In Fiscal Year 2001, Ecology's Toxics Cleanup Program received a little over 30 percent of the funds in the State Toxics Control Account. The Toxics Cleanup Program was also responsible for generating a substantial amount of money for the account. Through cost recovery and its Voluntary Cleanup Program, the Toxics Cleanup Program generated over 1 million dollars for the State Toxics Control Account.

During Fiscal Year 2001, the Toxics Cleanup Program used State Toxics Control Account funds primarily on:

- Cleaning up high-priority contaminated sites (*rank 1,2, or Superfund*);
- Cleaning up lower-priority contaminated sites (*rank 3,4, or 5*);
- Providing technical assistance to those cleaning up contaminated sites;
- Providing technical assistance on contaminated sediments;
- Investigating, and if necessary, ranking new sites;
- Providing program support to staff working on the above activities.

Figure 3: Known and Suspected Contaminated Sites (as of September 2001)



9,002 total sites

Cleaning up High-Priority Contaminated Sites

High-priority sites are comprised of Superfund sites and sites Ecology has ranked 1 or 2. Due to greater health and environmental concerns, Ecology primarily works on high-priority sites. All of these sites are on Ecology's Hazardous Sites List.

What makes these sites high-priority? The answer is the *contaminants* – the amount, how toxic they are, and how easily they can come into contact with people and the environment. Public concern and a need for immediate response may also affect which sites get top priority.

There are currently 459 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.

What is the Hazardous Sites List?

The Hazardous Sites List is a list of sites that have been assessed and ranked using the Washington Ranking Method. Sites are ranked on a scale of one to five, with one representing the highest level of concern and five the lowest. When ranking a site, the primary exposure routes that could pose a risk to the public and the environment are taken into consideration. These are air, surface water, and ground water.

The list, which is a requirement of the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC, helps Ecology target where to spend cleanup funds. It is updated twice a year and is available on the Internet at *http://www.ecy.wa.gov/programs/tcp/cleanup.html*.

The following nine high-priority sites are considered cleaned up and were removed from the Hazardous Sites List during Fiscal Year 2001:

- *Taylor Way Properties*, Tacoma, Pierce County ▼
- *Glacier Park Budget Fuel West*, Leavenworth, Chelan County ❶
- *Metro South Base*, Seattle, King County ❶
- *Valley Refinishing*, Sumner, Pierce County ❶
- *Wasser Winters*, Tacoma, Pierce County ❶
- *Bowen Auto Wrecking*, Bonney Lake, Pierce County ❷
- *Corps of Engineers Motor Pool*, Walla Walla, Walla Walla County ❷
- *Jim's BP*, Battle Ground, Clark County ❷
- *Nortar Inc*, Seattle, King County ❷

(▼ = Superfund; ❶ = Rank 1; ❷ = Rank 2)

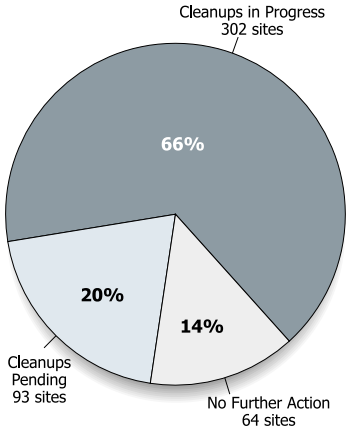
Additionally, these 36 high-priority sites had a major cleanup action taken in Fiscal Year 2001:

- *Centralia Landfill*, Centralia, Lewis County ▼
- *Hidden Valley Landfill Thun Field*, Puyallup, Pierce County ▼
- *Hylebos Wood Debris Site Sediments*, Tacoma, Pierce County ▼
- *Kaiser Aluminum Mead Works*, Mead, Spokane County ▼
- *North Market Street*, Spokane, Spokane County ▼
- *Pasco Landfill NPL Site*, Pasco, Franklin County ▼
- *Tacoma Redevelopment Properties*, Tacoma, Pierce County ▼
- *USN Jackson Park*, Bremerton, Kitsap County ▼
- *USN Keyport*, Keyport, Kitsap County ▼
- *Bainbridge Island Landfill*, Bainbridge Island, Kitsap County ❶
- *Burlington Northern Santa Fe Railway*, Skykomish, King County ❶
- *Cascade Pole*, Olympia, Thurston County ❶
- *Everett Smelter*, Everett, Snohomish County ❶
- *Gas Works Park*, Seattle, King County ❶
- *Grange Supply Chehalis Cenex*, Chehalis, Lewis County ❶
- *Industrial Petroleum Distributors*, Olympia, Thurston County ❶
- *Lilyblad Petroleum*, Tacoma, Pierce County ❶
- *Olympic View Sanitary Landfill*, Port Orchard, Kitsap County ❶
- *Pasco Bulk Fuel Terminal*, Pasco, Franklin County ❶
- *South Wilbur Petroleum Site*, Wilbur, Lincoln County ❶
- *Tiger Oil*, Yakima, Yakima County ❶
- *Unocal Edmonds Bulk Fuel Terminal*, Edmonds, Snohomish County ❶
- *Western Farm Service*, Pasco, Franklin County ❶
- *Weyerhaeuser Co Hg Chlor Alk*, Longview, Cowlitz County ❶
- *Whatcom Waterway*, Bellingham, Whatcom County ❶
- *Aluminum Recycling Corp*, Spokane, Spokane County ❷
- *Arco Bulk Storage Facility*, Seattle, King County ❷
- *Arco Products Co Seattle Terminal*, Seattle, King County ❷
- *Burlington Environmental*, Tacoma, Pierce County ❷
- *Cornwall Avenue Landfill*, Bellingham, Whatcom County ❷
- *Cowlitz BP*, Toledo, Lewis County ❷
- *Equilon Enterprises LLC*, Seattle, King County ❷
- *Goose Lake*, Shelton, Mason County ❷
- *General Electric Aviation Division*, Seattle, King County ❷
- *Holly Street Landfill*, Bellingham, Whatcom County ❷
- *Olympia Dry Cleaners*, Olympia, Thurston County ❷

(▼ = Superfund; ❶ = Rank 1; ❷ = Rank 2)

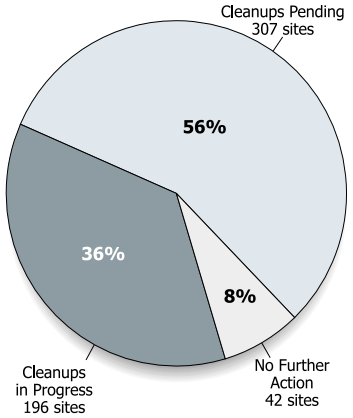
Sediment dredging at low tide at the Cascade Pole site.

Figure 4: Status of Superfund & State Ranked 1 or 2 (as of September 2001)



459 total sites

Figure 5: Status of State Ranked 3, 4 or 5 of Sites (as of September 2001)



545 total sites

Natural Resource Damage Assessments (NRDA) sites:

A site becomes involved in the NRDA process when its natural resources (such as fish and shellfish) or services provided (edible fish or recreational fishing days) become damaged or lost as a result of contamination. The state, along with federal and tribal trustees, can require compensation for the injury caused – from the time of release to the time of full recovery. Compensation is used to restore, replace, or acquire equivalent habitat. To date, sites with natural resources damage assessment activities have been mainly in marine areas and are often Superfund sites.

Once an extensively contaminated site known as Tacoma Redevelopment Properties Parcel 7, this cleaned up property is the future home of the Dale Chihuly Museum of Glass.

During Fiscal Year 2001, NRDA projects included the planting of a few restoration sites in Commencement Bay. Commencement Bay has many restoration projects in various phases of planning and development. At the Tulalip site in Marysville, restoration opportunities and partnerships are continuously pursued. Other sites in the discovery and planning phases are the Duwamish River in Seattle and the Spokane River in Spokane.

