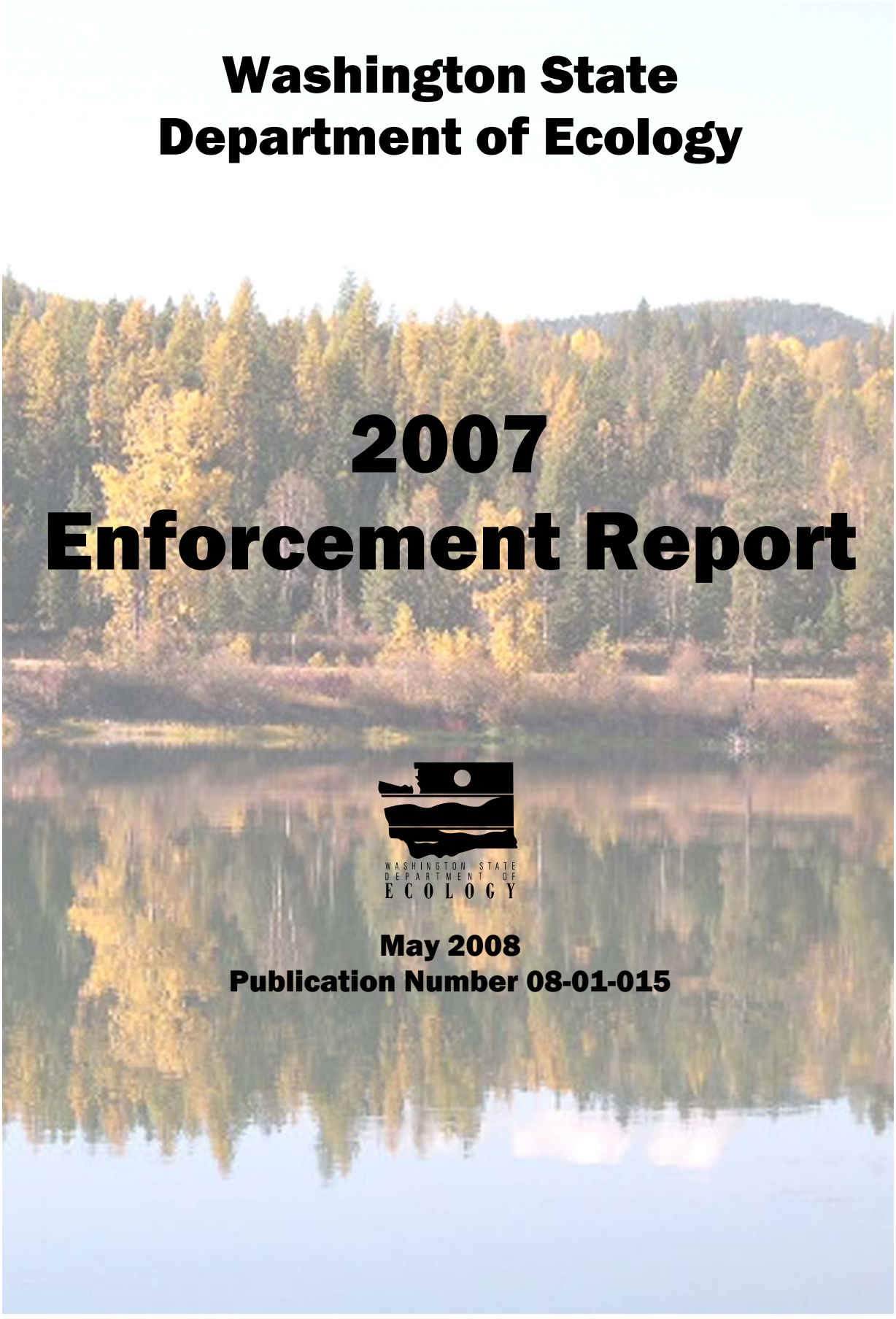
Washington State Department of Ecology



2007 Enforcement Report

WASHINGTON STATE DEPARTMENT OF ECOLOGY

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Cover photo of the Pend Oreille Rive (near Ione, WA) and landscape by: Gene Drury

2007 Enforcement Report

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Message from Jay Manning

Director, Department of Ecology

Enforcement is not an end, but a means to achieve compliance with the laws we administer for the protection of human health and the environment. Most people and businesses voluntarily comply with Washington's laws. When they are not in compliance, it's usually because they are unaware of or don't understand what is required. For many cases, technical assistance and education remedies the problem.

Unfortunately, some people and businesses require a stronger response from the agency to bring them into compliance. This typically begins with a warning letter. If a warning does not work to correct the violation, we move to more formal enforcement. This ranges from notices of violation to penalties, depending on the severity of the case. Ecology has a very deliberative process for deciding when to take enforcement and for determining the appropriate level of action. Notices of violation and orders are often our first formal action. Enforcement actions with monetary penalties are difficult, contentious, and require extensive staff time and, in many cases, attorney resources. When determining a penalty amount, we consider factors such as repeat violations, if the case was egregious, and the severity of the violation.

The agency is under increasing pressure to "better enforce the existing laws" to improve environmental protection. I often hear from business interests and environmental advocates, "if only we enforced the standards we have, we wouldn't need additional regulatory requirements, and our current environmental problems would not be nearly as difficult." I agree that Ecology can and should do a better job of enforcing the standards that are in the law now. We strive to do so on a daily basis.

As the following report shows, Ecology issues a substantial number of enforcement actions, including civil penalties and orders. I'm confident that we issue more environmental enforcement actions than any other state or federal agency or local government in the state. We firmly believe in the deterrent effect of formal enforcement, and that enforcement "levels the playing field" between those who comply and those who choose not to.

That said, enforcement is not powerful enough to solve our environmental problems. We need to use education, for the public and for regulated entities, as our most basic compliance tool. We need to work in partnership with other agencies and local governments to stretch our compliance resources as far as possible. We need to work with trade associations, business groups and sectors, and other stakeholders to achieve widespread voluntary compliance, thus allowing us and other agencies to focus our limited enforcement resources on those entities that choose not to comply.

It's important to recognize that achieving environmental compliance is getting more difficult. For the most part, the large, stationary pollution sources are in compliance with their permits. However, there are thousands of small to medium-sized businesses that are also sources of pollution. And, let's face it - all of us contribute to the problem with our own set of pollution sources like our cars, our homes, and the products that we use. Achieving compliance and protecting human health and the environment from the impacts of these literally millions of sources is a gargantuan task, and not one that lends itself to resource intensive formal enforcement actions.

We are working in closer partnership with local governments to improve environmental compliance. The following programs were funded in 2007 to enhance this partnership:

- Grants of $250,000 each to King and Island Counties for environmental compliance work.
- $2.5 million for increased inspection and compliance work in the Spokane River, Lower Duwamish River, and Commencement Bay.
- $2 million for grants to 13 local governments to hire local source control specialists to provide education and assistance to businesses.
- $1.5 million to establish a wetland compliance program.

We are also piloting alternative approaches, such as Lean and the Environment, the Environmental Results Program, and increased use of general permits. We will use the results of these efforts to help us improve our compliance and enforcement capacity.

Improved enforcement of existing laws has been, and will continue to be, an important part of our work. New tools and approaches will be used as well to better protect our citizens and our environment in the years to come.

Sincerely,

Jay Manning

Director, Department of Ecology

Executive Summary

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

- Prevent pollution.
- Clean up pollution.
- Support sustainable communities and natural resources.

The agency priorities for 2007 – 2009 are:

- Reduce toxic threats.
- Protect and restore Puget Sound.
- Improve water management.
- Ensure environmental mitigation works to protect natural resources.
- Prepare for climate change.

As the state's primary agency for environmental protection, Ecology administers laws and rules relating to air quality, water quality, water resources, spill prevention and cleanup, hazardous and solid waste management, nuclear waste, toxic site cleanups, and shoreline management. Compliance with environmental laws is fundamental to protecting the quality of Washington's air, land, and water. Ecology works with businesses, local and state agencies and individuals to help them comply with environmental laws. We provide technical assistance, guidance, workshops, on-site visits, and information on our web site on how to comply with environmental laws.

Ideally, voluntary compliance is preferred. When voluntary compliance is not achieved, we progress through a variety of tools to gain compliance, usually starting with a warning letter. For repeat or flagrant violations we can immediately escalate our action to enforcement. Enforcement actions can be in the form of notices, orders, or penalties, as described in this report on pages 12 to 15.

2007 Enforcement Summary
This report is focused on enforcement-based compliance. Data is provided on trends in notices, orders and penalties, by agency and by environmental program.

In 2007, Ecology issued 180 notices, 128 orders and 212 penalties statewide. Between 1999 and 2002 the agency targeted compliance and inspections on several business sectors: agricultural burning, underground storage tanks, well drilling, metered water use and dairy farms. Setting those years aside, total enforcement actions have increased by 22% from the 1990's to the 2000's. The trend indicates a 43% increase in notices, the first level of enforcement action, while the trend in orders decreased 28%. Penalties, with fines, increased by 5% between the 1990's and 2000's, setting aside the years between 1999 and 2002.

Introduction

The Department of Ecology (Ecology) is Washington's principal environmental protection agency. Our mission 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
- Support sustainable communities and natural resources

Figure 1: Ecology's Primary Environmental Business Functions

Compliance with Environmental Laws & Rules

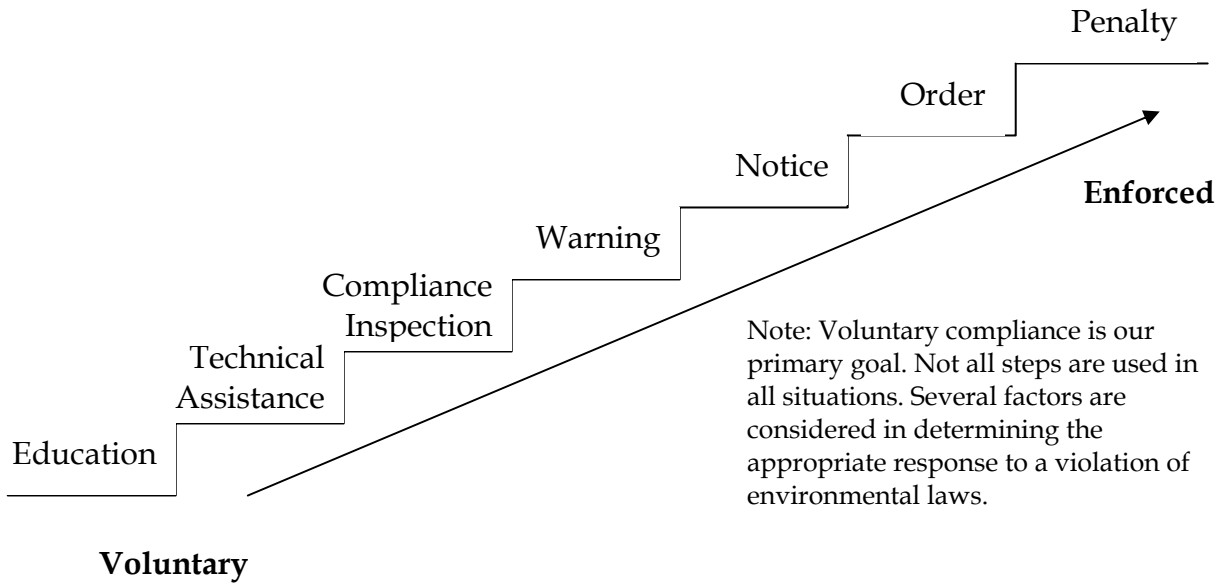
Ecology is responsible for managing Washington's environmental laws and rules that protect the air, land and water. We require, expect, and help those we regulate to know how to voluntarily comply with these laws and rules. This includes the Revised Code of Washington (state law), the Washington Administrative Code (state rules) and, in the case of federal rules, the Code of Federal Regulations.

Ecology's Enforcement Principles

Ecology uses enforcement, along with education, technical assistance and cooperation-based programs to make sure businesses comply with state laws and rules. In cases of non-compliance we carefully match the significance of the violation to the type of enforcement actions we take.

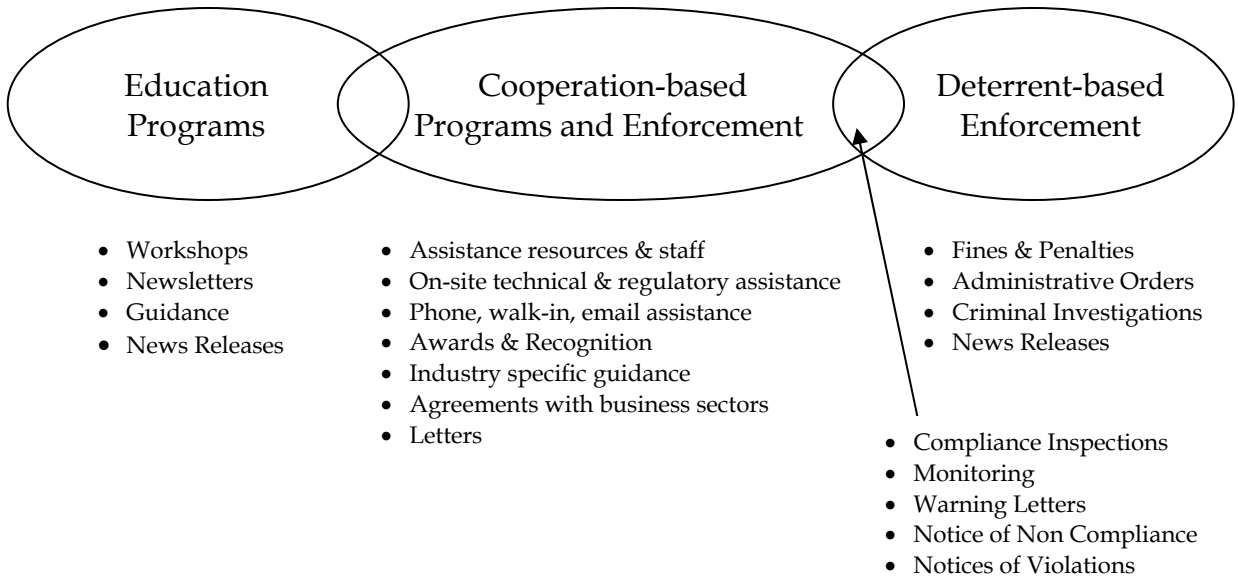
In most cases, we use cooperation-based solutions to solve environmental problems. However, we also have a strong deterrent-based enforcement policy to address significant threats to human health, the environment, and intentional violations.

Figure 2: Pathway to Compliance with Environmental Laws



Some of our tools to gain compliance fall in-between cooperation-based and deterrent-based enforcement such as compliance inspections. Our enforcement actions are based in fact and law, well documented, appropriate to the violation, and issued in a professional, equitable, and effective manner. This report primarily focuses on deterrent-based enforcement trends. A large part of Ecology's work is on education and cooperation-based programs. To learn more about our education and cooperation-based programs, please visit: http://www.ecy.wa.gov/services.html

Figure 3: Tools to Gain Compliance



Recent Approaches to Improve Compliance with Environmental Laws

Ecology has several alternative compliance and permitting projects underway to help businesses and individuals improve their understanding of environmental laws. Our goal is to increase awareness of what people need to know and do to comply with environmental laws.

Air quality general orders

In 2007, we issued seven general orders for businesses and individuals needing certain air quality permits. General orders streamline the permitting process making it easier to obtain a permit, while maintaining the safeguards necessary for environmental protection. This is the first time we have issued general orders for air quality emissions from these sources:

- Diesel and gas powered emergency electrical generators.
- Dry cleaners using less than 2,100 gallons of perchloroethylene.
- Stationary and portable rock crushers.
- Natural gas fired boilers.
- Auto body shops.

For more information on air quality general orders, visit:
www.ecy.wa.gov/programs/air/AOP_Permits/Boiler/GeneralOrders.htm

Joint Aquatic Resources Permit Application (JARPA)

In the 1990's multiple regulatory agencies joined forces to create one application for people to use in applying for more than one permit at a time. The application is called the Joint Aquatic Resources Permit Application, or JARPA. In 2007 and continuing into 2008, the participating agencies have been working together to "plain talk" the application form. The application is available on the web with help buttons for the permit applicant. In 2008 we will be piloting a new JARPA application in selected counties with the intent of a statewide rollout in January 2009. The agencies include the U.S. Army Corps of Engineers, the Washington State Departments of Fish and Wildlife, Natural Resources and Transportation, and the Association of Counties. For more information, visit: www.epermitting.org/default.aspx

Lean and Environment

Many Washington businesses are using "Lean Manufacturing" to identify and eliminate waste and non-value added activities from their processes. In 2007, Ecology partnered with the Washington Manufacturing Services (WMS) in a project to provide lean and environmental technical assistance to manufacturing facilities in Washington through three pilot projects. The participating facilities included:

- Canyon Creek Cabinet Company, a large manufacturer of custom frameless and framed style cabinetry in Monroe.
- Lasco Bathware (Lasco), a manufacturer of fiberglass and acrylic bath and shower fixtures in Yelm.
- Columbia Paint & Coatings (Columbia Paint), a manufacturer of residential, architectural, and industrial paint and coatings in Spokane.

Ecology provided environmental expertise for the pilot projects, while Washington Manufacturing Services provided lean manufacturing expertise and management of on-site activities at the facilities. The overall project objectives were to:

- Develop a partnership between Ecology and WMS.
- Evaluate the benefits of deliberately integrating environmental tools into lean practices.
- Gain the expertise to offer and promote future lean and environment projects to manufacturers statewide.

Funding for the project was provided by Ecology, the National Institute of Standards and Technology, and the U.S. Environmental Protection Agency. The pilot projects had impressive operational and environmental results at each facility in cost, time, and environmental savings. We are continuing to promote the use of lean and environment in business processes. For more information, visit: www.ecy.wa.gov/programs/hwtr/lean/index.html

Environmental Results Program

The Environmental Results Program is an integrated approach to help small businesses comply with environmental laws. There are thousands of small businesses that discharge or emit small amounts of pollutants to the air, land and water. The cumulative impact of their emissions is a concern. However, inspecting every business is not practical or efficient. Through assistance, inspections and self-certification, the Environmental Results Program is a proven model to efficiently and effectively reduce pollution from small businesses.

In 2007 we received a grant from the Environmental Protection Agency to pilot an Environmental Results Program. The integrated approach includes a "plain talk" of our regulatory guidance, facility self-assessment and self-certification, targeted inspections to monitor performance, and the use of statistically based performance measurement. Our pilot business sector for 2008 will be the auto body industry. For more information about the Environmental Results Program model, visit: www.epa.gov/erp/

Local Source Control Program

A new funding partnership of state and local governments in 2008 will help small quantity generators of dangerous waste keep toxics out of the water. The local source

control program provides $2.5 million to be used in Puget Sound area counties and the Spokane River watershed. The money will be used by local governments to hire specialists to help small businesses control, reduce or eliminate sources of toxic pollution.

