Washington State
Department of Ecology

Enforcement Report on Policy and Trends

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Message from Linda Hoffman

Director, Department of Ecology

Welcome to the Department of Ecology's report on policy and trends in enforcing the environmental laws and rules of Washington State. In the following pages you will find information about our approach to and trends in enforcement.

Enforcement is just one of the many tools the Department of Ecology (Ecology) uses to gain compliance with the state's laws to protect our air, land and water. Our goal is to seek voluntary compliance with environmental protection laws whenever possible. To achieve voluntary compliance, Ecology employees devote considerable time and resources on education and technical and compliance assistance to help individuals and businesses understand what they need to do to comply with environmental laws.

When enforcement is necessary, it is our policy to use it in a fair and firm manner to protect public health and our environment. The goal of enforcement is not to "punish" for wrong-doing, but to deter environmental damage from actions that are harming, or may harm, public health and the environment.

I understand the economic pressures facing both businesses and citizens as they do their best to comply with state laws to protect the air, land and water. We are committed to working with our regulatory partners to find innovative, economical solutions for businesses to implement, without compromising our mission to protect, enhance and preserve our environment.

As we look to the future of our state and the health and welfare of Washington's citizens, a clean and sustainable environment benefits us all, both economically and socially.

Thank you for doing your part to keep Washington's air, land and water clean.

Linda Hoffman

Introduction

The Department of Ecology (Ecology) is Washington's principal environmental protection agency, overseeing laws and rules relating to air, land and water.

> The mission of the Department of Ecology is to protect, preserve and enhance Washington's environment, and to promote the wise management of our air, land and water for the benefit of current and future generations.
>
> Ecology's goals are:
> - Prevent pollution,
> - Clean up pollution, and
> - Support sustainable communities and natural resources

Ecology's primary environmental business functions are:

Pollution Prevention

Permitting Compliance

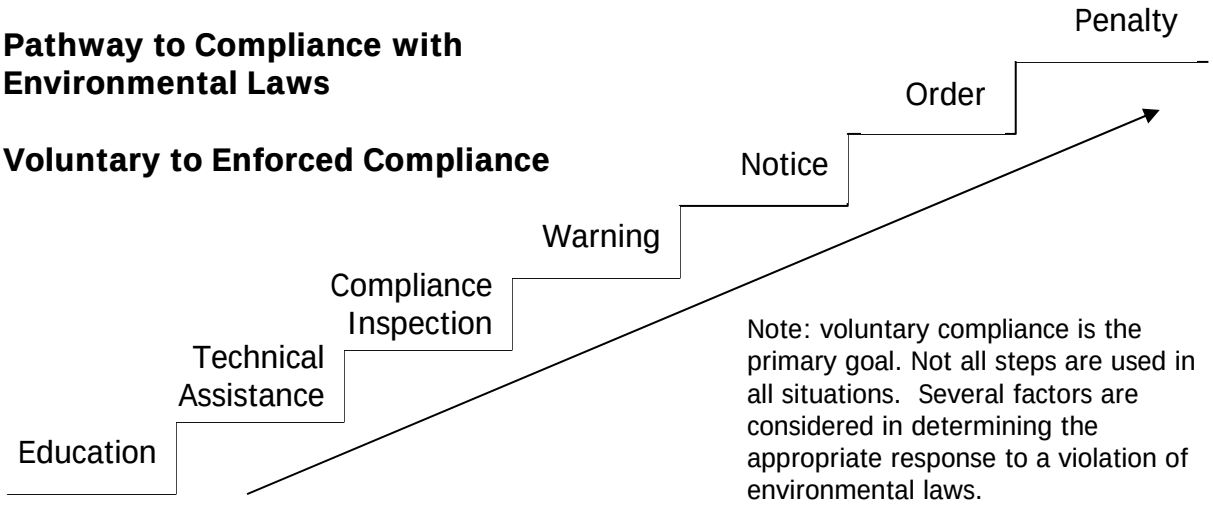
Ecology's Enforcement Principles

Enforcement is a tool that, when used with other strategies, helps to ensure public health and the environment are protected from harmful chemicals and pollution. Equitable enforcement of environmental laws and rules requires matching carefully the significance of the violation to the effect of the enforcement action. Most environmental rules are self-implementing. Knowledge of and voluntary compliance with environmental laws and rules is required and expected. This includes the Revised Code of Washington (state law), all rules in the Washington Administrative Code (agency rules) and, in the case of federally delegated programs, the Code of Federal Rules.

Voluntary compliance with environmental laws and rules is preferred. However, understanding and complying with environmental laws and rules can be complicated. Ecology uses a range of tools to assist the regulated community understand how to comply with environmental laws by providing education and technical assistance on

permits, conducting inspections, performing on-site technical visits and providing regulatory guidance materials written in easily understood language.

When efforts to achieve voluntary compliance are unsuccessful, Ecology may employ a continuum of increasingly stringent enforcement tools as our role moves from educator to enforcer. This continuum runs from warning letters advising facilities of areas of noncompliance, to administrative enforcement actions and, when appropriate, criminal prosecution.



Cooperation-based solutions to environmental problems are sought in most instances. However, a strong deterrent-based enforcement policy is in place to address significant threats to human health and the environment and to address egregious violations and recalcitrant actions. Enforcement actions by Ecology are based in fact and law, well documented, appropriate to the violation and issued in a professional, equitable and effective manner. It is Ecology's policy to enter facilities, businesses or other private properties after receiving consent or after obtaining a court order where consent was not received.

Defining Enforcement Actions

There are two paths for enforcing environmental laws and rules: civil and criminal. Civil enforcement may be pursued through the courts (judicially) or directly through action by Ecology (administratively). Ecology pursues most of its enforcement action through administrative civil actions. However, if an Ecology employee notes possible criminal activity, a referral for investigation to the Ecology Criminal Investigations Task Force may be made concurrent with ongoing inspections or other civil enforcement actions.

Administrative enforcement is the exercise of state civil authority to direct the owner or operator of a facility, site or property to comply with state law. An administrative enforcement action is based upon:

1. A violation, or potential to violate, a state law or rule, and
2. Authority to enforce that law or rule.

Administrative enforcement tools consist of warning letters or letters of non-compliance, notices, orders and civil penalties. These categories are described below in more detail. Please note that not all Ecology programs have legal authority to use all the tools listed. In addition, some enforcement authority is delegated to local government with Ecology acting in an oversight capacity.

Warning Letters or Letters of Noncompliance

These letters are one of Ecology's most frequently used enforcement tools. They typically cite minor or potential violations of environmental rules observed during a field visit or inspection. Warning letters describe measures the business or individual may take to remedy the situation.

Notices

A Notice of Violation or a Notice of Non-Compliance officially informs the recipient that they have violated or pose the potential to violate environmental laws. Notices may not be appealed to the Pollution Control Hearings Board or the Shoreline Hearings Board. In some cases, a field citation of no greater than $2,000 may accompany a Notice of Non-Compliance.

Orders

An Order is typically a unilateral directive requiring a person or business to take steps to correct violations of environmental laws. Administrative orders are authorized by statute, and most orders can be appealed to either the Pollution Control Hearings Board or the Shoreline Hearings Board.

Civil Penalties

In civil penalties, Ecology's investigation must establish that a violation of law occurred. State laws authorizing civil penalties set maximum amounts, usually on a per-day and/or per-violation basis. Civil penalties are not "punitive." Ecology uses them to secure correction of environmental regulatory violations and to deter future violations. Civil penalties can be appealed to the Pollution Control Hearings Board or the Shoreline Hearings Board.

Criminal Enforcement

Unlike civil violations, investigation and prosecution of environmental crimes must not only establish a violation of law, but also that the person committed the violation

knowingly or intentionally and/or willfully. In addition to specific environmental crimes, criminal prosecution may involve fraudulent reporting, testimony or recordkeeping.

Compliance with Environmental Laws & Rules

The goal of compliance assistance is to help businesses voluntarily comply with laws and rules to protect public health and the environment. Ecology provides various resources and services to support voluntary compliance, including education, technical assistance and cooperation-based programs. Education and assistance programs are designed to help people and business conduct their activities in a manner that protects human health and the environment.

Examples of technical assistance are sector-based brochures and site visits, the Toxic Reduction Engineering Efficiency program for waste reduction and water conservation, and pollution prevention assistance.

Examples of methods used to gain compliance

Ecology employees often give compliance assistance during routine site inspections of facilities, sites or businesses in the form of regulatory information and technical assistance. In addition, the business or site owner and/or operator may be directed to useful sources of information relevant to problems observed at the facility or business.

The goal of compliance assistance is to ensure businesses and individuals understand what is necessary to comply with state laws to protect public health and the environment. Where instances of noncompliance are found, Ecology works with the business owner or operator to achieve voluntary compliance. When voluntary compliance is not successful, Ecology is authorized to take administrative enforcement.

A cooperation-based tool Ecology is using to improve voluntary environmental compliance is a negotiated agreement with specific industry associations, called a memorandum of understanding. The typical nature of a memorandum of understanding addresses the effective management of wastes and/or the control of air and water pollution through identifying and using best management practices. Voluntary compliance is achieved through actions taken by the industries affiliated with the association.

Examples of memorandums of understanding are provided on the next page.

Memorandums of Agreement as Tools to Achieve Environmental Compliance

The following agreements illustrate ways in which Ecology is working collaboratively with its regulatory partners to gain voluntary environmental compliance.

Northwest CruiseShip Association

On April 20, 2004, Ecology, the Port of Seattle and the Northwest CruiseShip Association signed an agreement to protect Washington's marine waters from untreated black and gray water, conventionally treated wastewater effluent or residual solids within the waters of Puget Sound, the Strait of Juan de Fuca and the Pacific Coast. Only wastewater treated by advanced treatment systems can be discharged into Washington's marine water.

This agreement was signed in time for the busy summer cruise season for Northwest CruiseShip member lines that call at the Port of Seattle: the Holland-America, Norwegian and Princess. The CruiseShip member lines have agreed to provide sampling and testing data to Ecology. The data is posted on the Internet at http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/index.html.

Washington State Dental Association

On August 1, 2003, Ecology and the Washington State Dental Association entered into an agreement to effectively manage and dispose of mercury generated from dental practices. Dental amalgam (silver fillings) is a mixture of mercury (about 45-50 percent), and an alloy of silver, tin and copper. Amalgam waste scrapes that are flushed down drains into sewage treatment plants can harm the environment.

The Dental Association has agreed to work with its member dental offices to achieve voluntary compliance by installing amalgam separators in their drains, and to properly dispose of all scrap amalgam waste from traps, filters and separators at a licensed treatment, storage, disposal or recycling facility. More information about mercury in dental waste is available on the Internet at http://www.ecy.wa.gov/dentalbmps/.

Washington Association of Wheat Growers

On February 9, 1999, Ecology, the Washington Department of Agriculture and the Washington Association of Wheat Growers entered into a voluntary agreement to reduce the emissions from burning cereal-grain stubble by an average of at least 7 percent per year for the following seven years (burning will be 50% less by June 30, 2006). Smoke from agricultural burning can cause or worsen lung related illnesses such as asthma, bronchitis and emphysema.

As of August 2004, the preliminary cereal grain field burning reduction is 93,650 acres, or a 41% reduction from the 1998 baseline. For more information, visit http://www.ecy.wa.gov/programs/air/aginfo/agricultural_homepage.htm

Regulatory Reform and Inspector Training

In 1995, the Washington State Legislature adopted House Bill 1010, pertaining to regulatory reform, later codified as chapter 43.05 of the Revised Code of Washington (RCW). RCW 43.05 directs Washington State agencies to develop programs to encourage voluntary compliance by providing technical assistance consistent with statutory requirements. In addition, RCW 43.05 changed the process of issuing enforcement actions as a result of violations observed during compliance inspections.

For compliance inspection site visits, Ecology may, and in some cases must, issue a "Notice of Correction" for any observed violations, or potential violations. If a notice of correction is issued, a civil monetary penalty may not be issued unless the party fails to comply with the notice. A notice of correction issued by Ecology must give a "reasonable" time to achieve compliance, with the following exceptions:

- Penalties for negligently discharging oil,
- Penalties for unlawful use of water,
- Penalties for failing to comply with specific conditions of a permit, and
- Some federally delegated programs.

In 1997, the state legislature commissioned an Investigative Study Group to look at training programs, and policies and procedures for state employees who conduct investigations (Substitute House Bill 1632). The study group concluded that many state investigators were inadequately trained and that recognized state standards for training did not exist. As a result of these findings, Governor Gary Locke signed Executive Order 98-02 on Training and Protocols for State Investigators in June 1998.

The Governor's order directed the state Department of Personnel to develop and coordinate an investigator training and certification program. The order also directed state agencies to review and submit their policies and procedures on external and internal investigations to the Department of Personnel for peer review and comment by the State Investigative Resource Committee. In 1998, roughly 400 Ecology employees met the definition of "investigator" and subsequently participated in investigator training provided by Ecology and approved by the Department of Personnel. Ongoing training, policy development and guidance for conducting investigations are conducted as needed.

State and Federal Roles in Enforcement - Ecology and the Environmental Protection Agency

Ecology has been delegated the authority to carry out certain federal environmental laws, such as sections of the federal Clean Air Act, the federal Clean Water Act and the federal Resource Conservation and Recovery Act. For this reason, every two years, Ecology enters into a joint agreement with the federal Environmental Protection Agency (EPA) to align commitments for the protection of Washington's air quality and water quality and the sound management of hazardous waste. This agreement is called the Environmental Performance Partnership Agreement

The Environmental Performance Partnership Agreement is a reflection of the relationship between Ecology and EPA Region 10: a partnership with each other and with the citizens of Washington State in protecting, enhancing and restoring the natural environment. The Environmental Performance Partnership Agreement's purpose is to:

- Establish mutual environmental goals, strategies, activities and performance measurements.
- Maintain a core level of environmental protection for all of Washington's citizens.
- Measure environmental progress using indicators that reflect environmental conditions, trends and results.
- Allocate Ecology and EPA Region 10 resources to the highest environmental priorities of the state.
- Establish a joint work plan for administering the federal grant dollars that EPA Region 10 provides to Ecology for air quality, water quality and hazardous waste management.

Ecology and EPA share a desire for a strong compliance assurance program that achieves environmental protection by identifying noncompliance problems, deterring future violations and ensuring a level playing field for law-abiding companies and citizens. At the same time, both agencies advocate the use of a broad range of solutions to noncompliance, including compliance assistance and incentives.

Ecology, along with the other EPA Region 10 states of Idaho, Oregon and Alaska, has endorsed a set of principles with EPA Region 10 to guide the relationship and actions in compliance and enforcement matters. Ecology and EPA routinely work to coordinate compliance and enforcement actions to avoid duplicating efforts. Ecology has the role of being the "front line" agency in implementing the federally delegated programs of air, water and hazardous waste management.

There are four major categories of principles agreed to by EPA Region 10 and Ecology:

- **Collaborative Planning:** commitment to "up-front" planning to avoid problems, duplication and surprises.

- **Role Definition:** recognition of the state's "right of first refusal" on agreed-upon work in a delegated program, except in situations where regional or national initiatives warrant an EPA lead.

- **Performance Measurement and Oversight:** commitment to defining expectations and program review criteria.

- **Information Sharing and Data Responsibilities:** commitment to making data systems more user friendly and improving the ability to link data.

The Role of Science in Enforcement

Ecology recognizes the importance of having good scientific data on which to base its environmental decisions. Ecology's Environmental Assessment Program provides reliable data and information about environmental conditions that is used to measure agency effectiveness, inform public policy, and help focus the use of limited resources.

Environmental laboratories are regularly inspected by Ecology's Laboratory Accreditation Program. All laboratories performing tests to meet state permit requirements must participate in a program of state inspections and regular testing, which creates a cross-check on the accuracy of their analyses. More information on the accreditation program, as well as a list of approved laboratories, is on Ecology's web site at: www.ecy.wa.gov/programs/eap/labs/labs_main.html

In addition to accrediting environmental laboratories, Ecology and the Environmental Protection Agency jointly operate an environmental testing laboratory in Manchester, Washington. The Manchester lab performs a wide range of chemical and microbiological analyses, analytical method development, and other technical services ranging from project information management to logistical support for sampling events.

Ensuring quality environmental data can be critical to establishing a credible and defensible enforcement action. Ecology's lab employees are committed to continuous process improvement, which is evidenced by over seven years of consecutive 95 percent or greater scores on single-blind performance evaluation samples.

For more information about environmental science and monitoring, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/eap/index.html.

Enforcement Data Collection

Ecology has been electronically managing enforcement information on formal notices, orders and penalties in the agency's Enforcement Tracking System since 1985. Data on education programs, such as workshops, guidance and newsletters are not tracked routinely in the agency. Data on cooperation-based programs, such as technical assistance, compliance inspections and warning letters, are tracked within programs, but are not uniformly tracked at the agency level.

This report contains data on formal enforcement actions (notices, orders and penalties), which are presented as summary data on the next page and in program sections of this report.

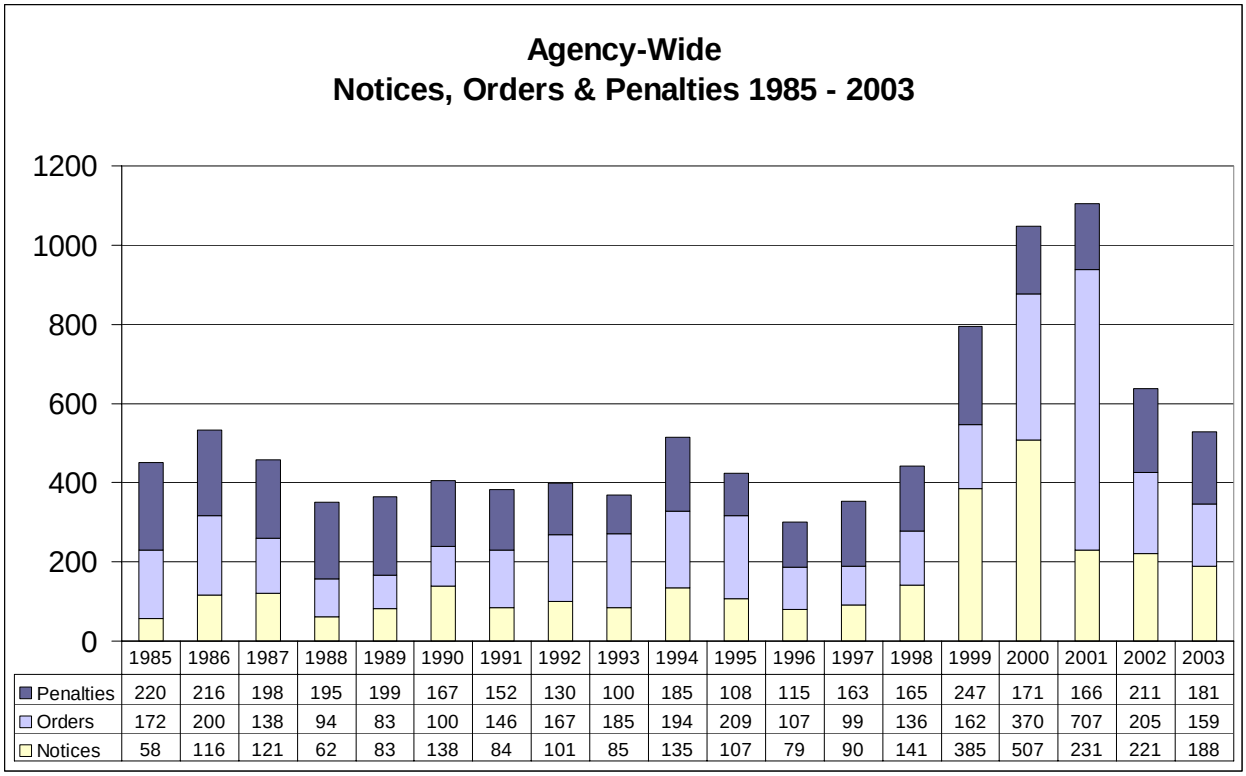
Trends in Notices, Orders and Penalties

The two graphs on the next page represent 19 years of consistent data collection for agency notices, orders and penalties, and the initial penalty assessment amount. Throughout the mid-1980s and mid-1990s, the number of enforcement actions Ecology issued was fairly constant.