Cleaning up Lower-Priority Contaminated Sites

The Toxics Cleanup Program oversees 545 contaminated sites with a state ranking of 3, 4, or 5. One-hundred ninety-six of these sites are in the cleanup process, and another forty-two have been cleaned up. In Fiscal Year 2001, six lower-priority sites were removed from the Hazardous Sites list.

Providing Technical Assistance

The Voluntary Cleanup Program allows the Toxics Cleanup Program to provide assistance to liable parties on sites that are generally of low environmental priority to the agency, but are a high priority to be cleaned up by the liable party or by a prospective purchaser of the property. The Voluntary Cleanup Program allows staff to advise liable parties or prospective purchasers before, during, and after their cleanup.

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

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. These properties are often referred to as "brownfields." Brownfields are properties that are abandoned or underused because of environmental contamination from past industrial or commercial practices.

Ecology Consultation

Ecology consultations are usually 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 "future action pending." Since October 1997, 1204 sites have entered the Voluntary Cleanup Program. Six-hundred and forty-seven received a "no further action" determination, and another 553 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.

Sediment Management Activities

Staff is involved in a broad range of activities designed to both prevent and clean up contaminated sediments, including:

- The identification of appropriate places to dispose of dredged material whether contaminated or not;
- The cleanup of contaminated sediments currently underway in the lower Duwamish River, the Spokane River, Lake Roosevelt, Lake Union, and at numerous locations throughout Puget Sound.

Additionally, staff is engaged in ongoing scientific investigation and research to better understand and address contamination in this very unique environment.

Investigating, and if Necessary, Ranking New Sites

Initial Investigations

The first step in the cleanup process is to investigate a 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. This involves looking at the present conditions of the site for signs of possible spills and the use and storage of hazardous waste. Some sampling may be involved.

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 staff with basic information about a site. The program then uses the Washington Ranking Method to estimate the potential threat the site 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 dollars. During Fiscal Year 2001, 101 site hazard assessments were completed. Of those, 58 new sites were added to the state's Hazardous Sites List. The remainder received a "No Further Action" decision.

Program Support

There are many individuals working behind the scenes to get sites cleaned up. Computer staff, budget and planning staff, policy staff, public involvement staff, attorney general staff, and administrative staff all work together to get sites cleaned up. 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.

Hazardous Waste & Toxics Reduction Program Mission:
To foster sustainability, prevent pollution, and promote safe waste management.

Ecology's Hazardous Waste and Toxics Reduction Program's vision is to foster sustainability, prevent pollution, and ensure safe waste management. Its two primary objectives are to reduce the amount of hazardous waste generated and to prevent hazards due to improper management or disposal of hazardous wastes into the state's air, land, and waters. There are several major activities designed to accomplish these objectives.

Visiting Facilities that Generate Hazardous Waste

The Hazardous Waste and Toxics Reduction Program is concentrating on providing information to businesses and governmental entities through face-to-face visits, with an emphasis on providing technical assistance to help them both reduce and safely manage hazardous waste. Last year, program staff conducted 1,660 visits.

One example is the "Increased Generator Contact (IGC)" projects. Under IGC, staff help businesses that generate waste identify ways to improve their environmental practices related to hazardous substance use, waste management, and water quality. These visits last generally less than an hour and are intended to provide helpful information to businesses. If problems are noted, the business owner is advised of changes that are needed, but penalties are not issued.

In September 2000 alone, 86 IGC visits were conducted in Grays Harbor County over a two-day period (staff from Grays Harbor County and the local Sewage Treatment Plant participated in the visits). The types of businesses visited included dental offices, photo and print shops, machine shops, boatyards, cabinet shops, pest management companies, industrial paint contractors, and all types of auto shops. Staff found that some of the shops were fairly well in compliance, but most received some sort of recommendation for improvement. Only five were recommended for a follow-up visit. Feedback from an initial survey revealed a job well done by all three participating parties.

Providing Technical Assistance on Hazardous Waste-Derived Fertilizers

During Fiscal Year 2001, staff worked with the Department of Agriculture to review over 300 fertilizer products for compliance with state standards. Staff also provided one-on-one technical assistance to fertilizer manufacturers, as well as the general public. By providing technical assistance, staff continues to work towards its goal of reducing dioxins in fertilizers.

Promoting Pollution Prevention

It is a state law that businesses producing more than 2,640 pounds of hazardous waste complete an annual pollution prevention plan. The purpose of preparing a plan is to determine if a business can reduce its waste and chemical use. Staff provides technical assistance to businesses preparing plans. Some 680 businesses in Washington State currently participate in the program.

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 2001, the program issued two hazardous waste enforcement actions totaling $45,000.

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

Staff issue permits to facilities that treat, store, or dispose of hazardous waste and operate in a manner protective of human health and the environment. In Fiscal Year 2001, staff issued one new permit and modified two existing permits.

Conducting Cleanups at Treatment, Storage, or Disposal Sites

This activity involves cleaning up facilities that are contaminated with hazardous wastes. In Fiscal Year 2001, on average, the 19 "high priority" sites the program is managing were over half-way through the cleanup process, and the 17 "medium priority" sites it manages were 36 percent through the cleanup process. Staff also issued one Toxics Cleanup Agreed Order.

Making Common Sense Hazardous Waste Management Decisions

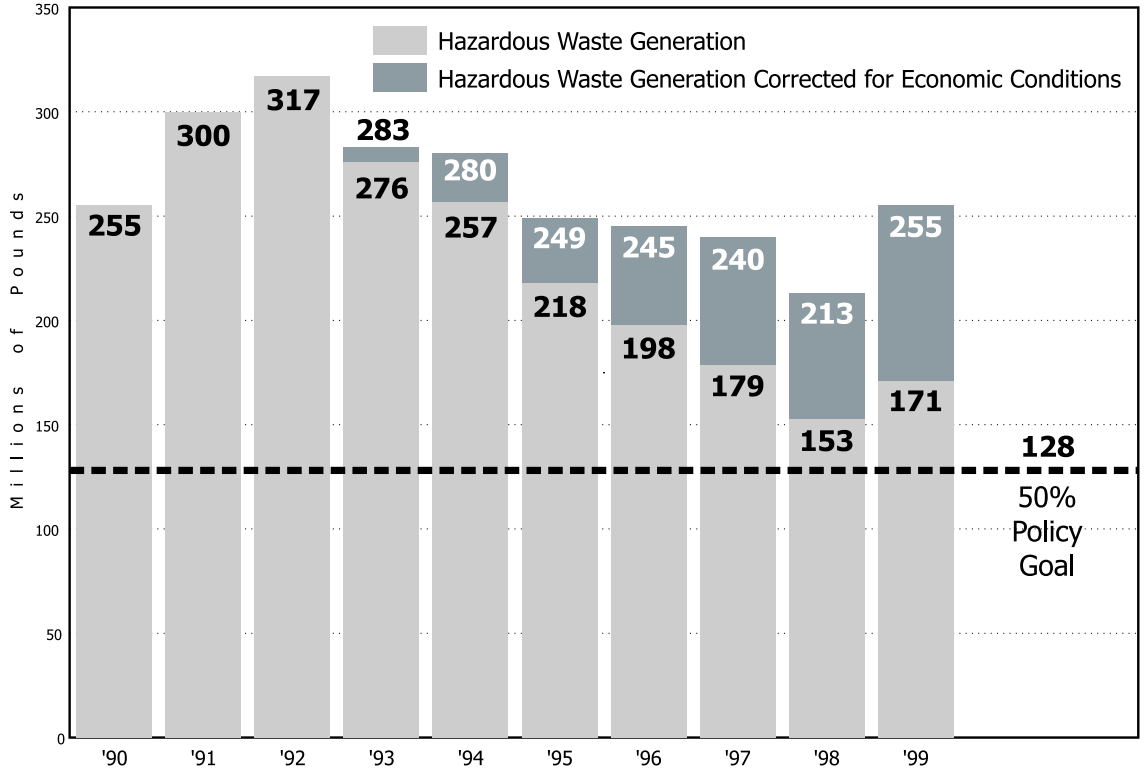
State law (RCW 70.105) requires Ecology to develop a statewide hazardous waste plan and to update it regularly. The purpose of the plan is to provide statewide guidance for proper management of hazardous wastes. During Fiscal Year 2001, in preparation for this activity, the Hazardous Waste and Toxics Reduction Program developed a vision document, identified the issues in developing the plan, and prepared a draft strategic hazardous waste plan.