The local source control specialists are expected to reach thousands of small businesses in the next 18 months through site visits, workshops, presentations, and newsletters. Ecology solicited proposals from interested governments in the fall 2007. We expect to sign 14 partnership agreements and get the program running in early 2008. For more information on the local governments accepted for funding, visit: www.ecy.wa.gov/programs/hwtr/shoptalkonline/2007_winter/local_source_control_partnerships.html

State and Federal Roles in Enforcement

The federal Environmental Protection Agency (EPA) has delegated Ecology the authority to enforce certain federal environmental laws. These laws are the:

- Clean Air Act
- Clean Water Act
- Resource Conservation and Recovery Act

Every two years Ecology and EPA enter into a joint agreement to align their individual commitments to protect Washington's air, land, and water. This agreement is called the Environmental Performance Partnership Agreement. The purpose of the Environmental Performance Partnership Agreement is to:

- Establish common 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 managing the federal grant dollars that EPA Region 10 provides to Ecology for air quality, water quality, and hazardous waste management.

To view the Environmental Performance Partnership Agreement, visit: http://www.ecy.wa.gov/ppa.html.

Ecology takes the lead role in implementing the federally delegated programs in Washington. We routinely coordinate with the EPA to avoid duplicating compliance and enforcement actions. EPA Region 10 and Ecology operate under these four major principles to make sure the agencies are coordinated:

- Collaborative Planning: Commitment to "up-front" planning to avoid problems, duplication, and surprises.
- Role Definition: Recognition that the state has the lead 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.

Enforcement Actions

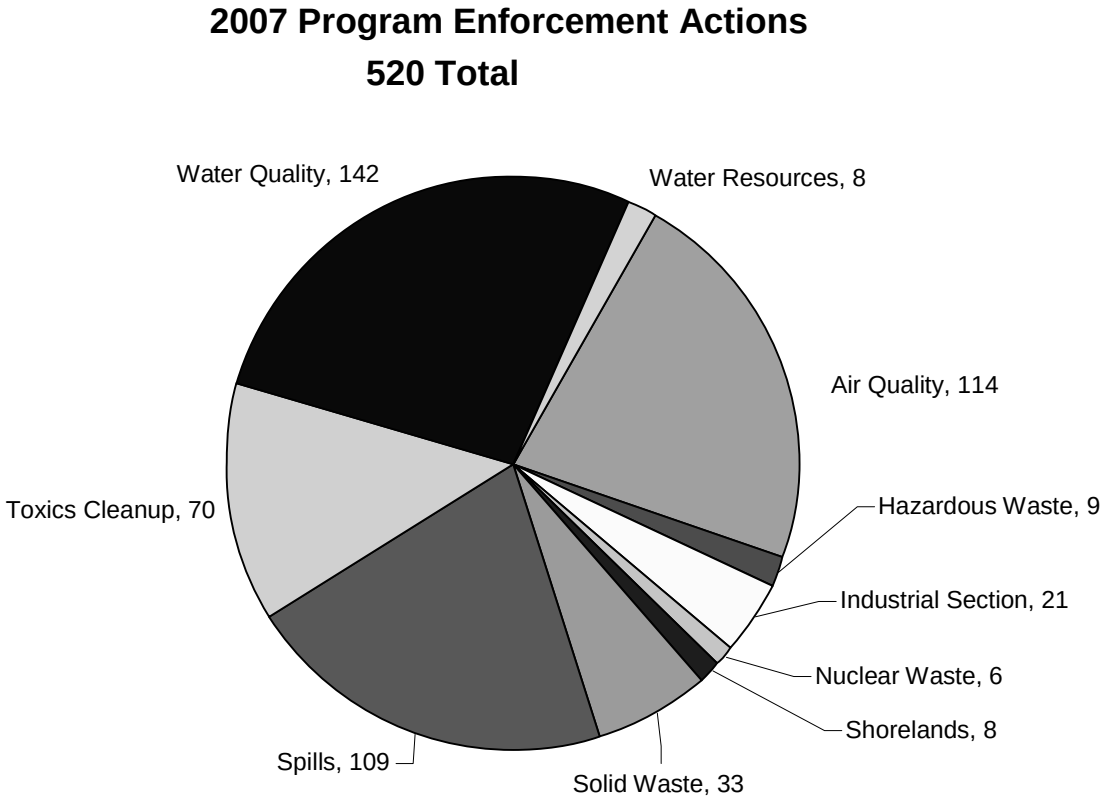
There are two paths for enforcing environmental laws and rules: civil and criminal. Civil enforcement may be pursued through the courts (judicially) or directly through action by Ecology (administratively). We pursue most of our enforcement through administrative civil action. However, if an Ecology employee identifies possible criminal activity, they will refer the case to the Criminal Investigations Task Force. This investigation may be 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 a violation, or potential to violate, a state law or rule; and the authority to enforce that law or rule.

Administrative enforcement often starts with a warning letter or a letter of non-compliance. If the warning does not result in compliance, enforcement is escalated to notices, orders, or civil penalties. These tools are described in more detail in the following sections. Please note that not all Ecology programs have legal authority to use all administrative enforcement tools available because we delegate some enforcement authority to local government.

The following pie chart shows the number of enforcement actions issued by Ecology in 2007.

Figure 4:

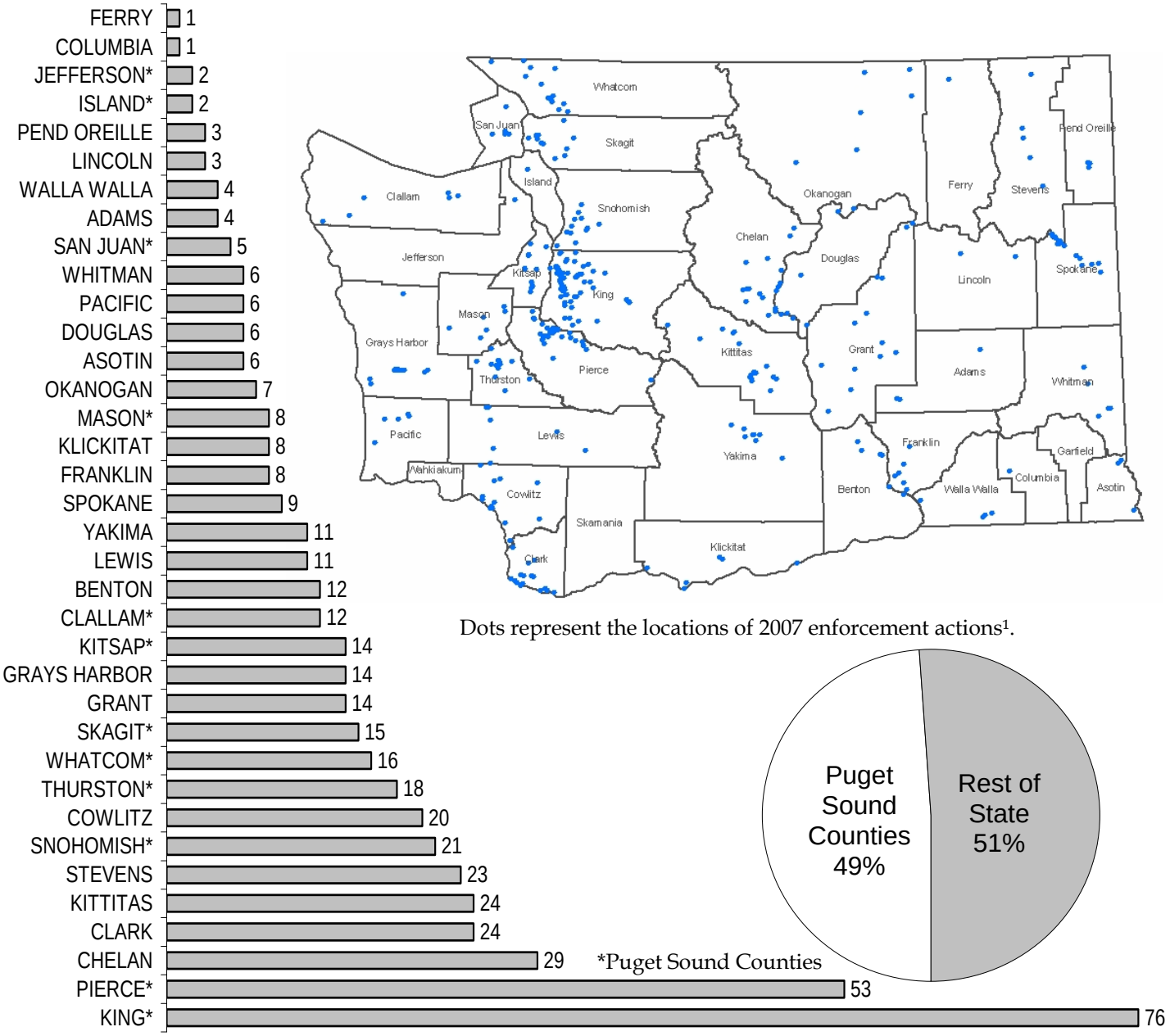


Actions by County

Ecology tracks each facility or site where an enforcement action occurs through our Facility/Site database and the Docket Management System. The facilities or sites, represented by dots on the Washington State map below, are locations where enforcement actions (penalty, order, notice) occurred in 2007. Ecology also uses the Facility/Site database to track other sites that Ecology has an environmental interest in. The public can access the Facility/Site data at www.ecy.wa.gov/fs/.

Figure 5:

2007 Enforcement Actions by County[1]



Dots represent the locations of 2007 enforcement actions[1].

[1] Totals exclude 22 notices and 2 penalties for electronic recycling violations that are located out of state.

Trends in Notices, Orders, and Penalties

The following graphs represent 23 years of consistent data collection for agency notices, orders and penalties, and the initial penalty assessment amount (the original dollar amount of the penalty before any appeal process). Throughout the mid-1980s and mid-1990s, the number of enforcement actions Ecology issued was constant.

The increase in notices and orders seen in 1999, 2000, and 2001 are attributed to:

- Increased efforts to control smoke from agricultural burning.
- Targeted inspections of facilities that produce hazardous waste.
- Targeted inspections of underground storage tanks.
- Large number of well-drilling related violations.
- Slight increase in oil and hazardous material incidents responses.
- Emphasis on compliance with water quality certifications; and orders to meter water use.
- Increased dairy farm inspections. (The Legislature handed over dairy farm inspections to the Department of Agriculture in 2003.)

Several of these actions come from new or enhanced programs authorized by the Washington State Legislature, the federal government or an Ecology administrative action. For the past five years the number of enforcement actions issued continues to be generally constant.

Figure 6:

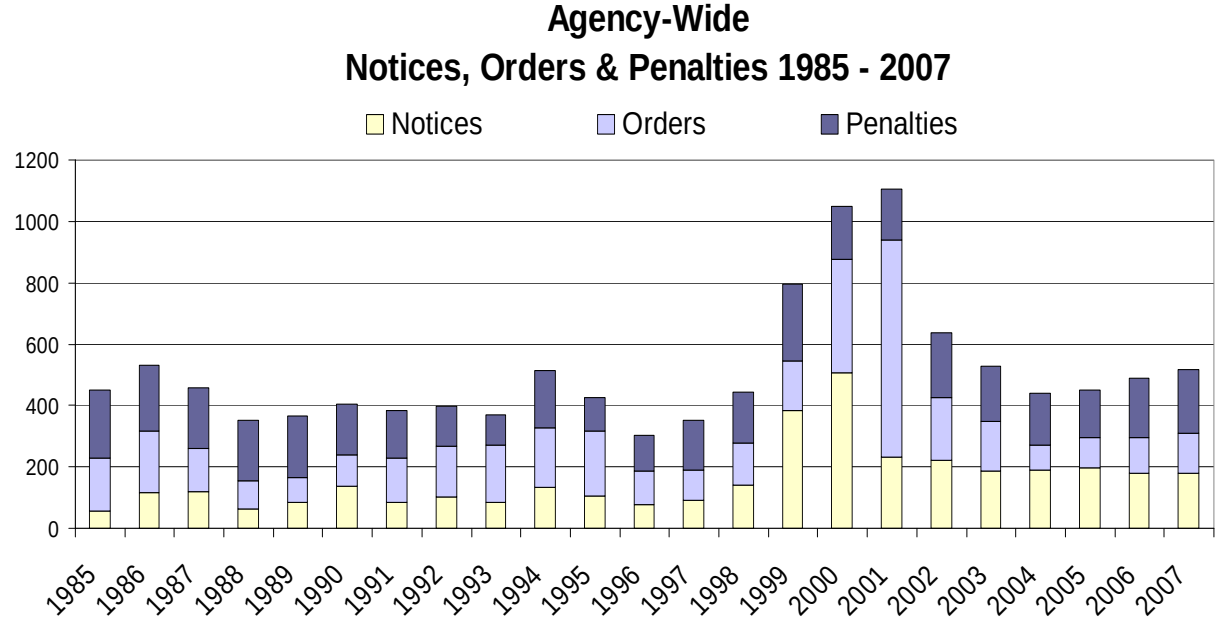


Table 1: Agency Total Enforcement Actions and Penalty Amounts

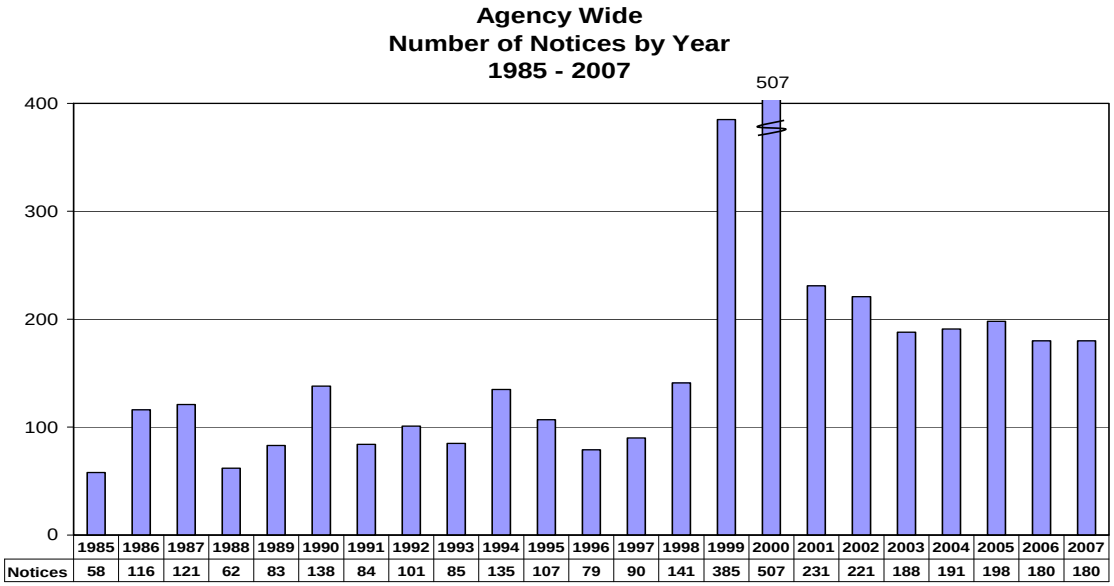
YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Penalty Initial Assessed Amount
1985	58	172	220	450	$822,028
1986	116	200	216	532	$1,009,468
1987	121	138	198	457	$1,046,147
1988	62	94	195	351	$1,082,875
1989	83	83	199	365	$1,615,977
1990	138	100	167	405	$2,566,900
1991	84	146	152	382	$1,532,580
1992	101	167	130	398	$2,246,782
1993	85	185	100	370	$1,811,350
1994	135	194	185	514	$1,211,150
1995	107	209	109	425	$703,380
1996	79	107	115	301	$1,128,899
1997	90	99	163	352	$1,506,295
1998	141	136	165	442	$1,895,777
1999	385	162	247	794	$2,691,353
2000	507	370	171	1048	$2,335,678
2001	231	707	166	1104	$1,193,650
2002	221	205	211	637	$17,051,430
2003	188	159	181	528	$1,207,992
2004	191	79	170	440	$1,465,362
2005	198	96	156	450	$1,991,441
2006	180	118	197	495	$2,056,023
2007	180	128	212	520	$2,778,557

These penalty amounts reflect the initial assessment amount before any appeals process or negotiations where the total amount may be reduced. 2002 totals include $15,720,000 in penalties issued for the 1999 Bellingham spill and fire.

Notices

Ecology uses a Notice of Violation or a Notice of Non-compliance to officially inform a facility owner they have violated or have the potential to violate environmental laws. Notices can not be appealed to the Pollution Control Hearings Board or the Shoreline Hearings Board. In some cases, we will issue a field citation up to $3,000 with a Notice of Non-Compliance.

Figure 7:

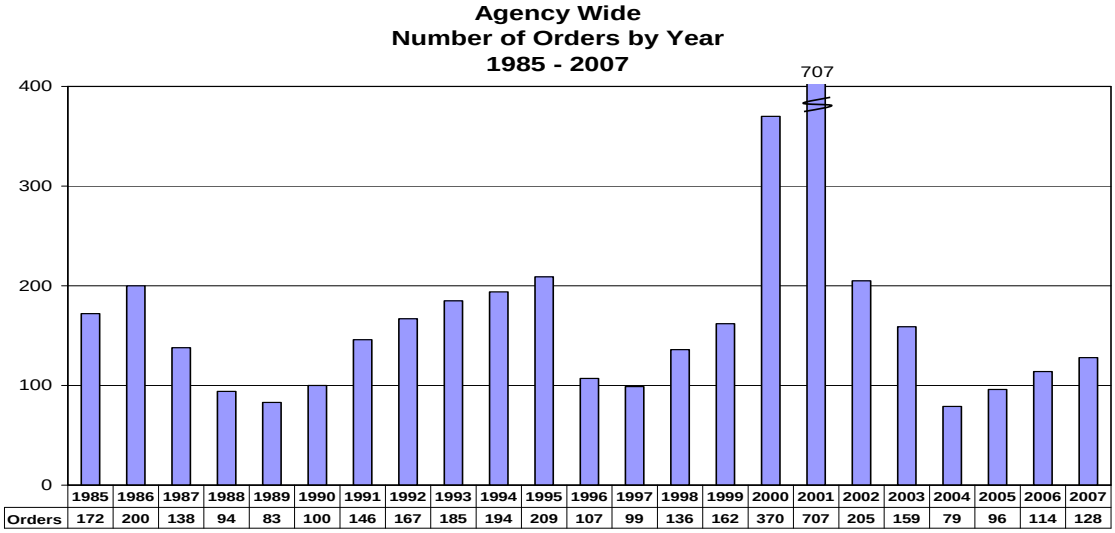


	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Notices	58	116	121	62	83	138	84	101	85	135	107	79	90	141	385	507	231	221	188	191	198	180	180

Administrative Orders

Ecology uses Orders to direct a person or business to correct a violation of an environmental law. Orders are authorized by statute, and most can be appealed to either the Pollution Control Hearings Board or the Shoreline Hearings Board.