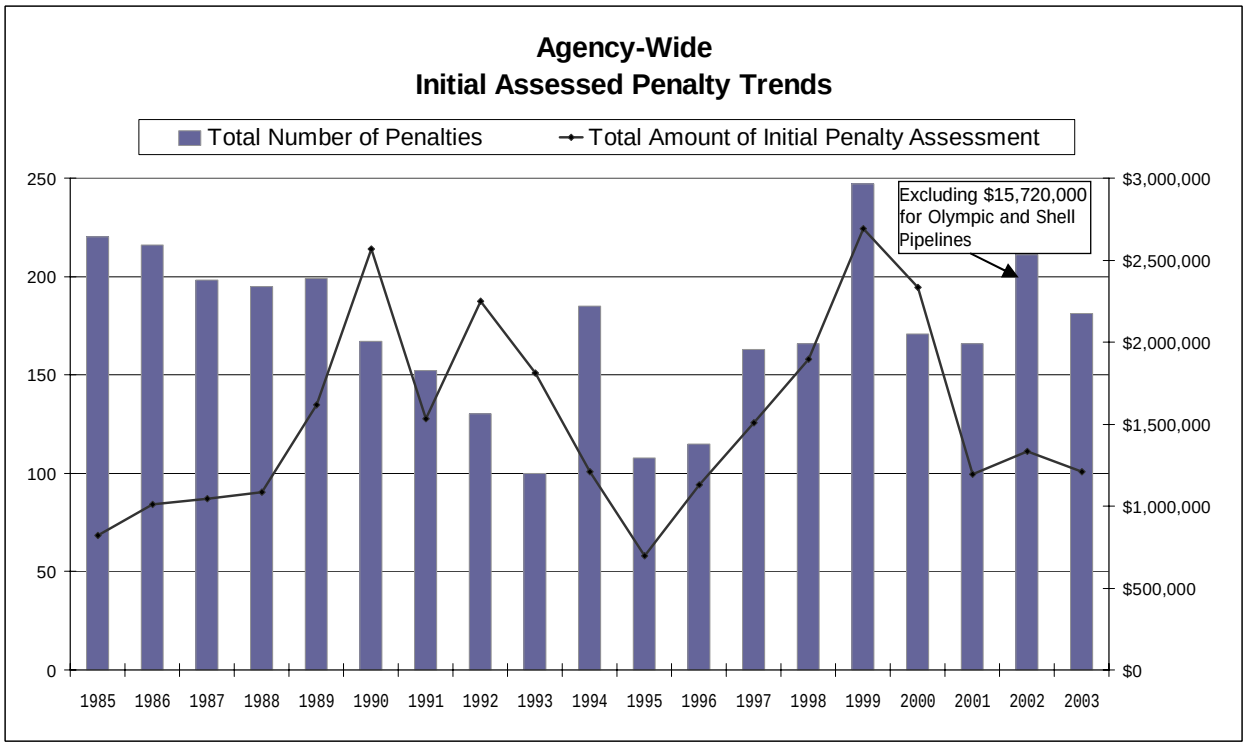
The spikes in notices and orders seen in 1999, 2000 and 2001 can be attributed to several new or enhanced programs administered by Ecology that were authorized by either the Washington State Legislature, the federal government or administrative action:

- Increased efforts to control smoke from agricultural burning,
- Targeted hazardous waste inspections,
- Targeted inspections of underground storage tanks,
- Emphasis on compliance with water quality certifications, and
- Increased dairy farm inspections.

For more information on enforcement and permitting services, visit Ecology's Web site at: http://www.ecy.wa.gov/services.html.



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	220	216	198	195	199	167	152	130	100	185	108	115	163	165	247	171	166	211	181
Orders	172	200	138	94	83	100	146	167	185	194	209	107	99	136	162	370	707	205	159
Notices	58	116	121	62	83	138	84	101	85	135	107	79	90	141	385	507	231	221	188



*Penalty issued dates are derived from the date the Ecology inspector requested a docket number for the enforcement action, not the date the action was taken.

Assessment of Penalties

Civil penalties are not considered "punitive." They are a monetary incentive to change behavior to ensure compliance with state law. Monetary penalties are aimed at correcting environmental violations and deterring future violations. Ecology considers several factors when determining the appropriate penalty amount to assess:

1. The nature of the violation, such as:
   - Severity of the violation (public health and/or environmental effect),
   - Magnitude of the violation (amount and type of pollution),
   - Whether the violation was due to negligence, recklessness or was intentional, and
   - Precautions taken to prevent the violation.

2. The prior behavior of the violator, such as:
   - Record of similar violations or a pattern of violations, and
   - Multiple notices of the violation and applicable corrective actions.

3. Actions taken by the violator to correct the problem, such as:
   - Degree of cooperation in working toward compliance,
   - Timeliness and appropriateness of corrective actions taken, and
   - Compensation paid or agreed to for damages to public resources.

Penalties typically come due and payable to Ecology in one of four ways:
- The violator does not initiate a formal appeal within the applicable time period,
- The violator files an Application for Relief, whereupon Ecology may issue a Notice of Disposition that reduces the penalty amount,
- The violator appeals the penalty to the Pollution Control Hearings Board or the Shorelines Hearings Board and the amount is reduced, or
- The violator and Ecology negotiate a traditional or innovative settlement agreement that may include a Supplemental Environmental Project.

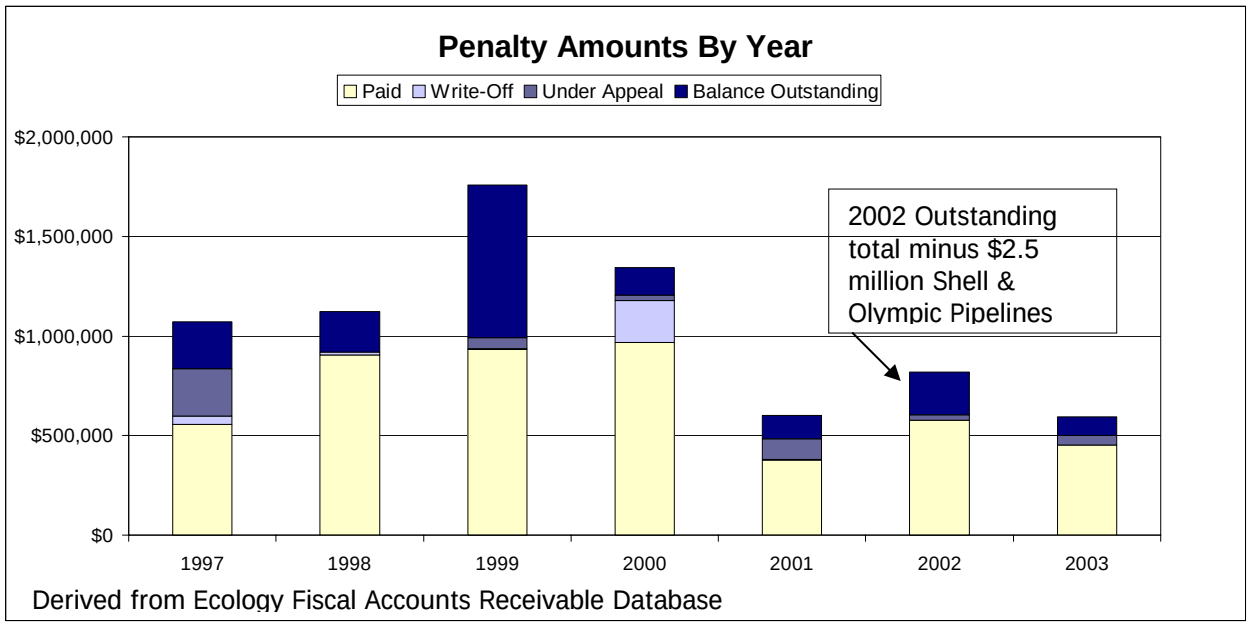
Negotiated settlements can include:
- A reduction in the dollar amount of the penalty, and/or
- An Innovative Settlement in the form of a Supplemental Environmental Project.

Ecology makes every effort to effectively and efficiently recover the final penalty assessment. Failing to pay a penalty will result in a referral to the state Attorney General's Office. The Attorney General's Office determines the appropriate action to be taken, such as seeking a judgment in Superior Court or the services of a collections agency.

Not all penalty dollars owed are collected. This can be due to many factors, such as inability to locate the debtor, the costs exceed benefits of further collection procedures,

statute of limitations has expired, negotiated compromises, collection remedies are exhausted, bankruptcies, and corporations with no assets. Penalties not collected for the above reasons are considered a "write-off." The following graph shows the amount of final penalty dollars assessed (assessments after appeals): the amount paid, the write-off amount, any amount under appeal and the outstanding balance owed (not under appeal).

Many individuals and businesses have entered into scheduled penalty payments with Ecology. The balance outstanding for any given year may be paid-off over time for scheduled penalty payments.



Innovative Settlements

Most orders and penalties can be appealed to the Pollution Control Hearings Board or the Shorelines Hearing Board. Both boards strongly encourage the parties to reach a settlement to avoid a formal hearing. Settlements typically fall under two categories: traditional and innovative. Settlements that simply reduce a penalty or revise an order to avoid litigation are considered traditional. Innovative penalty settlements may divert all or part of the assessed penalty amount to a Supplemental Environmental Project, which are projects that benefit the community where the violation took place.

Ecology's settlement objective is to achieve compliance with state environmental laws and rules, mitigate or restore damage done to the environment, and encourage the use of pollution prevention strategies to reduce future environmental damage. Innovative settlements include actions that address environmental problems caused by (or threatened to be caused by) the violation(s) identified in the penalty. The supplemental

environmental project proposed must reduce the total risk posed to public health or the environment by the violation. Penalty reductions are not given for actions or activities already required by law, or for actions or activities identified by a law, rule or government register that are set to become enforceable requirements at a future date. In innovative settlements, the penalty amount remaining must be paid in addition to the supplemental environmental project work.

Innovative settlements must include three general elements:

- The proposed supplemental environmental project must result in benefits beyond correcting existing violations and provide assurances regarding future compliance;
- The penalty paid plus the net cost of the innovative proposal must reflect the gravity of the violation and the economic benefit of noncompliance; and
- There should be a relationship between the nature of the violation and the environmental benefit sought through the proposal.

Innovative Settlement is a system that allows a portion of the penalty to be directly used to address environmental problems caused by the violation. The remainder of the penalty is still owed to the state.

2003 Examples:

Olympic Pipeline Explosion, Bellingham

$5 million of the $7.86 million civil penalty to Equilon is being invested in stream and shoreline restoration in Bellingham.

Chelan County Public Utility District Oil Spill

In lieu of $10,000 penalty payment, the utility district will work to improve rearing sites for salmon and trout.

Department of Corrections, Spokane

$43,200 of a $54,000 penalty will be used to train Corrections employees statewide on the proper handling and disposal of hazardous waste.

Unix Line Private, Ltd. Oil Spill, Tacoma

$300,000 of a $750,000 penalty is designated for projects to preserve and enhance marine water quality and habitat in Commencement Bay.

TransAlta Centralia Mining, LLC, Stormwater Violation

$50,000 of a $60,000 penalty is designated for stream restoration and salmon habitat improvements on the Chahalis River.

City of Ridgefield, Wastewater Treatment Violation

$24,000 of a $30,000 penalty is designated for fish habitat restoration in Gee and Allen creeks.

Port of Seattle Oil Spill

$76,000 of a $99,000 penalty is designated to replace aging fuel transfer lines to state-of-the-art transfer facility.

Criminal Enforcement

Many of the laws Ecology implements contain criminal sanctions. Criminal enforcement actions are considered only for the most significant and egregious violations. Investigations of possible criminal violations are conducted by the joint Ecology – US Environmental Protection Agency Criminal Investigations Task Force. The task force team works together to leverage state and federal resources and share information. While the number of criminal cases pursued in any given year is relatively small, the penalties imposed and associated jail times are significant deterrents.

Generally, criminal behavior is defined as a violation that was conducted knowingly or intentionally and/or willfully. Examples of criminal wrongdoing include:

- Conflicting data (two sets of books or inconsistent monitoring reports of the same incident),
- Conflicting stories,
- Deliberate actions (an employee told to do something illegal), and
- Claims of ignorance about requirements.

The following chart summarizes all actions reviewed and retained for criminal prosecution from 1994 through 2003. Detailed criminal enforcement actions are shown on the next page.

	1994–2003 Cumulative Totals
Complaints/Referrals Received	1,145
Cases Retained for Criminal Investigations	201
Criminal Warrants Served	61
Cases Referred for Criminal Prosecution (Number of Cases)	117
Criminal Charges Filed (Number of Defendants)	119
Criminal Convictions (Number of Defendants)	103
Penalty Amount Collected	$25,258,481
Total Time in Jail (Months)	543
Total Time in Probation (Months)	2,454

Criminal Enforcement Trends
1994 – 2003

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Complaints/Referrals Received	97	119	107	61	193	178	143	136	54	57
Cases Retained for Criminal Investigations	19	47	24	20	31	16	11	12	10	11
Criminal Warrants Served	8	10	21	8	4	4	2	4	0	0
Cases Referred for Criminal Prosecution (Number of Cases)	11	14	17	10	19	11	11	5	9	10
Criminal Charges Filed (Number of Defendants)	9	25	11	17	17	9	10	6	7	8
Criminal Convictions (Number of Defendants)	4	18	11	13	19	9	9	6	1	13
Penalty Amount Collected	$561,225	$553,333	$377,000	$300,140	* $780,644	$27,500	$35,137	$540,686	** $128,000	*** $21,954,816
Total Number time in Jail (Mo.)	11	76	143	72	78.6	30	36	36	0	60.3
Total Number Probation (Mo.)	300	276	339	300	511	206	246	96	12	168

* includes "innovative settlement" $350,000-envrionmental restoration in lieu of fine.

** includes restoration settlement $108,000 in lieu of fine.

*** includes restoration settlement $202,706 in lieu of fine; does not include $15 Million Civil and $76 Million in innovative settlements.

[1] Summary includes all criminal cases prosecuted in Washington State under both state and federal jurisdiction, or jointly.

Air Quality

Overview

The mission of the Air Quality Program is to protect, preserve and enhance the air quality of Washington to safeguard public health and the environment, and support high quality of life for current and future generations.

Air quality concerns come in three forms: public health, environmental effects and quality of life. Air pollution causes lung disease and worsens existing respiratory and cardiopulmonary disease, sometimes hastening death for people afflicted with such diseases. Hundreds of studies have found that short- and long-term exposures to air pollution increase emergency room visits, hospitalizations and medication use; cause absences from work and school; and restrict activity for some people. Air pollution also affects us in many other ways. In addition to harming plant and animal life, it can negatively affect the economic value of homes and other types of real estate, as well as personal comfort and well-being.

The Air Quality Program's goals are to have all dirty-air areas, known as non-attainment areas, classified as clean and to reduce outdoor air pollution to levels that assure protection of public health and the environment.

To accomplish its mission, the work of the Air Quality Program is focused around the following objectives:

- Prevent violations of air quality standards,
- Reduce health and environmental threats from motor vehicle emissions,
- Reduce risk from toxic air pollutants,
- Reduce health and environmental threats from smoke and dust,
- Reduce air pollution from industrial and commercial sources, and
- Measure air pollution levels and emissions to make sound policy decisions.

Air Quality Permits

Air pollution control in Washington is based on a set of local, state, and federal laws and rules involving three levels of government. The federal government, through the Environmental Protection Agency, sets air pollution standards that apply nationally. In addition, the Environmental Protection Agency is responsible for air quality issues on tribal lands and is in the process of setting up tribal air quality programs. The state government, through Ecology and, in some cases, the Energy Facility Site Evaluation

Council, is required to implement certain federal standards as well as state standards, which may be more protective of public health than federal standards.

Local government, in the form of local air pollution control agencies, has broad responsibilities within single or multi-county jurisdictions. Local air pollution control agencies issue air permits and ensure compliance with state and federal air quality standards, and their own local rules, which may be more protective of public health than state or federal standards.

In counties with no local air pollution control agencies, Ecology issues permits to new and existing industrial and commercial facilities that emit significant levels of air pollution. These permits are conditioned and approved to ensure that all federal and state laws are met and that air quality, the environment and public health are protected. Air permits also are issued to agricultural and land clearing burning operations to ensure that public health threats from smoke are managed and minimized.

Priorities of air quality permit programs include:

- Providing certainty to the regulated community on content and timeframes for permits,
- Improving timeliness of permit processing,
- Retaining local control of federal permit programs, and
- Ensuring adequate protection of public health and the environment.

Compliance Assurance

Ecology uses multiple approaches to improve and ensure compliance with air quality laws. Significant resource and effort are invested in non-regulatory technical assistance, permitting assistance and public outreach. Examples of these approaches include:

- Economic and non-regulatory incentives,
- Mutual agreements and orders,
- Compliance staff dedicated to providing technical assistance and on-going technical support, and
- Public meetings, workshops, and hearings; web pages, publications and other informational materials; and personal assistance to help businesses and citizens choose options that minimize the need for regulatory responses.

Techniques that have been used to improve compliance with air quality laws and rules include:

- Voluntary, single industry or sector-based technical assistance campaigns,
- Source specific pollution prevention assessments,
- Permitting and compliance assistance,
- Targeted information on air quality requirements, and
- Directing sources to the right person or agency to get their questions or issues resolved quickly.

Traditional compliance approaches include on-site inspections, compliance monitoring, warnings, orders and notices of violation and penalties. If a business or citizen is found to be out of compliance, Ecology makes a concerted effort to resolve the problem quickly. If voluntary compliance cannot be achieved within a reasonable timeframe, Ecology will initiate a formal pathway to compliance.

Environmental Trends

Since the Washington State Legislature expanded statewide air quality efforts in 1991, overall air quality in Washington has greatly improved. A decade ago, 13 areas of Washington were designated as violating national ambient, health-based air quality standards for six chemicals known as "criteria" pollutants (carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter and lead). Air quality has improved significantly in major urban areas, and most are currently meeting healthy-air standards. However, a number of urban areas in the state remain close to violating one or more of the federal air quality standards.

In addition to the six criteria pollutants, hundreds of other toxic or hazardous air pollutants enter the atmosphere from a wide variety of sources. Because of limited air quality and health risk data, the level of public health and environmental damage caused by toxic air pollutants is more uncertain than health risks associated with the criteria air pollutants.

Enforcement Trends

Air quality enforcement generally falls into three areas of violations:

- Commercial and industrial sources, such as asphalt batch mix, concrete batch mix, iron foundries, chemical plants and food processors;
- Agricultural burning, to remove orchard and field crop debris or to control weeds and pests in and adjacent to crop land; and

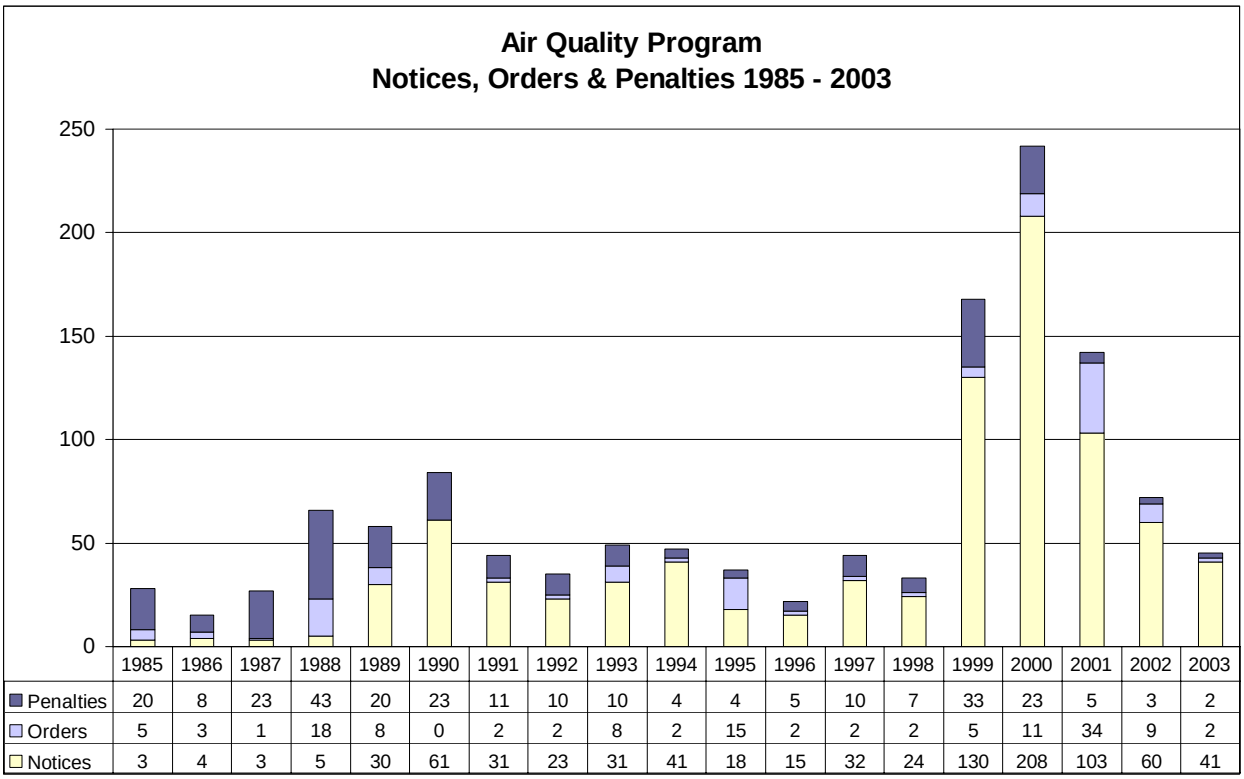
- Outdoor burning, such as garbage disposal burns, burn barrels, industrial waste fires, residential burning and land clearing.