Keeping the Public Informed

The Hazardous Waste and Toxics Reduction Program has several efforts underway to provide information to the public. During Fiscal Year 2001, staff responded to more than 16,542 telephone calls on hazardous waste issues. Staff conducted 79 workshops on safe waste management and pollution prevention that were attended by 2,844 people. Staff also prepared a quarterly newsletter "Shoptalk" to provide the public with current tips on reducing and safely managing hazardous waste.

The program has put much effort into collecting data for public use. It collects hazardous waste generation/ management data from 7,000 businesses, hazardous substance use and storage data from 3,500 businesses, and pollution prevention planning data from 680 businesses. Data is also collected from about 3,000 businesses that release toxic chemicals, as required under the federal community right-to-know law. The public can use this information to monitor hazardous waste in their communities.

Figure 6: Progress toward the 50 Percent Hazardous Waste Reduction Goal



Environmental Assessment Program Mission: *To provide objective, reliable information about environmental conditions that can be used to measure the effectiveness of the program, inform the public, and help focus the use of limited resources.*

Nuclear Waste Program Mission: *To lead the effective and efficient cleanup of the U.S. Dept. of Energy's Hanford site, to ensure sound management of mixed hazardous wastes in Washington, and to protect the state's air, water, and land at and adjacent to the Hanford Site.*

Department of Ecology: Environmental Assessment Program

Ecology's Environmental Assessment Program provides objective, reliable information about environmental conditions that can be used to measure agency effectiveness, inform public policy, and help focus the use of agency resources. The program is responsible for monitoring and reporting environmental status, trends, and results, and ensuring that Ecology staff, citizens, governments, tribes, and businesses have access to environmental information.

Program activities include directed environmental studies of toxic pollutants in priority waterbodies and technical review and investigations dealing with toxic chemical contamination of marine and freshwater aquatic organisms and sediments. Program staff also conducts total maximum daily load (TMDL) evaluations designed to identify sources of toxic substances in priority watersheds and recommend pollutant load reductions necessary to achieve compliance with state water quality standards. Highlights of the year include:

A staff person from Ecology's Environmental Assessment Program transfers sediment samples to jars for testing.

- Conducting a series of toxicity tests to evaluate metals contamination in the Spokane River and Lake Roosevelt. A number of areas were identified in both waterbodies that have the potential to cause adverse biological effects;
- Determining arsenic concentrations in residential soils from 55 sites in University Place (Tacoma) to assess area-wide impacts from operation of the ASARCO Smelter;
- Evaluating contaminants associated with marinas in the Thea Foss Waterway to determine appropriate loading factors for marinas to support sediment cleanup activities in the waterway;
- Monitoring the long-term effectiveness of ground water cleanup activities;
- Identifying and tracking pesticide residues found in fish, shellfish tissues, and sediments.

Department of Ecology: Nuclear Waste Program

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

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

In Fiscal Year 2001, mixed waste fees in the Toxics Control Account funds helped pay for compliance inspection, regulatory oversight, technical assistance, and review and approval of permit applications at regulated mixed waste facilities.

Department of Ecology:
Program Administration

State and Local Toxics Control Account funds help pay for program administration. These services provide the foundation from which Ecology is able to address the goals of the Model Toxics Control Act. The services are:

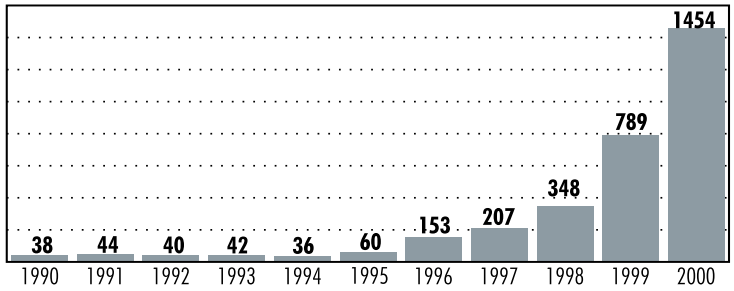
- *Executive management* oversees the Department's mission, goals, and policies;
- *Regional directors* represent the director in local communities and provide coordination on complex local issues;
- *Legislative and intergovernmental relation staff* coordinate legislative activities, represent agency 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.

Department of Ecology:
Spill Prevention, Preparedness and Response Program

Ecology's Spill Prevention, Preparedness and Response Program responds to oil and hazardous substance spills. This involves ensuring cleanup of "orphan" spills (orphan means the owner is bankrupt, unable to locate, or nonexistent), acting as on-scene coordinator, investigating and providing technical assistance or issuing enforcement actions when appropriate, participating in drills, and working closely with federal spill programs. Emergency cleanup at hazardous waste sites and drug labs are included in this activity. Cost recovery is pursued whenever a responsible party is identified.

In 2000, the Spills Program received reports of 4,203 spills in Washington. Staff conducted 1,681 field responses to clean up and investigate spills.

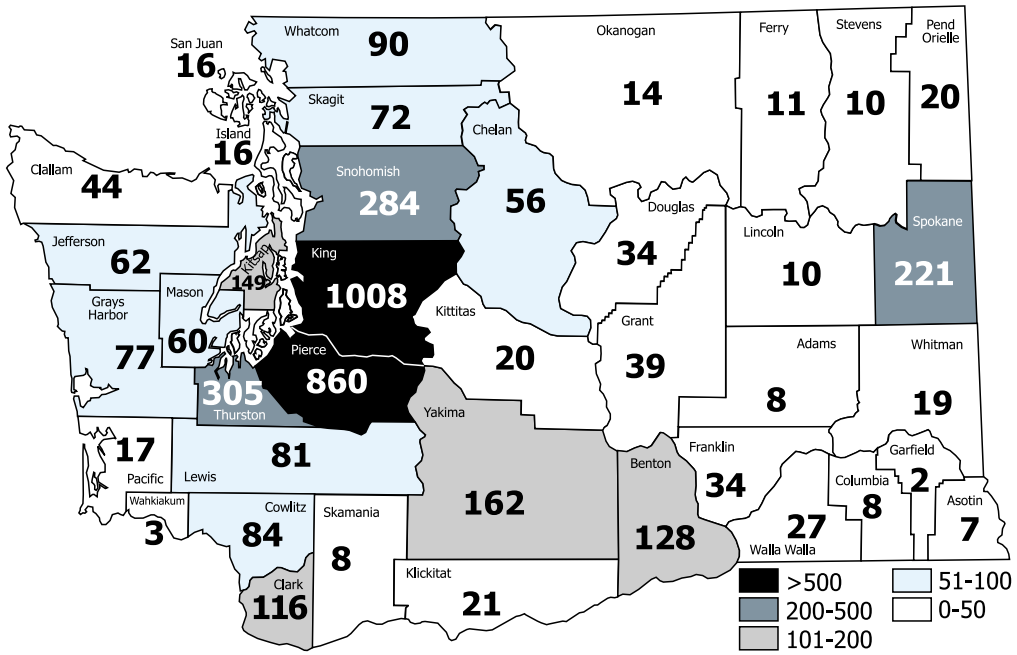
Figure 7: Statewide Reported Drug Labs



Drug Lab Activity

The Spills Program uses State Toxics Control Account funds for handling and disposing of hazardous wastes found at drug sites. The number of drug labs and abandoned dumpsites in Washington State has risen consistently and dramatically for several years. Ecology responders statewide have seen labs reach 1,033 in the first six months of 2001, compared to 670 for the same time period in 2000. The Spills Program is working hard to reduce and control the costs associated with drub lab activity.