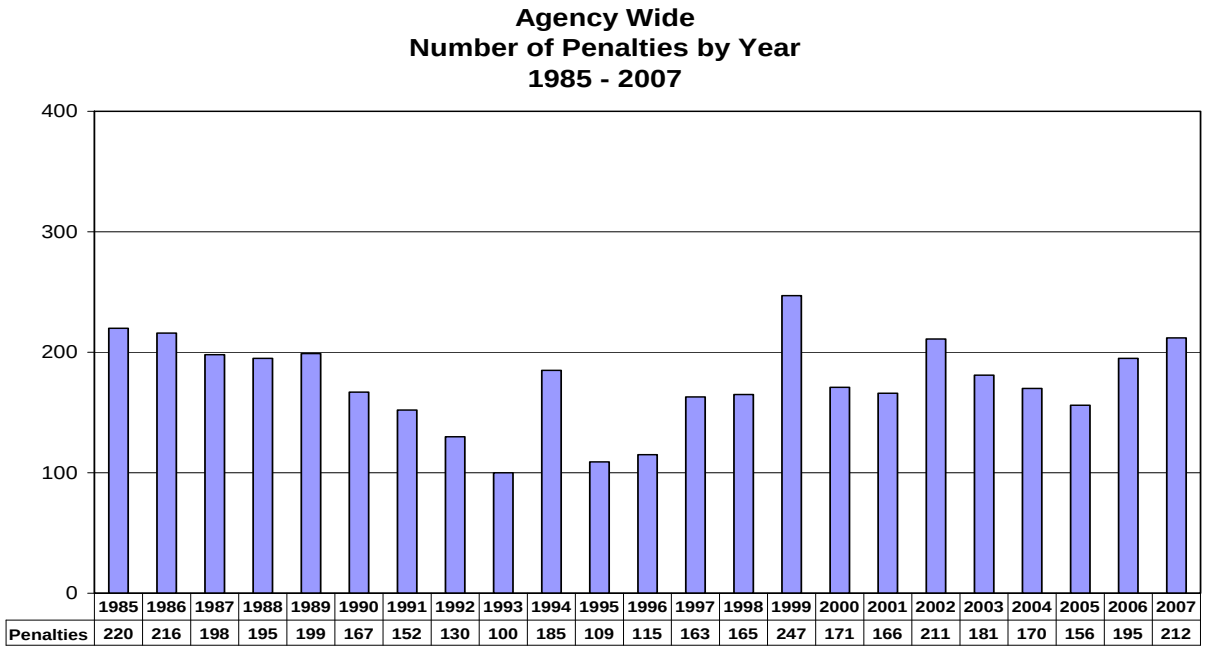
Figure 8:



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Orders	172	200	138	94	83	100	146	167	185	194	209	107	99	136	162	370	707	205	159	79	96	114	128

Civil Penalties
When Ecology issues a civil penalty, our investigation must prove that a violation of law occurred. State laws set the maximum amounts, usually on a per-day and/or per-violation basis. *Civil penalties are not considered "punitive."* We use them to secure correction of violations and to deter future violations. Civil penalties can be appealed to the Pollution Control Hearings Board or the Shoreline Hearings Board.

Figure 9:



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Penalties	220	216	198	195	199	167	152	130	100	185	109	115	163	165	247	171	166	211	181	170	156	195	212

Criminal Enforcement

To investigate and prosecute a person for an environmental crime Ecology must prove that the person knowingly or intentionally and/or willfully broke the law. Criminal prosecution may also involve fraudulent reporting, testimony, or recordkeeping.

Investigations of possible criminal violations are conducted by the joint Ecology– U.S. EPA Criminal Investigations Task Force. The task force works to leverage state and federal resources and share information. Although staffing constraints currently require the task force to operate in a more informal/ ad hoc manner, than it has in past years, the working relationship between Ecology and EPA on criminal investigations remains close. While the number of criminal cases pursued is relatively small, we feel that the penalties and associated jail times are significant deterrents to criminal behavior. Examples of criminal wrongdoing include:

- Conflicting data (Keeping two sets of books or inconsistent monitoring reports of the same incident).
- Conflicting stories.

- Deliberate actions (an employee was told to do something illegal).
- Repetitive violations indicative of willful disregard for regulations.
- Claims of ignorance about requirements.

The following chart summarizes all actions reviewed and retained for criminal prosecution from 1994 through 2007. Detailed criminal enforcement actions are shown in Table 3.

Table 2: Criminal Prosecution Actions 1994-2007

Type of Action	1994–2007 Cumulative Totals
Criminal Investigations Initiated	243
Criminal Warrants Served	91
Cases Referred for Criminal Prosecution (Number of Cases)	154
Criminal Charges Filed (Number of Defendants)	140
Criminal Convictions (Number of Defendants)	122
Court Ordered Fines & Penalties	$35,848,971
Total Jail Time (Months)	609.9
Total Probation Time (Months)	2,900

This includes all criminal cases prosecuted in Washington State under both state and federal jurisdiction, or jointly.

The numbers in the table on the next page are not interrelated. Each category is independent of the others. For example:

- No warrant-- or multiple warrants-- might be issued before a case is referred for criminal prosecution or charges are filed.
- Cases initiated may result in no referral for prosecution, no charges filed after referral, or possibly multiple charges being filed against multiple defendants.
- Criminal investigations and prosecutions typically take more than one year to resolve. Thus, an investigation may be initiated in one year, a referral for prosecution may be made in a subsequent year, and charges being filed and possible convictions might occur in a third year-- or at any time during (typically) a five year period.

Table 3:

Criminal Enforcement Trends
1994 – 2007

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Criminal Investigations Initiated	19	47	24	20	31	16	11	12	10	11	14	13	8	7
Criminal Warrants Served	8	10	21	8	4	4	2	4	0	0	1	20	8	1
Cases Referred for Criminal Prosecution (Number of Cases)	11	14	17	10	19	11	11	5	9	10	16	12	8	1
Criminal Charges Filed (Number of Defendants)	9	25	11	17	17	9	10	6	7	8	11	3	6	1
Criminal Convictions (Number of Defendants)	4	18	11	13	19	9	9	6	1	13	7	5	6	1
Court Ordered Fines & Penalties	$561,225	$553,333	$377,000	$300,140	* $780,644	$27,500	$35,137	$540,686	** $128,000	*** $21,954,816	$4,465,000	$5,014,500	**** $1,105,990	$5,000
Total Jail Time (Months)	11	76	143	72	78.6	30	36	36	0	60.3	1.0	31.0	35.0	0
Total Probation Time (Months)	300	276	339	300	511	206	246	96	12	168	108	134	168	36

* Includes "innovative settlement" $350,000 environmental 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.
****Includes fines=$20,750; restitution=$1,001,000; community service payments=$83,000; other=$1,240

Penalty Assessment

Civil penalties 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 deciding the appropriate amount of the penalty.

1. The nature of the violation:

- 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.
- Precautions taken to prevent the violation.

2. The prior behavior of the violator:

- Record of similar violations or a pattern of violations.
- Multiple notices of the violation and applicable corrective actions.

3. Actions taken by the violator to correct the problem:

- Degree of cooperation in working toward compliance.
- Timeliness and appropriateness of corrective actions taken.
- Compensation paid or agreed to for damages to public resources.

A violator has the option to respond to a penalty in one of four ways.

1. The violator does not file an appeal within the allowed time and the penalty amount becomes due.
2. The violator files an "Application for Relief", whereupon Ecology may issue a Notice of Disposition that reduces the penalty amount.
3. The violator appeals the penalty to the Pollution Control Hearings Board or the Shorelines Hearings Board and the amount may be reduced.
4. The violator and Ecology negotiate a traditional or innovative settlement agreement that may include a Supplemental Environmental Project in lien of part of the penalty being reduced.

Ecology makes every effort to collect the final penalty amount. In general, larger penalties that remain unpaid are referred to the state Attorney General's Office. The Attorney General's Office may seek a judgment in Superior Court and may have a lien placed on property owned by the penalized party. After taking appropriate legal actions, penalty collection may be referred to a collections agency.

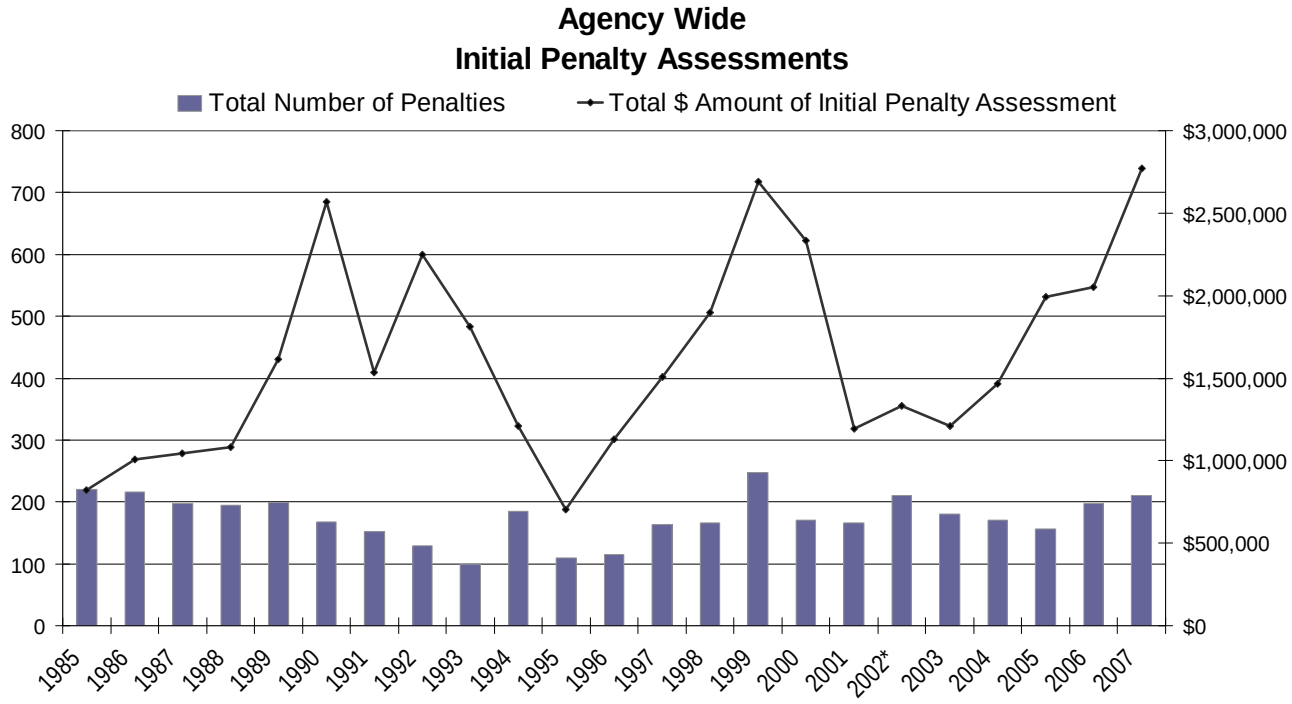
Not all penalty dollars are collected. This can be due to many factors:

- An inability to locate the debtor.
- The costs exceed the benefits of further collection procedures.
- A compromise is negotiated.
- Collection remedies are exhausted.
- Businesses are bankrupt.
- Corporations with no assets.

When a penalty is appealed, the Pollution Control Hearing Board (PCHB) or Shorelines Hearing Board (SHB) may reduce the penalty amount owed. The following graphs show:

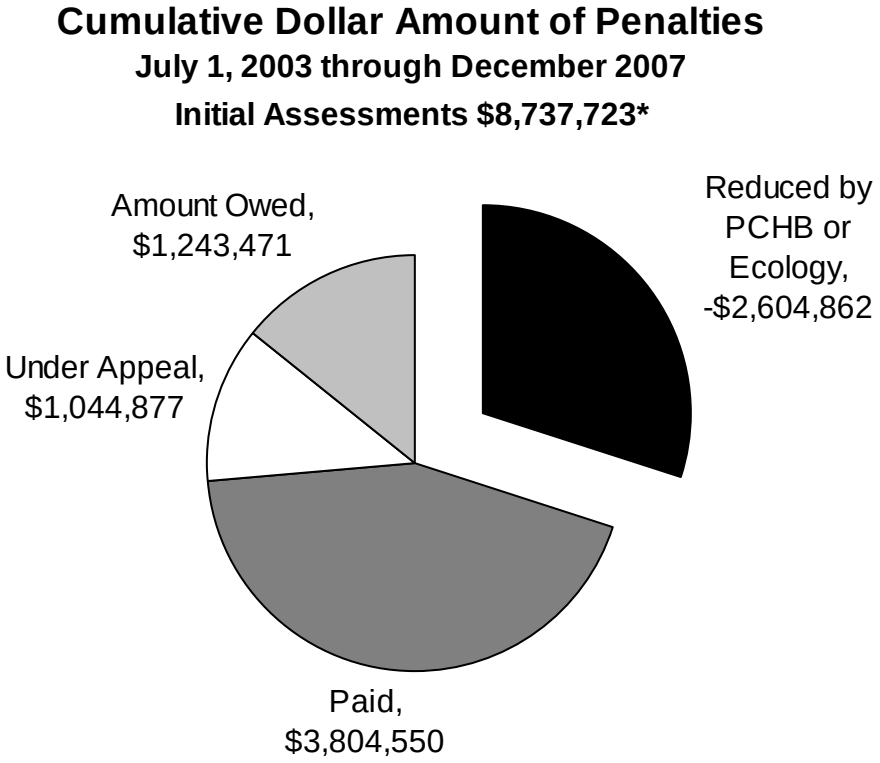
- Total initial penalty dollars assessed compared with the number of penalties.
- Amount of penalties paid, reduced, under appeal, and the outstanding balance owed (not under appeal).

Figure 10:



* 2002 totals exclude $15,720,000 in penalties issued for the 1999 Bellingham spill and fire.
Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Figure 11:



*The initial penalty amount is the amount prior to an appeals process where the amount may be reduced.

The money collected from enforcement penalties is deposited in special accounts that pay for:

- Restoration and enhancement projects that compensate Washington citizens for damage to our environmental, recreational, archaeological, or aesthetic natural resources.
- Research and development of projects that help prevent or mitigate damage to our environmental resources and help protect human health.
- Permitting and regulatory programs to promote the wise management of our air, land and water.
- Projects that provide grants to local governments for various environmental programs.
- Projects that help inform, educate, and assist local government, industry and the public in order to help preserve, protect, and enhance our natural resources and human health.

The most common accounts and corresponding laws, Revised Code of Washington (RCW), are:

- Coastal Protection – RCW 90.48.400 and RCW 90.48.390
- Vessel Response - RCW 90.56.335
- Underground Storage Tank - RCW 90.76.100
- Air Pollution Control - RCW 70.94.015
- Biosolids Permit - RCW 70.95J.025
- State Toxics Control - RCW 70.105D.070
- Oil Spill Prevention - RCW 90.56.510
- Reclamation - RCW 18.104.155 and RCW 89.16.020
- Electronic Recycling - RCW 70.95N.130

There are more accounts not listed here. To learn more about Ecology's budget, account uses and purposes go to the Ecology Budget & Program Overview 2007-2009 at http://www.ecy.wa.gov/biblio/0701035.html pages 99-107.

To learn more about the RCWs go to the Washington State Legislature Website: http://apps.leg.wa.gov/rcw/

Major Penalties of 2007

U.S. Department of Energy – Office of River Protection
The U.S. Department of Energy is under an Agreement for the cleanup of the Hanford Nuclear Reservation. Ecology issued a $500,000 penalty under the Hanford Federal Facility Agreement and Consent Order against the U.S. Department of Energy – Office of River Protection for a release of radioactive hazardous tank waste to the soil at Hanford's tank farms.

Hanford Site contractor, CH2M HILL Hanford Group was pumping waste from a single-shell tank when workers tried to unblock a pump, by running it in reverse. This resulted in over 80 gallons of high-level radioactive waste spilling to the ground, endangering workers and halting cleanup of Hanford's underground single-shell tanks. Ecology investigated the circumstances surrounding the spill, including equipment design, incident notification, and emergency response. A series of administrative and engineering failures were found to have contributed to this accident.

Goodrich Corporation – Aircraft Wheel and Brake Division
Goodrich manufactures airplane brake pads west of Spokane. The company was fined a total of nearly $510,000 as part of two settlement agreements with Ecology and the Spokane Regional Clean Air Agency (SCAPCA) over disputes relating to water-quality, hazardous waste and air quality violations.

Ecology conducted several inspections in 2005 and 2006, finding that Goodrich had generated large quantities of hazardous waste and discharged some of it into the sewer collection system to avoid proper treatment and disposal requirements. Ecology's water quality program issued a fine of $150,000, and Ecology's hazardous waste and toxics reduction program issued a fine of $110,000, for a total of $260,000. Up to 75 percent of the Ecology penalty may be used for local environmental improvement projects. Those projects have not been decided upon as of February 2008.

SCAPCA also fined the company $249,092 for air quality permit violations. In late 2005, SCAPCA learned that Goodrich had been burning "process water" in their thermal oxidizer since 2001. Test results in 2006 showed cyanide concentrations were high enough to classify the water as a hazardous waste. The facility did not meet the rigorous requirements that apply to hazardous waste incinerators.

Circle C Rock Products -- Ridgefield
Circle C Rock Products operates a sand and gravel mine in Ridgefield, and is permitted to discharge treated process water and stormwater to a local lake. The company received and paid a penalty, of $160,000, in 2004 for water quality violations. Even so, the company continued to dump improperly treated wastewater to the lake, which empties to the fish-bearing Lewis River. This water contained too much sediment and was highly alkaline. Both conditions hurt water quality by smothering salmon-

spawning beds and eggs that have been laid or by causing skin irritation for humans and fish. Because Circle C Rock Products received a penalty for the same type of violations in 2004, the company is subject to increased consequences and a substantially higher penalty for continuing the same violations.

Energy Northwest –- Columbia Generating Station
Energy Northwest, Columbia Generating Station, is the only commercially operated nuclear power plant in the Northwest. It is located near Richland. Ecology issued a $120,000 penalty and administrative order against the Energy Northwest Columbia Generating Station. In addition, Ecology issued a second administrative order to Energy Northwest, Washington Nuclear Project No. 1 Industrial Development Complex. During a six-week inspection by Ecology's Nuclear Waste Program and U.S. Environmental Protection Agency inspectors found a number of dangerous waste regulation violations:

- Improperly labeled industrial chemicals and hazardous wastes.
- Wastes left inside laboratory work stations.
- Unreported spills of chemicals.
- Abandoned chemical waste found around the sites.

Inspectors also had serious concerns about employee training and the safe handling of hazardous waste materials. In both administrative orders, Ecology is requiring Energy Northwest to correct all violations by the end of 2007. Those corrections included rewriting training programs, identifying chemicals with proper labels and placing them into safe storage. Energy Northwest has implemented those corrections. Now, when hazardous waste chemicals are unusable, they are identified and disposed of properly.

Sound Transit – Tukwila Area
Sound Transit is constructing a light rail transportation link between downtown Seattle and Tukwila. Ecology issued a $76,000 penalty to Sound Transit for the Central Link Light Rail project for failure to develop and implement a Stormwater Pollution Prevention Plan. The plan is required by the project's construction stormwater permit. Sound Transit also made unauthorized stormwater and uncontaminated construction dewatering discharges to Gilliam Creek and the Green River, and failed to monitor unusual or unanticipated discharges from October 2006 through March 2007.