Commercial and industrial enforcement has primarily focused on facilities that have large sources of air emissions and are generally aware of the laws and rules. Facilities with smaller sources of air emissions are addressed primarily through education efforts instead of enforcement.

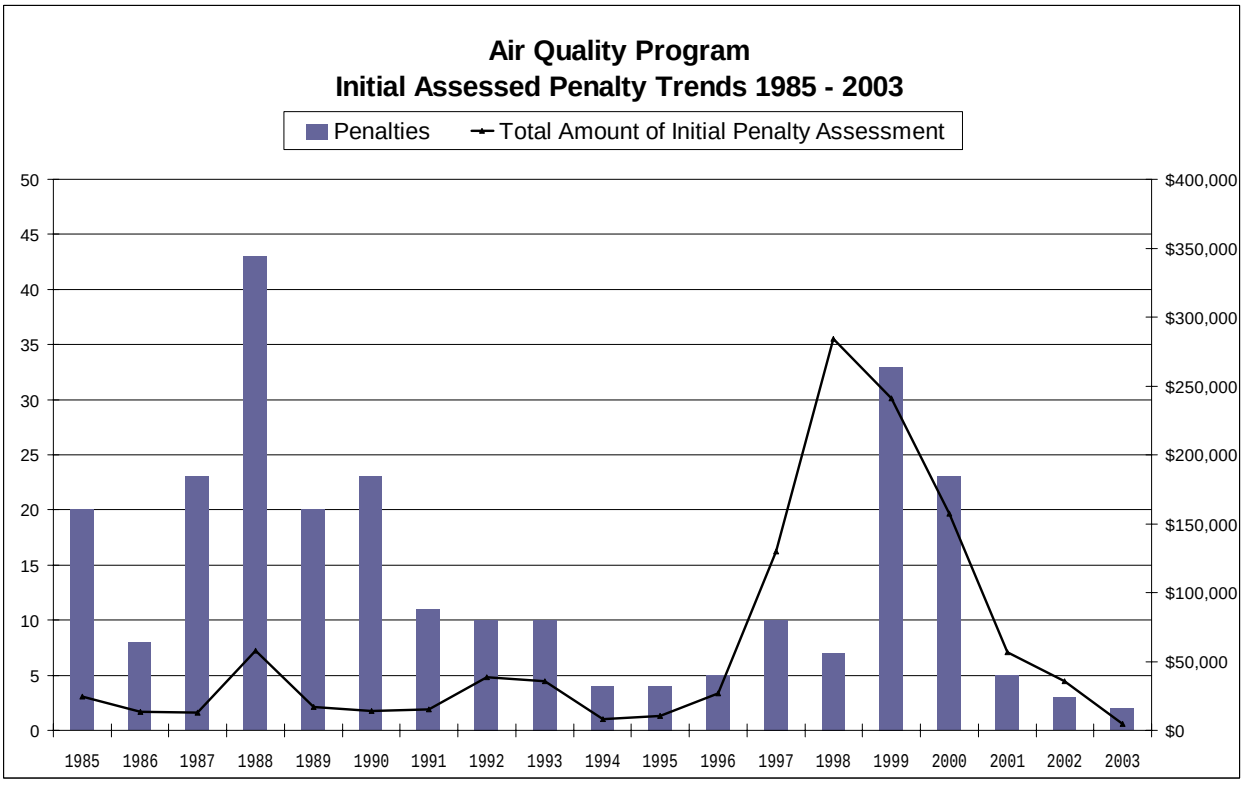
In the graphs on the next page, the enforcement activity from 1999 through 2001 was largely attributable to the peak in agricultural burning actions. Agricultural burning enforcement has declined, primarily due to increased understanding by growers and the resulting increase in compliance with permitting requirements. In general, the agricultural community is in good compliance with permit requirements and conditions. When violations do occur, the nature of the violation has shifted from violations for burning without a permit to violations of permit conditions. In the past when dealing with the failure to obtain a permit, the presence of a burned agricultural field was sufficient to proceed with an enforcement action. Today, in order to document most violations, an inspector must be present at the time of the fire.

Other outdoor burning enforcement activity is increasing for two main reasons. First, as agricultural burning compliance has improved, Ecology employees have shifted their efforts to work on other areas, often on outdoor burning. Second, the laws have changed so that most outdoor burning is prohibited in urban growth areas. Since many residents in these areas have a history of burning, often legally in the past, it takes significant education, outreach and compliance assistance to ensure that citizens adapt to the laws now in effect.

For more information about air quality in Washington state, please visit Ecology's Web site at: http://www.ecy.wa.gov/programs/air/airhome.html.



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	20	8	23	43	20	23	11	10	10	4	4	5	10	7	33	23	5	3	2
Orders	5	3	1	18	8	0	2	2	8	2	15	2	2	2	5	11	34	9	2
Notices	3	4	3	5	30	61	31	23	31	41	18	15	32	24	130	208	103	60	41



*Penalty issued dates are derived from the date the Docket Number was issued.

Hazardous Waste

Overview

The mission of the Hazardous Waste and Toxics Reduction Program is to foster sustainability, prevent pollution and promote safe waste management.

Hazardous chemicals are used in many manufacturing and business processes as well as in service industries and homes. Nearly all of these sources where hazardous chemicals are used create waste that can contain toxic chemicals. When chemicals become a hazardous waste, they are potentially harmful to the environment and the public. Many toxic-waste chemicals remain in the environment for a very long time and can build up in the food chain.

Currently, about 7,000 hazardous waste generators produce more than 122 million pounds of hazardous waste annually in Washington (2003 data). Ecology's goal is to work with the generators to reduce the amount of hazardous waste generated each year by 2 percent.

To accomplish its mission, the work of the Hazardous Waste and Toxics Reduction Program is focused around the following objectives:

- Reduce the generation of hazardous waste through technical assistance,
- Increase safe hazardous waste management through technical assistance,
- Increase compliance and take action on significant environmental threats from hazardous waste,
- Prevent hazardous waste pollution through permitting, closure and corrective action, and
- Improve community access to hazardous waste information and quality data.

Hazardous Waste Management Permits

Facilities that treat, store and/or dispose of hazardous wastes are required to obtain a permit to ensure that their design, construction, maintenance and operating procedures protect public health and the environment. Currently, Washington State has 15 active facilities that are covered under the Treatment, Storage and Disposal Permitting Program. These facilities receive hazardous waste from around the state for proper treatment and disposal. In addition to their operating permit, these facilities are required to have closure plans to effectively deal with the end of their waste management activities.

Ecology conducts more than 350 technical assistance visits and more than 300 compliance inspections yearly with businesses and facilities that generate dangerous wastes. Annual workshops are offered to thousands of businesses on how to reduce and manage their dangerous wastes and remain in compliance with dangerous waste rules. The state Hazardous Waste Reduction Act requires certain businesses to prepare plans for voluntary waste reduction. Ecology conducts more than 250 pollution prevention technical assistance visits each year to these facilities.

Compliance Assurance

Ecology expects voluntary compliance with the state dangerous waste rules, Chapter 173-303 WAC. Employees in the Hazardous Waste and Toxics Reduction Program use a variety of tools to help educate facilities on the rules, from written and Web-based material to yearly generator workshops. Ecology has dedicated Web pages for groups of facilities or industries designed to give information specific to that industry, for example the construction and demolition Web page.

On-site compliance assistance visits are conducted at businesses upon request. An example of a very effective tool Ecology has developed is the Technical Resources for Engineering Efficiency program, funded through a tax on dangerous waste, to help businesses reduce their waste through process and product changes. Through this program, Ecology engineers work with businesses to identify ways to reduce energy and water use, and to reduce, reuse or recycle wastes instead of incinerating or burying wastes. More information about this program can be found on Ecology's Web site at: http://www.ecy.wa.gov/programs/hwtr/TREE/index.html.

To measure the success of hazardous waste technical and compliance assistance, Ecology routinely conducts unannounced inspections on businesses. Unless there was harm done to the environment or a great potential for harm, most first visits to businesses are handled through compliance assistance or informal enforcement. The business is sent a report and a compliance certificate asking them to correct problems identified during the visit.

If compliance is not achieved through informal compliance processes, then more formal options, such as administrative orders or civil penalties, may be used to gain compliance with the rules. Typically, these more aggressive means are not needed. When formal enforcement is used, Ecology often pursues innovative settlements to allow portions of penalties to be used for supplemental environmental projects.

Environmental Trends

In 1992, Washington industries generated 317 million pounds of hazardous waste. By 2003, the hazardous-waste generation rate was reduced by 195 million pounds to 122 million pounds, a 62 percent reduction. This considerable reduction is due to pollution-prevention awareness, implementing pollution-prevention business practices, reduced business activity and improved compliance with rules.

Enforcement Trends

In early 1996, the Hazardous Waste and Toxics Reduction Program compiled data to determine if technical assistance and compliance inspections were resulting in fewer environmental problems at the facilities that generate hazardous waste. To do this analysis, the program looked at the total number of "compliance indicator violations" found during all of the inspections that had been conducted each year.

"Compliance indicator violations" are specific violations of the dangerous waste rules and are always covered during an inspection. The following indicator violations have been consistently applied since 1991 and are used to create trend graphs:

- Spills to the environment,
- Illegal disposal of a hazardous waste,
- Failing to check if wastes were hazardous, and
- Serious waste storage (container) violations.

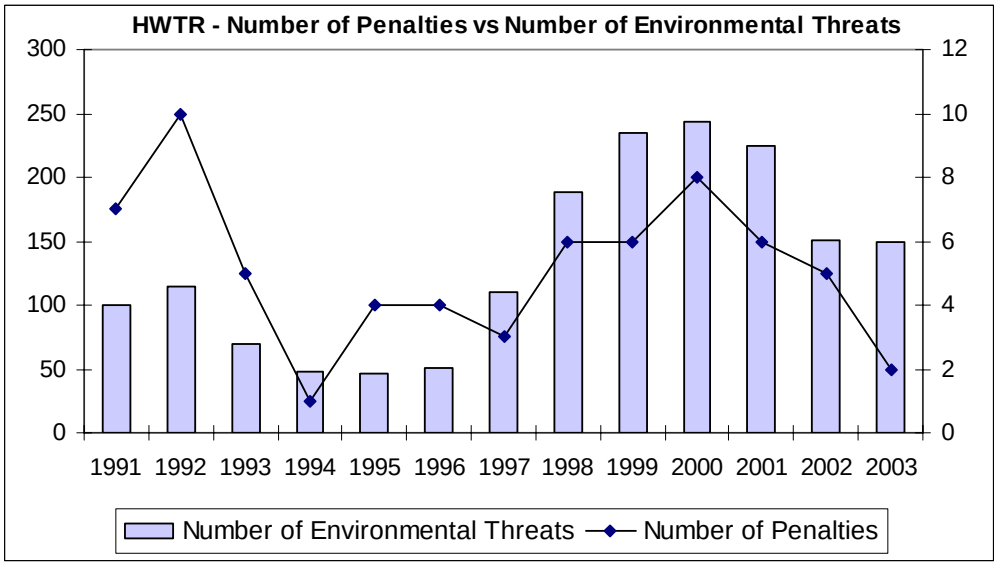
Analysis of the data from the 1990's showed that in years where technical assistance was emphasized during inspections, environmental threats decreased. However, to further reduce environmental threats, the Hazardous Waste and Toxics Reduction Program began targeting inspections based on:

- Increased response on significant complaints,
- Increased use of referrals from local government or other Ecology employees,
- Better use of our data to target generators not inspected before, and
- A "hitting the highpoints" philosophy of spending more time resolving environmental threats, and less time at facilities that are managing their waste safely.

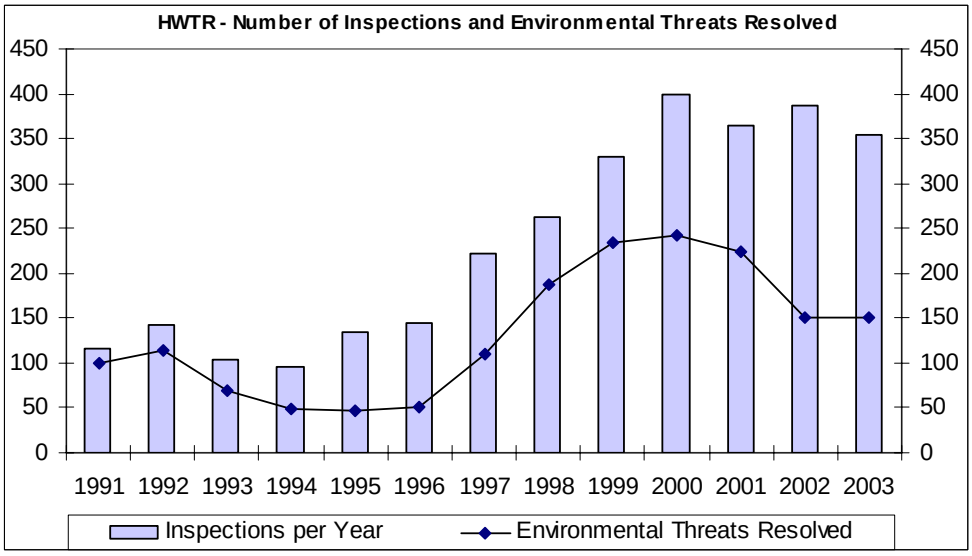
Ecology also placed a greater emphasis on field visits to hazardous waste generators in the 1990s. As a result, the data clearly shows a direct relationship between finding serious environmental threats and the number and amount of penalties issued by Ecology. It appears from the data that the 2003 penalty count drop may be a random fluctuation. Additional data in the next few years will help us decide if our current

targeting strategy is still effective or if change is required to find and resolve environmental threats through our compliance and enforcement system.

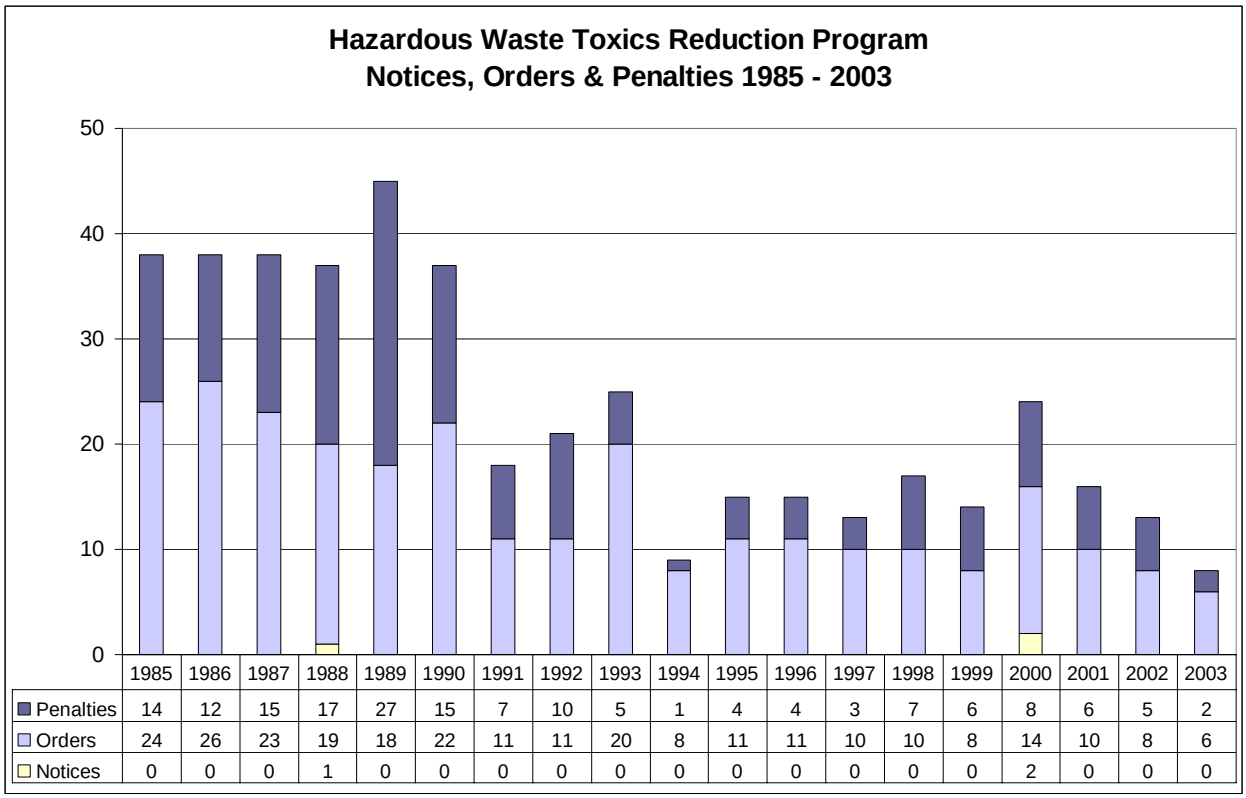
The following graph shows the number of penalties and the number of environmental threats found during compliance inspections. In general, penalties track fairly closely to the number of environmental threat violations that are found during inspections.



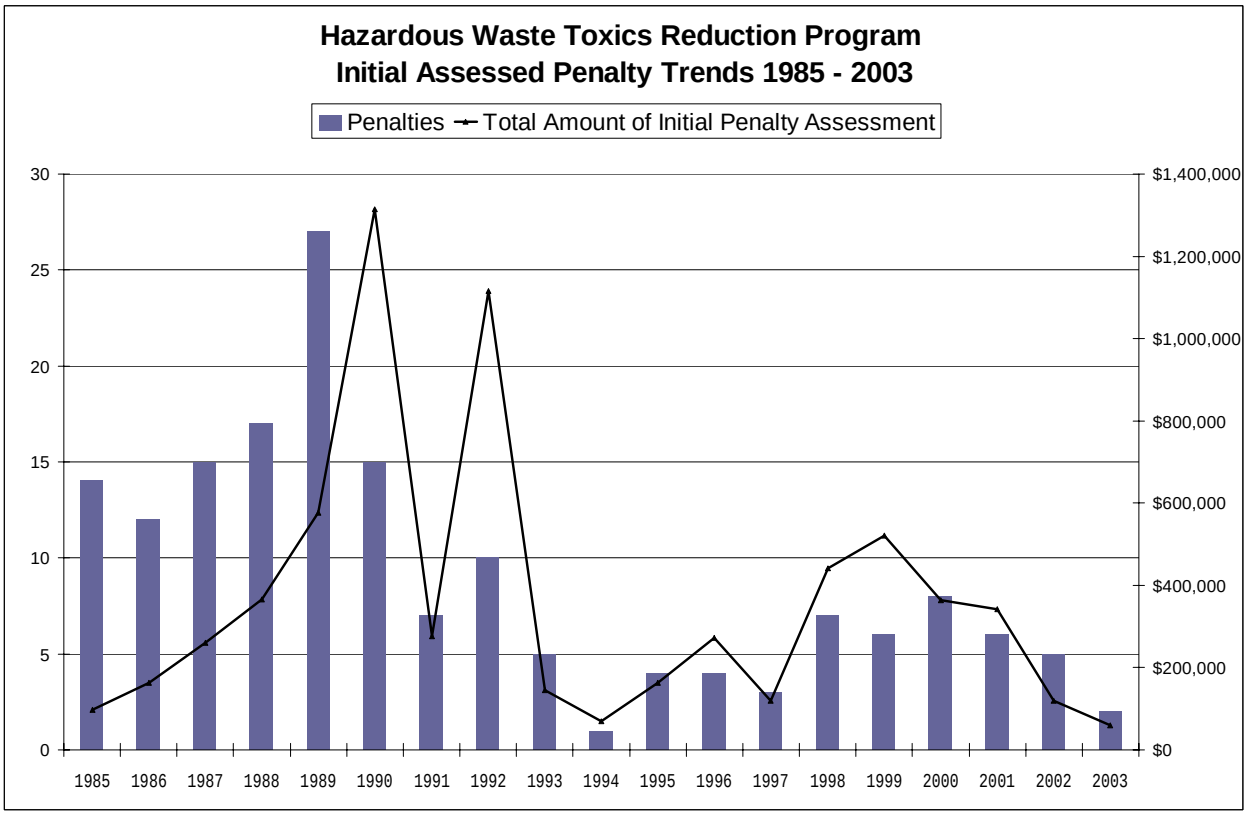
The graph below shows the number of compliance inspections and the number of environmental threat violations found and resolved. Ecology's Hazardous Waste and Toxics Reduction Program received national recognition from the Environmental Protection Agency for our success in resolving violations.