Figure 8: Spill Reports by County for 2000



Spill, Prevention and Preparedness Program Mission:

To prevent oil spills to Washington waters and land and ensure effective response to oil and hazardous substance spills whenever they occur.

Solid Waste & Financial Assistance Program Mission:
To reduce both the amount and the effects of wastes generated in Washington State.

Department of Ecology:
Solid Waste & Financial Assistance Program

Ecology's Solid Waste and Financial Assistance Program provides three main services funded by the State Toxics Control Account:

- Technical assistance and support to local governments on solid waste management issues;
- Regulation of large industrial facilities (such as pulp and paper, petroleum refining, and aluminum smelting);
- Regulation and enforcement on remedial actions related to closed landfills.

Technical Assistance

The Solid Waste and Financial Assistance Program supports and supplements the work of local governments to reduce production of and properly manage the reuse, recycling, and disposal of solid waste. The program approves local plans, reviews local permits, provides technical assistance to local jurisdictions, establishes statewide regulations, and addresses statewide issues. This partnership helps to protect the environment and human health, while making the best possible use of resources.

In Fiscal Year 2001, the program provided professional engineering and hydrogeologic support to local health departments. This included alternative liner design, alternative cover, and reduced environmental monitoring at the Roosevelt Regional MSW and Ash Monofill Landfills in Klickitat County. Staff provided technical assistance for solid waste inspections at the request of local health departments, revised the solid waste regulations to make recycling easier in the state, and provided technical assistance for the development and implementation of local solid and moderate-risk waste plans. The program also began revising the state solid waste plan, gathering stakeholder input to create a vision for a solid waste management system that reduces waste generation, and drafting milestones for getting there.

Remedial Action

The Solid Waste and Financial Assistance Program has been the lead on several remedial actions at landfills. These have included Olympic View Landfill in Port Orchard, Ryegrass Landfill in Kittitas, and ITT Rayonier Landfill in Port Angeles. Horn Rapids Landfill in Richland is conducting a voluntary cleanup based on staff's review of their proposed approach.

Industrial Regulation

Funds from the State Toxics Control Account support regulation of hazardous wastes and oversight of cleanup activities at some of the state's largest industries. Specifically, the oil refineries, the pulp and paper mills, and the aluminum smelters all use, generate, and in some cases, dispose of a variety of hazardous wastes. Funding from the account supports regular inspections, enforcement activities, and permitting at these facilities. In addition to regulatory work, account funds also support ongoing work in pollution prevention. Finally, dollars from the account are used to require clean up of historical contamination, under the authority of the Model Toxics Control Act, at many of these plants. In the last year, work was begun on cleanup of spent potliner at Kaiser Aluminum Mead works, polychlorinated biphenyls (PCBs) in the Columbia River from the old Alcoa facility, total petroleum hydrocarbon (TPH) cleanup in sediments at the Weyerhaeuser Plywood mill site, and cleanup of a landfill at Intalco.

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. The State Toxics Control Account provides funding for staff to assist the program's Implementation Committee. The National Estuary Program has developed a Comprehensive Conservation and Management Plan based on seven priority issues. A list of 43 action items has been listed in the plan to solve the problems associated with each issue. Toxic contaminants in sediments and fish are among the priorities.

Contaminated Sediment Runoff

Water quality in the Yakima River is heavily impacted by return flows from irrigated agriculture. These return flows are high in turbidity and also contain pesticides and other toxic substances associated with suspended sediment. The goal of this project is to provide in-the-field education and technical assistance to irrigators about the impacts to water quality resulting from improper irrigation practices and to provide assistance to reduce those impacts.

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. Staff develops and interprets rules that pertain to aquatic pesticides. They provide technical assistance and how-to information to pesticide applicators, lake associations, 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, and provide educational materials on specific pesticides and aquatic pest control methods.

Water Quality Standards for Toxics

Staff provides technical support for development of water quality standards for toxic substances. Staff works on risk assessment issues related to toxics and provides technical assistance to permit writers on using the water quality standards for setting effluent limits in wastewater discharge permits. Staff led workgroups addressing the reduction of toxic substances, including the intra-agency committee developing Ecology's strategy on persistent bioaccumulative toxic chemicals and the inter-agency marine toxics workgroup.

Implementation of Surface and Ground Water Quality Standards for Toxics

This project provides technical support for remediation of ground and surface water contamination caused by disposal of contaminated waste fluids and storm water in underground injection control wells. Water Quality staff has worked on an Ecology team to design clean up procedures and to evaluate future testing protocols to determine potential impact to ground and surface water quality. Staff also works to develop guidelines and protocols to evaluate ground water contribution of toxic contaminants to listed waterbodies.

Water Quality Program Mission: *To protect and restore Washington's waters.*

Department of Health

Department of Health Mission:
To protect and improve the health of people in Washington State.

There is an increased public interest in the actual or potential effects of toxic substances in the environment. Questions are being asked about possible health effects from low-level and chronic exposures to pesticides and other chemicals, including their relationship to multiple chemical sensitivity, chemically-related illness, and chronic fatigue syndrome.

The Department of Health receives funds from the State Toxics Control Account to perform environmental health protection, monitoring, and assessment activities. These activities are directed towards protecting the public's health from exposure to toxic substances released into the environment. The Department also addresses public concern over emerging issues, such as persistent bioaccumlative and toxic chemicals, health concerns related to mercury in aquatic species, implementation of new national ambient air quality standards for particulate matter and ozone, area-wide lead arsenate contamination, dioxin and non-dioxin polychlorinated biphenyls (PCBs), and the need for efficient and effective health education efforts, particularly directed to cultural and ethnic diverse populations. Epidemiological evaluation is also being performed to determine the potential and extent of adverse health outcomes from nitrates in drinking water.
The following is a detailed description of some of the Department's accomplishments during Fiscal Year 2001.

Lake Whatcom Fish

In 1998, the Department of Ecology conducted a survey of contaminants in various fish species in Lake Whatcom. The results indicated that mercury levels in smallmouth bass were elevated. As a result, Whatcom County Health and Human Services asked the Department of Health to assess the potential health impacts to consumers of Lake Whatcom fish. To address these concerns, the Department (working with the departments of Ecology and Fish and Wildlife) developed a fish tissue-sampling plan to get more comprehensive data on mercury concentrations found in fish species caught and consumed from Lake Whatcom. In addition, the Department conducted a fish consumption survey of local residents and shore and boat anglers to determine what fish from the lake they were consuming, how frequently they were consuming the fish, and how much they were consuming. Using this information, the Department conducted a health assessment to determine whether the fish posed a potential health threat to consumers. The health assessment resulted in the Department recommending that Whatcom County Health and Human Services issue a fish advisory for smallmouth bass and yellow perch to protect sensitive populations, including women of childbearing age and young children, from potential adverse health effects of mercury.