JPS Holdings – Renton, Newcastle, Auburn
JPS Holdings, a developer of residential real estate, began two projects, each in excess of one acre, without getting a construction stormwater permit -- even after Ecology discovered the projects and informed the company of this requirement. The projects and related penalties are:

- Christelle Ridge Project (Renton/Newcastle) - $21,000; February 2007. Discharged stormwater from the construction site without a permit. This penalty was recently settled.

- Brandon Meadows Project (Auburn) - $85,318; June 2007. Discharged stormwater from the construction site without a permit and violated the terms of a regulatory order to correct earlier violations at the site. This action is currently under appeal.

For more penalty information please visit Ecology's Enforcement web page: www.ecy.wa.gov/enforce.html

Innovative Settlements

Violators can appeal all penalties to the Pollution Control Hearings Board or the Shorelines Hearing Board. Both boards strongly encourage each party to reach a settlement to avoid a formal hearing. Ecology's objective for any settlement is to achieve compliance and mitigate or restore damage done to the environment. We also encourage the use of pollution prevention strategies to reduce future environmental damage. Settlements typically fall under two categories:

- Traditional Settlements: These types of settlements reduce a penalty or revise an order to avoid litigation.
- Innovative settlements: These types of settlements do not allow for any type of reduction in the penalty amounts for actions or activities that are already required by law or those that are set to become enforceable requirements at a future date.

Also, the liable party is responsible for proposing innovative settlement activities that meet all of the innovative settlement criteria below:

- The proposal 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 non-compliance.
- There should be a relationship between the nature of the violation and the environmental benefit sought through the proposal.

Innovative settlements may divert all or part of the assessed penalty amount to a Supplemental Environmental Project (SEP). SEPs are projects that benefit the community where the violation took place. There are four types of SEPs:

- Pollution prevention
- Environmental restoration
- Enhancement and monitoring
- Environmental auditing; and public awareness projects

2007 Innovative Settlements:

Alberg Ranch B & G Farms – Ellensburg
Alberg was fined $20,681 for outdoor tire burning. Reducing threats from toxics in the environment is one of Ecology's top priorities and tire fires emit large amounts of toxic smoke. As part of Alberg's innovative settlement, the company has agreed to remove tires from the property and to stop accepting tires onto the property. In addition, the company reimbursed the fire department for costs incurred in responding to the fire and has paid $20,000 to HopeSource. HopeSource used the funds to help low-income people in Kittitas County exchange old, uncertified woodstoves for cleaner burning certified stoves thus reducing the amount of toxic smoke in the air.

Canal Boatyard, Inc. – Seattle
Canal Boatyard was fined $9,500 for failure to implement Best Management Practices under the general boatyard permit and for unlawful discharge of pressure water to surface water. As part of an innovative settlement, Canal Boatyard will finance and participate in a pilot stormwater discharge study. The study will determine the performance of various technologies to reduce the level of metals, particularly lead, copper and zinc, in boatyard stormwater discharges. $4,750 of their fine will go towards the study although it's anticipated that the direct cost to Canal Boatyard will exceed that. Ecology will suspend the remainder of the penalty amount for two years and possibly waive it if Canal does not violate any conditions of the settlement.

Foss Maritime – Point Wells
On December 30, 2003, a Foss Maritime barge spilled approximately 4,800 gallon of heavy fuel oil at Point Wells. In settlement of a $577,000 penalty, Foss gave $415,000 to Kitsap County to improve tidal flow in the tidal marsh at Indianola Waterfront and Woodland Preserve. Kitsap County will also use the funds to replace the current road culvert at the mouth of the tidal marsh with a larger box culvert allowing greater flow to the marsh.

L&L Nursery – Fife
L&L was fined $82,000 for failing to properly manage and dispose of garden and pool chemicals it stockpiled. L&L will donate $36,900 over three years to the Thurston County Health Department for integrated pest management public education. Box trailers used by the nursery to store discontinued products and chemical returns were sold to a buyer, and then to Trailer Source in Sumner. Once the chemicals were discovered, Trailer Source hired a contractor to dispose of the chemicals at a local landfill. Shortly afterwards, a fire erupted at the landfill, exposing workers to toxic gases and forcing an evacuation.

Thousands more pounds of dangerous waste pesticides and chemicals were found at Trailer Source. L & L will pay $20,500 of the fine, and the remainder of the penalty,

$24,600, will be conditionally suspended by Ecology. If the nursery doesn't meet all terms of this settlement or receives another violation within two years, the suspended amount and yet-to-be donated funds will be paid to Ecology.

Ocean Park Concrete –Ocean Park
Ocean Park Concrete was fined for discharges and failure to sample correctly, and treat concrete processing water before discharging it to the ground. $5,600 of their $15,000 penalty will go toward funding construction of a yurt at Pacific Pines State Park in Ocean Park. The yurt will be an Environmental Education Center that serves as the gateway to Ledbetter State Park and the Seashore Conservation Area and will support environmental education and outreach efforts. $1,400.00 of the fine was paid to Ecology and will be distributed as part of water quality protection grants.

PM Testing - Fife
PM Testing, a Fife-based metal finishing company, will pay $42,400 of the $103,000 original penalty for numerous violations of state and federal dangerous waste regulations. $20,600 of the penalty will be deferred if the company stays in compliance with dangerous waste regulations for two years and meets all conditions of the settlement. PM Testing has two Supplemental Environmental Projects allocating $34,000 of the penalty to the installation of new equipment and upgrading of the company's processes. These upgrades will help save millions of gallons of water, reduce chemical use and cut the amount of hazardous wastes the company creates.

Ponderay Newsprint Co.-Usk
Ponderay Newsprint failed to submit an application for an "air operating permit," a requirement of major sources of air pollution. The company has agreed to submit the permit application. Ponderay Newsprint will pay a $100,000 penalty. About $80,000 of will be used to help low-income residents in Pend Oreille County to replace older, uncertified woodstoves with cleaner-burning appliances to reduce toxic smoke.

Port of Willapa Harbor and Pacific Gro Company– Raymond
Pacific Gro discharged 3,200 gallons of fish wastewater and contaminated stormwater known as "stick water" into the Port of Willapa Harbor's wastewater treatment system. The Port of Willapa Harbor and Pacific Gro will jointly spend $20,000 to develop and implement stormwater improvement plan for port's dock facility in Raymond. The Port's treatment system, which is linked to the city of Raymond's sewer system, was not operational at the time, so the stick water flowed into the city's sewer plant. The stick water caused major problems for the city's sewer plant. Ecology fined Pacific Gro for:

- Lacking a permit to discharge the wastewater to the port.
- Failing to report the stick water discharge to Ecology or Raymond officials.
- Applying fish processing water onto agricultural fields without required permits.

Ecology fined the port because it did not notify the department of the stick water discharge.

- Poor maintenance and operation of its wastewater treatment system.
- Failure to monitor wastewater discharge into the sewer plant.

Sound Transit – Bellevue
Sound Transit will provide $120,000 for environmental restoration work along the Duwamish River to settle two previous penalties for water pollution violations. Together the penalties totaled $145,000. Sound Transit and a contractor violated the project's construction stormwater permit for the Sound Link light-rail construction project, in the Tukwila area, which flows to the Duwamish River. Sound Transit will pay the settlement and seek repayment from the contractor involved with the violations - PCL Construction Services.

People For Puget Sound - a non-profit organization - will carry out seven already-planned projects that had not been funded. The projects will directly help the health of the Duwasmish River, its fish, wildlife, and people in various ways. Project details can be found in our October 24th, 2007 New Release #07-320 at http://www.ecy.wa.gov/news/2007news/2007-320.html.

United Agri Products – Pasco
United Agri Products was fined for mismanaging hazardous wastes and draining sludge and wastewater to the ground. $17,500 of United Agri Products (UAP) $25,000 penalty will go toward helping local governments in Grant and Franklin counties to update their hazardous materials equipment, respirators and personal protective gear. In addition, UAP will receive a $2,500 credit toward the penalty for updating emergency response plans for its facilities in Washington State and providing new staff training. UAP will pay the remaining $5,000 penalty.

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 affects public health, the environment and quality of life. Air pollution causes lung disease and makes existing respiratory and cardiopulmonary disease worse. It can speed up the death of people who have these diseases. Hundreds of studies prove that short and long-term exposure to air pollution increases emergency room visits, hospitalizations, and medication use. Exposure to air pollution can cause absences from work and school, and restricts the activity of people with impaired respiratory or cardiopulmonary function. Air pollution also harms plant and animal life, negatively affects the value of homes, and disrupts personal comfort and well-being.

To accomplish its mission, Ecology's Air Quality Program centers its work on two goals:

- Characterize the health consequences of air pollution in Washington
- Reduce toxic air pollution and its harm to our health

By concentrating on these two key areas the Air Quality Program strives to ensure that all areas of the state meet federal air quality standards and to reduce outdoor air pollution to levels that are protective of public health and the environment.

Three levels of government are responsible for controlling air pollution in Washington State.

1. The federal government, through the Environmental Protection Agency (EPA), sets national air pollution standards. The EPA is also responsible for air quality issues on tribal lands and is in the process of setting up tribal air quality programs.
2. State government, through Ecology and, in some cases, the Energy Facility Site Evaluation Council, is required to enforce certain federal standards and state air quality requirements developed to meet the specific needs of Washington State.
3. Local government, in the form of local air pollution control agencies, has responsibility within single or multi-county jurisdictions. Local air pollution control agencies issue air permits and make sure businesses comply with state and federal air quality standards. They develop local rules to meet specific community needs.

Air Quality Permits

Local air pollution control agencies and Ecology issue permits for new and existing industrial and commercial facilities that create air pollution. These permits are written to make sure all federal and state air quality laws are met. Ecology and local air authorities also issue air permits for agricultural, land clearing and other outdoor burning to make sure farmers, land owners and businesses manage and minimize the public health threats from smoke.

The priorities of our air quality permit programs are to:

- Provide consistent and clear permit requirements to the regulated community.
- Provide timely permit processing.
- Focus on permit requirements that provide environmental benefit.
- Keep local control of federal permit programs.
- Protect public health and the environment.

Compliance Assurance

Ecology uses multiple approaches to make sure facilities and individuals comply with air quality requirements. These approaches all incorporate the Ecology Code of Conduct which emphasizes streamlined procedures, helpful communications and cooperation. Examples of these approaches are:

- Site visits by trained field staff to build and maintain good relationships with the community.
- Mutual agreements and negotiated orders to resolve difficult problems.
- Professional staff dedicated to technical and regulatory assistance.
- Public participation meetings, workshops, and hearings on controversial issues.
- Web pages, publications and public education and outreach to share information.
- Media campaigns in newspapers, radio and television.
- Single industry or sector based compliance assurance activities.
- Assist applicants and the public in getting their questions answered, or issues resolved, quickly.

All of these approaches are a positive way to help people comply with the rules that protect air quality. Motivating citizens, businesses and industries to voluntarily comply with environmental requirements is one of Ecology's most important goals. If a

business or citizen violates an air quality rule, every attempt is made to resolve the problem quickly. Depending on how serious the violation is, Ecology may initiate formal enforcement actions to correct the problem. The goal of enforcement is to influence the behavior of both the violator and the general regulated community.

Types of enforcement actions Ecology's Air Quality Program generally uses are:

- Notice of Correction:
  Written warning to the violator that provides information on what they must do to comply with the law (no fines).
- Notice of Violation:
  Provides formal notice to the violator that a specific violation has occurred and that Ecology is considering a penalty action for the violations. Offers the violator a 30 day window of opportunity to meet with Ecology to provide more information about their violations.
- Notice of Civil Penalty:
  A civil penalty is a monetary fine. When the 30 days are up through the Notice of Violation process, a Notice of Penalty may be issued. Penalties of up to $10,000 per day/ per violation may be levied against the violator. Actual amount of penalty to be assessed is calculated from a matrix that considers gravity and economic benefit criteria. These penalties may be appealed to the Pollution Control Hearings Board. http://www.eho.wa.gov/
- Compliance Orders:
  Compliance orders may accompany a Notice of Violation requiring the violator to take necessary corrective action or to submit a plan for corrective action. A date when such action will be initiated must be included.

Environmental Trends

In 1991, the Washington State Legislature increased efforts to improve and protect air quality statewide. Since then, overall air quality in Washington has greatly improved. A decade ago, Ecology identified 13 areas of Washington that were violating national air quality health standards for six chemicals known as "criteria" pollutants:

- Carbon monoxide
- Nitrogen dioxide
- Sulfur dioxide
- Ozone
- Particulate matter
- Lead

Currently, all areas in the State of Washington meet federal air quality standards except for one pollutant known as fine particulate matter ($PM_{2.5}$). Fine particulate is composed primarily of pieces of soot and other products of combustion that are so small they penetrate into the lungs past the bodies defense mechanisms. EPA tightened the

standard for fine particulate matter in 2006. In December 2007 Ecology recommended to EPA that parts of Pierce County be designated as violating the federal fine particulate standard. Areas that violate federal air quality standards are known as non-attainment areas. Ecology also recommended that Yakima and Clark counties be designated unclassifiable until enough information is available to determine their status compared to the federal air quality standard. In March 2008 the EPA issued a revised 8-hour ozone standard to be more stringent. At this time the no areas in Washington violate the no ozone standard.

Besides the six pollutants above, hundreds of other toxic or hazardous air pollutants enter the atmosphere from a variety of sources. Because of limited air quality data, the level of public health and environmental damage caused by toxic air pollutants is more uncertain than the risks associated with criteria pollutants. With help from the EPA, Ecology has conducted toxic air pollutant studies in several locations in Seattle, Vancouver, and Spokane. We have also conducted a risk review to identify the most serious toxic air pollutants. Together, these studies indicate that diesel vehicle exhaust, wood smoke, and emissions that evaporate from motor vehicles have a significant impact on public health in Washington.

Enforcement Trends

In the past, Ecology's Air Quality Program focused our air quality enforcement activities on air pollution from commercial and industrial sources and burning. Commercial and industrial enforcement activity has been relatively stable over the last decade. We identify violations during routine inspections and site visits. We take enforcement actions when a business or industry is emitting more air pollution than state rules or permits allow. Minor violations that do not have significant environmental impact are normally resolved through technical assistance and education instead of enforcement.

Recently, outdoor burning and wood stove smoke complaints make up a more significant portion of Ecology's Air Quality Program enforcement activities. In the winter, smoke management teams get complaints of excessive wood smoke from woodstoves and fireplaces, sometimes smelling like garbage or other noxious materials. In the spring and fall, they receive complaints of smoke from land clearing and residential backyard burning. Every complaint is tracked and followed up on by a smoke management team member. Technical assistance in the form of telephone calls, site visits, and referrals combined with education and outreach campaigns that explain the harmful effects of wood smoke often address these behaviors. However, we will issue a formal enforcement action when needed.

Agricultural burning enforcement has declined over the last several years as the agricultural community has become more familiar and accepting of the permitting

process. When violations do occur, the nature of the violation has shifted from violations for burning without a permit to violations of permit conditions.

However, overall outdoor burning enforcement has increased for two main reasons.

1. As agricultural burning compliance improves, Ecology's Air Quality Program is shifting its efforts to other types of outdoor burning. Coordination with other state and local agencies and an increased field presence is leading to an increase in reported outdoor burning violations.

2. New laws make most outdoor burning illegal in urban growth areas. Many residents in the urban growth areas have routinely burned their lawn and garden vegetation. As of January 1, 2007 residential and land clearing burning became illegal in all urban growth areas affecting several smaller communities in the state. The Air Quality Program continues education, outreach, and technical assistance to help these communities better understand state outdoor burning requirements and find alternatives to burning that work for their communities.

For more information about air quality in Washington State, visit Ecology's web site at www.ecy.wa.gov/programs/air/airhome.html.

Table 4: Air Quality Program Enforcement Actions and Penalties Amounts.

YEAR	Notices	Orders	Penalties	Total Number of Enforcement Actions	Total Amount of Initial Penalty Assessment
1985	3	5	20	28	$24,400
1986	4	3	8	15	$13,200
1987	3	1	23	27	$13,000
1988	5	18	43	66	$58,000
1989	30	8	20	58	$16,750
1990	61		23	84	$13,800
1991	31	2	11	44	$15,250
1992	23	2	10	35	$38,500
1993	31	8	10	49	$35,700
1994	41	2	4	47	$8,250
1995	18	15	4	37	$10,430
1996	15	2	5	22	$27,000
1997	32	2	10	44	$129,945
1998	24	2	7	31	$284,300
1999	130	5	33	168	$241,212
2000	208	11	23	242	$157,458
2001	103	34	5	142	$57,000
2002	60	9	3	72	$35,500
2003	41	2	2	45	$4,500
2004	90	3	13	106	$66,250
2005	75	1	12	88	$62,190
2006	78	1	10	89	$79,443
2007	97	7	10	114	$141,000

Figure 12:

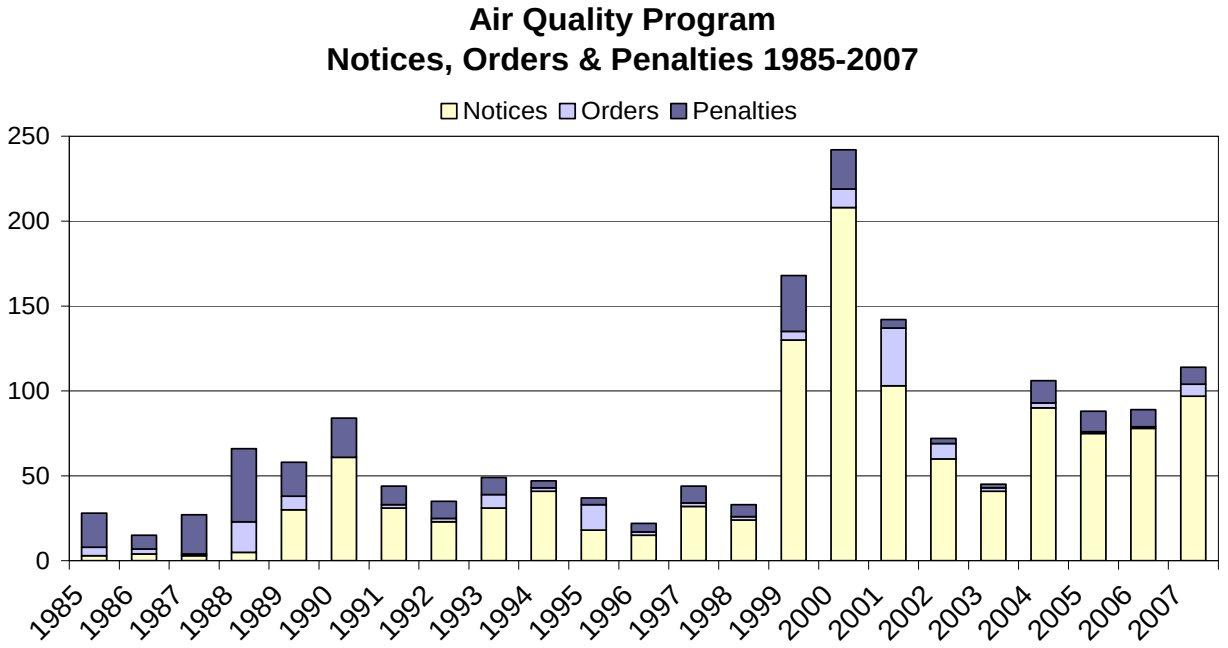
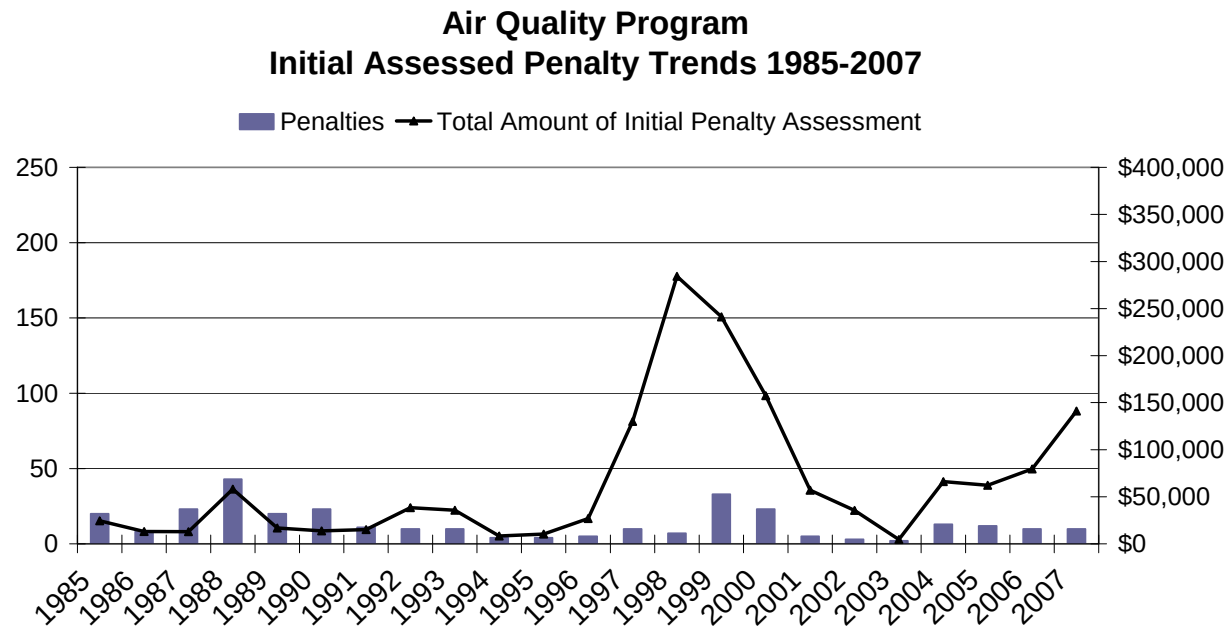


Figure 13:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date action the action was taken.