For more information, please visit: http://www.ecy.wa.gov/programs/hwtr/index.html.



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	14	12	15	17	27	15	7	10	5	1	4	4	3	7	6	8	6	5	2
Orders	24	26	23	19	18	22	11	11	20	8	11	11	10	10	8	14	10	8	6
Notices	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0



*Penalty issued dates are derived from the date the Docket Number was issued.

Toxics Cleanup

Overview

The mission of the Toxics Cleanup Program is to get and keep contaminants out of the environment.

Ecology has identified 9,518 sites that have been contaminated with toxic substances in Washington. To date, 58 percent of these sites have been cleaned up. About 5,200 sites are the result of an underground storage tank leaking into the environment and contaminating the soil and/or underground water (groundwater). Contamination at each site is unique and can pose a different type and level of risk to public health and the environment.

Preventing future underground storage tanks from leaking oil and other hazardous substances into the environment is a priority at the agency. Ecology currently regulates 10,750 active underground storage tanks on approximately 3,940 different properties, including gas stations, industries, commercial properties and government-owned locations. Ecology's role is to ensure the tanks are installed, managed and monitored in a manner that prevents releases into the environment. To do so, Ecology employees conduct compliance inspections and provide technical assistance to tank owners.

In addition to regulating and cleaning up sites with underground storage tanks, Ecology works with principal liable parties to voluntarily clean up sites contaminated with toxic chemicals. This includes conducting site investigations, cleanup studies and cleanup work. Where principal liable parties are not found, Ecology takes the lead to clean up the site to protect public health and the environment.

To accomplish its mission, the work of the Toxics Cleanup Program is focused around the following objectives:

- Clean the worst contaminated upland and aquatic sites first,
- Manage underground storage tanks to minimize releases, and
- Provide services to site owners that volunteer to clean up their contaminated sites.

Compliance Assurance

The following rules authorize Ecology to identify and manage toxic cleanup actions:

- Contaminated site clean up under the state Model Toxics Control Act, and

- Preventing leaks and spills under state and federal underground storage tank laws and rules.

When a site is identified as being contaminated, it is put on a state or federal cleanup list. In working with the owner of the property, Ecology's toxic-cleanup employees will first attempt to encourage the property owner to independently and voluntarily clean up the contaminated soil or water. To date, 47 percent of the cleaned up sites (4,266) have been accomplished through Ecology's voluntary cleanup process.

When more formal agreements are needed, Ecology will enter into agreed orders or consent decrees with the property owner(s). As a last resort, Ecology will use its enforcement authority to order the clean up of contaminated property.

To achieve compliance at underground storage tank sites, Ecology relies on a tiered approach that involves:

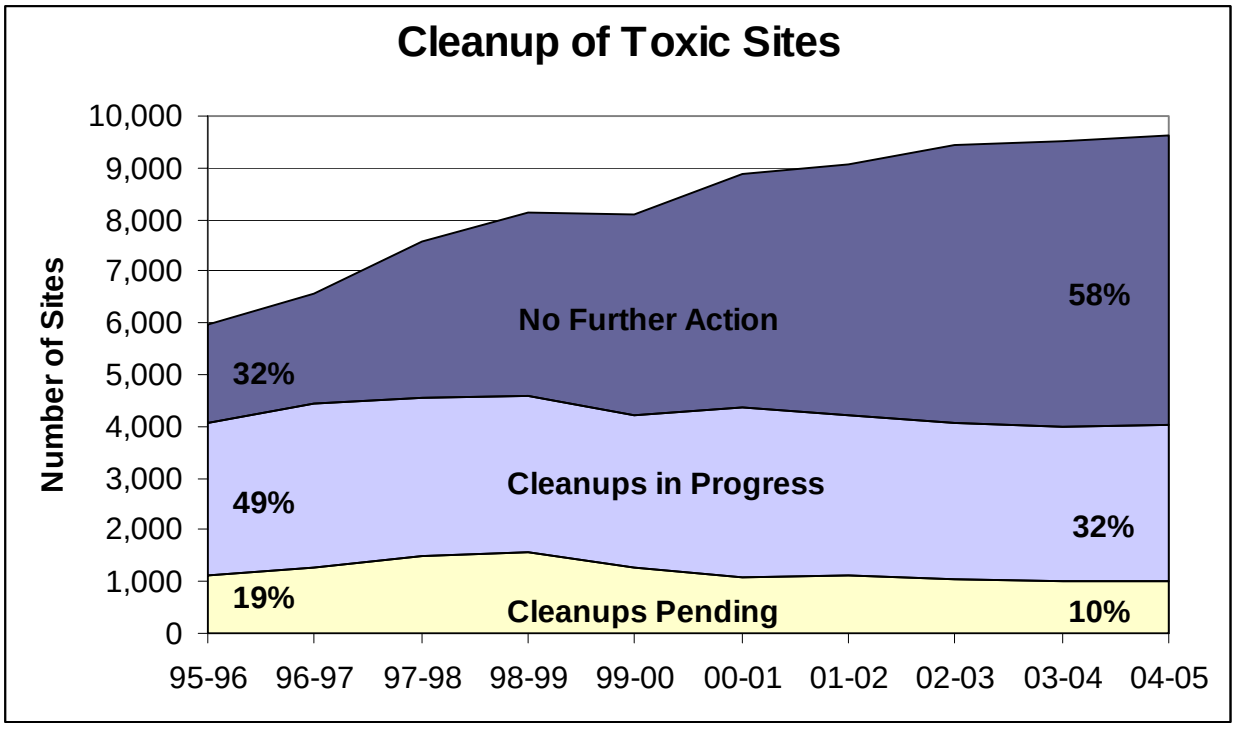
1. An inspection,
2. A written warning (notice of non-compliance) if violations are found,
3. A field citation if problems are serious or not corrected, and
4. A formal enforcement order and penalty if compliance is not achieved through the field citation.

Technical assistance inspections for underground storage tanks are available on request. Ecology will not issue notices of non-compliance or penalties during a technical assistance inspection unless the individual or business previously received an enforcement action, or if the violation will cause harm to a person or significant harm to the environment.

Environmental Trends

The Toxics Cleanup Program has made significant progress since the Model Toxics Control Act cleanup rules were adopted in 1990. The graph on the following page shows that, as of July 2004, 5,520 contaminated sites have been cleaned up in Washington State. This represents 58 percent of all currently known and suspected contaminated sites in Washington. Most of these cleanups have occurred without the need for formal orders, consent decrees, or unilateral orders. In addition, cleanup work is ongoing at another 3,002 contaminated sites, which represents 32 percent of all currently known and suspected contaminated sites in Washington.

Ecology's rules for managing underground storage tanks have also resulted in major environmental benefits since they were adopted in 1990. The number of underground storage tank releases reported to Ecology has steadily fallen from 924 in 1990 to 78 in 2003.



Enforcement Trends

The Model Toxics Control Act (MTCA) authorizes Ecology to assess penalties of up to $25,000 per day. However, Ecology has not needed to use this authority so far because:

- The unique features of MTCA do not allow appeals and it holds all parties jointly and individually liable, and
- Ecology typically works cooperatively with site owners through the Voluntary Cleanup Program, agreed orders and consent decrees.

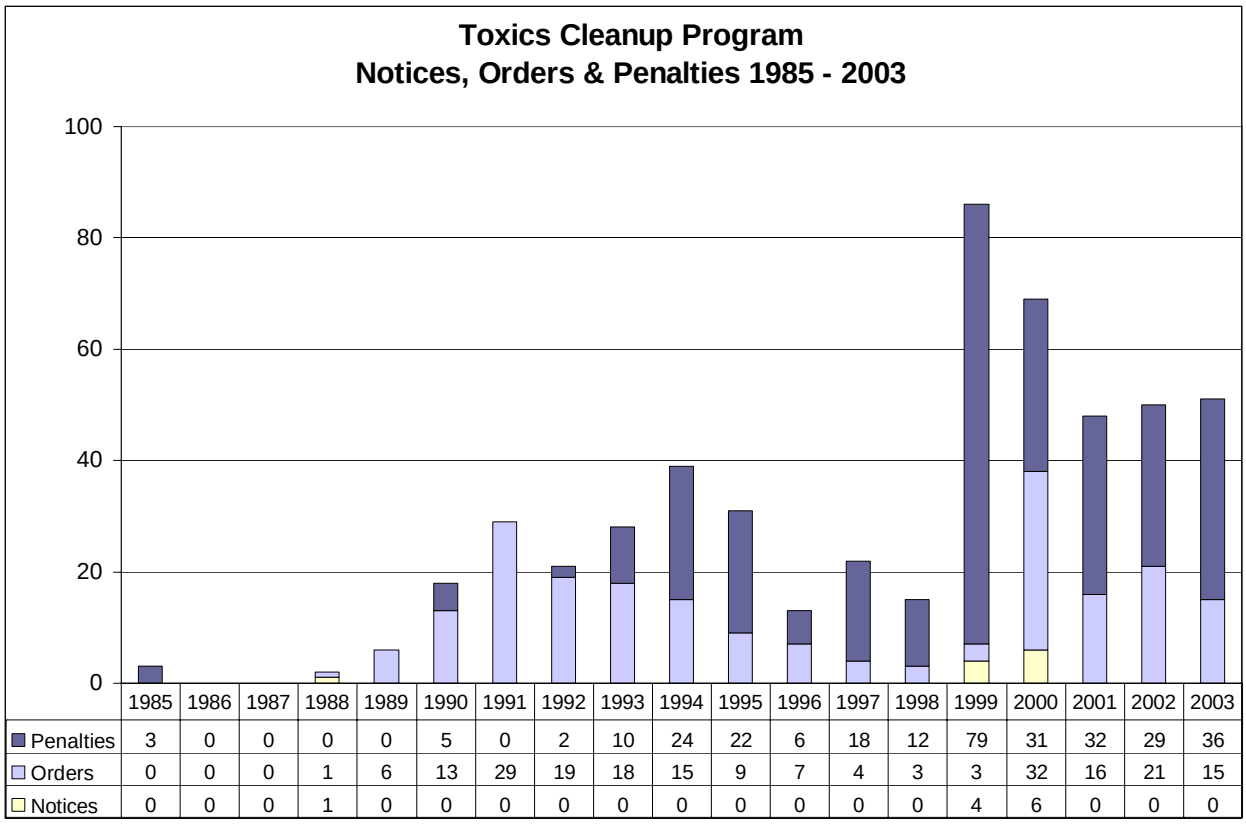
Ecology conducts approximately 800 inspections of underground storage tanks each year. About 5 percent of the inspections result in field penalties ranging from $100-$400 per site. Field penalties rarely exceed $1,000 per site. Ecology issues less than one formal order per year, and penalties associated with these orders are generally much higher than field penalties (ranging from $20,000 to $80,000).

The charts on page 32 showing penalty data represent underground storage tank field penalties and penalties associated with formal underground storage tank orders. The spike in the number of penalties issued in 1999 was the result of a major increase in inspection activity to ensure that all underground storage tank systems met a state and

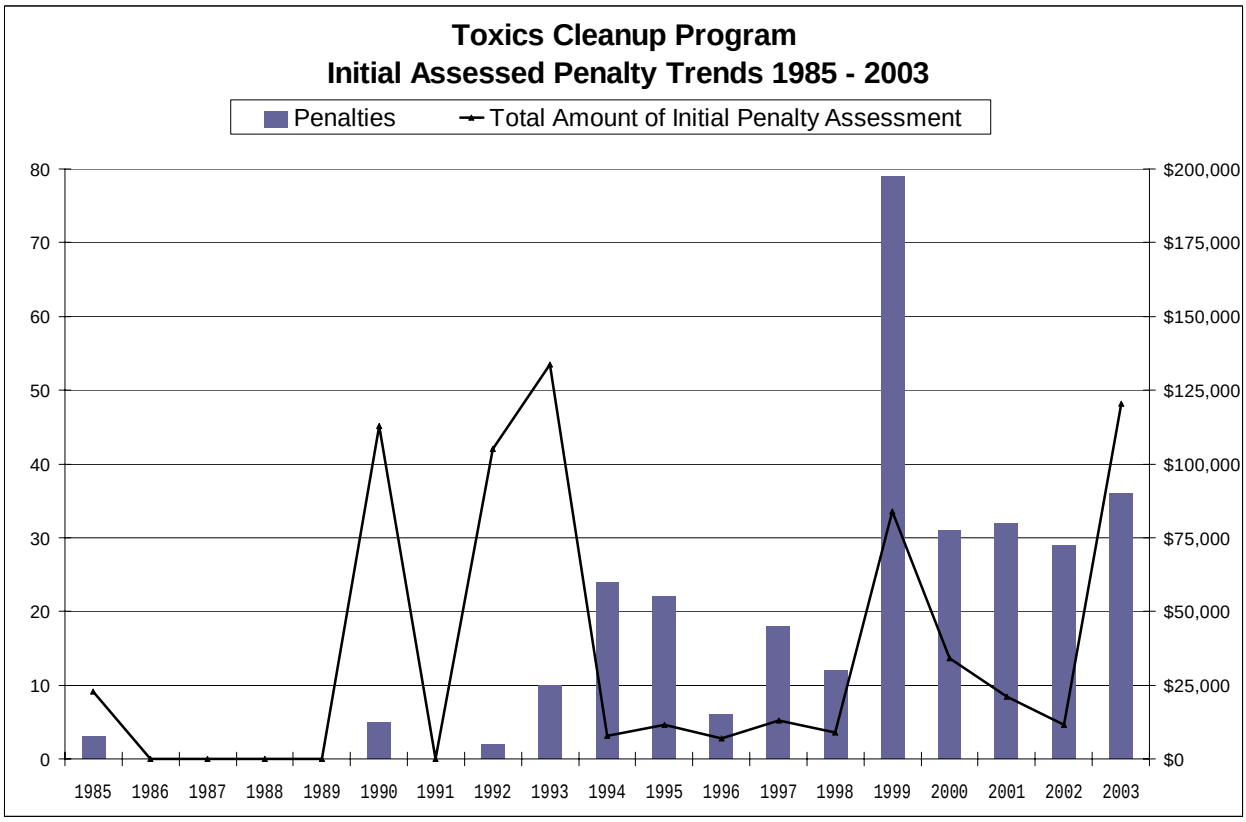
federal requirement to have leak detection and spill/overfill prevention technology upgraded by December 31, 1998.

After 1999, the inspection emphasis shifted to ensuring that tank owners and operators were complying with operation and maintenance requirements associated with the new technology. Compliance with the operation and maintenance requirements on the date of inspection has risen from 35 percent in 2001 to 55 percent in 2003. Compliance, measured 60 days after an inspection, is currently at 84 percent. By 2007, all underground storage tank facilities will have been inspected at least once. Ecology has already started its second round of inspections in the eastern region of the state and in the Vancouver area. Ecology expects compliance rates to continue to rise.

For more information about cleaning up sites contaminated with chemicals and underground storage tanks, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/tcp/cleanup.html.



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	3	0	0	0	0	5	0	2	10	24	22	6	18	12	79	31	32	29	36
Orders	0	0	0	1	6	13	29	19	18	15	9	7	4	3	3	32	16	21	15
Notices	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	6	0	0	0



*Penalty issued dates are derived from the date the Docket Number was issued.

Nuclear Waste

Overview

> *The mission of the Nuclear Waste Program is to lead the effective and efficient clean up of the US Department of Energy's Hanford site, to ensure the 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.*

The Hanford site consists of 560 square miles located in southeast Washington. Hanford's half-century of nuclear materials production has created one of the world's most polluted areas. Clean up challenges at the site include:

- Removing and permanently stabilizing an estimated 53 million gallons of radioactive and chemically hazardous waste in 177 underground storage tanks,
- Treating and protecting 190 square miles of contaminated underground water,
- Operating and closing 50 hazardous waste treatment, storage and disposal sites, and
- Cleaning up 1,500 waste sites with 9.35 million tons of contaminated soil.

To accomplish its mission, the work of the Nuclear Waste Program is focused around the following objectives:

- Hanford tank waste storage project,
- Hanford tank waste disposal project,
- Hanford waste management project,
- Hanford facility transition project, and
- Hanford environmental restoration.

Nuclear Waste Management Permits

Compliance assurance activities at the Hanford site include:

- Air, wastewater and dangerous waste permitting of the double-shelled tank waste storage system, and removal of liquid wastes from single-shelled tanks,
- Constructing a nuclear waste treatment plant, and
- Treating, storing and disposing of high-risk transuranic and radioactive mixed wastes.

Most of these activities are subject to the requirements of the Hanford Federal Facility Agreement and Consent Order; a consent order developed between the US Department of Energy, the US Environmental Protection Agency and Ecology to keep cleanup at Hanford moving forward. This consent order, signed in 1989, is commonly referred to as the Tri-Party Agreement.

In addition to the conditions in the Tri-Party Agreement, Ecology has issued an air operating permit, a Hanford Resource Conservation and Recovery Act dangerous waste operating permit, and state discharge water quality permits for the site. The air operating permit establishes limits on major sources of air pollution, while water quality permits regulate discharges to the soil from operating facilities. Federal National Pollutant Discharge Elimination System (NPDES) permitting includes Environmental Protection Agency oversight monitoring of 18 wastewater discharge outfalls to the Columbia River and pre-treatment requirements for discharges to Richland's municipal sewer system.

The Hanford Site is listed under a single hazardous waste identification number. Therefore, the dangerous waste permit for Hanford encompasses the entire 560 square mile site. However, within the site are more than 50 distinct treatment, storage and disposal facilities operated by four separate contractors, who in turn report to three distinct offices of the US Department of Energy. Some facilities are closed or closing, while others are expected to operate for many years to come. In recognition of this complexity, the Hanford dangerous waste permit is modified annually to incorporate final status facility standards for some facilities and to establish closure plans for others.

Hanford contains plutonium, enriched uranium, mixed waste and high-level radioactive waste resulting from more than 50 years of nuclear-weapons production at the site. The clean up of this large geographic area is phased to first provide interim stability to reduce continued contamination of soil and groundwater.

A Tank Waste Treatment Plant is scheduled to be operational by 2011 for permanently treating the mixed hazardous and nuclear wastes. The permit for this facility is being approved in phases to allow for the construction to remain on schedule. In support of the treatment plant permit, a research, development and demonstration permit is being processed for engineering-scale tests of the treatment plant technology. A hazardous waste landfill permit is being processed for disposing of wastes generated from hazardous waste operations on the site. Ecology employees located near the site ensure environmental standards and permit conditions are met to protect public health and the environment.

Compliance Assurance

Ecology employees maintain a close working relationship with Department of Energy personnel and contractors that are located on-site. Permit conditions are typically developed collaboratively, and the Department of Energy, its contractors and Ecology meet virtually every day on one issue or another. The comprehensive permitting process, public comment cycles, Hanford Advisory Board meetings and various project manager meetings between the Department of Energy, their contractors and Ecology provide abundant opportunities to provide technical assistance to Hanford contractors and projects.

Failure by the Department of Energy or their contractors to meet regulatory or legally mandated cleanup and waste management requirements is generally addressed through formal or informal enforcement actions. Ecology often incorporates corrective measures to remedy violations from enforcement actions at Hanford into the various dangerous waste operating permits to help avoid repeat violations.

Environmental Trends

When the Department of Energy entered into the Tri-Party Agreement with the Environmental Protection Agency and Ecology, the agreed goal was to achieve full regulatory compliance and remediation of the Hanford Site. Throughout the 1990s and into the early 2000s the clean up effort has focused on interim stabilization of mixed radioactive and hazardous tank waste in 177 single-shelled, aging storage tanks.

Groundwater remediation and monitoring is continuous and improving, but considerable challenges remain, such as halting the spread of groundwater contamination plumes and closing more than 5,000 abandoned boreholes on the site.

Environmental remediation includes restoring surface areas and returning Hanford lands to other uses. Ecology has completed the Hanford land-use environmental impact statement and designation of the Hanford Reach National Monument. These documents, along a related record of decision, direct that Hanford lands be considered primarily for conservation uses with some southern lands considered for transfer to the city of Richland.