Statewide Fish Consumption Advisory

The Department of Health, in cooperation with the departments of Ecology and Fish and Wildlife, developed and implemented a communication plan for a statewide fish consumption advisory regarding mercury. A series of public meetings was held to provide the information to the public.

Aquatic Herbicides

The Department responded to several inquiries associated with the use of aquatic herbicides for control of aquatic and wetland invasive plant species. Additionally, the Department reviewed numerous applications submitted to the Department of Ecology for the purpose of receiving a permit to use aquatic herbicides in lakes. In an associated task, Ecology contracted with Compliance Services International to perform risk analyses on the herbicides diquat and triclopyr for use in controlling aquatic plants in Washington. The Department of Health served on an interagency committee to provide technical assistance and oversight to this project. A major task was to review numerous drafts of Ecology's multi-volume risk assessments of diquat and triclopyr. As part of the review process, the Department provided detailed technical information on human health toxicity for these two aquatic herbicides.

Tacoma Smelter Plume

Soil in King and Pierce counties, including Maury and Vashon islands, is contaminated with arsenic and lead as a result of emissions from the former Tacoma Smelter. Since the contamination affects several square miles of land with a large number of residents, the contaminated area, called the Tacoma Smelter Plume site, is a significant public health concern. The Department worked with the Department of Ecology and Public Health Seattle and King County to assess the health hazard, to provide information to the public about the potential health threat (and ways to minimize the hazard), and to develop plans to further investigate and address the problem.

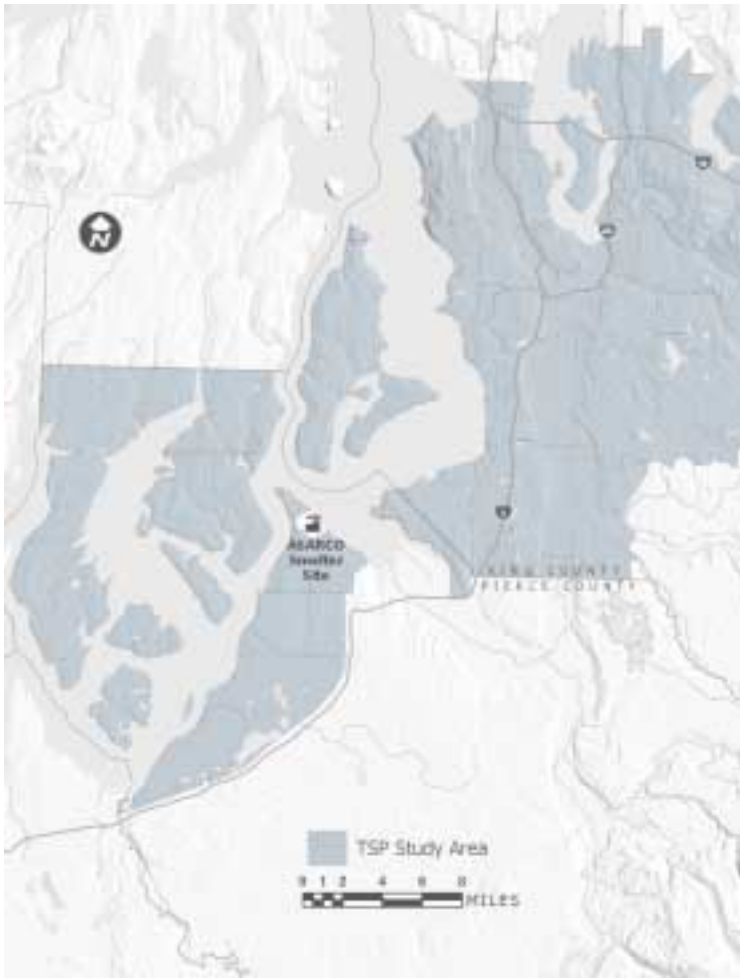
Drinking Water and Public Health Laboratory

All licensed, temporary farm working housing water systems were sampled in 1999. Two systems in Franklin County had EDB (ethylene dibromide) contamination above the maximum contaminant levels. EDB was also found in other wells in the Columbia Basin area historically known for potato farming. Until banned by the EPA in the early 1980s, EDB was frequently used in the irrigated farmlands of the area as a potato fumigant. EDB is a serious problem, because it does not break down overtime, is very persistent in soil, and can contaminate ground water. Nitrate was also detected in a number of wells in the Franklin County area.

Other public water systems in the Franklin County near the 1999 sampling area had never been sampled for EDB. Because these water systems were considered vulnerable to EDB contamination, the Department elected to do follow-up sampling to determine if the water systems had EDB contamination or elevated levels of nitrate. In April and May of 2001, Department staff surveyed and sampled 15 wells in 13 public water systems. While EDB was not detected, a majority of wells did have elevated levels of nitrates.

The Department also conducts drinking water source sampling from public and private sources when hazardous material incidences occur or when suspected contaminated sites are identified.

Figure 9: Tacoma Smelter Plume study area.



Drug Labs

The Department's Clandestine Drug Lab (CDL) Cleanup Program continues to address the issue of protecting future occupants of properties from the effects of drug lab-related hazardous chemicals once used on the properties. To achieve this goal, efforts were concentrated on training and certifying cleanup employees and local health staff, revising the regulation to include cleanup standards, working with counties to develop strategic plans, and expanding outreach through educational presentations.

During Fiscal Year 2001, the number of residential drug labs decontaminated by Department-certified contractors was 217 – a significant increase from 115 sites cleaned in 2000. The Drug Lab Program also sponsored four CDL Cleanup Certification trainings that resulted in certifying 6 contractors, 25 supervisors, and 70 workers. The CDL Program is currently in the process of establishing cleanup standards for drug lab-contaminated properties to protect people who might be exposed to contaminants found at former drug lab properties. In addition to drafting cleanup standards, the CDL Program conducted an extensive rule revision.

The CDL Program continues to work collaboratively with other state and federal agencies in developing solutions to Washington State's methamphetamine problems.

Polychlorinated biphenyls (PCBs)

Over the past decade, the Department of Fish and Wildlife collected data on PCBs in Puget Sound rockfish, English sole, and coho and Chinook salmon. The Director of the Puget Sound Water Quality Action Team requested the Department review and analyze this data. The Department was asked to determine if there is a human health threat from consuming the fish, based on this data set and last year's PCB congener data collected on fish from selected sites. The Department is currently reviewing the scientific literature and toxicity data to develop a human health critical value for PCBs. Once that value is determined, the data will be reviewed to determine potential health effects and necessary mitigation effects.

Indoor Air Quality

The Indoor Air Quality Program provided approximately 3,000 phone consultations this year, as well as conducted 15 site visits to schools with indoor air quality problems. Site visits focused on possible toxic exposures to asbestos and volatile organic compounds. The program also conducted 13 indoor air quality-specific trainings for local health jurisdictions, educational service districts, and the King County and Everett Housing authorities. The program continues to participate in the Tacoma-Pierce County Master Home Environmentalist training program, as well as the Interagency Regulatory Analysis Committee, the Indoor Air Coalition, and the Building Code Council Mechanical/Ventilation Technical Advisory Group. The program was instrumental in helping Everett School District 2 and Everett School District 101 receive national EPA awards for excellence in indoor air quality. Washington State received two awards out of a possible 15. It was the only state in EPA Region 10 to receive an award.

Area-Wide Contamination

The pesticide, lead arsenate, was applied heavily to thousands of acres of agricultural crops during the first half of the 20th century. Today, much of the lead and arsenic remains in these surface soils. This is a public health concern, because many of these contaminated, agricultural areas have been converted to residential use where families can be exposed to the contaminants. Exposed populations will likely increase as economic pressures promote further conversion of agricultural property to residential use. The departments of Health, Ecology, Agriculture, and the Office of Community Development have been developing procedures to determine the extent of the problem, information for people potentially affected by the contamination, and guidelines for future conversion of contaminated properties.