Hazardous Waste

Overview

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

Many manufacturers, businesses, service industries and homes use hazardous and toxic chemicals. If these chemicals are not disposed of properly, they can harm the environment and the public. When these chemicals get into the environment, through the waste stream, they may stay for a very long time and build up in the food chain.

Currently, about 4,400 hazardous waste generators generate more than 121 million pounds of hazardous waste each year in Washington (2006 data). Ecology's goal is to work with these generators to reduce the amount of hazardous waste they generate each year by 2 percent.

To accomplish its mission, Ecology's Hazardous Waste and Toxics Reduction Program focuses its work around these 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, closures, and corrective actions.
- Improve community access to hazardous waste information and quality data.

Hazardous Waste Management Permits

Ecology requires all facilities that treat, store and/or dispose of hazardous wastes to get a permit. This permit makes sure their design, construction, maintenance and operating procedures protect public health and the environment. Currently, Washington State has 15 active facilities covered under the Treatment, Storage and Disposal Permitting Program. These facilities treat and dispose of hazardous waste from around the state, from other states, and even from other countries. Besides their operating permit, Ecology requires these facilities to have a closure plan and financial assurance. The closure plan has step-by-step procedures the facility must follow to remove all waste and clean structures when the facility stops operating. The goal is to prevent pollution and restore the land for future use. Financial assurance will pay for the proper closure of the facility.

Compliance Assurance

Voluntary Compliance
Ecology expects dangerous waste generators to voluntarily comply with the state dangerous waste rules1. Ecology uses a variety of tools to educate facilities on the rules: publications, web-based material for specific industries, and yearly dangerous waste workshops.

Compliance Assistance
Ecology provides hundreds of compliance assistance visits to businesses and facilities every year. These visits are often aimed at specific geographic areas, waste streams, or industry types. The purpose of the visits are to:

- Make business operators aware of hazardous waste requirements.
- Provide information on how regulations apply to their business.
- Offer information to gain voluntary compliance with the requirements.

An enforcement action would result from a compliance assistance visit only if an imminent or actual threat to human health or the environment were discovered. Ecology will conduct on-site compliance assistance visits upon request.

Unannounced Inspections
Ecology routinely conducts unannounced inspections to determine regulatory compliance. Depending on the significance of the violation(s), most are resolved through informal enforcement. Ecology will send the business a report and a compliance certificate to ask them to correct the problems they found during the inspection. For significant violations, Ecology may contact the facility again to ensure they understand the requirements and have corrected the violations. Ecology recognizes that enforcement is costly for both the agency and the business. Ecology is usually willing to work with the business to address issues without formal enforcement if the issues are resolved in a timely fashion.

If the business does not comply through the informal processes, Ecology may take one of the more formal actions to get them to comply with the rules. Typically, we do not need to take these more aggressive actions. When formal enforcement is used, Ecology often pursues innovative settlements to allow portions of penalties to be used for Supplemental Environmental Projects (SEPs).
In addition, technical assistance is provided through the Technical Resources for Engineering Efficiency (TREE) program. The TREE program makes it possible for Ecology engineers to help businesses identify ways to reduce energy and water use, and to reduce, reuse or recycle wastes instead of incinerating or burying them.

[1] Chapter 173-303 WAC: http://www.ecy.wa.gov/biblio/wac173303.html

For more information about this program, visit Ecology's web site at www.ecy.wa.gov/programs/hwtr/TREE/index.html.

Pollution Prevention Plans
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. Read the Hazardous Waste and Toxics Reduction Program Plan on Ecology's Web site at: www.ecy.wa.gov/pubs/0501055/0501055_hwtr.pdf

*For waste reduction tracking, the program does not include non-recurrent waste streams, waste reported by the Hanford Nuclear Reservation, waste reported by treatment, storage and disposal facilities (because this waste is already reported by generators) and certain wastes that are treated on-site or discharged as waste water under a water quality permit or authorization.

Environmental Trends

In 1992, Washington businesses generated 317 million pounds of hazardous waste. By 2006, the amount was reduced by 196 million pounds to 121 million pounds. This 60 percent reduction was due to:

- Pollution prevention awareness.
- Implementing pollution prevention business practices.
- Reduced business activity.
- Improved compliance with rules.

Enforcement Trends

Since early 1996, Ecology has analyzed the "compliance indicator violations" issued to find out if our compliance inspections helped facilities reduce problems that affect the environment and public health problems. These violations indicate immediate actual or threatened harm to human health or the environment and suggest that other significant violations may also be occurring at the site. Ecology looks for compliance indicator violations during every inspection. They include specific violations of the dangerous waste rules such as:

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

Results of the analysis show that when inspectors emphasize technical assistance environmental threats decrease. To further reduce environmental threats, Ecology began to target 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.
- A "Hitting the Highpoints" philosophy of spending more time resolving environmental threats, and less time at facilities that are managing their waste safely.

The data we collect in the next few years will help us decide if our current strategy is still effective or if change is required. The next graph shows the number of penalties and environmental threats Ecology found during compliance inspections. In general, penalties track closely to the number of environmental threat violations found during inspections.

Figure 14:

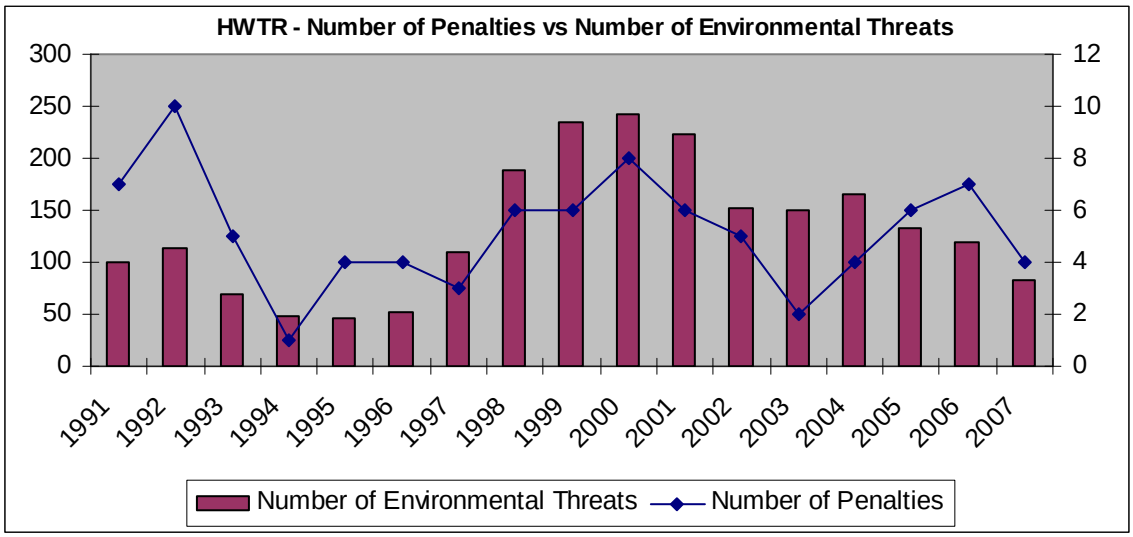
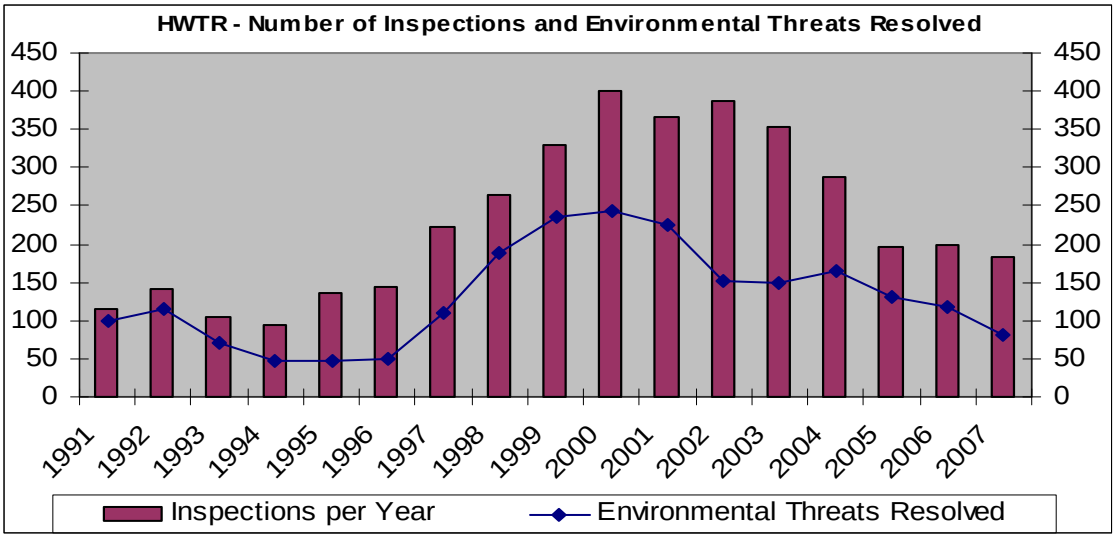


Figure 15:



The graph immediately above shows the number of compliance inspections and environmental threat violations Ecology found and resolved. The EPA gave national recognition to our Hazardous Waste and Toxics Reduction Program for success in resolving violations. The increased number of inspections and environmental threats found from 1997 to 2000 reflects the program's focus on finding violations that contribute to environmental threats; for example, illegal disposal. That focus allowed for more inspections. With more inspections and along with education, the number of environmental threats found decreased from 2000 to 2003. Since 2003, some environmental threats have not been resolved voluntarily, but have instead resulted in formal enforcement actions. The number of environmental threats found has been decreasing for the past four years. The increasing number of penalties from 2003 to 2006 (Figure 16) may have created increased regulatory awareness, resulting in a deterrent effect and better compliance.

For more information about the Hazardous and Toxic Reduction Program, visit Ecology's web site at www.ecy.wa.gov/programs/hwtr/index.html.

Table 5: Hazardous Waste Management Enforcement Actions and Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1985	0	24	14	38	$97,500
1986	0	26	12	38	$163,000
1987	0	23	15	38	$259,847
1988	1	19	17	37	$365,000
1989	0	18	27	45	$577,000
1990	0	22	15	37	$1,314,500
1991	0	11	7	18	$277,000
1992	0	11	10	21	$1,116,000
1993	0	20	5	25	$145,000
1994	0	8	1	9	$70,000
1995	0	11	4	15	$163,000
1996	0	11	4	15	$272,000
1997	0	10	3	13	$119,000
1998	0	10	7	17	$441,500
1999	0	8	6	14	$521,500
2000	2	14	8	24	$363,500
2001	0	10	6	16	$343,000
2002	0	8	5	13	$118,480
2003	0	6	2	8	$59,000
2004	0	10	4	14	$97,000
2005	0	9	6	15	$234,000
2006	0	5	8	13	$541,500
2007	0	5	4	9	$146,000

Figure 16:

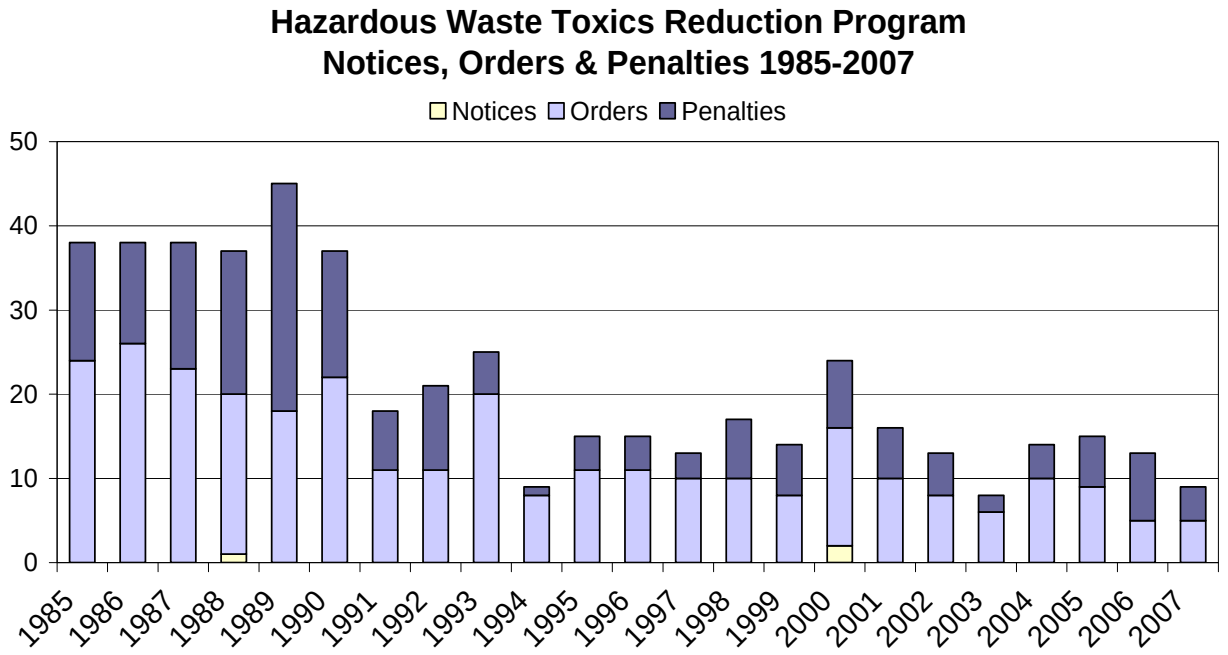
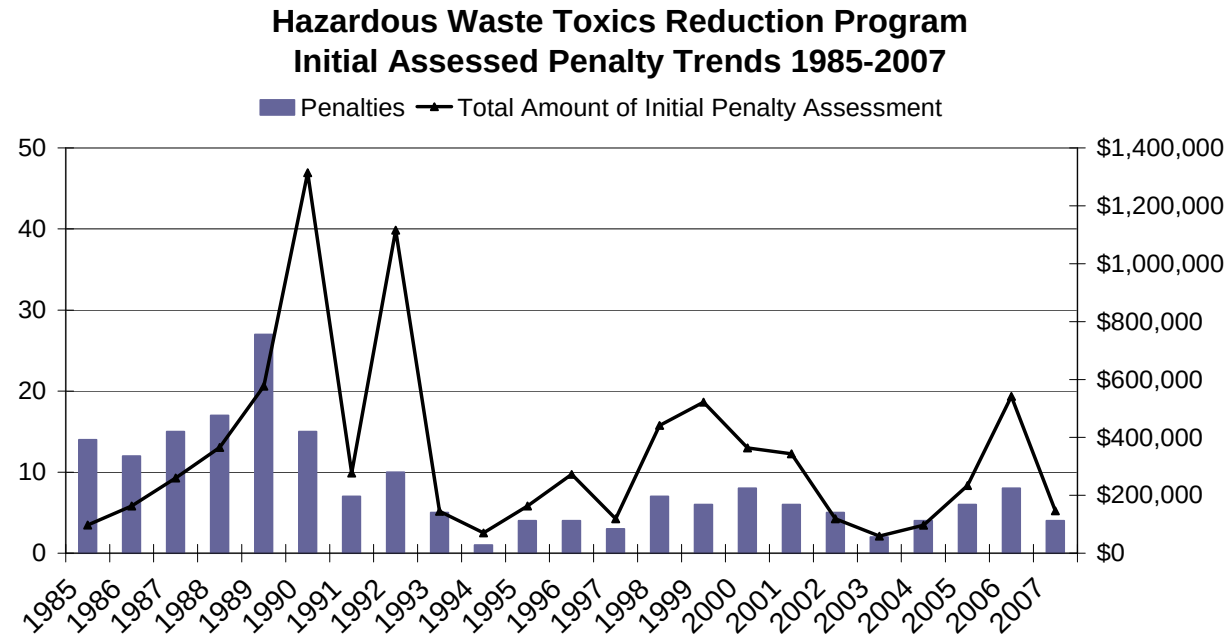


Figure 17:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Industrial Section

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.

The Industrial Section is a unique section within the Solid Waste and Financial Assistance Program that focuses on permits and compliance for three major industries and other minor industries of Washington State:

- Aluminum smelters
- Oil refineries
- Pulp-and-paper mills
- Other minor industries

Industrial Section employees are trained to handle the complex issues related to these specific industries. They 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. They also regulate water, hazardous waste, and cleanup activities at oil refineries.

Because of recent aluminum smelter closures, the Industrial Section has accepted more responsibilities. This includes water, dangerous/solid waste, and clean up issues at:

- Agrium (a fertilizer manufacturer)
- Emerald Kalama Chemical (formerly Noveon, a chemical manufacturer)
- Pacific Functional Fluids (formerly Lilyblad) (a chemical blender)
- Columbia Ethanol (a fuel grade ethanol manufacturer)
- Ocean Protein LLC (a fish waste processing plant)
- Sonoco Products Company (a recycled paperboard manufactures)

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, and dangerous/solid waste permitting and compliance activities.