Enforcement Trends

Enforcement actions taken by Ecology at Hanford tend to be formal enforcement actions, notices, orders and penalties. As more facilities within the Hanford site are incorporated into the Hanford facility dangerous waste permit, or as more cleanup units

are added into the Tri-Party Agreement, enforcement actions increasingly tend to be focused on permit conditions and legal requirements of the agreement rather than interim stabilization of the mixed wastes.

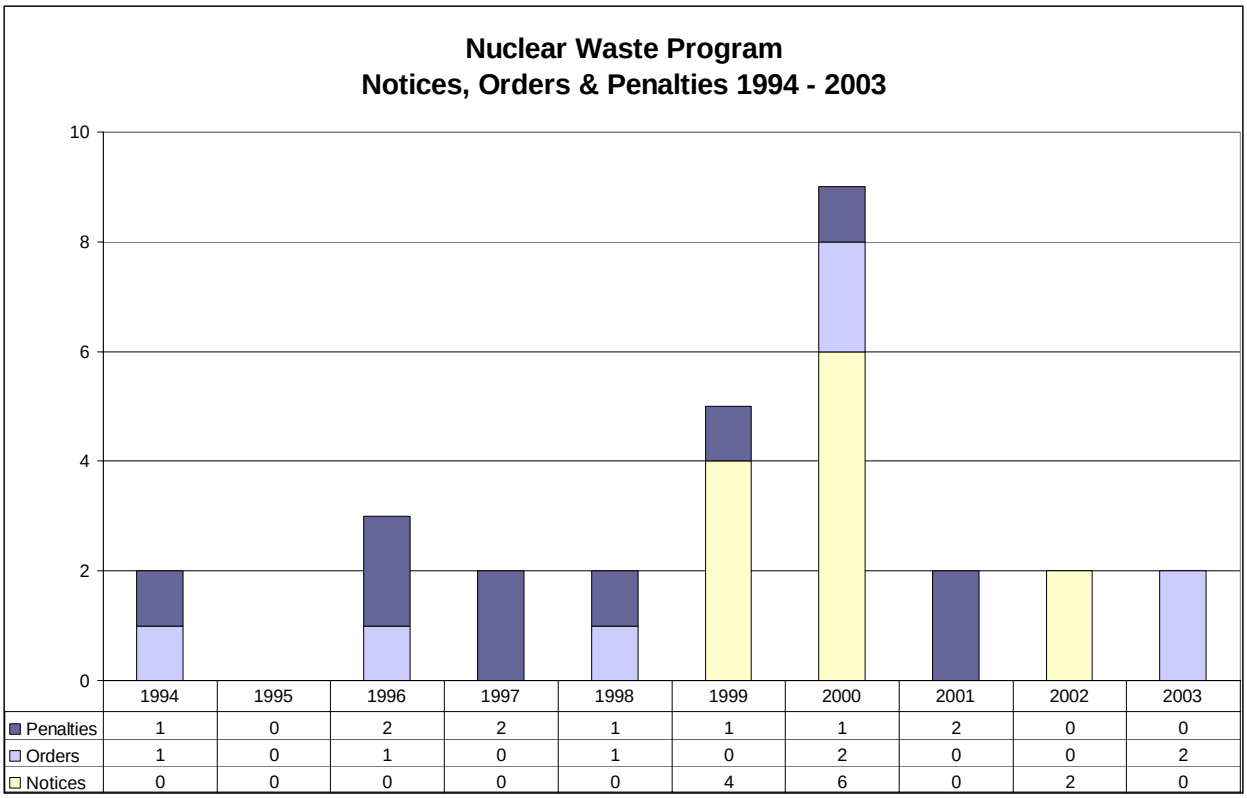
To date, Ecology has taken the following actions:

- 71 notices of non-compliance citing violations of the federal Resource, Conservation and Recovery Act,
- Issued 9 administrative orders requiring actions to correct violations,
- Initiated a federal lawsuit to restrict import of mixed waste to Hanford from off-site sources, and
- Assessed 12 civil penalties totaling $940,600.

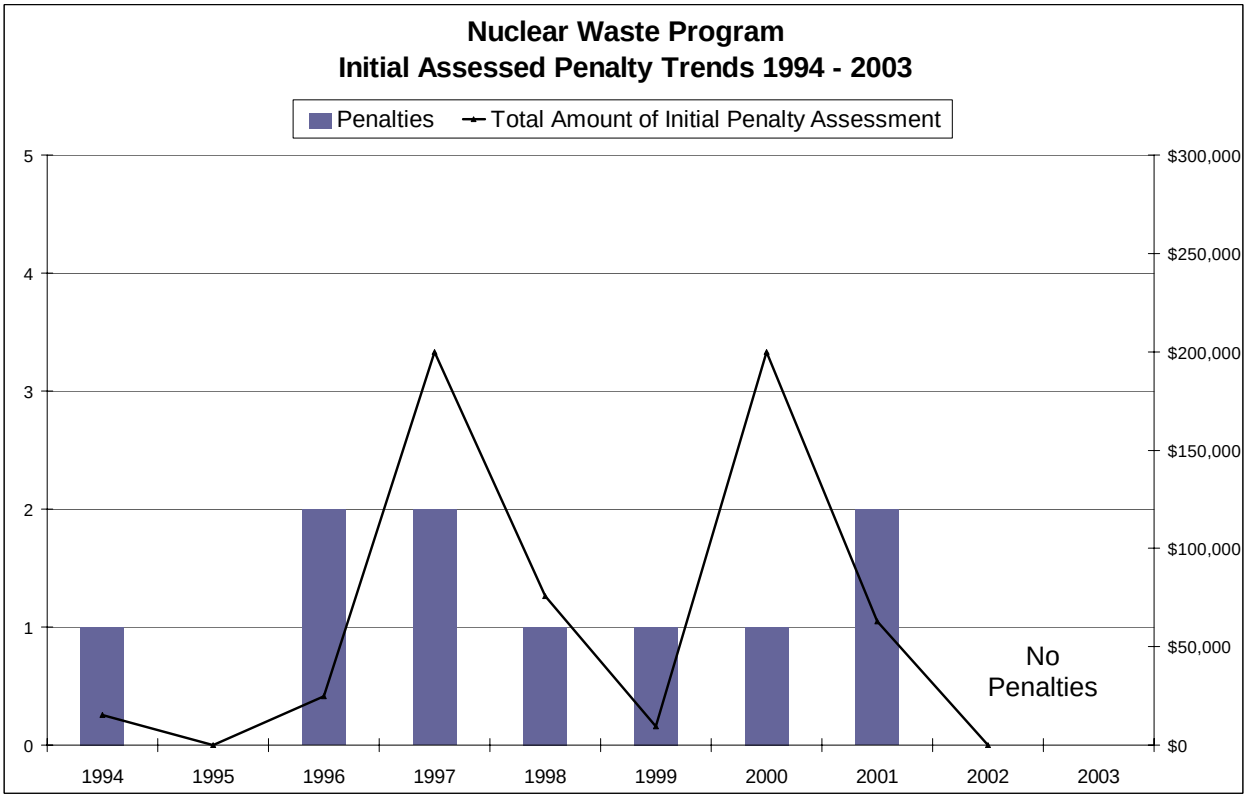
These formal enforcement actions were taken after voluntary means to resolve dangerous waste management problems had failed.

The graphs on the next page appear to depict a cyclical pattern of enforcement actions, but this is merely coincidental. Issuing enforcement actions depends upon a number of complex factors including availability of trained Ecology inspectors, types of operations occurring on Hanford at the time, and degree of success in resolving hazardous waste management issues voluntarily.

For more information about the cleanup of the Hanford Nuclear Reservation, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/nwp/index.html.



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	1	0	2	2	1	1	1	2	0	0
Orders	1	0	1	0	1	0	2	0	0	2
Notices	0	0	0	0	0	4	6	0	2	0



*Penalty issued dates are derived from the date the Docket Number was issued.

Solid Waste

Overview

The mission of the Solid Waste and Financial Assistance Program is to reduce both the amount and the effects of wastes generated in Washington State.

More and more solid wastes are generated each year, despite efforts to reduce, reuse and recycle those wastes. Most of the solid waste generated in Washington is disposed of in eastern Washington landfills. Solid waste handling includes the management, storage, collection, diversion, transportation, treatment, use, processing and final disposal of household, business and industrial wastes, and municipal sewage sludge wastes.

In Washington State, the primary authority for regulating and permitting the garbage collection system is delegated to local governments. Ecology's role is to set environmental protection standards for designing and operating disposal facilities and provide guidance, technical assistance and financial assistance to local governments. Ecology has been actively working with local governments and interested parties on a long-term vision and action plan to reduce the amount of solid waste generated in the state.

Ecology regulates biosolid-related activities. Biosolids are defined as municipal sewage sludge that is a primarily organic, semi-solid product resulting from the treatment of sewage wastewater. Biosolids are commonly applied to land as a soil amendment.

To achieve its mission and long-term vision, Ecology's Solid Waste and Financial Assistance Program is working on the following objectives:

- Eliminating wastes and managing the garbage that is left over,
- Funding local efforts to clean up toxic sites and manage or reduce waste, and
- Employing Washington students to prevent and pick up litter.

Solid Waste Management Permits

The primary permitting function of the Solid Waste Program is to regulate biosolid-related activities. Because biosolids contain both essential plant growth nutrients and small amounts of pollutants and, in some cases, microorganisms, biosolids must be properly treated to protect public health prior to applying them on land.

Businesses that use, transport or dispose of biosolids are required to apply for a general permit for biosolids management from Ecology. In some parts of the state, Ecology has delegated this permitting function to a city or county health district. However, enforcing the biosolids laws, rules and permit requirements are the responsibility of the Department of Ecology.

Compliance Assurance

All facilities that manage and/or land apply biosolids must be in compliance with state law, rules and permit requirements to protect human health and the environment. To ensure compliance with biosolid laws and rules, Ecology provides technical assistance and education materials to the regulated community.

Ecology expects all regulated facilities and entities to voluntarily comply with biosolids management laws. When voluntary compliance is not achieved, an enforcement action may be necessary. When this is the case, Ecology ensures that the action is clearly defined and consistent with the magnitude of the violation. Authority for Ecology to enforce biosolids management laws and rules is contained in Chapter 70.95J, Revised Code of Washington.

Formal enforcement response may include an order, civil penalty, or referral to the state Attorney General's Office for court action, permit revocation or criminal action. When Ecology issues a civil penalty, innovative approaches may be considered as appropriate mitigation, provided that compliance with the laws and rules is achieved. Innovative approaches include mediation, environmental audits, mandatory education programs and compensatory action such as supplemental environmental projects.

Environmental Trends

Great strides have been made in solid waste and biosolids management. Technological advancements and social values have increased reduction and recycling activities. Landfill design has reduced the potential for environmental degradation. However, we have reached a point where the focus needs to move from proper handling of solid waste after it is generated to preventing waste from being generated in the first place.

To that end, Ecology is developing long-range strategic plan for decreasing the amount of solid waste generated, properly managing wastes that remain and reducing the use of toxic substances. This plan, called "Beyond Waste," is scheduled for completion by the spring of 2005. More information about the Beyond Waste strategic plan can be found on Ecology's Web site at: http://www.ecy.wa.gov/beyondwaste/.

The past 20 years have seen a sharp decline in the concentration of pollutants in biosolids in Washington and across the nation. Industrial pretreatment programs, improved manufacturing practices, and consumer awareness have all contributed to this success. In the past 10 years, use of biosolids has been increasingly market-driven. Treatment works are allowing consumer interest to drive decisions regarding treatment processes and final uses of biosolids. As a result, "exceptional-quality" biosolids are meeting the more stringent requirements to protect public health from potential pollutants and pathogens.

Exceptional quality biosolids may be sold or applied to the land without further site or management restrictions. Generating exceptional quality products often involves significant upgrades or changes in treatment technologies, and is not essential to successful biosolids management programs. Therefore, the shift to exceptional quality biosolids has been rather gradual.

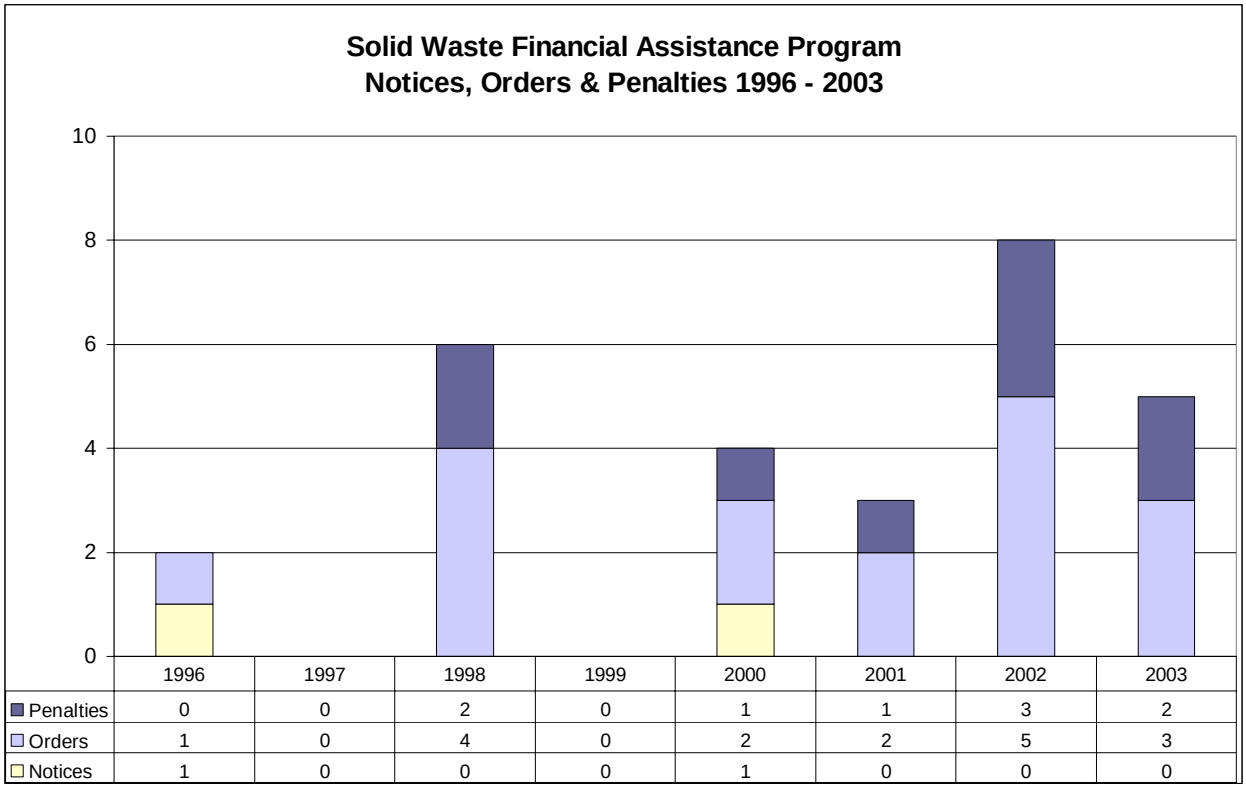
A more noticeable trend over the last 10 years has been the reluctance of treatment works to accept septage, particularly from smaller treatment plants, due primarily to the strength of the waste (which can be hard for smaller treatment works to process). This has driven an increasing interest and need for septage land-application sites across the state. While this trend is slow-paced, it is more difficult to manage. Most septage pumpers have designed their businesses around removing septage from various holding devices. At this time, many lack land, expertise and equipment to develop successful land-application programs.

Enforcement Trends

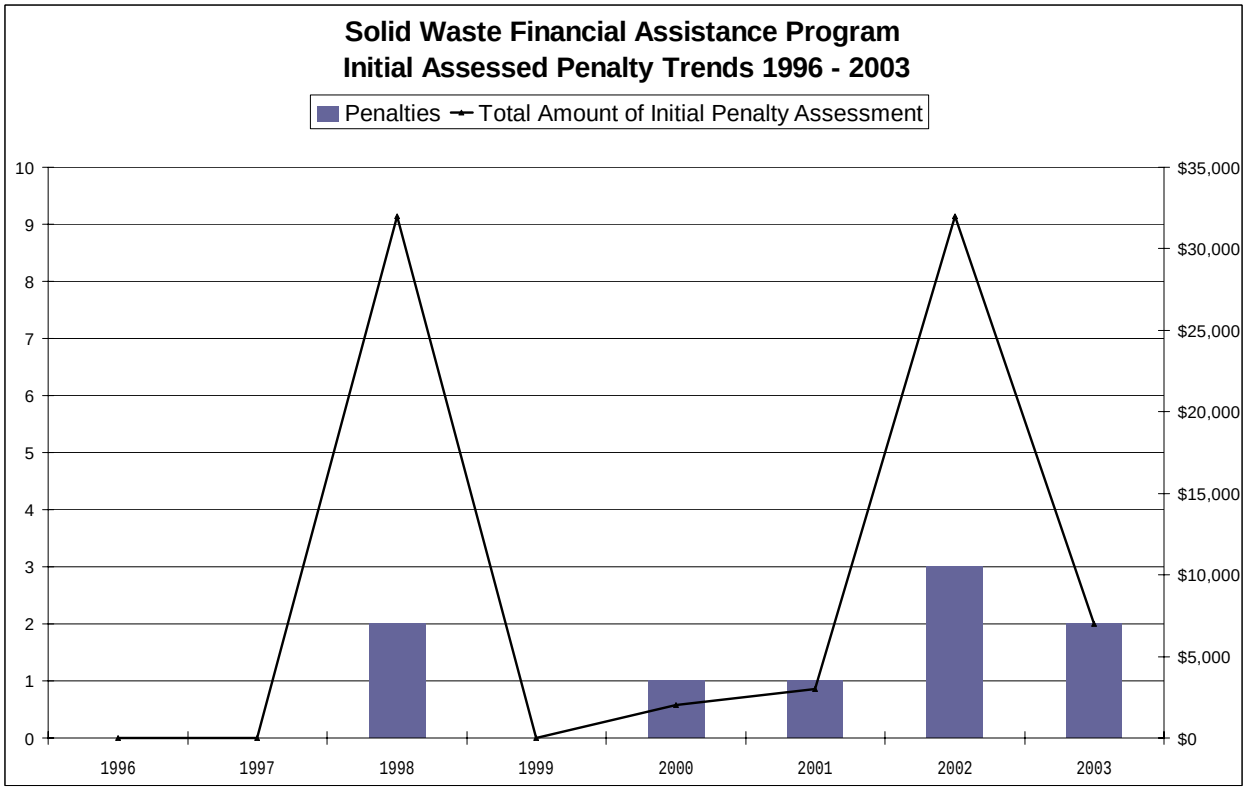
Ecology continues to work closely with local government to ensure compliance with solid waste requirements. Rules adopted in 2003 have clarified expectations for the proper handling of numerous waste streams. In addition, Ecology is increasing its focus on prevention through education to reduce the need for enforcement activities.

Analyzing trends for Ecology solid waste enforcement actions does not give a complete picture, since primary authority for most solid waste enforcement rests with local government. We can relate a subjective analysis: while there will always be a small number of "bad actors" in the solid waste arena, the majority of operators try to do the right thing, and the rules are fairly straightforward and thus, easy to follow.

For more information regarding solid waste and biosolids management, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/swfa/index.html.



	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	0	0	2	0	1	1	3	2
Orders	1	0	4	0	2	2	5	3
Notices	1	0	0	0	1	0	0	0



*Penalty issued dates are derived from the date the Docket Number was issued.

Shorelands Management

Overview

The mission of the Shorelands and Environmental Assistance Program is to work in partnership with communities to support healthy watersheds and promote statewide environmental interest.

Since the early 1970s, Ecology has been the lead agency for developing long-term strategies for managing the state's shorelands. This includes approximately 800 lakes, 22,000 river miles, countless wetlands and 2,337 miles of marine shorelines along the Pacific Ocean and the Puget Sound Basin.

Ecology works in partnership with local governments to protect and maintain shoreline health. Local governments, through their zoning and land-use rules, are the primary regulatory authority for managing shorelines. Ecology's role is to adopt shoreline management guidance (as a state regulation) based upon state law and to ensure compliance with the laws and rules.

The state's coastal program is designed to protect and manage development of wetlands, floodplains, estuaries, beaches, dunes, barrier reefs, coral reefs and fish and wildlife habitat. Ecology provides technical and financial assistance to local governments on coastal and floodplain development to protect water quality, wildlife habitat, human health and property.

To achieve its mission, Ecology's Shorelands and Environmental Assistance Program is working on the following objectives:

- Protect, restore and manage wetlands,
- Protect and manage shorelines in partnership with local governments,
- Streamline review of environmental permits for major transportation projects,
- Provide technical and financial assistance to local governments to reduce flood hazards,
- Provide technical training, education and research through the Padilla Bay Estuarine Reserve,
- Provide technical and financial assistance for local watershed planning,
- Restore watersheds by supporting community-based projects with the Washington Conservation Corps,
- Protect water quality by reviewing and conditioning projects, and
- Provide technical assistance on reviews required by the State Environmental Policy Act.