Fertilizers

The Department is involved in evaluating possible public health exposures related to fertilizers. The Department aids the Department of Ecology in reviewing fertilizers made from hazardous wastes registered by the Department of Agriculture. The Department is also involved in the design and interpretation of studies specified in the fertilizer law passed by the Legislature in 1998. One of these studies, completed this year by Washington State University researchers, examines the degree to which different crops can take up metals from fertilizers. The Department is working with the departments of Ecology, Agriculture, and Washington State University to prepare a report based on the results of the study.

Jackson Park Military Housing Complex and Hospital, Bremerton, Washington

The Suquamish Tribe of Puget Sound is interested in the commercial and subsistence harvest of shellfish from the beaches adjacent to the Jackson Park Naval housing complex, located on Ostrich Bay near Bremerton, Washington. Jackson Park is a Federal Superfund Cleanup site where contaminated shellfish have been documented. As a first step in the development of a sample plan to assess shellfish contamination from beaches adjacent to the site, an inter-tidal shoreline survey was conducted in cooperation with the Department's Office of Shellfish and Food Safety and the Suquamish Tribe. A preliminary data review and assessment was conducted as part of the sample plan development.

Cenex – Quincy, Washington

The Department of Ecology requested the Department evaluate available Cenex Supply and Marketing sampling data and prepare a health assessment. The Department reviewed and evaluated sampling results collected from soil, soil gas, ground water, and ambient and indoor air. Potential dust exposures from the site were also evaluated.

Contaminants of concern were pesticides, herbicides, and several metals detected in Cenex site soil. Specific health concerns raised by people in the community included various cancer types, asthma, behavior problems, sinus problems, rashes, chronic fatigue syndrome, Alzheimer's, and a few others. Other concerns included potential exposures at the Quincy High School and Junior High School located near the Cenex site. Based on all available sampling data, the Department concluded the site posed a low health risk. A review of the most recent cancer registry information indicated that cancer incidences reported for the Quincy area were no higher than would be expected in a community of the same size and age structure.

Lower Duwamish Waterway

On September 13, 2001, EPA added the Lower Duwamish Waterway to its National Priorities List (NPL) of the nation's most contaminated hazardous waste sites. The Lower Duwamish Waterway study area is comprised of contaminated sediments within a five-mile stretch of the Duwamish River, from the southern tip of Harbor Island to just south of the turning basin near the Norfolk combined sewer overflow. The Department is currently preparing a public health assessment for the Lower Duwamish Waterway site. The assessment will represent an evaluation of existing environmental data and community health concerns to determine if the site is impacting human health. The contaminants of concern at the site include polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), mercury and other metals, and phthalates.

Department of Agriculture Mission: *To support the agricultural community and promote consumer and environmental protection.*

Waste Pesticide Identification and Disposal Program

The Washington State Department of Agriculture's Waste Pesticide Identification and Disposal Program has two primary 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.

Many of the pesticides have become unusable due to government actions that prohibit most or all of their uses. As of June 2001, the program collected and properly disposed of over 200,000 pounds of dinoseb, DDT, endrin and parathion alone. In total, the program has collected 1,149,776 pounds of unusable pesticides from 3,867 participants. A record amount of 141,487 pounds was collected during Fiscal Year 2001. The next highest amounts were 138,490 pounds in 1999 and 120,292 pounds in 2000. Other states that have implemented similar programs are also finding that a tremendous amount of old pesticides remain in storage in their states. In addition to rural areas, we find these old pesticides in suburban locations, as housing developments expand into traditional agricultural areas

Implementation of the Federal Food Quality Protection Act of 1996 has increased the amount of pesticide products that are unusable. Several widely used pesticides have had use restrictions or prohibitions and phase-out periods placed on them as a result of the Act. The first restrictions directly affected the tree fruit industry in Washington State. Now it is also affecting pesticide use in non-farm situations. Chlorpyrifos (Dursban®) is a common insecticide used by pest control companies used to control pests in residential and commercial areas, in addition to agricultural uses. Many uses of chlorpyrifos are being phased-out over the next few years due to the Federal Food Quality Protection Act. It has the potential to create many additional containers of unusable pesticides throughout the United States and will have an impact on the Waste Pesticide Program. The program is encouraging pesticide users to limit the amount of pesticides purchased at one time so they may be used up entirely during a specific application or season.

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 around the state and are similar to household hazardous waste 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, the Department 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. The Department also assists the participants with packaging materials to enhance safe transportation and with chemical analysis of unlabeled containers. The remaining pesticides are collected at special site events. These events are usually held at the participant's pesticide storage locations, due to numerous containers of unknown chemicals, transportation hazards due to poor container condition, and types of 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 thermal destruction. Only pesticides containing metallic ingredients that cannot be destroyed by heat (such as arsenic, lead, and mercury) are disposed of at a hazardous waste landfill. Many pesticides, such as DDT, are "land ban" chemicals and are prohibited from disposal at a hazardous waste landfill.

Pesticide Registration Program

The State Toxics Control Account funds two positions within the Pesticide Registration Program. The program is responsible for the review and registration of more than 8,500 federally registered pesticide products distributed in Washington. In addition, it is responsible for the review and approval/denial of the following:

1. Special Local Needs (SLN) registrations;
2. Experimental Use Permits;
3. Spray adjuvant registrations;
4. Section 25(b) Minimum Risk Pesticide registrations;
5. Section 18 emergency exemptions from registration.

The staff time necessary to conduct environmental and other reviews involved with these actions has increased tremendously over the last few years and will continue to do so in the future. The two positions funded through the State Toxics Control Account help the program meet its goals of responding to requests in a timely and effective manner.

Compliance Services Program

The State Toxics Control Account funds one position within the Pesticide Management Compliance Services Program. The addition of a field staff position in the Columbia Basin area (Moses Lake) has provided increased technical assistance at the user and dealer level, more interaction with users, and improved response to the local community. It has also allowed other field staff the opportunity to fully concentrate on their localized areas of concern.

Compliance Services uses technical assistance as the fundamental basis for its activities. The Columbia Basin position has provided technical assistance activities to dealers, aerial applicators, growers, chemigators, lawn care, and public facilities. This position has also administered licensing examinations once a month, which now allows an opportunity to become licensed without having to travel to Spokane, Wenatchee, or Yakima. Through the activities of this position, the Waste Pesticide Identification and Disposal Program has seen an increase in voluntary compliance, enhanced service, additional licenses issued, and in turn a reduction in complaints and need for enforcement actions.