In addition, the Industrial Section will provide engineering responsibilities as an in-house consultant upon request by the regions within the Department of Ecology. As an

example, the Industrial Section provides a technical assistance related to new source review for the Air Program, Eastern Regional Office.

Permits
The Industrial Section issues and manages the following types of permits for 43 major industries and their associated industries in Washington State:

Type of Permit	Type of Industry	Number of Permits
Wastewater Discharge Permits	National Pollutant Discharge Elimination System (NPDES) Permits	32
	State wastewater discharge permits	14
Title V Air Operating Permits	Aluminum smelters and pulp-and-paper mills	11
Resource Conservation and Recovery Act (RCRA) permits	Four of the largest oil refineries and two aluminum smelters.	6
Solid Waste Permits	One pulp & paper mill and two oil refineries	3

Compliance Assurance

In the effort to assure compliance, the Industrial Section conducts unannounced inspections. The inspections are not based on individual permit for compliance purposes. Instead inspectors focus on the multiple permits the industry is responsible for complying with. The engineers also collect and analyze water samples for parameters with limits in the permit to determine compliance with those limits. Another tool for compliance assurance is monitoring requirements, which are specified in the RCRA, air quality and water quality permits. Also, some monitoring and reporting requirements are specified in regulations. In such cases, the monitoring and reporting required by applicable rule and regulations is included in the permits. When absent from the applicable rule, monitoring requirements are assigned in the permit when appropriate. Monitoring and reporting procedures are often derived by best professional judgment. The monitoring requirements are prescribed to assure compliance with limits, as required by the respective programs.

One of the important roles of the section is its capability to enforce the limits in the permits and rules when the engineers find violations as the results of the inspections. The tools that are available include civil penalty and technical assistance for compliance purposes.

Environmental Trends

Air quality continues to improve as more waste streams at the major industries are collected and treated. This is particularly apparent when compared to other sources such as motor vehicles. One of the major reasons for fewer emissions from industries is compliance with the Federal Maximum Achievable Control Technology (MACT) standards for hazardous air pollutants. The first stage of MACT standards went into effect in 2001. Additional stages now apply, and others are expected. The increased monitoring required by MACT can be difficult at times, but industry compliance has been good. The regulatory scheme continues to push for reduced pollution per unit of production.

Enforcement Trends

The economy contributed to fewer enforcement actions during the last several years.

- High electrical costs forced most aluminum smelters in the state to cut back on their operations.
- Sluggish economic activity reduced the demand for packaging products made by the pulp-and-paper industry.
- Reduced mill activities, along with industry efforts to comply with environmental requirements also contributed to fewer enforcement actions.

For more information about the Industrial Section, visit Ecology's web site at www.ecy.wa.gov/programs/swfa/industrial/.

Table 6: Industrial Sections Enforcement Actions and Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1985	9	27	91	127	$277,200
1986	7	12	77	96	$390,350
1987	2	10	50	62	$427,250
1988	3	9	59	71	$381,950
1989	6	13	92	111	$589,100
1990	7	11	61	79	$483,350
1991	3	22	65	90	$842,000
1992	28	28	41	97	$438,750
1993	10	6	25	41	$202,400
1994	31	13	34	78	$267,200
1995	21	17	28	66	$209,900
1996	16	18	28	62	$173,250
1997	26	9	36	71	$226,500
1998	15	6	20	41	$181,977
1999	15	13	19	47	$326,848
2000	14	18	28	60	$572,800
2001	10	27	17	54	$95,000
2002	4	6	7	17	$77,500
2003	10	10	15	35	$70,817
2004	15	5	19	39	$237,564
2005	5	4	11	20	$49,500
2006	7	2	11	20	$44,000
2007	10	2	9	21	$62,750

Figure 18:

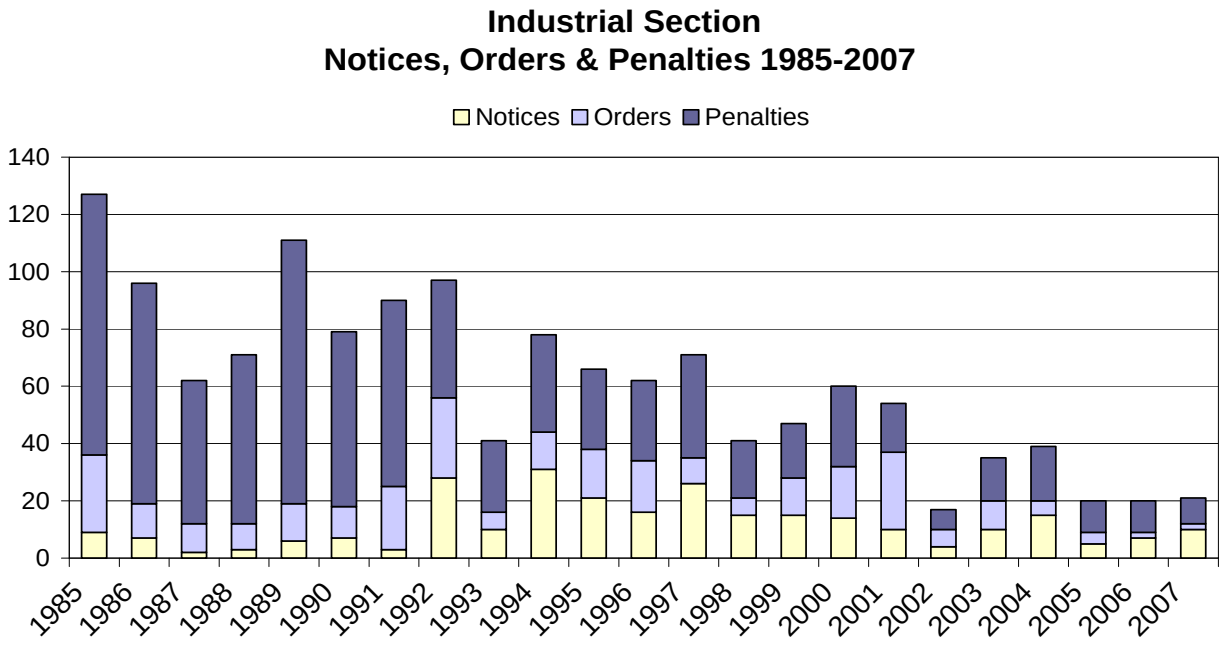
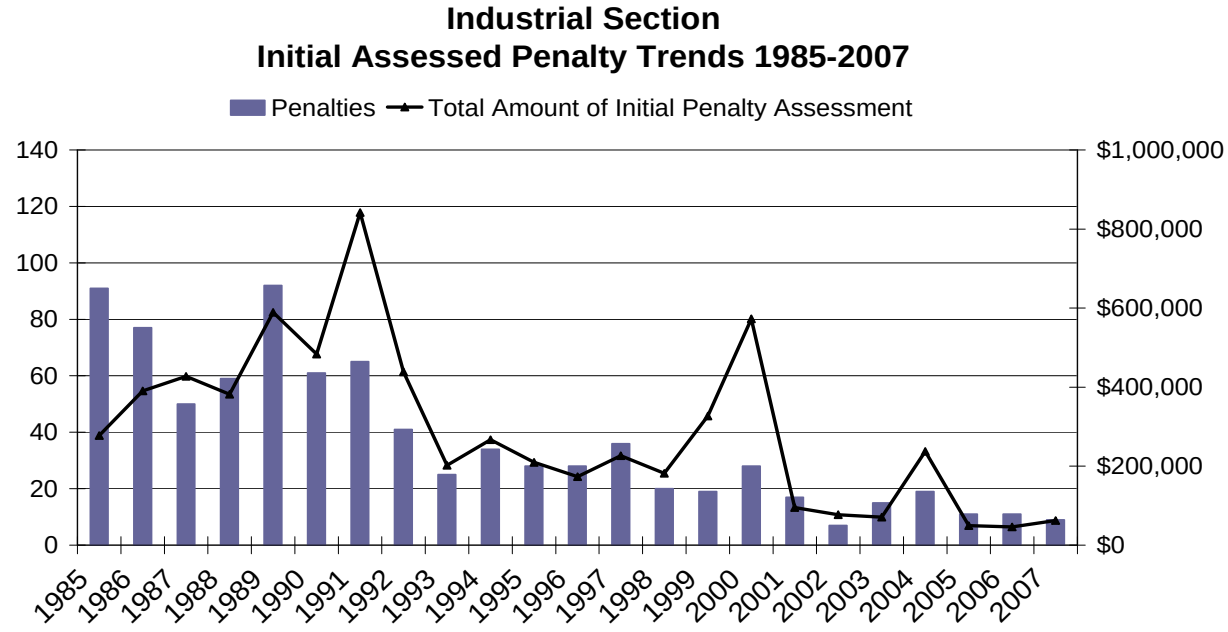


Figure 19:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Nuclear Waste

Overview

The mission of the Nuclear Waste Program is to lead the effective and efficient clean up of the U.S. 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 586 square miles 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.
- Protecting groundwater and treating 180 square miles of contaminated underground water.
- Operating and closing 62 hazardous waste treatment, storage and disposal sites.
- Cleaning up over 1,500 waste sites.

To accomplish its mission, the Nuclear Waste Program focuses its work around these projects:

- Hanford tank waste storage
- Hanford tank waste disposal
- Hanford waste management
- Hanford facility transition
- Hanford environmental restoration

In addition to oversight of the Hanford site, the Nuclear Waste Program oversees waste management at United States Department of Defense facilities and other commercial nuclear facilities that manage radioactive hazardous waste throughout the state.

Nuclear Waste Management Permits
The Nuclear Waste Program oversees Hanford cleanup activities to make sure Hanford complies with environmental regulations. These activities include:

- Removing nuclear wastes from single-shelled tanks and safely storing tank wastes until they are treated.

- Constructing a tank waste treatment plant.
- Treating, storing, and disposing of high-risk transuranic and radioactive mixed wastes.
- Cleaning up contaminated waste sites, groundwater, and buildings.

Most of these activities must comply with the requirements of the Hanford Federal Facility Agreement and Consent Order Tri-Party Agreement. This is an agreement between the U.S. Department of Energy (USDOE), the U.S. Environmental Protection Agency (USEPA) and Ecology to keep clean up at Hanford moving forward. This consent order, signed in 1989, is called the Tri-Party Agreement.

Most clean-up activities must also comply with these permits:

- Dangerous waste operating permit - to make sure the dangerous or mixed radioactive wastes are stored, treated, and disposed of properly.
- Air operating permit - to set limits on the amount of air pollution emitted from operating facilities.
- Federal and State discharge water quality permits - to control the pollution discharged into Washington's waters.

Compliance Assurance

Ecology maintains a close working relationship with the USDOE and their contractors located on-site. Permit conditions are typically developed together, and all parties meet almost daily on one issue or another. The comprehensive permitting process, public comment cycles, Hanford Advisory Board meetings, and various project manager meetings provide plenty of opportunities for Ecology to provide technical assistance to the USDOE. At United States Department of Defense and commercial nuclear facilities, the Nuclear Waste Program conducts regular site visits and uses a permitting process similar to that used for Hanford.

If a facility owner or operator fails to comply with a permit condition Ecology will generally address the violation through formal or informal enforcement actions. Ecology often adds the corrective measures designed to remedy violations into the various dangerous waste operating permits to help avoid repeat violations.

Environmental Trends

When the USDOE entered into the Tri-Party Agreement with the USEPA 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:

- Removal and interim stabilization of mixed radioactive and hazardous waste in 177 single-shelled storage tanks.
- Cleanup of contaminated sites along the Columbia River.
- Removing waste, cleaning up, and decommissioning plutonium production facilities.

Groundwater remediation and monitoring is continuous and improving, but considerable challenges remain to treat or stop the spread of contaminated groundwater plumes.

Enforcement Trends

Enforcement actions taken by the Nuclear Waste Program tend to be informal enforcement actions with notice of violations and voluntary corrective measures. Formal orders and penalties are used to address regulatory violations when needed or when voluntary measures fail.

As more facilities within the Hanford site are added to the Hanford facility dangerous waste operating permit, or as more cleanup units are added to the Tri-Party Agreement, more of the enforcement actions tend to focus on permit conditions and legal requirements of the Tri-Party Agreement rather than the general interim status standards of federal and state hazardous waste regulations. Hanford is a large quantity generator of hazardous wastes and generator activity remains an enforcement challenge at Hanford.

Since the signing of the Tri-Party agreement in 1989, Ecology has conducted 285 formal compliance inspections, primarily at the Hanford site, that have resulted in the enforcement actions below:

- Issued 71 notices of violation, including corrective measures, for not complying with state dangerous waste regulations.
- Issued 9 administrative orders.
- Assessed 12 civil penalties totaling $940,600.
- Initiated lawsuits to compel USDOE to remove liquid wastes from single shell tanks and to perform adequate evaluation of the environmental impact of proposed federal waste management decisions.

Ecology took formal enforcement actions when the:

- Facility owners or operators failed to voluntarily resolve dangerous waste management problems.
- Violations were more severe.
- Violations were recurrent.

The graphs at the end of this section appear to show a cyclical pattern of enforcement actions, but this is coincidental. Issuing enforcement actions depends on a number of factors, including the types of operations that occur 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 www.ecy.wa.gov/programs/nwp/index.html.

Table 7: Nuclear Waste Program Enforcement Actions and Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1994	0	1	1	2	$15,500
1995	0	0	1	1	$7,000
1996	0	1	2	3	$25,000
1997	0	0	2	2	$200,000
1998	0	1	1	2	$75,600
1999	4	0	1	5	$9,700
2000	6	2	1	9	$200,000
2001	0	0	2	2	$62,800
2002	2	0	0	2	$0
2003	0	2	0	2	$0
2004	0	1	1	2	$270,000
2005	0	0	0	None Issued	0
2006	0	1	0	1	0
2007	1	3	2	6	$620,000*

*The 2007 initial penalty assessment includes a $500,000 Tri-Party agreement penalty for violations resulting in an unusually severe waste spill at the Hanford site. The remaining $120,000 penalty was issued to a commercial nuclear facility. See the U.S. Department of Energy and Energy Northwest penalty descriptions under the Major Penalties of 2007 section of this report.

Figure 20:

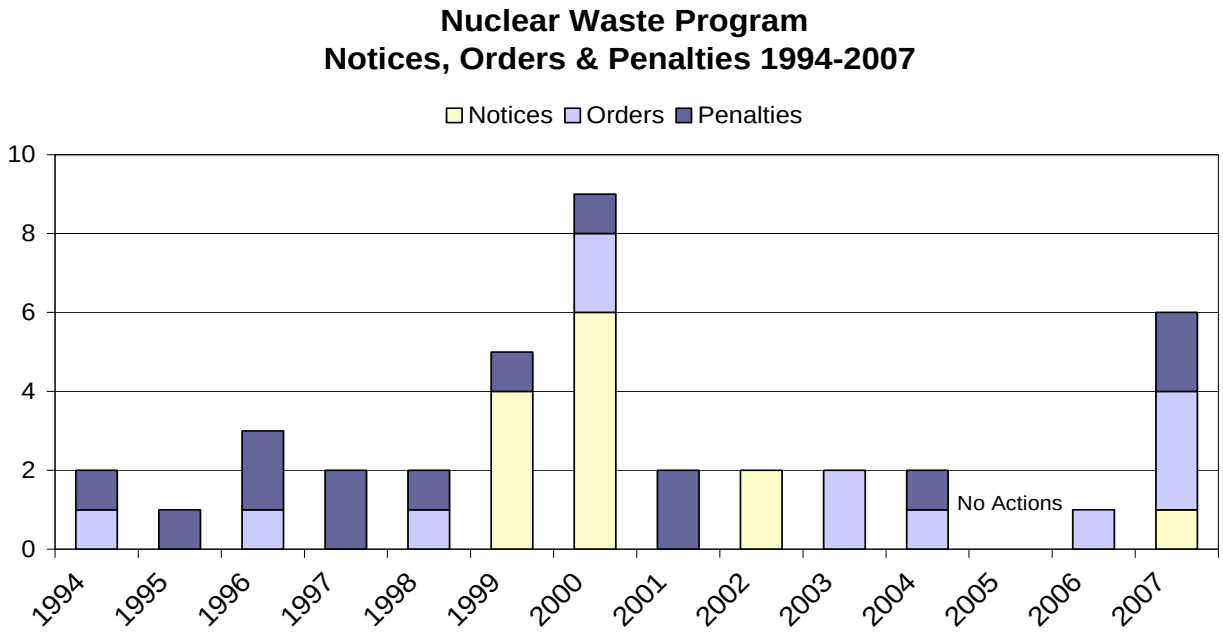
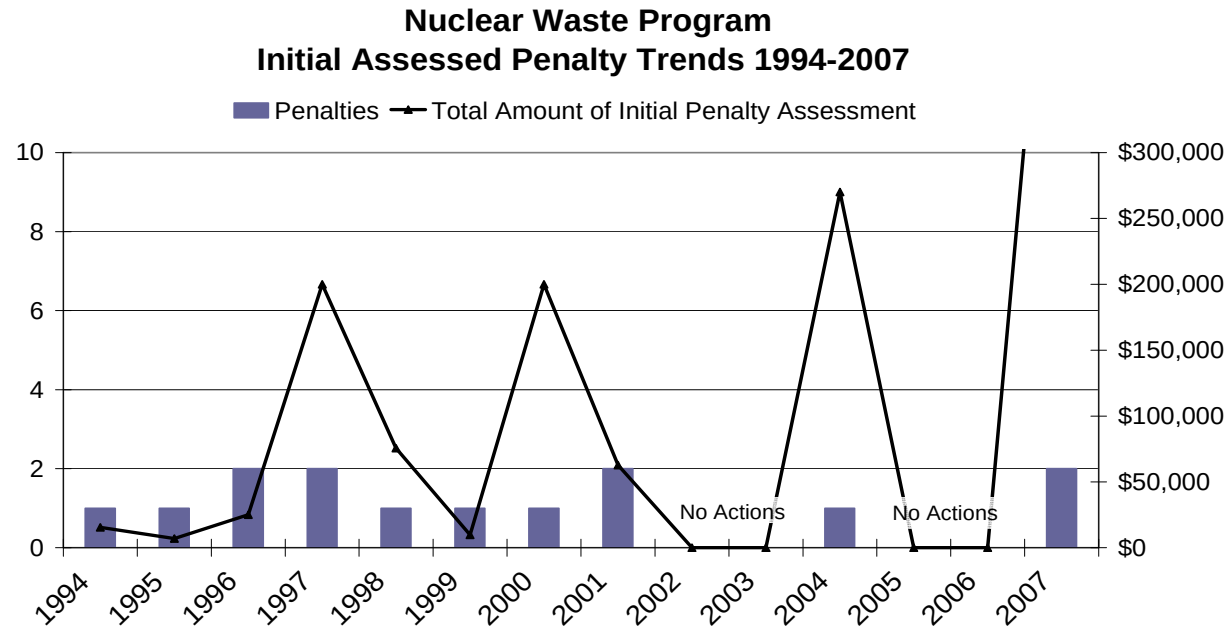


Figure 21:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Shorelands and Environmental Assistance Program

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 interests.