Shorelands and Coastal Zone Management Permits

Approximately 250 counties and cities in Washington have the primary responsibility to administer and enforce the state Shoreline Management Act. Ecology's role is primarily supportive, including a review capacity with emphasis on providing assistance to local government and ensuring compliance with the Shoreline Management Act and state shoreline management guidelines.

Under the Shoreline Management Act, Ecology reviews approximately 400 substantial-development permits from local government and approves, denies or conditions approximately 150 variances or conditional-use permits each year. Ecology also has been delegated authority from the federal government, under the federal Clean Water Act, to review projects that may affect water quality or a wetland. A 401 water quality certification is issued for projects to ensure they protect water quality and wetlands. Ecology inspects these projects for compliance with their 401 certification. Projects found to be out of compliance are subject to formal enforcement action.

Compliance Assurance

A variety of tools are available to encourage compliance with the Shoreline Management Act. Education and outreach to citizens and local government officials are a frequent and fundamental responsibility of many Ecology employees. Both pre- and post-application review of permits for shoreline development also aid compliance.

If a shoreline use or development is found to be out of compliance, Ecology makes every effort to resolve the problem through voluntary compliance. If voluntary compliance cannot be achieved within a reasonable time, Ecology will take formal enforcement action.

Environmental Trends

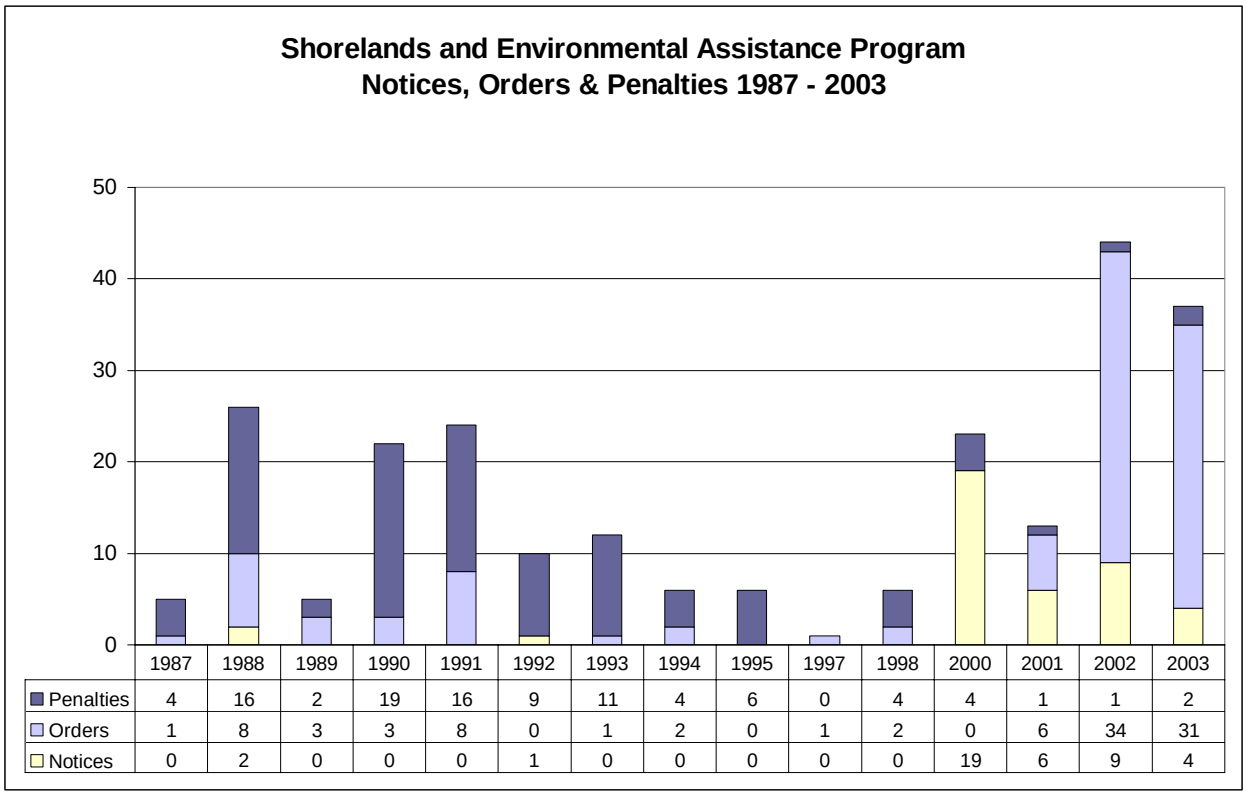
Unlike most programs at Ecology, the Shoreline Management Act regulates land use. As the amount of shoreline property is essentially fixed, infilling at less desirable building sites is inevitable due to population increases and other developmental pressures. Therefore, it is apparent that far more shoreline resources are lost or diminished through development than are restored. Ecology has made the tactical decision that shoreline resources will be best protected by improving local shoreline master programs and by providing technical assistance to local government administrators. Currently, Ecology does not have a meaningful inventory of shoreline resources to indicate the status of the resource over time.

Enforcement Trends

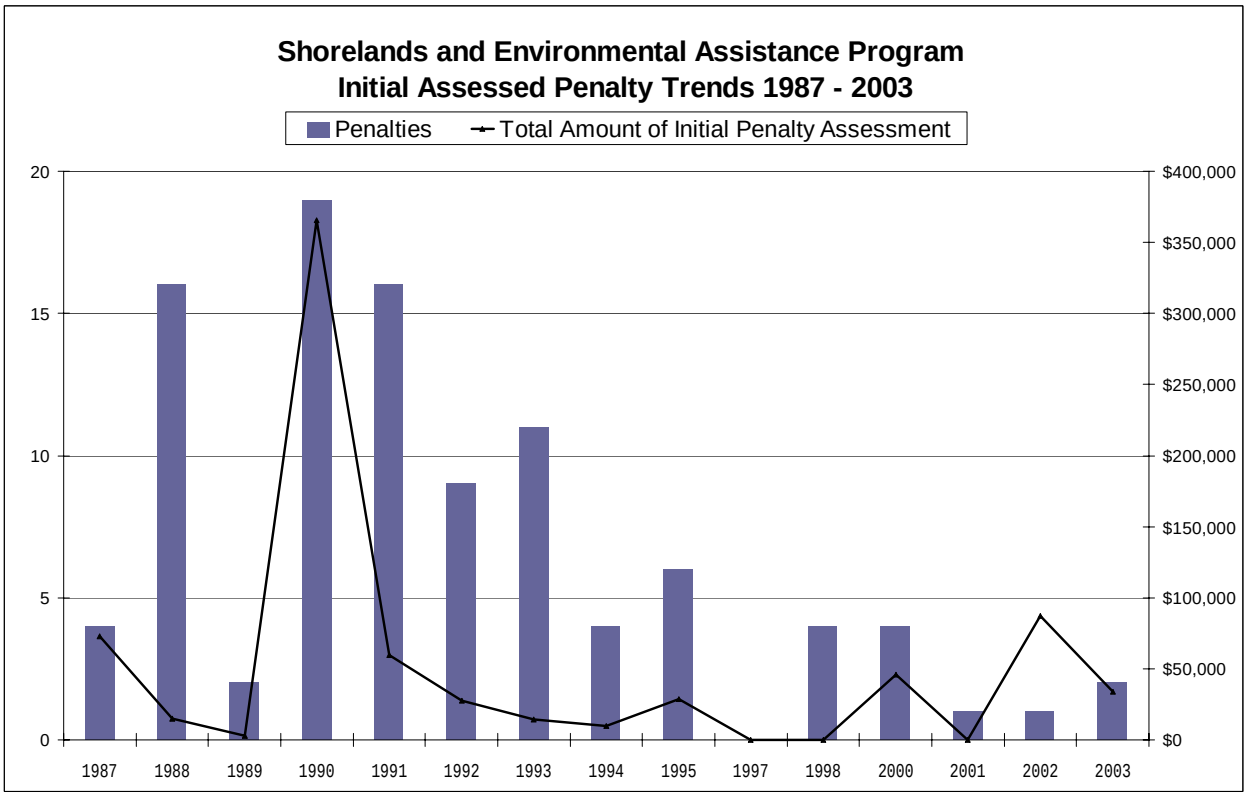
Typical Shoreline Management Act violations occur when someone violates the conditions of a permit or undertakes development on the shorelines without a required permit. In practice, this is often building within a buffer zone or filling in a wetland or a flood zone.

Most enforcement of the Shoreline Management Act is done at the local government level and is not reported to Ecology. Therefore, it is hard to know how much enforcement is occurring. The graphs on the next page illustrate a trend away from Ecology penalties (late 1980s and early 1990s) toward notices of correction (after 2000) when this tool was introduced in regulatory reform legislation. The rise in the number of orders in 2002 and 2003 is due to an invigorated activity of water quality certification (under section 401 of the Federal Clean Water Act) rather than a change in the Shoreline Management Act enforcement. Efforts in the last several years have been made to improve the local shoreline master programs, rather than attempting to address shoreline management problems on a project-by-project level through permits or enforcement.

For more information about shorlands management, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/sea/shorelan.html.



	1987	1988	1989	1990	1991	1992	1993	1994	1995	1997	1998	2000	2001	2002	2003
Penalties	4	16	2	19	16	9	11	4	6	0	4	4	1	1	2
Orders	1	8	3	3	8	0	1	2	0	1	2	0	6	34	31
Notices	0	2	0	0	0	1	0	0	0	0	0	19	6	9	4



*Penalty issued dates are derived from the date the Docket Number was issued.

Water Quality

Overview

The mission of the Water Quality Program is to protect and restore Washington's waters.

Ecology protects Washington's water by regulating point-source (direct) discharges of pollutants to surface and underground waters (groundwater). This is accomplished through a wastewater discharge permit program for sewage treatment plants and other industries that have on-site wastewater treatment. In addition, a permit program is in place to control pollutants in storm-water runoff from industrial and construction sites.

Ecology also protects water quality by educating and working with communities on controlling nonpoint-source pollution. Nonpoint-source pollution is caused by a diffuse set of everyday actions conducted by citizens and businesses throughout the state. Sources include pesticides and fertilizers running off irrigated agricultural, rural and homeowner lands and lawns, oil and grease running off parking lots and roads, and failing septic tanks.

Ecology's goals for protecting water quality are to prevent water pollution, clean up water pollution and support sustainable choices to reduce water pollution. To meets its mission and goals, Ecology's Water Quality Program is working on the following objectives:

- Prevent point-source water pollution,
- Control storm-water pollution,
- Reduce nonpoint-source water pollution,
- Provide water quality financial assistance, and
- Clean up polluted waters.

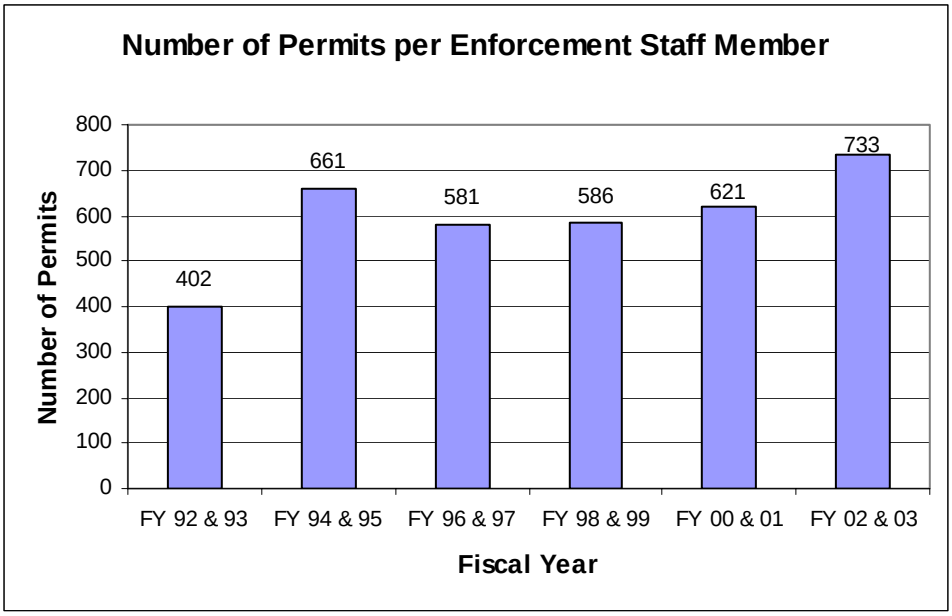
Water Quality Permits

Ecology has authority to investigate and manage water quality through the federal Clean Water Act and the state Water Pollution Control Act. Washington State has more than 4,000 industrial and municipal facilities that are issued permits to manage pollution that may be safely discharged to lakes, rivers, marine or ground waters. Ecology water quality employees inspect roughly 25 percent of the permitted facilities each year.

Water Quality Permits as of December 31, 2003

PERMIT TYPE	TOTAL ACTIVE PERMITS
National Pollutant Discharge Elimination System Major	80
National Pollutant Discharge Elimination System Minor	375
Discharge to Ground Water	167
Discharge to Publicly-Owned Treatment Works	172
NPDES Stormwater Construction General Permit	964
NPDES Industrial Stormwater General Permit	1149
Municipal Stormwater General Permit	2
Boatyard General Permit	103
Dairy General Permit	109
Fish Hatchery General Permit	84
Fresh Fruit Packer General Permit	197
Water Treatment Plant General Permit	31
Sand and Gravel General Permit	878
Aquatic Pesticides General Permit	44

The following chart illustrates the number of permits managed each state fiscal year by Ecology's water quality enforcement officers.



Compliance Assurance

Ecology expects voluntary compliance with water pollution protection laws. When a violation is detected, water quality employees gather initial information through inspections, documented phone calls, or letters. The violation may result in a warning letter, technical assistance, or both. Dischargers operating under a wastewater discharge permit are required to include, along with their scheduled discharge monitoring report, a discussion of the cause of any violation that occurred and what actions were taken to stop and prevent further violations. During 2003, Ecology's Water Quality Program conducted 1,128 informal actions to gain compliance.

When voluntary compliance is not achieved through informal actions, Ecology uses a progressive escalation of enforcement responses with facilities that are out of compliance. Generally, each response increases in severity until the facility resolves the problem. If noncompliance continues, Ecology will issue a formal enforcement action in the form of a notice, order or a penalty.

Ecology provides technical assistance on proper design of wastewater treatment facilities and the development of corrective action strategies to prevent water quality violations. Compliance at wastewater treatment facilities is further enhanced by having trained treatment plant operators in key positions. State law requires a certification program for operators of municipal wastewater treatment facilities. Municipal wastewater treatment operators must undergo an in-training period and pass written tests to become certified to run facilities. In addition, there are continuing education requirements to maintain certification.

In addition to the operator certification program, Ecology has a well established accreditation program for environmental testing laboratories. These two efforts contribute significantly to the state's environmental compliance efforts by assuring that operators are qualified to run facilities and collect water quality samples, and that the samples processed by laboratories are accurate and valid.

Ecology's Water Quality Program has also entered into a partnership with the Environmental Protection Agency to provide direct assistance to smaller municipal wastewater treatment plants through the use of two roving outreach specialists. These specialists travel from plant to plant in response to facility requests for help in complying with water quality laws. There is one outreach specialist for facilities located on the west side of the Cascade Mountains and one for facilities on the east side of the mountains.

Ecology manages storm-water control through the storm-water general permit programs for municipal, construction and industrial sites. Technical assistance is provided to industries and other governmental entities to ensure water quality is protected from storm-water runoff. Storm-water management manuals have been

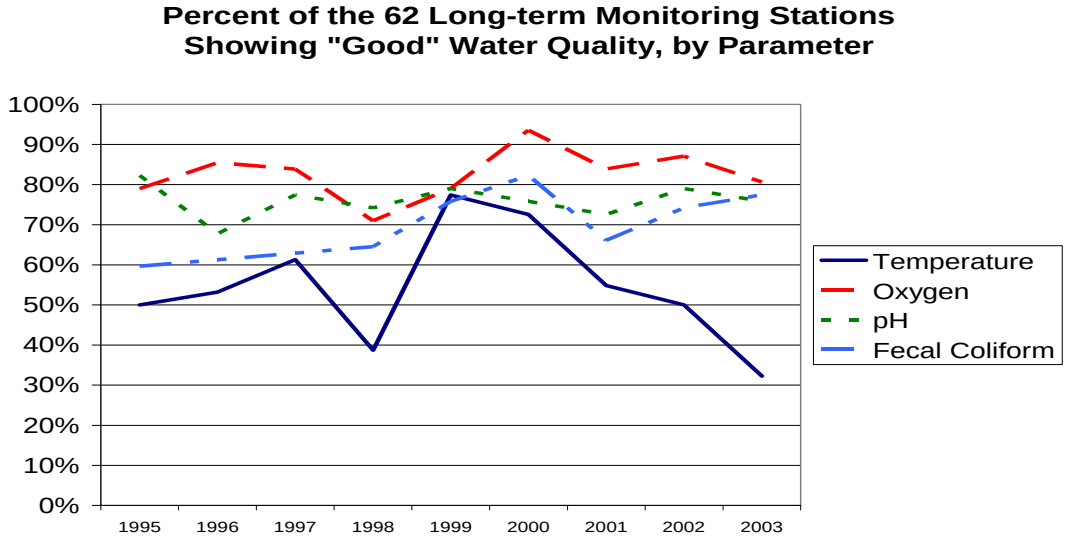
developed for eastern and western Washington, outlining best management practices for storm-water control.

Nonpoint-sources are the leading cause of water pollution across the nation and in Washington. Ecology provides technical assistance to dairy and non-dairy livestock operations, storm-water, forestry, and aquatic pesticide activities. These operations generally address pollution through the installation of best management practices.

Technical studies show that Washington farms (producing crops and raising livestock) can contribute to water pollution. This is particularly true when runoff from several small farms in one watershed combines to create an even greater water quality problem. To help address agricultural sources of water pollution, the Washington Conservation Commission, local conservation districts and Ecology entered into the Agricultural Compliance Memorandum of Agreement in 1988. The agreement defines a consistent series of steps that coordinate Ecology's water pollution control responsibilities with conservation district programs that provide technical assistance to landowners and farm operators. Through the local conservation district office, a farm owner or operator may receive technical assistance to help develop and implement a water quality management plan, or "farm plan."

Environmental Trends

Ecology does not have enough resources to conduct a full census of conditions by monitoring every water body in the state. However, for the past nine years, we have been systematically collecting water quality data at 62 long-terms stations around the state, which generally correspond to the 62 Water Resource Inventory Areas, or watershed planning areas in the state. The graph below indicates the trends over nine years for four main water quality parameters.



In addition, Ecology collects a considerable amount of water quality data generated by many other studies and projects. This data is used to prepare a list of water bodies that do not meet the state's water quality standards, known as the 303(d) list . The list is used to target the development and implementation of water cleanup plans, called total maximum daily load plans. The four main pollutants which cause a water body to be listed as polluted are temperature, fecal coliform, oxygen and pH.

Since 1996, the percentage of water bodies listed for fecal coliform, oxygen and pH have declined while the percentage listed for temperature has increased. The fecal coliform trend is not surprising as Ecology and many people across the state have made a concerted effort to reduce the amount of fecal coliform entering our water. This has been done in large part by the passage and implementation of the Dairy Nutrient Management Act. While less water bodies are polluted due to fecal coliform, the percentage polluted from increased temperatures has risen. Increased temperatures can be attributed to the loss of vegetation along streams, and low flows of water in rivers and streams.