Table 2: Waste Pesticide Disposal Projects Performed by WSDA Fiscal Year 2001 (7/1/00 - 6/30/01)

Collection Event	When	Customers	Pounds	Disposal Cost	Per Pound
Snohomish Regional	8 / 22 / 00	28	3,932	$8,453.58	$2.15
Bellevue Regional	8 / 23 / 00	25	6,557	$10,912.33	$1.66
Puyallup Regional	8 / 24 / 00	20	8,812	$16,963.28	$1.93#
Seattle Regional	9 / 18 / 00	23	11,864	$18,194.27	$1.53*
Bremerton Regional	9 / 19 / 00	10	2,424	$6,900.62	$2.85
Centralia Regional	9 / 20 / 00	12	6,816	$11,980.58	$1.76*
Vancouver Regional	9 / 21 / 00	12	2,357	$7,040.28	$2.99
Moses Lake Regional	10 / 17 / 00	34	12,568	$17,838.58	$1.42
Orondo Regional	10/19 /00	22	5,605	$10,558.69	$1.88
Yakima Regional	04 23 & 24 01	41	14,067	$22,353.96	$1.59
Pasco Regional	4 / 25 / 01	23	6,249	$12,097.53	$1.94
Spokane Regional	4 / 26 / 01	35	16,771	$22,583.34	$1.35
Oroville Regional	5 / 15 / 01	14	6,384	$11,231.21	$1.76
Okanogan Regional	5 / 16 / 01	21	2,361	$7,089.56	$3.00
Wenatchee Regional	5 / 17 / 01	24	7,839	$13,116.47	$1.67
Mount Vernon Regional	5 / 22 / 01	30	7,852	$14,045.31	$1.79
Puyallup Regional	5 / 24 / 01	33	7,119	$13,605.66	$1.91
Regional total FY 2001	*17 events*	*407*	*129,577*	*$224,965.25*	*$1.74*
Bellingham Special Site	8 / 22 / 00	1	1,041	$2,383.03	$2.29
Seattle Special Site	8 / 25 / 00	1	1,676	$4,307.28	$2.57
Yakima Special Site	10 / 16 / 00	8	4,160	$8,140.19	$1.96
Wenatchee Special Site	10 / 16 / 00	1	1,710	$6,096.44	$3.57
San Juan Special Site	10 / 16 / 00	1	1,948	$2,767.90	$1.42
Keyport Special Site	5 / 23 / 01	1	1,375	$1,830.00	$1.33
Special site total FY 2001	*6 events*	*13*	*11,910*	*$25,524.84*	*$2.14*
Total FY 2001	*23 events*	*420*	*141,487*	*$250,490.09*	*$1.77*

** Pressurized pesticide cylinders were collected as a part of this project. Special handling and disposal was required.*
 # Dioxin precursor pesticides were collected as a part of this project. Special handling and disposal was required.
The average amount collected per customer during Fiscal Year 2001 is approximately 337 pounds.
Since the program began in 1988, as of June 30, 2001 it has collected and properly disposed of 1,149,776 pounds of pesticides from 3,867 customers.
The average amount collected per customer for the entire program (1988 - June 2001) is approximately 297 pounds.

Washington State Patrol Mission:
To answer our citizens' call for public safety.

Students use water and a special foam product to extinguish fire in a simulated aircraft.

Washington State Patrol

The Washington State Patrol Fire Protection Bureau uses funds from the State Toxics Control Account to prepare firefighters in Washington State to respond to incidents involving hazardous materials. Their mission is to provide the means for firefighters to receive live-fire training that meets or exceeds the minimum standards required by federal and state regulations governing firefighter training. Additionally, firefighters are provided with the technical knowledge and training needed to recognize and contain hazardous material incidents which threaten our citizens and environment. The training firefighters receive reduces risk to both the firefighter and the property they protect. Funds received from the State Toxics Control Account are dedicated to staff, equipment, and consumables required to deliver live-fire training in the following areas:

Flammable Liquids

Level 1 provides firefighters with the basic knowledge necessary to identify, control, and recover various flammable liquid emergencies. Instruction includes the behavior of flammable liquids in bulk, fire extinguishing agents, safety, and environmental concerns. Students practice their skills while extinguishing a live, flammable liquid fire on an overturned tanker.

Level 2 provides additional tactical and fire-ground training and experience with problems involving flammable liquids, including handling a team leader position during a flammable liquid casualty. The course provides live-fire training using a simulated fuel-loading dock, fuel under pressure (broken flange), and a bulk fuel storage container.

Portable Fire Extinguishers

Students gain experience in fire-ground problems using standard stored pressure water extinguishers, stored pressure foam extinguishers, cartridge-operated dry chemical extinguishers, and carbon dioxide extinguishers.

Liquid Petroleum Gas (LPG)

Students learn the basic property of LPG, issues surrounding LPG-powered vehicle fuel systems and storage tanks and their built-in safety features, leak detection, product identification, and basic tactics for LPG emergencies. Students practice attacking, controlling, and recovering LPG fires on a simulated storage tank, overhead piping, and an LPG fill station.

Airport Rescue Firefighting (ARFF)

This unique training prop was constructed to provide hands-on live firefighting training for aircraft incidents.

Hazardous Material Training (HazMat)

The Hazardous Materials Training program is designed to include academic and hands-on training for first responders to meet the current WISHA, OSHA, DOT and NFPA requirements. In addition, it is an invaluable tool in providing training scenarios for those personnel that respond to clandestine drug labs, terrorism and weapons of mass destruction, confined space rescue, spills response, and issues relating to the transportation of hazardous chemicals and waste.

Marine Firefighting

This program is designed to include academic and live hands-on firefighting for those personnel working within the marine industry. The training is designed to meet the current CFR, NFPA, and International Maritime Organization requirements. Several governmental agencies participate in this program including the Coast Guard, U.S. Navy and Army. Additional instruction, such as incident command using self-contained breathing apparatus and search and rescue, is also provided. During Fiscal Year 2001, 274,188 hours of practical and classroom instruction were provided to firefighters.

Department of Revenue

The Department of Revenue oversees the collection of the Hazardous Substance Tax.

Local Toxics Control Account

Local Toxics Control Account Revenue

Local Toxics Control Account Revenue Total $40,067,757

Local Toxics Expenditures

Toxics Cleanup Program	$828,679
Hazardous Waste & Toxics Reduction Program	$71,886
Agency Administration	$290,112
Solid Waste & Financial Assistance Program	$19,666,397
Environmental Assessment Program	$29,430
Department of Agriculture	$65,896
Total All Agency Expenditures	$20,952,400

Department of Ecology:
Solid Waste and Financial Assistance Program

Local governments may use grants to clean up contaminated sites, manage solid and hazardous waste, or provide drinking water to those whose wells have been contaminated as a result of a contaminated site. Grants are offered to citizen groups for participation in cleanup actions and promotion of waste management priorities.

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, with Fiscal Year 2001 being the second year of the current cycle. During Fiscal Year 2001, a total of $94,235 was awarded for new grants, allowing $132,058 in costs to be leveraged by local governments. An additional $758,762 was awarded in amendments to grants written during Fiscal Year 2000. Local match rates range from 25 to 40 percent of costs eligible for grant funding depending on the local economic situation.

Coordinated Prevention Grants funded the following types of projects:

- Collecting and disposing of household hazardous waste;
- Inspecting facilities;
- Responding to and investigating illegal dumpers;
- Teaching people how to prevent waste and to recycle;
- Building facilities for recycling and household hazardous waste collection;
- Purchasing necessary equipment for successful recycling;
- Working with businesses to find ways to reduce and recycle their moderate-risk waste;
- Preparing plans for solid waste, moderate-risk waste, and biomedical waste;
- Drilling and installing ground water monitoring wells.

Figure 10: Local Toxics Control Account Expenditures

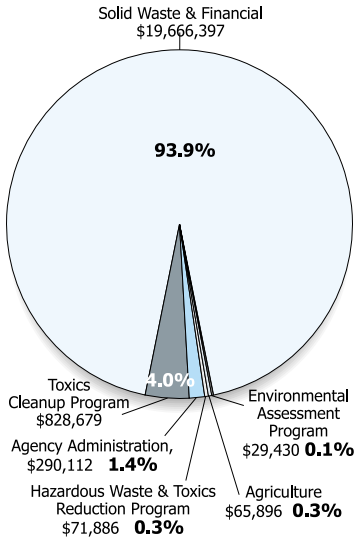


Table 3: Coordinated Prevention Grants

Coordinated Prevention Grant Recipients:	Grant Number	Total Project Cost	Local Toxics Control Account
Twisp Town of	G0100029	100,000	75,000
Woodinville City of	G0100129	5,888	3,533
Lake Forest Park City of	G0100131	7,038	4,223
Sammamish City of	G0100132	13,353	8,012
Algona City of	G0100133	2,537	1,522
Black Diamond City of	G0100142	3,242	1,945
Totals:		*$132,058*	*$94,235*

The grants programs run on a two-year cycle. The majority of funds are issued during the first year of the cycle. FY 2001 was the second year of the cycle.