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

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

In the arena of environmental compliance, the Shorelands and Environmental Assistance (SEA) Program works in close collaboration with local governments, the Ecology Water Quality Program, the U.S. Army Corps of Engineers (Corps) and other entities. In some cases, we are in the leading role with support from others. In other situations, we provide support to the agency taking lead on compliance. Our support role ranges from technical support to staff to legal involvement.

Shorelines Management Permits
Since the early 1970s, Ecology has been the lead state agency for developing long-term strategies for how to manage the state's shorelands. This includes about 800 lakes, 22,000 river miles, countless wetlands and 2,337 miles of marine shorelines.

Ecology works with local governments to protect and maintain shoreline health. About 250 counties and cities have the primary authority to enforce the Shoreline Management Act (state law) and Shoreline Management Guidelines (state rules). Ecology's primary role is to:

- Write and adopt the state rules.
- Approve city and county Shoreline Master Program updates.
- Provide assistance to local governments.
- Ensure compliance with the state law and rules.

The state's shoreline program is designed to protect and manage development of:

- Wetlands
- Floodplains
- Estuaries
- Beaches
- Dunes
- Fish and wildlife habitat

Ecology provides technical and financial assistance to local governments for coastal and floodplain development projects that protect water quality, wildlife habitat, human health, and property. There is an interdependent relationship between local government and Ecology in protection of shoreline resources.

The Shoreline Management Act (SMA) regulates land use. Violation of the SMA may occur when someone violates the conditions of a permit or attempts to develop on the shoreline without a permit. At least as common is violation of activities that are exempt from Shoreline permitting but violate the standards in the local Shoreline Master Program. In practice, this is often building within a buffer zone or filling in a wetland or a flood zone.

For more information about shorelands management, visit Ecology's web site at www.ecy.wa.gov/programs/sea/shorelan.html.

Shorelands and Coastal Zone Management Permits
Each year Ecology has the opportunity to review about 400 Substantial Development Permits (SDP's) issued by local governments. We have the opportunity to appeal SDPs to the Shoreline Hearings Board. Such appeals have been rare in recent years (one appeal filed in the past three years). Ecology also reviews about 150 Variance or Conditional Use Permits from local governments each year. Ecology takes final action on these Variance and Conditional Use permits, including modifying permit conditions or occasionally reversing the action taken by local government.

Instead of waiting until the application reaches Ecology for review we provide technical assistance to applicants and local governments early in the process to make sure they "get it right the first time." As result, Ecology denies less than half of a percent of all shoreline permit applications submitted. We are also able to reduce the number of major changes to permit conditions and the need to reverse actions taken by local governments.

401 Water Quality Certification
Under the Federal Clean Water Act, Section 401, Ecology reviews projects that require a federal permit or license that may result in a discharge to waters of the United States. Applicants for those permits or licenses must first get a 401 Water Quality Certification (401 Certification) from the state to prove that the proposed project will meet state water quality standards and other aquatic protection regulations. The 401 Certification covers both the construction and operation of the proposed project as well as any mitigation that may be required to compensate for the impacts of the project. Ecology also inspects these projects to make sure they comply with the conditions of their Certification. If they are not in compliance, Ecology may issue a formal enforcement action.

The 401 Certification is a primary tool for regulating fill of wetlands. In wetland compliance actions, we may engage with local governments, the Water Quality Program and/or the Corps. Wetland violations under the Clean Water Act are often associated with a water quality violation. We often coordinate site visits with the water quality inspectors and may rely on their capacity and expertise to pursue the enforcement action. Similarly, we often are in a supporting role as the Corps pursues illegal fill of wetlands or other waters of the United States.

For more information on the 401 Certification program visit Ecology's web site at www.ecy.wa.gov/programs/sea/fed-permit/index.html.

Compliance Assurance

Ecology expects all permit holders to comply with conditions of orders, laws and regulations. Our primary focus is education and outreach to citizens and local government officials. We often schedule meetings with applicants before and after they apply for a 401 Certification to assist them with compliance.

If Ecology finds a project is not in compliance, we make every effort to resolve the problem through voluntary compliance. If we cannot get voluntary compliance within a reasonable time, we will take formal enforcement action.

If a formal enforcement action is necessary we make sure the action is appropriate according to our Compliance Assurance Manual. We prefer to use escalating levels of enforcement to get people to comply and will issue a fair penalty depending on how serious the violation is and the responsiveness of the applicant.

Environmental Trends

Shorelines remain very desirable locations for residences and other development. At the same time, our understanding is increasing that certain activities that were common in the past – such as bulkheads on marine shorelines – can damage highly valuable resources such as forage fish spawning areas. Local Government's Shoreline Master Programs are the primary tool used to protect shorelines. To improve the state's shoreline protection a process to update the Shoreline Master Programs was started in 2004 and will continue through 2014. We also provide technical assistance to local government authorities and "backstop" oversight of permitting for significant projects on the shoreline.

To date, Ecology has not invested in a meaningful comprehensive inventory of shoreline resources to show the status of the resource over time. This limits our ability to track environmental "outcome" trends, (in contrast to "output" trends, such as investment in Shoreline Master Program updates). It is becoming increasingly common for 401 Certifications and other permits to require permittees to send their monitoring results to Ecology. We may be able to use this data to see a trend in the future.

Enforcement Trends

The graphs on the following pages show a trend of fewer Ecology penalties (late 1980s and early 1990s) and more Notices of Correction (after 2000) when state lawmakers approved them as an enforcement tool. The rise in the number of orders in 2002 and 2003 is due to an increase in requests for 401 Water Quality Certification instead of a change in the Shoreline Management Act enforcement. The focus over the last several years has been to improve the local shoreline master programs, instead of trying to address problems on a project-by-project level through enforcement.

Due to staff workload there has been limited compliance oversight of 401 Certifications during construction of development projects. Some regional wetland specialists have been focusing a little of their time on the enforcement of unpermitted wetland fill, which is reflected in table 8 At this time we still do not see a clear trend for enforcement actions or penalties.

For many projects that involve permitted wetland fill, compensatory mitigation is required. Ecology has implemented an increased level of effort to check on the compliance of the compensatory mitigation with wetland conditions in 401 Certifications. The initial focus is on voluntary compliance and technical assistance to insure that mitigation and other wetland conditions are successfully implemented. In the coming years, we may see an increase in enforcement actions related to this improvement in wetland compliance checking.

Ultimately; however, we are fundamentally shifting wetland mitigation compliance issues to a new way of achieving mitigation in the first place through an increase in the number of innovative wetland mitigation approaches such as wetland banks, and fee-in-lieu programs. In this way, we can help project proponents achieve much more effective mitigation in a manner that is more efficient for them.

For more information about shorelands and wetlands management, visit Ecology's webpages at www.ecy.wa.gov/programs/sea/shorelan.html and www.ecy.wa.gov/programs/sea/wetlands.

Table 8: Shoreline Management and 401 Certification Enforcement Actions Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1987	0	1	4	5	$73,000.00
1988	2	8	16	26	$14,750.00
1989	0	3	2	5	$3,000.00
1990	0	3	19	22	$365,500.00
1991	0	8	16	24	$59,880.00
1992	1	0	9	10	$27,500.00
1993	0	1	11	12	$14,500.00
1994	0	2	4	6	$9,500.00
1995	0	0	6	6	$28,500.00
1997	0	1	0	1	0
1998	0	2	4	6	$46,000.00
2000	19	0	4	23	$87,000.00
2001	6	6	1	13	$34,000.00
2002	9	34	1	44	$10,000.00
2003	4	31	2	37	$57,000.00
2004	3	7	5	15	$161,000.00
2005	2	1	2	5	$35,000.00
2006	0	1	0	1	0
2007	4	2	2	8	$90,000

Figure 22:

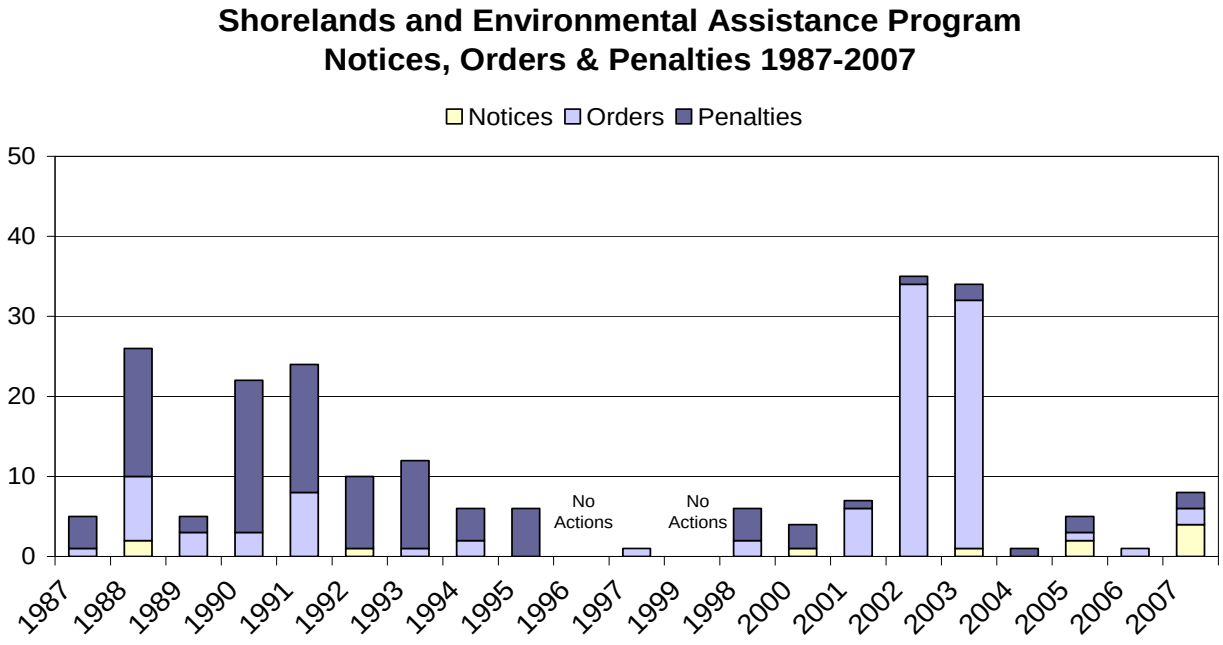
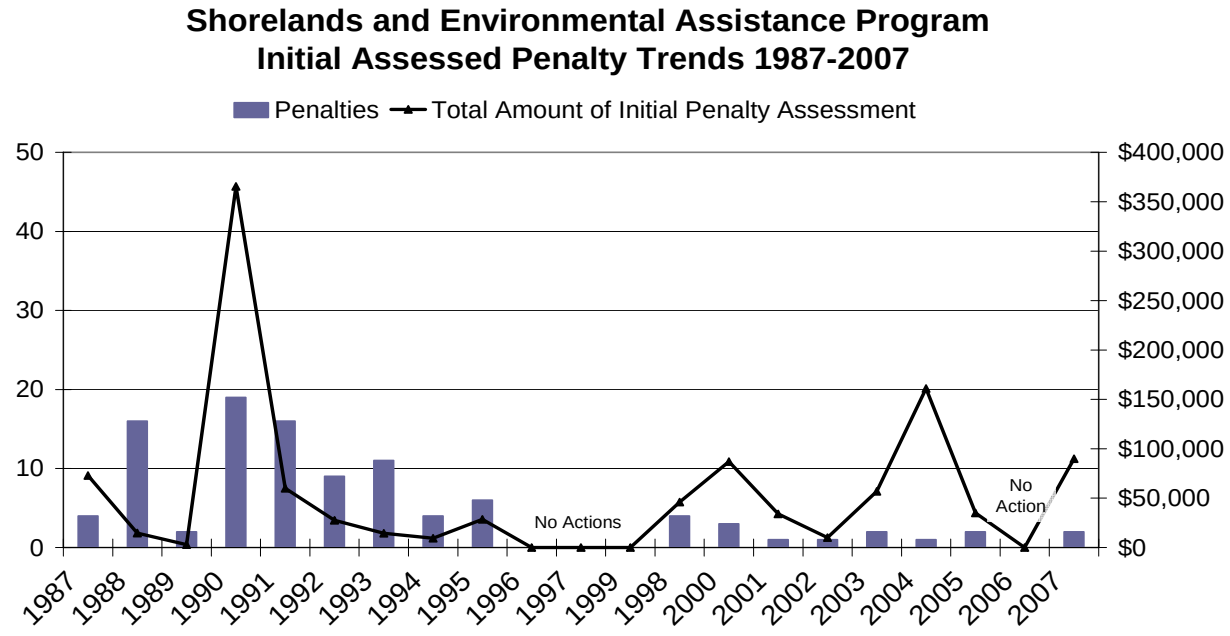


Figure 23:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

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.

Solid Waste
Despite the efforts of businesses and citizens to reduce, reuse, and recycle solid wastes the amount of solid waste we generate continues to increase each year. Most of the solid waste created in Washington is taken to eastern Washington landfills for disposal.

In Washington State, local governments are responsible for regulating and permitting the solid waste handling systems. Solid waste handling includes the:

- Management
- Storage
- Collection
- Diversion
- Transportation
- Treatment
- Use
- Processing
- Final disposal of household, business and industrial wastes, and municipal sewage sludge wastes.

Ecology's role is to set environmental protection standards for the design and operation of disposal facilities. We also provide technical and financial assistance to local governments.

To achieve our mission and long-term vision, the Solid Waste and Financial Assistance Program focuses its work on these objectives:

- Eliminate wastes and manage the remaining garbage.
- Fund local government efforts to clean up toxic sites and manage or reduce waste.
- Employ Washington students to pick up litter.

Biosolids Management Permits
Ecology regulates biosolids-related activities. Biosolids are defined as municipal sewage sludge that is a primarily organic, semi-solid product resulting from the treatment of sewage wastewater that have met the quality requirements in the state biosolids rule. Biosolids are commonly applied to land as a soil amendment. All facilities that manage, apply to land, transport or dispose of biosolids must get a general biosolids management permit from Ecology. Biosolids contain essential plant growth nutrients and small amounts of pollutants and microorganisms. Biosolids must be properly treated to protect public health before applying them on land. In some parts of the state, Ecology delegates portions of the biosolids program to a local health district. However, it is Ecology's responsibility to issue biosolids permits and to enforce the biosolids laws, rules, and permit requirements.

Electronic Product Recycling
In 2007, the Solid Waste and Financial Assistance Program began implementing RCW 70.95N, Electronic Product Recycling. This law requires manufacturers (brand owners) of computers, computer monitors and televisions to register annually with Ecology in order to sell their products in or into the state. In addition, manufacturers must finance and participate in a program for the collection, transportation and recycling of these electronics at the end of their useful lives.

Compliance Assurance

Biosolids
To make sure facilities comply with biosolids laws and rules, Ecology provides technical assistance and education materials to the regulated community. Ecology expects all owners and operators of regulated facilities to voluntarily comply with biosolids management laws and rules. When a facility does not voluntary comply, it may be necessary for us to move to an enforcement action. When this is the case, we make sure we clearly define the violation and that the enforcement action is consistent with the extent of the violation.

Formal enforcement actions 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 solutions may be considered as appropriate mitigation, as long as the solution complies with the laws and rules. Innovative solutions include mediation, environmental audits, mandatory education programs, and compensatory action such as Supplemental Environmental Projects.

Electronic Product Recycling
Information about requirements for manufacturers and retailers in the new Electronic Product Recycling Law are made available on Ecology's Web site. Ecology has notified manufacturers, retailers, and affected businesses about the new law and its requirements through:

- A group distribution email list (List Serve) with several thousand interested party members.
- Individual e-mails to specific companies.
- Direct telephone contacts.
- Trade associations such as the Washington Retailers Association.

The Electronic Product Recycling page on Ecology's Web site http://www.ecy.wa.gov/programs/swfa/eproductrecycle/index.html includes a variety of information such as: links to the law and Ecology's rule, a description of the program and its requirements for affected parties, Focus Sheets, Frequently Asked Questions and lists of participants and their compliance status.

Environmental Trends

Solid Waste
Advances in technology and social values have increased reduction and recycling activities. Improved landfill designs have reduced potential threats to the environment. However, we have now reached a point where we need to shift our focus from proper handling of solid waste, after it is generated, to preventing waste in the first place.

Ecology now has a long-range plan for how to:

- Reduce the amount of solid waste generated.
- Properly manage wastes that remain.
- Reduce the use of toxic substances.

This plan, called "Beyond Waste," was completed in the end of 2004. For more information about this plan, visit Ecology's web site at www.ecy.wa.gov/beyondwaste/.

Biosolids
In the past 20 years, there has been a sharp decline in the amount 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. Biosolids treatment facilities are allowing consumer interest to drive decisions about 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 slow.

A more noticeable trend over the last 10 years is that treatment facilities are not willing to accept septage. This seems to be particularly the case at smaller treatment plants. This is because of the strength of the waste (which can be hard for smaller treatment works to process). This has increased the 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 sufficient land, expertise, and equipment to develop successful land application programs.

Enforcement Trends

Solid Waste
Ecology continues to work with local government to make sure solid waste handling facilities comply with solid waste laws and rules. We adopted new rules in 2003 to clarify our expectations for how to properly handle a variety of waste streams. We are also increasing our focus on prevention through education. We hope this will reduce the need for enforcement.

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 easy to follow.

Biosolids
Between 1996 and 2003, Ecology took very few enforcement actions as the new program was being developed and implemented. During this time, Ecology worked diligently with the regulated community on training and other technical assistance measures to develop an understanding of the new program.

In 2004, Ecology sent several Notices of Correction letters to facilities that failed to send us their annual biosolids report on time. Most of these facilities had routinely ignored their reporting obligations since the start of the program in 1998. Given the age of the program and the extensive technical assistance given to the facilities, we now expect all facilities to recognize and meet their reporting obligations.

In June 2005, we issued a new biosolids general permit. About half of the biosolids facilities had failed to complete the necessary documents to apply for coverage under the previous biosolids general permit. While the new permit was being written, we

made the decision to not pursue enforcement against these facilities unless they also failed to meet their obligations under the new permit. Ecology gave these facilities three months to comply with the new permit. Those who failed to do so got a Notice of Correction.

In 2006, the number of Notices of Correction remained high because we continued our efforts to get all facilities to fully comply. Among the three penalties we issued, one penalty of $268,740 for extensive violations accounted for approximately 97% of the total.

In 2007, we issued significantly fewer enforcement actions compared to the prior two years. We believe this is because our efforts in 2005 and 2006 resulted in most permittees achieving compliance with the management and administrative requirements of the biosolids program. However, although we only issued three penalties, the total penalty amount was significantly higher than in previous years. Two of the three penalties issued accounted for approximately 97% of the total. These two penalties were issued for particularly flagrant violations. In all three cases, we worked with the responsible party towards an agreed settlement and consent order so that the vast majority of the penalty amount was either committed to correcting the problem, committed to an environmental project, or suspended.