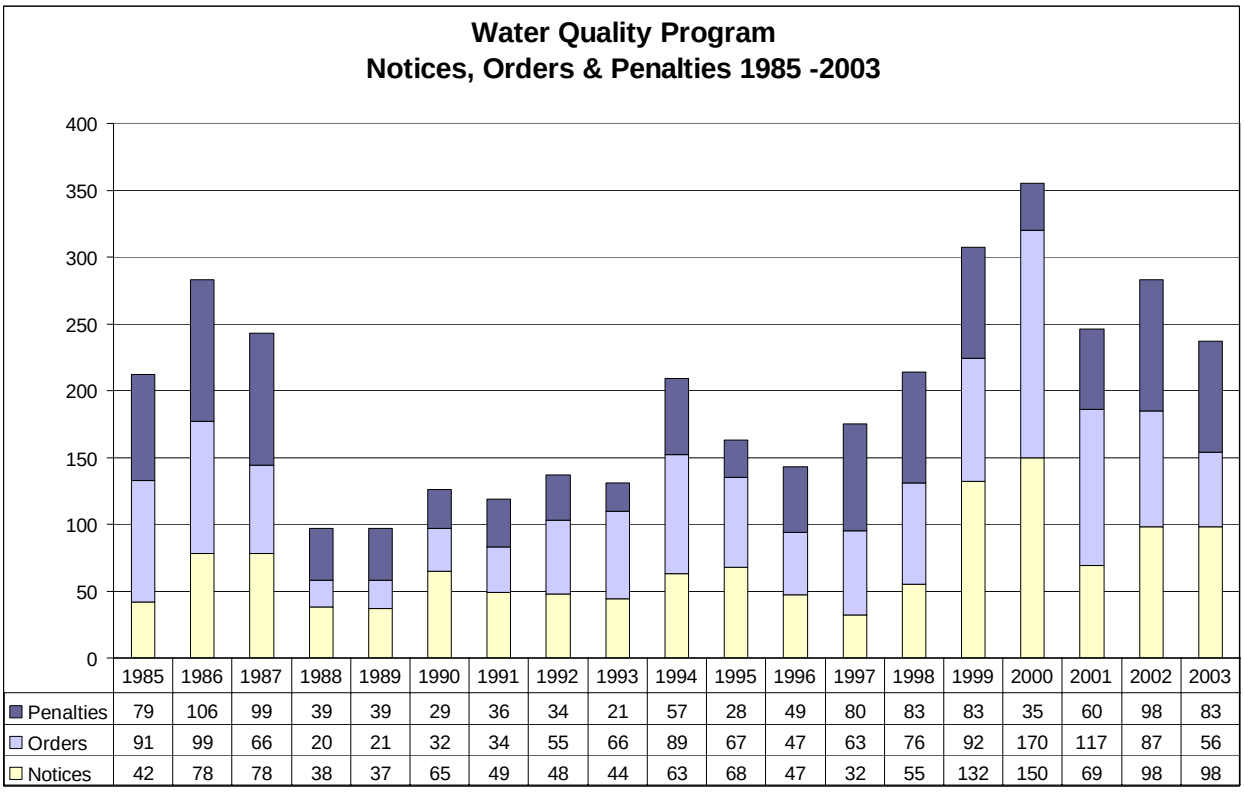
Enforcement Trends

Washington State has more than 4,000 industrial and municipal facilities that are issued permits to protect water quality. In 2003, the Water Quality Program took more than 1,313 compliance or enforcement actions on facilities with permits. The effectiveness of water quality enforcement activity is evaluated using compliance rates and number of facilities with five or more violations per year.

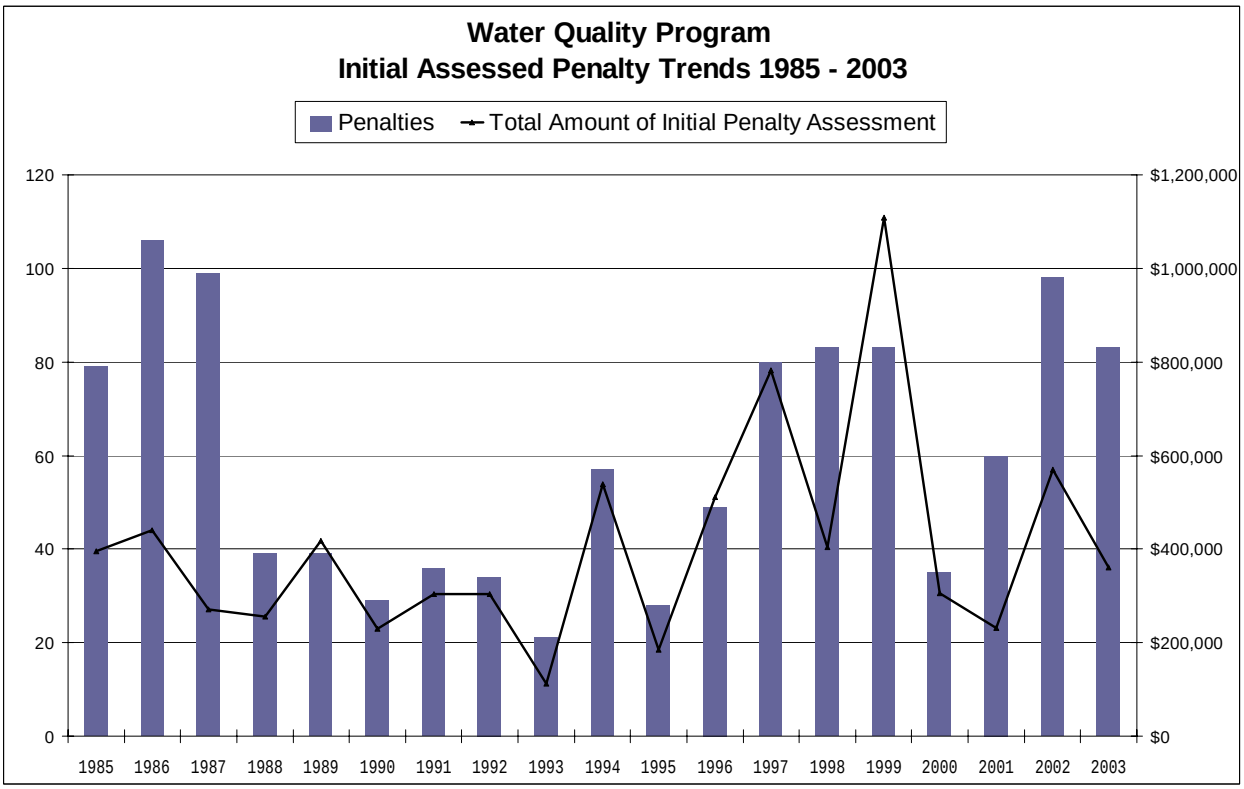
Ecology is closely tracking the number of facilities with five or more violations per year. Wastewater monitoring reports and inspections by Ecology showed that, in 2003, Washington had a compliance rate of approximately 98 percent for water quality protection. Even though there were 15 percent fewer industrial facilities with permits in 2003 compared to 1999, there was an increase of about 1 percent in the number of facilities with five or more violations. Ecology has increased enforcement on facilities with repeat violations. Of the 78 facilities with five or more violations, 38 percent did not have some form of documented compliance action or enforcement. In 2000, this number was as high as 74 percent.

The type of enforcement action and amount of penalty depends on the type and seriousness of the violations encountered. There is no clear trend for enforcement actions or penalties. One very serious case with a large penalty can greatly affect the numbers for any given year.

For more information on water quality policy, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/wq/wqhome.html. For information on the condition of Washington's waters, visit: http://www.ecy.wa.gov/programs/eap/env-info.html



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	79	106	99	39	39	29	36	34	21	57	28	49	80	83	83	35	60	98	83
Orders	91	99	66	20	21	32	34	55	66	89	67	47	63	76	92	170	117	87	56
Notices	42	78	78	38	37	65	49	48	44	63	68	47	32	55	132	150	69	98	98



*Penalty issued dates are derived from the date the Docket Number was issued.

Spill Prevention, Preparedness and Response

Overview

> *The mission of the Spills Program is to protect Washington's environment, public health and safety through a comprehensive spill prevention, preparedness and response program. The Spills Program focuses on preventing oil spills to Washington waters and land and ensuring effective response to oil and hazardous substance spills whenever they occur.*

Billions of gallons of oil and hazardous chemicals move through Washington each year by ship, pipeline, rail and road. Accidents, equipment failure and human error can all lead to unintended and potentially disastrous consequences from an oil spill. Oil and chemical spills into Washington's waters can threaten some of the most productive and valuable ecosystems, while spills on land threaten public health, safety and the environment. Harm from major oil spills in the 1980s and early 1990s resulted in state and federal legislation to protect the environment and human health from such spills. Washington State adopted the Oil Spill Prevention and Response Act in 1991.

The Ecology Spill Prevention, Preparedness and Response Program (Spills) works closely with emergency responders, the oil industry, the shipping and transportation industry and others to prevent oil spills and quickly respond to those that do occur.

To accomplish its mission, Ecology's Spills Program is working on the following objectives:

- Prevent spills from vessels and oil-handling facilities,
- Prepare for spill response through planning and drills,
- Respond to and clean up oil and hazardous material spills, and
- Restore environmental damage caused by oil spills.

Prevention, Preparedness & Compliance

Prevention focuses on large oil-handling facilities and commercial vessels. Oil-handling facilities must have a training program, operations manual, safety systems and a spill prevention program approved by the Spills Program. Ecology conducts regular inspections and reviews plans to ensure facilities have employed the best available technology to obtain the best achievable protection from oil spills.

Oil-handling facilities are inspected to assure compliance with approved training programs, operation manuals and prevention strategies. Approximately 2,600 commercial vessels enter Washington waters each year. Ecology conducts approximately 1,000 onboard vessel inspections per year at bunkering operations and at the 35 oil-handling facilities to verify compliance with international, federal and state requirements.

Oil-handling facilities and commercial vessels are required to prepare plans in the event of an oil spill. This is accomplished by developing and maintaining state approved spill contingency plans. Once agency employees have reviewed and approved an oil spill contingency plan, the facility maintains their spill readiness through required spill drills. These plans and drills help to assure these facilities plan to prevent spills and, if a spill occurs, are able to rapidly mount an effective response.

When oil is spilled to water, Ecology responds to ensure rapid containment and cleanup of the spill. Ecology's response unit works both locally and regionally with fire, police and health agencies to improve response times and effectiveness.

Environmental Trends

In the last five years, the number of oil spills from commercial vessels has decreased about 40 percent. Vessel accidents and "near-miss" rates have had a corresponding decrease over the same period. The number of oil spills from other sources (recreational boats, rail cars, facilities and trucks) over the last five years has fluctuated, with a high of 72 in fiscal year 2001 to 45 in fiscal year 2003. There were 48 reported spills in fiscal year 2004. The volume of oil spilled to Washington waters, as reported, reached a high of nearly 30,000 gallons in fiscal year 2002. The amount of oil spilled in fiscal year 2004 was 15,000 gallons.

Enforcement Trends

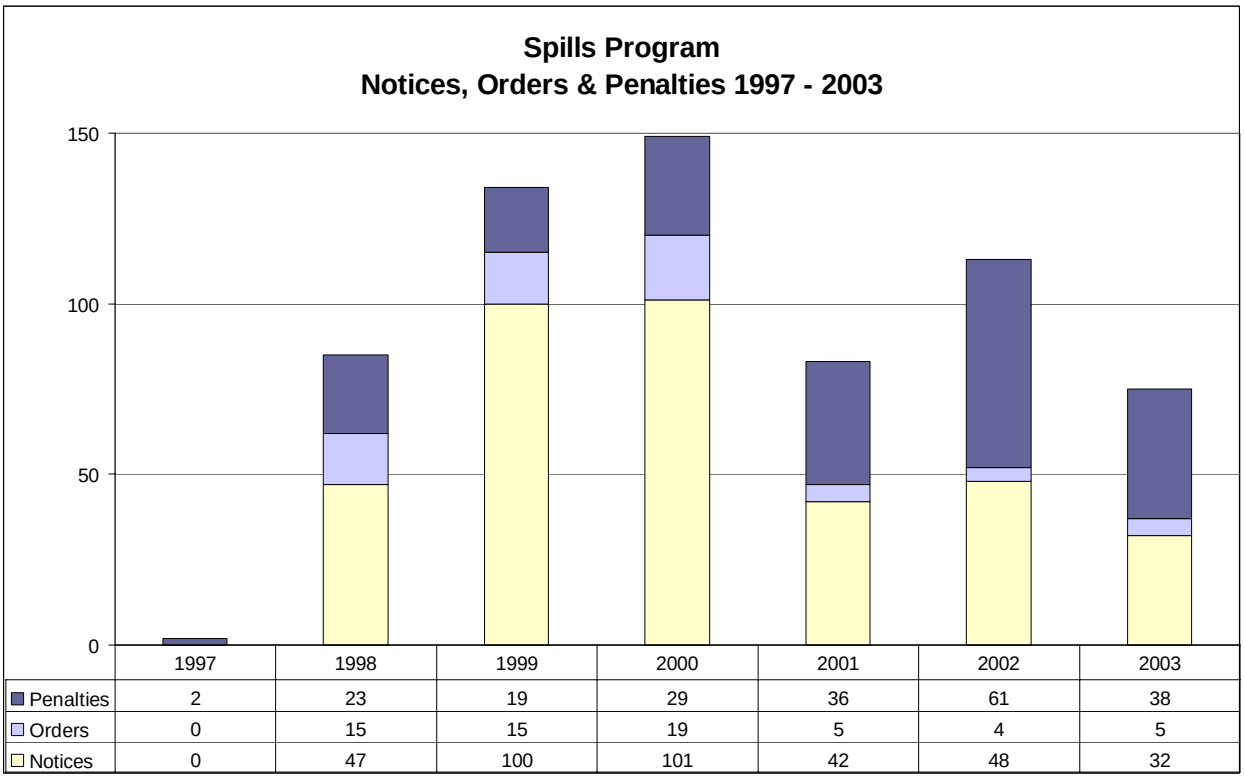
When Ecology's Spills Program formed in 1997, two separately developed enforcement processes were combined: one focused on commercial vessels and prevention issues, while the other concentrated on enforcing our state's strict liability for oil spills to water and liability for negligent or reckless and intentional oil spills. The former used a continuum of enforcement that increased in severity from notices to penalties. The latter used warnings and penalties to ensure that companies using and handling oil near water knew what to do in the case of a spill or threat of a spill and how to contain and cleanup the oil.

Prevention enforcement resulted in a large number of notices of violation and a number of administrative orders in the late 1990s. This is demonstrated by the trend chart on the next page. In March 2000, the U.S. Supreme Court held, in U.S. v. Locke, that Ecology's spill prevention rules for oil tankers were preempted by federal rule. The effect of this ruling is demonstrated by the significant drop in notices and orders from 2001 to 2003.

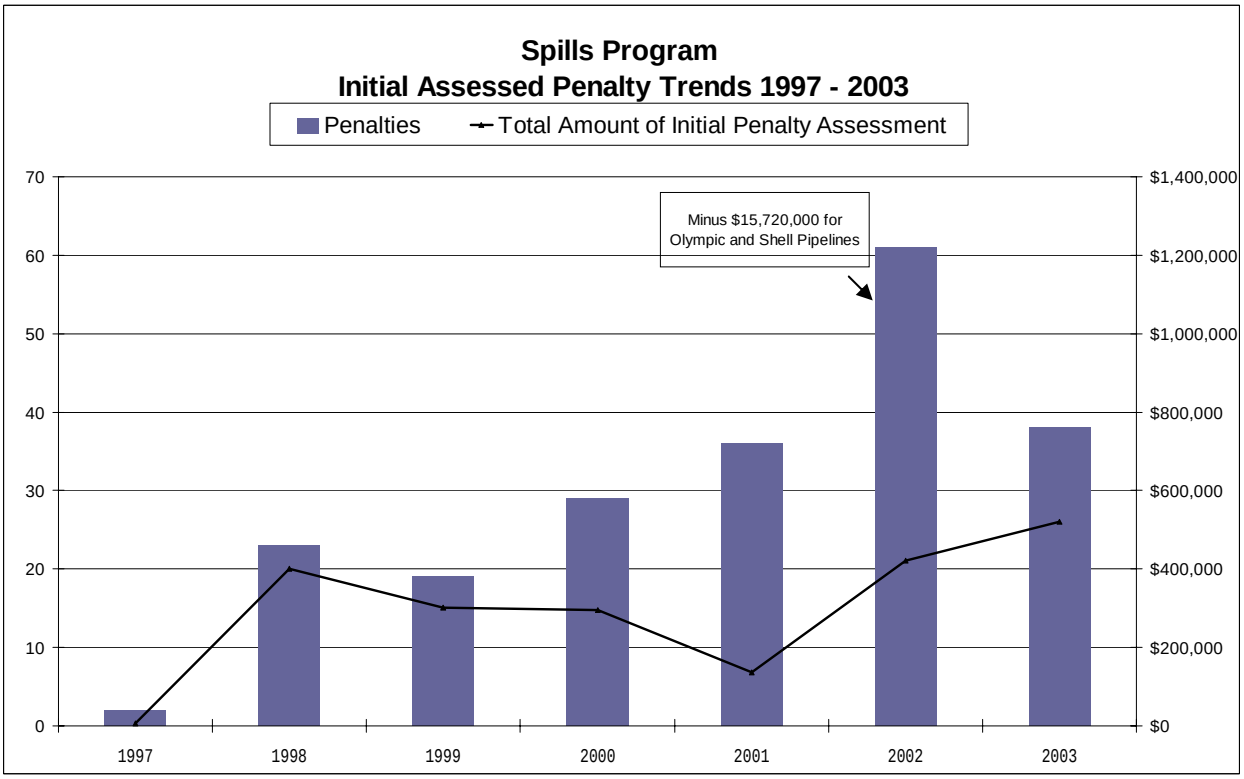
The U.S. v Locke ruling also affected the total penalty dollars assessed in 2001. According to the initial penalty assessments chart on the next page, while the dollar amount dropped, the number of penalties issued increased about 20 percent. The increase in the number of penalties issued is in part accounted for by the differences in penalties issued in the field as field citations and those as the result of investigations.

Most penalties issued by the Spills Program are issued in the field for small spills to water. These "field citations" range from a warning to a penalty of no more than $2,500. The use of the field citation has been an effective tool to encourage individuals and small companies to report and clean up spills. Larger penalties are also issued, depending on the significance of the spill and/or violation. Employing these penalty tools can result in a large number of penalties issued, although a relatively small amount of penalty money is assessed, as seen in the year 2002. The opposite may also occur, as seen in the year 2003 where the amount of penalty dollars assessed increased while the number of penalties issued dropped.

For more information about spill prevention, preparedness and response, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/spills/spills.html.



	1997	1998	1999	2000	2001	2002	2003
Penalties	2	23	19	29	36	61	38
Orders	0	15	15	19	5	4	5
Notices	0	47	100	101	42	48	32



*Penalty issued dates are derived from the date the Docket Number was issued.

Water Resources

Overview

The mission of the Water Resources Program is to support sustainable water resource management to meet the present and future water needs of people and the natural environment, in partnership with Washington communities.

Washington is facing the challenge of meeting growing water demands fueled by population and economic growth. The threat of extinction to once abundant fish stocks due to poor water quality and inadequate stream flow plays significantly into the debate about water resources. After years of gridlock, a multi-year, joint governor and legislative process resulted in a state water strategy to make progress on several significant water issues.

Water use and water resources management are regulated by a complex web of statutory law and case law (court interpretations), including English Common Law adopted while Washington was still a territory.

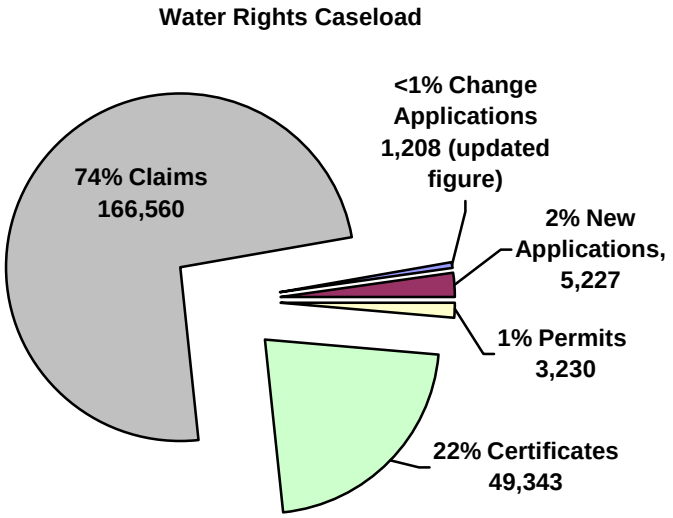
To accomplish its mission and to manage the ever-increasing demand for water, Ecology's Water Resources Program is working on the following objectives:

- Manage water rights,
- Prepare and respond to drought and climate change,
- Assess, set and achieve stream flows,
- Support water use efficiency,
- Regulate well construction,
- Assure dam safety,
- Support local watershed management of water resources,
- Provide water resources data and information,
- Adjudicate water rights, and
- Promote compliance with water law

Water Resources Permits

Ecology allocates water by reviewing applications for new water rights and changes to existing water rights. Applications are reviewed to determine whether sufficient water is available and whether existing rights would be impaired. A water right is a legal authorization to use a certain amount of public water for specific purposes. A water right is needed for any diversion of any surface water or underground water, with a few exceptions. Ecology works to ensure that water users comply with the state's water

laws so that other legal water users are not impaired, water use remains sustainable over the long term, and the environment is protected. The caseload for water rights is large and growing and the legal context for water use is both dynamic and complex:



Ecology also licenses and regulates well drillers and investigates complaints to ensure the drilling of wells meets state standards. The licensing process works to protect the health, welfare and safety of people by defining and regulating minimum construction standards for all wells. The well driller and property owner are responsible for meeting the standards and for protecting ground water from contamination or impairment.