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. Public Participation Grants are funded by one percent of both the Local and State Toxics Control Accounts. In Fiscal Year 2001, changes to the application process and timing of the grant awards delayed issuance of new grants until Fiscal Year 2002. Three grants were awarded early in the year to finish the previous year cycle. These projects helped people:

- Provide information and materials through public seminars on how residents can develop environmentally, sustainable lifestyles;
- Educate the public about hazardous waste issues and how to help prevent ground water contamination;
- Understand and comment on cleanup proposals at an Eastern Washington cleanup site.

Table 4: Public Participation Grants

Public Participation Grants:	Grant Number	Total Project Cost	Local Toxics Control Account	State Toxics Control Account
Clark Co Haz. Waste Citizen Task Force	G0100020	20,500		20,500
Green Zone Committee	G0100058	6,800	6,800	
Quincy Concern	G0100031	20,000		20,000
Totals:		*$47,300*	*$6,800*	*$40,500*

Department of Ecology:
Toxics Cleanup Program

The administrative and accounting functions of the Remedial Action Grants Program are administered by the Solid Waste and Financial Assistance Program which awards grants from the Local Toxics Control Account based on contaminated site cleanup criteria and decisions made by the Toxics Cleanup Program. Approximately $25 million in funds are provided to local governments each biennium.

In Fiscal Year 2001, the Toxics Cleanup Program experienced, for the first time, the likelihood that funds would be inadequate to continue ongoing projects and to add new projects, as was past practice. With the tide of rising site cleanups by local governments and the stress that has taken on the availability of funds from the Local Toxics Control Account, the Toxics Cleanup Program developed a strategy in Fiscal Year 2001 that provided partial finding to all local governments that submitted requests for financial assistance. The Department will pursue opportunities for supplemental funding in Fiscal Year 2002, thereby maintaining remedial actions that started years ago and providing that new remedial actions move forward toward a cleanup that protects human health and the environment.

Remedial Action Grants

The Remedial Action Grants Program provides funding to local governments for cleaning up publicly-owned contaminated sites and related work. In Fiscal Year 2001:

- Seven local governments received grants for the study and remediation of typical contaminated sites, including landfills and sites with future public use (total $3,131,300);
- Two local governments received Brownfields grants. A Brownfield is an abandoned or underused property that is contaminated from past industrial or commercial practices (total $5,057,699);
- Nine local governments and school districts received grants for the removal of underground storage tanks and cleanup of related soil or ground water contamination (total $144,924);
- Nine county health departments received new grants to continue or begin investigating contaminated sites and preparing Site Hazard Assessments (total $1,492,059);
- One local government received a grant to provide clean drinking water ($662,500).
- $2,018,684 was awarded as amendments to existing projects.

Figure 11: Remedial Action Grants

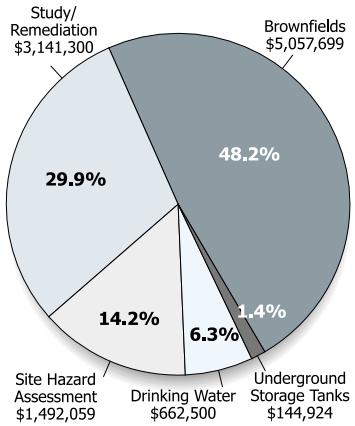


Table 5: Remedial Action Grants

Remedial Action Grants Recipients	Grant Number	Total Project Cost	Local Toxics Control Account
Adams Co Health District	G0100049	5,000	5,000
Anacortes Port of	G0100182	200,000	100,000
Bremerton City of	G0100030	963,400	481,700
Bremerton Port of	G0100069	120,500	60,250
Bremerton Port of	G0100070	1,491,647	745,824
Chelan-Douglas Health District	G0100103	15,000	15,000
Crescent School District	G0100068	8,385	4,193
Easton School District	G0100104	7,268	5,451
Franklin County	G0100048	2,200,000	1,650,000
Grays Harbor Environmental Health	G0100003	15,000	15,000
Hoquiam City of	G0100043	9,620	4,810
Jefferson Co Health	G0100179	91,500	91,500
Kittitas Co Health Department	G0100005	20,000	20,000
Lewis County	G0100057	980,000	735,000
Lincoln County	G0100040	119,200	59,600
Lynden City of	G0100185	662,500	662,500
Mason Co PUD #3	G0100180	27,271	20,453
Oak Harbor School District	G0100072	114,878	57,439
Okanogan Co Health Dept	G0100106	150,000	150,000
Pe Ell Town of	G0100181	7,197	5,398
Skagit Co Health Dept	G0100019	90,000	90,000
Snoqualmie City of	G0100196	9,437	4,719
Tacoma City of	G0100006	10,514	5,257
Tacoma City of	G0100007	74,407	37,204
Tacoma City of	G0100071	8,623,750	4,311,875
Tacoma-Pierce Co Health Dept	G0100077	990,000	990,000
Whatcom Co Health	G0100004	115,559	115,559
Yakima City of	G0100183	73,000	54,750
Totals:		*$17,195,033*	*$10,498,482*

Department of Ecology:
Toxics Cleanup Program

The Department of Ecology, in cooperation with the Washington State Department of Natural Resources, Washington State Fish and Wildlife, US Fish and Wildlife, EPA, and US Army Corps of Engineers, concluded a three-year study that examined the problems and issues surrounding the difficult questions associated with contaminated sediments found in Puget Sound. Extensive research was conducted to determine the location of the contaminated sediments, the nature and extent of the contamination, and various methods of cleaning up and/or removing the pollution. The study attempted to determine if it was feasible to establish one or more sites in Puget Sound for the treatment and/or disposal of contaminated sediment materials. The study examined possible disposal sites in the water, near shore, and close upland.

Ecology and its partners sought and received advice and review from tribes, business, and environmental and citizen groups and determined that while it was technically possible to establish such a disposal site, the political, legal, and social impacts were so significant that another alternative was needed. After extensive review and study, the team determined that the best disposal alternative was to remove the pollution from the marine environment and dispose of contaminated sediments at one or more large regulated regional landfills. That alternative has proven to be both cost-effective and acceptable to all of the stakeholders involved in the effort to clean up pollution and protect the environment.

Table 6: Total of All Grants

	Total Project Cost	Local Toxics Control Account	State Toxics Control Account
Total of All Grants:	17,374,391	10,599,517	40,500
Amendments to previous year grants:			
Remedial Action		2,018,684	
Coordinated Prevention		758,762	
Grand Total:	*$17,374,391*	*$13,376,963*	*$40,500*

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*). Beginning in July 1999, Ecology reviewed over 400 applications for the registration of fertilizers to ensure compliance with applicable regulations. In addition, the criteria used to review fertilizer applications has been put into rule (*Dangerous Waste Regulations*), there has been ongoing work on ways to reduce levels of dioxin in wood ash (some of which is used as a fertilizer product), and a study on crop uptake of metals from fertilizers is complete.

In addition, Ecology has been involved with the development of the federal rule on hazardous waste-derived zinc fertilizers.

Department of Agriculture

The Department of Agriculture was mandated by *Chapter 36, Laws of 1998, the Fertilizer Regulation Act*, to conduct a comprehensive study of metal concentrations in plant tissue. The Department entered into an interagency agreement with Washington State University for this study in 1998. The study was completed this year. The Department is currently working with the departments of Health, Ecology and Washington State University to prepare a report based on the results of the study.

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