In addition to water resource allocation and protection, the agency works to protect life, property and the environment through comprehensive rule and supervision of state regulated dams. Any person intending to construct or modify any dam must submit plans to Ecology and obtain a dam safety permit. Ecology inspects dams for structural integrity and flood and earthquake safety.

Compliance Assurance

The Water Resources Program's goal is to achieve voluntary compliance with water laws. This is accomplished through education, outreach, training and licensing activities. These efforts are geared toward the public, specific water sectors of water users and individuals. Enforcement actions are important tools that are used in a limited number of special cases where voluntary or informal compliance efforts are not successful, where risks to safety, health and the environment are high and when we have sufficient resources to use formal enforcement tools.

Current compliance priorities are to:

- Ensure water is metered and reported in 16 basins where fish stocks are depressed, and implement a reporting system for metering data,
- Provide compliance information, assistance and strategic enforcement action in egregious cases, and issue penalties as appropriate,
- Monitor water use (metering, gauging, reporting) and take compliance actions necessary to assure that trust water rights purchased are protected,
- Regulate water use during periods of low flows to protect senior water users and streams having stream flow limits,
- Begin taking compliance actions to enforce court findings in the Yakima adjudication, and
- Communicate compliance actions to achieve broader deterrence.

In order to focus on the compliance priorities, a very limited complaint response and ongoing water rights enforcement is pursued in most of the state. Following is an example of the progression from voluntary compliance to formal enforcement for a water rights case.

- Phone contact is made with the complainant and alleged violator,
- Voluntary compliance is pursued through outreach via phone, site visit and/or office meeting,
- Information on the potential, and process, for a new water right is provided,
- Referrals are made to local government for land use and Department of Fish and Wildlife for habitat issues and/or other Ecology programs, as appropriate,
- Follow up is usually made through a letter to bring formal closure or at least document what efforts will be made to gain compliance, and
- Follow up field meeting is held to verify water is not being used.

For cases of illegal use that are not receptive to voluntary compliance, formal enforcement actions may follow. For formal enforcement, Ecology takes the following steps.

- Issues a series of escalating letters explaining the formal enforcement process and actions if compliance is not achieved within a certain timeframe,
- Issues an administrative cease and desist order with penalty notification,
- Continues with follow up field presence, including interviewing neighbors, collecting complaint statements along with witness statements, photographing property and water source being used, and documenting continued illegal use, and
- Issues penalties orders.

Environmental Trends

Washington residents have historically enjoyed an abundance of clean and inexpensive water in what has been viewed as a water-rich state. This is changing as unprecedented population and economic growth has fueled and highlighted the growing demand for water. A number of factors underscore this change:

- The lack of water in many areas for further allocation without impairing senior water rights, reducing stream flows or depleting aquifers,
- The threat of extinction of once abundant fish stocks,
- Competition and litigation over water,
- Repeated drought conditions resulting in dry streams, withered crops, dead fish, reduced hydropower production and increased wildfires, and
- Growing interest and investment in water use efficiency technology, reclaimed water and even desalinization.

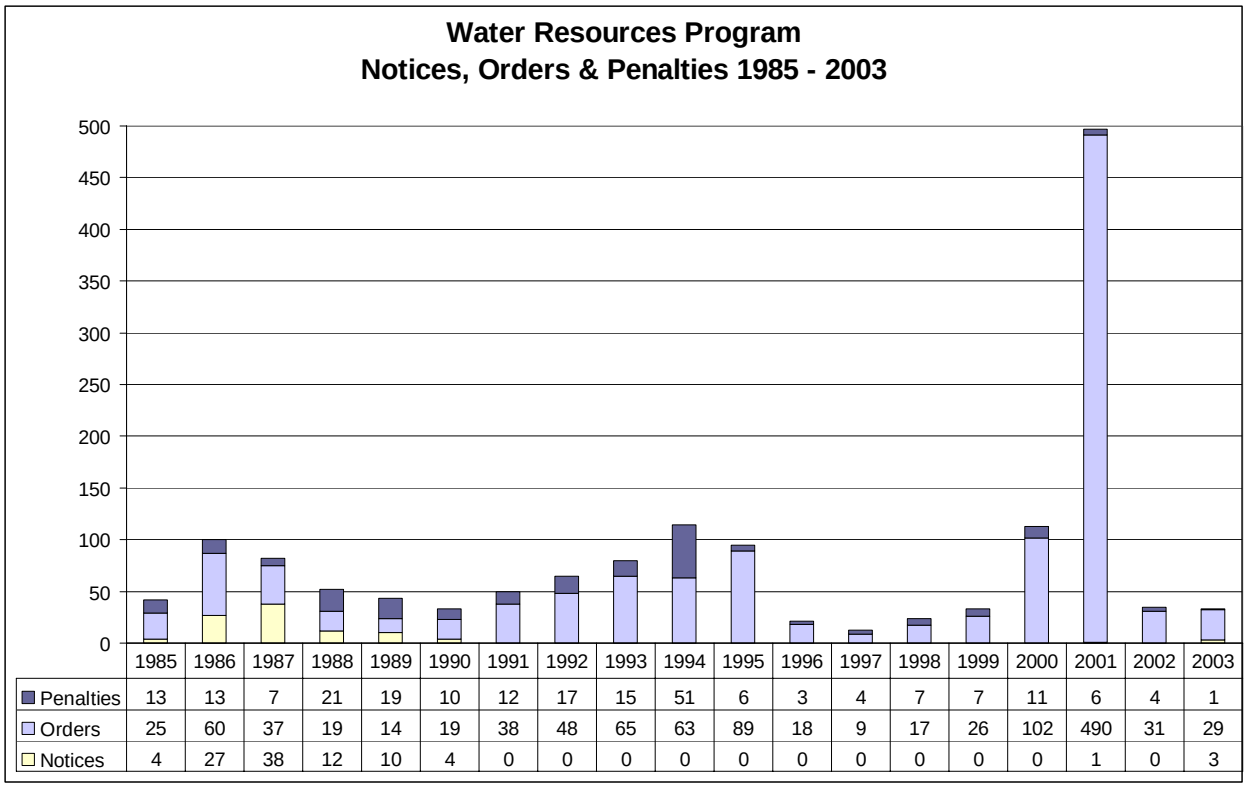
An emerging concern is the effect of global warming and climate trends on water availability. A reduction in future water supplies may emerge due to a potential of reduced volume of stored water in the mountain snow-pack, and changes in the timing, amount and location of precipitation.

Enforcement Trends

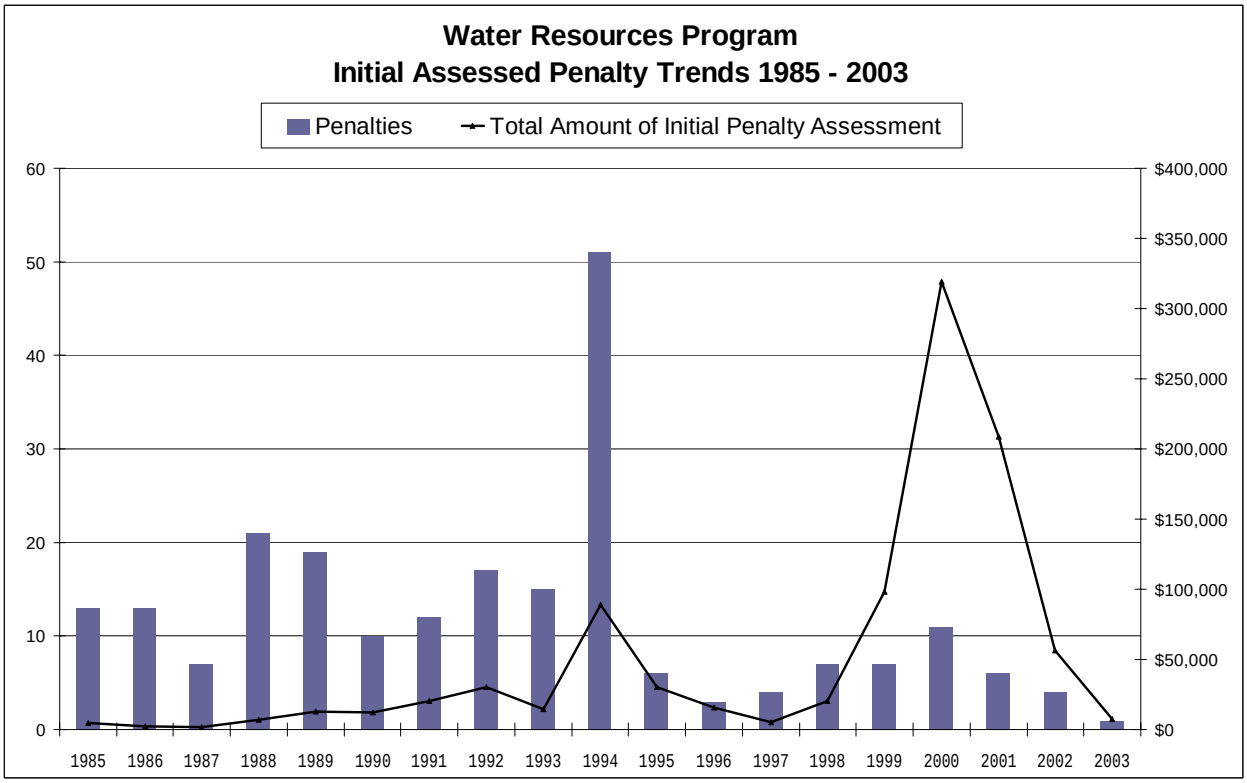
The current compliance priority of the Water Resources Program is metering and reporting water use in 16 basins with depressed fish stocks. Orders to meter water use have been sent to water users covering over 1,000 water rights representing 80 percent of the water volume used in those basins. Funding has been provided to help users install meters and for Ecology to develop a reporting and data management system. Follow-up work is now underway with those who received metering orders to ensure compliance with metering and reporting requirements.

Other compliance priorities include regulating water during low-flow periods, addressing egregious illegal water use, especially in fish-critical basins, and protecting public and environmental health and safety by maintaining dam safety and well construction compliance efforts. The jump in the number of enforcement orders in 2001 shown in the first chart on the next page was due to a large number of orders Ecology issued to meter water use, as required under a court settlement agreement. The 1994 peak in penalties shown in the second chart resulted from efforts to deal with a large number of well-drilling related violations, including licensure and well sealing.

For more information about water resources and dam safety, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/wr/wrhome.html.



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	13	13	7	21	19	10	12	17	15	51	6	3	4	7	7	11	6	4	1
Orders	25	60	37	19	14	19	38	48	65	63	89	18	9	17	26	102	490	31	29
Notices	4	27	38	12	10	4	0	0	0	0	0	0	0	0	0	0	1	0	3



*Penalty issued dates are derived from the date the Docket Number was issued.

Multimedia Permits

Overview

The mission of the Industrial Section is to partner with many of Washington's largest industrial facilities to limit their impact on citizens and the environment.

Ecology has a unique section within the Solid Waste Program that focuses on multimedia permits and compliance for three major industries of Washington State: aluminum smelters, oil refineries and pulp-and-paper mills. Ecology employees in this section are trained to handle the complexities of these industries and are responsible for environmental permitting, site inspections and compliance issues. They regulate air, water, hazardous waste and cleanup activities at pulp-and-paper mills and aluminum smelters. Employees in the Industrial Section also regulate water, hazardous waste, and cleanup activities at oil refineries.

Because of recent aluminum smelter closures, the Industrial Section has accepted some additional responsibilities, including water, waste, and clean-up issues at Agrium (a fertilizer manufacturer), Kalama Noveon (a chemical manufacturer), and Lilyblad (a chemical blender).

The goal of the Industrial Section is to provide a single point of contact for these major facilities. Rather than having multiple inspectors work on the many environmental issues at a plant, one engineer provides coverage for all air, water, waste-permitting and compliance activities.

Multimedia Permits

The Industrial Section of the Solid Waste Program issues and manages the following types of permits for the 29 major industries of Washington State:

- Wastewater discharge permits
  - 33 National Pollutant Discharge Elimination System (NPDES) Permits
  - 11 state wastewater discharge permits

- Air operating permits: Title V
  - 14 air operating permits for aluminum and pulp-and-paper mills

- Resource Conservation and Recovery Act (RCRA) permits
  - 4 RCRA permits for oil refineries.

Environmental Trends

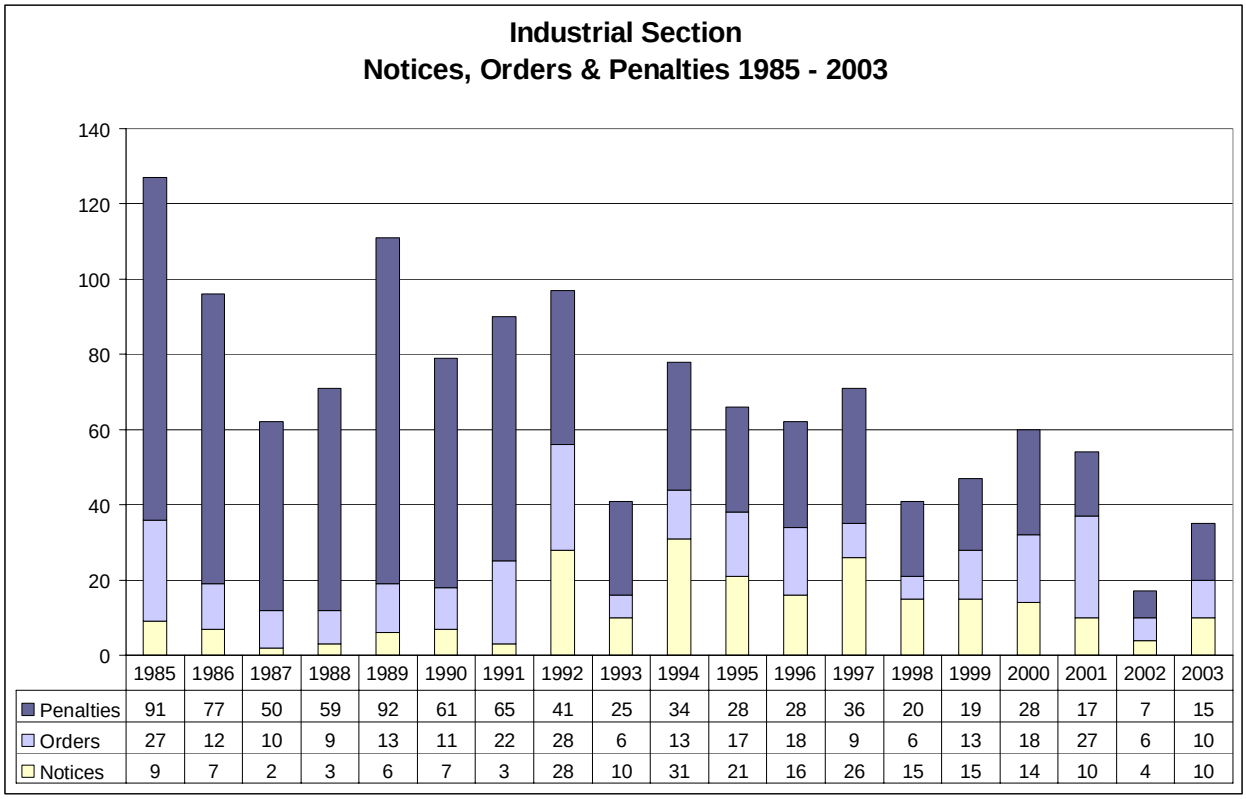
Environmental effects in airsheds due to the regulated industries continue to decline, particularly compared to other sources such as motor vehicles. Maximum achievable control technology (MACT) standards for controlling hazardous air pollutants further regulate industrial air emissions. The first stage of MACT standards went into effect in 2001. Additional stages are now applicable, and at least two more stages are expected. The increased monitoring required by MACT is at times onerous, but industry compliance has been good. The regulatory scheme continues to push for reduced pollution per unit of production.

Analysis and control of point-source effects on state waters continues to be more rigorous than nonpoint-source analysis and control within the Industrial Section. Water permits require data collection to analyze environmental trends. Herring studies partially funded by oil refineries, Columbia River thermal impact studies funded by the pulp-and-paper industry, and increased monitoring for organics in mill effluents are examples of the sampling and data collection this is being done. The data will be used to make future permitting decisions.

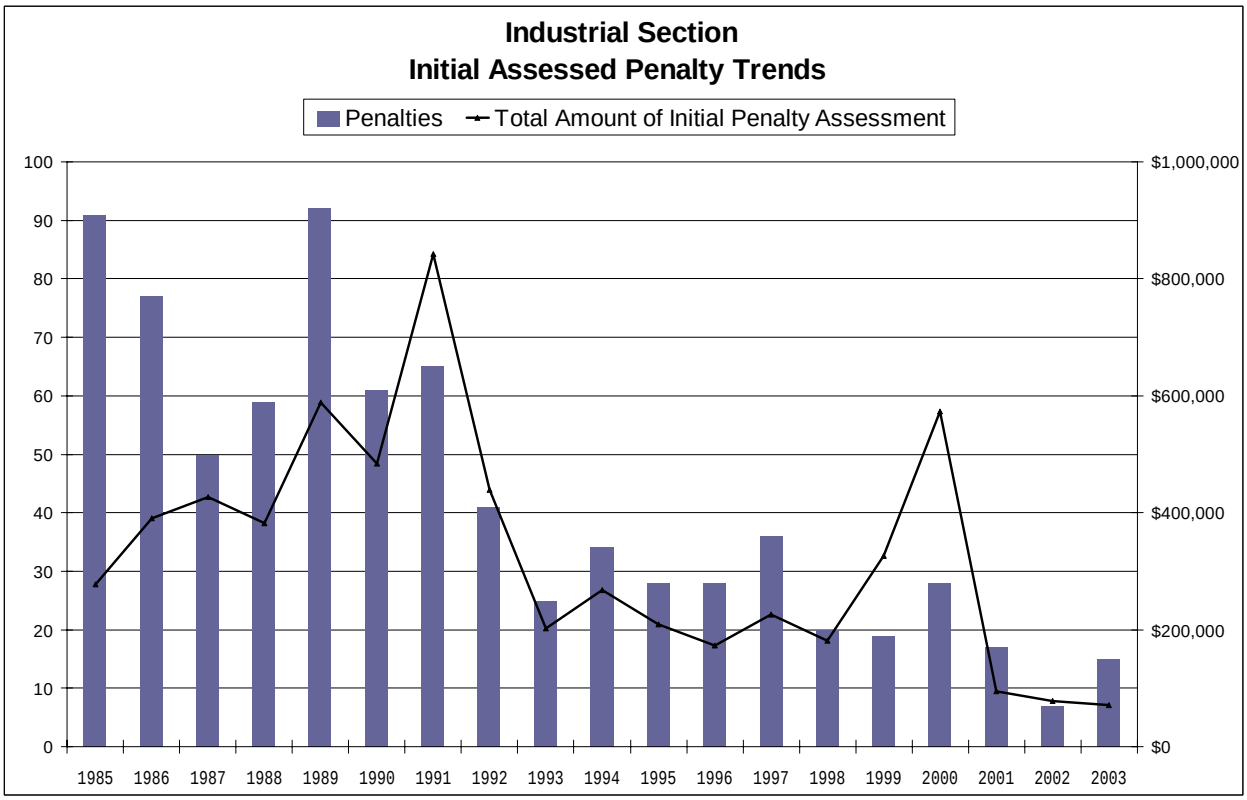
Enforcement Trends

The economy contributed to a reduced number of enforcement actions during the last several years. High electrical costs resulted in operations being curtailed at most aluminum smelters in the state. Sluggish economic activity reduced demand for packaging products produced by the pulp-and-paper industry. Reduced mill activities, accompanied by industry efforts to achieve compliance with environmental requirements, contributed to a reduction in enforcement actions.

For more information about multi-media permitting and compliance, visit Ecology's Web site at: http://www.ecy.wa.gov/programs/swfa/industrial/.



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penalties	91	77	50	59	92	61	65	41	25	34	28	28	36	20	19	28	17	7	15
Orders	27	12	10	9	13	11	22	28	6	13	17	18	9	6	13	18	27	6	10
Notices	9	7	2	3	6	7	3	28	10	31	21	16	26	15	15	14	10	4	10



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Additional Ecology Enforcement Information

Enforcement information is available on the web at:
http://www.ecy.wa.gov/enforce.html

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