Electronic Product Recycling

The "producer responsibility" basis of the Electronic Products Recycling law is a recent and significant change in the field of environmental law. As with any major change, a period of adjustment was needed. Manufacturers are not accustomed to being held responsible for the proper management of their products after use by consumers. In addition, most of the manufacturers are located out-of-state or overseas and some do not directly sell their products in or into Washington or only sell their products over the internet.

Due to this unique set of circumstances, 2007 was a year of education, relationship-building and, when necessary, enforcement. Thanks, in part, to similar laws in a few other states and a lot of one-on-one work by Ecology staff, the relationship-building approach was very successful. However, there were a number of instances when enforcement actions were taken after repeated attempts to achieve compliance with the requirements of the law were ignored. As a result, 22 Notices of Violation and two penalties were issued. The penalties were issued to companies outside of the state of Washington and have since been sent to collections.

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

Table 9: Solid Waste Financial Assistance Program Enforcement Actions and Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1996	1	1	0	2	$0
1997	0	0	0	0	$0
1998	0	4	2	6	$32,000
1999	0	0	0	0	$0
2000	1	2	1	4	$2,000
2001	0	2	1	3	$3,000
2002	0	5	3	8	$32,000
2003	0	3	2	5	$7,000
2004	16	2	0	18	0
2005	66	1	3	70	$277,740*
2006	53	4	3	60	$10,000
2007	22	6	5	33	$371,826

* One penalty of $268,740 for extensive violations accounted for approximately 97% of the total.

Figure 24:

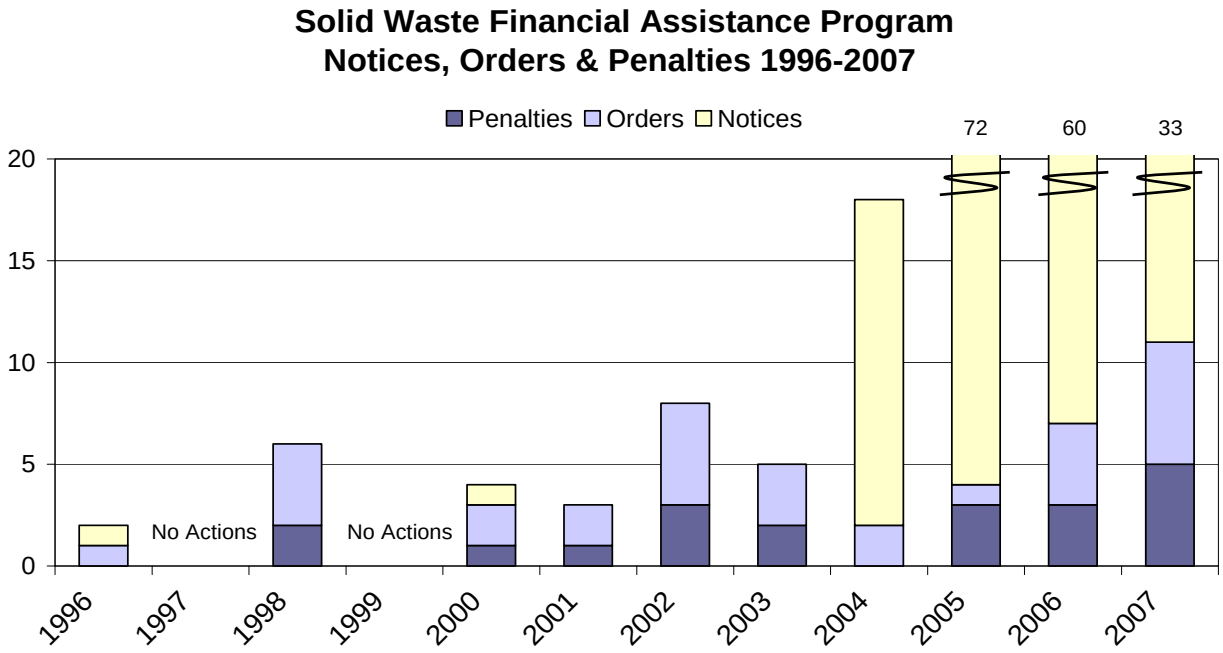
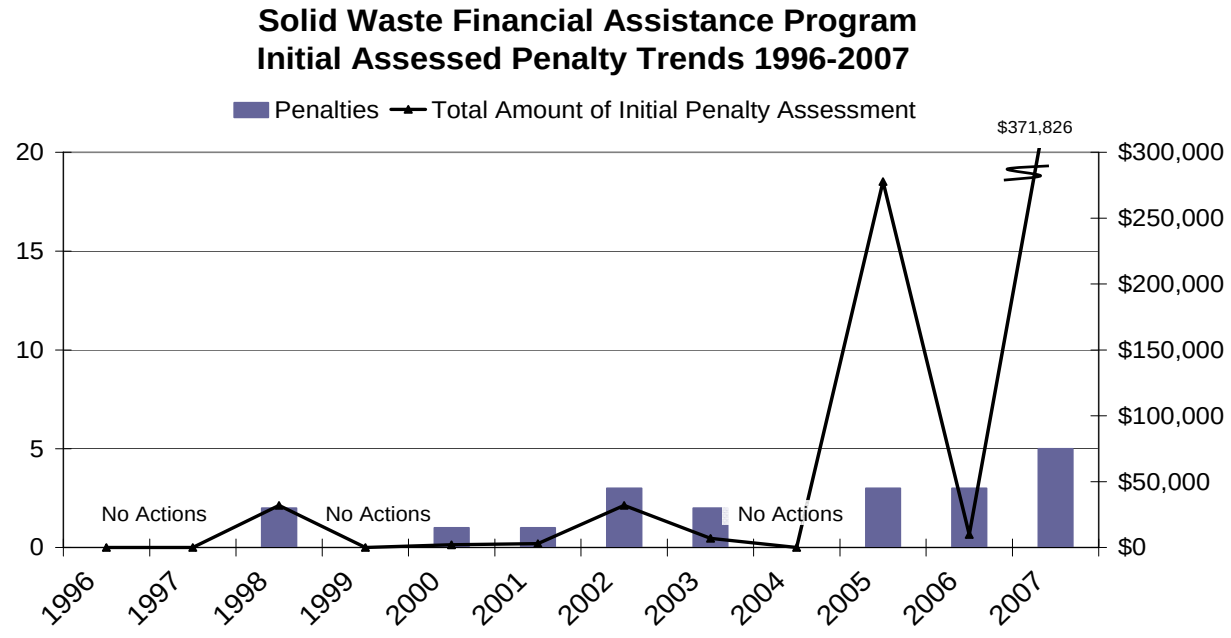


Figure 25:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

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. Oil and chemical spills to Washington's waters and shorelines can compromise productive and valuable ecosystems, the public's health and safety, and in a worst case can affect the economy. Ecology's Spill Prevention, Preparedness and Response Program (Spills) works with oil companies, shippers and transporters, and the users of oil to prevent spills and quickly respond to those that do occur.

To accomplish its mission, Ecology's Spills Program is working on these 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.
- Restore environmental damage caused by oil spills.

Compliance Assistance

Prevention
Prevention is about educating vessel and facility personnel. Approximately 3,500 commercial ships and barges make an average of 7,200 trips to Washington waters each year bound for Washington, Canadian, and Oregon ports. There are also 4,500 oil barges moving in our waters. Each of these poses a risk of a serious oil spill. Ecology vessel inspectors conduct about 1,000 onboard vessel inspections per year.

Rules governing oil transfers over state waters (fueling and cargo operations) went into effect October 26, 2006, adding approximately 125 new facilities to the Prevention Section's regulated community. Facilities were classed into 4 distinct categories:

- Class 1 facilities are the 22 large facilities previously regulated;
- Class 2 facilities added 23 tank truck companies;
- Class 3 facilities added 3 small shoreside tank farms; and
- Class 4 added approximately 74 marinas that fuel boats. Six new transfer inspectors were hired to inspect truck refueling transfers to refinery cargo transfers to ensure compliance with the new rules.

In 2007, Ecology personnel conducted 2,234 vessel and oil handling facility inspections, including 461 cargo and passenger vessel inspections,1,200 vessel fueling or cargo oil transfer inspections – up from 617 in 2006 – and 512 spill notification drills.

Spills and threats of spills also provide the opportunity to identify prevention measures that can be implemented in the future. Careful investigation and analysis of the systems and personnel involved lead to lessons learned for the company and the agencies involved. In 2007, prevention investigators conducted 21 spill investigations leading to enforcement and prevention recommendations.

Preparedness

Oil handling facilities and commercial vessels must develop and maintain a Spill Contingency Plan to be used in the event of an oil spill. Vessels and facilities must also conduct spill drills to test their contingency plans to make sure they can provide an effective response should an actual spill occur.

Preparedness plan managers review and approve oil spill contingency plans for 36 Class 1 facilities. New rules discussed under prevention above added preparedness requirements for 24 companies that deliver oil by tank truck.

In addition to review and approval of plans, preparedness planners conduct drills to ensure companies are able to implement their plans in the event of a spill. In 2007, contingency plan holders conducted 500 drills:

- 406 were unannounced vessel notification drills,
- 58 deployment drills,
- 17 management team table-top drills,
- 10 worst-case scenario table-top drills, and
- 1 unannounced table-top drill.

In addition, 5 actual spill responses were granted drill credit, and Ecology conducted 3 internal drills.

Response
When oil is spilled to water, the spiller must notify Washington's Military Department's Emergency Management Division who notifies the Department of Ecology. Most reports are of small sheens, smells, and spills. Ecology's response units work with federal agencies, and local and regional fire, police and health agencies to improve response times and effectiveness.

In 2007, Ecology's spill responders received a total of 3,806 incident reports throughout the state, including:

- 2,336 reports of oil spills.
- 220 reports of chemical spills.
- 233 reports of meth labs.
- 1,017 reports of unclassified discharges.

Response Units conducted a field response to 1,161 reports and confirmed 36 spills equal to or greater than 25 gallons spilled to waters of the state for a total of 6,336 gallons.

Environmental Trends

Using the number and quantity of oil spills as a measure of environmental improvement assumes Ecology receives reports of all spills and quantities. This is not the case. The Ecology's Spills Program, however, can estimate improvement by measuring our response to spills and the number of spills or incidents from identified sources. For example:

- Since 2002, the number of oil spills greater than 25 gallons has decreased. In 1999, the number of these spills rose from an average of 30 a year to a three-year high of 42 in 2002.
- Since 2003, the number of spills of 25 gallons or more has returned to the trend of 30 a year.
- In 2007, there were 36 spills of 25 gallons or more.

The three-year spike in spill numbers may represent Ecology's greater emphasis on detecting and reporting spills, while the decline was a result of the greater awareness of the legal liabilities a responsible party is subject to.

Tracking vessel incidents is an example of measuring spills from identified sources. The vessel incident rate is calculated as the percentage of trips during which large commercial vessels experience significant problems – such as an oil spill or a loss of

propulsion or steering – out of the total number of vessel transits in state waters. The incident rate is an indicator of the overall safety of the maritime industry.

For the fourth consecutive year, the vessel incident rate hovered around 1 percent. In 2007, Ecology documented only 23 vessel spills greater than 42 gallons (1 barrel).

Enforcement Trends

The bulk of Ecology's spill related enforcement is issued in the form of citations that can be up to $3,000 for small spills (less than 100 gallons). Penalties that are more substantial are issued for larger spills and for spills that investigators can determine were negligent and preventable. In 2007, Ecology issued 74 citations and 9 penalties for a total of $118,300.

Other enforcement actions, such as Notices of Violation, Notices of Correction, and Administrative Orders, are issued to companies to encourage them to prevent and prepare for oil spills. Ecology recovers the costs we incur when we respond to an oil spill by issuing an Order for Reimbursement of Expenses to the responsible party. Of the 16 Orders listed in the following table, 12 were Orders of Reimbursement for expenses totaling $152,236.19.

The number of field citations issued annually has more than doubled since 2003, and reflects a complete complement of spill responders in both Ecology's Northwest and Southwest Regional Offices. There was a substantial drop in Notices of Violation after 2004 which coincides with the development of Spills' Oil Transfer Program and a change in focus for vessel inspectors.

Table 10: Spills Program Enforcement Actions Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1997	0	0	2	2	$5,500
1998	47	15	23	85	$400,660
1999	100	15	19	134	$302,000
2000	101	19	29	149	$294,750
2001	42	5	36	83	$137,250
2002	48	4	61	113	$16,140,950
2003	32	5	38	75	$520,242
2004	26	0	49	75	$178,753
2005	10	9	50	69	$778,750
2006	2	29	60	91	$646,225
2007	10	16	83	109	$118,300

The 2002 total includes $15,720,000 in penalties issued for the 1999 Bellingham spill and fire.

Figure 26:

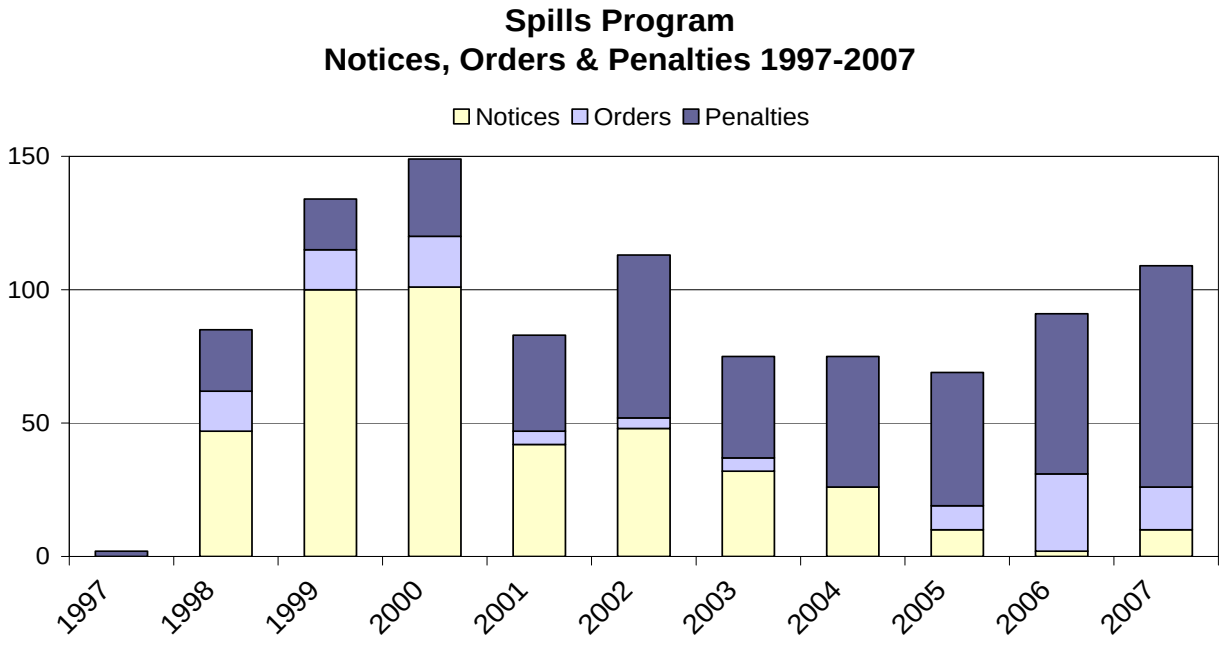
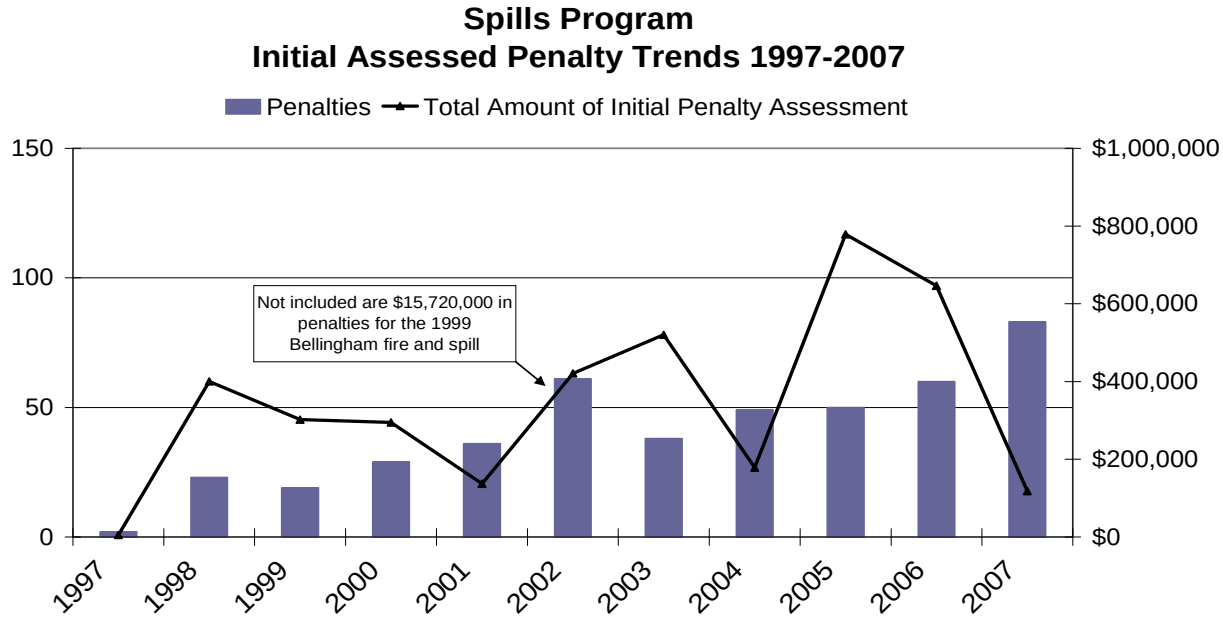


Figure 27:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Toxics Cleanup

Overview

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

Ecology has identified 10,825 sites in Washington that are contaminated with toxic substances. To date, 58 percent of these sites have been cleaned up independently or with Ecology oversight. Almost 6,400 sites were identified because a leaking underground storage tank contaminated the soil and/or underground water (groundwater). Contamination at each site is unique and can pose a different type and level of risk to human health and the environment.

It is a priority for Ecology to prevent future leaks from underground storage tanks. We currently regulate 10,093 active underground storage tanks on about 3,800 different properties. These properties include gas stations, industries, commercial properties, and government-owned locations. Ecology's role is to make sure tank owners install, manage, and monitor their tanks in a way that prevents soil and groundwater contamination. We conduct compliance inspections and provide technical assistance to tank owners to help them comply with underground storage tank rules.

In addition to leaking underground tank sites, Ecology helps liable party voluntarily clean up other contaminated sites. We also conduct site investigations, cleanup studies and cleanup work. If Ecology cannot find a potential liable party, we take the lead to clean up the site.

To accomplish its mission, the Toxics Cleanup Program focuses its work around these objectives:

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

Compliance Assurance

When Ecology identifies a contaminated site, we put it on a state or federal cleanup list. Ecology's first course of action is to encourage the property owner to independently and voluntarily clean up the contaminated soil or water. To date, half of the cleanup sites (5,435) have or are done independently or 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 property owner to clean up the contaminated property.

Ecology relies on a tiered approach to achieve compliance with underground storage tank rules:

1. A compliance inspection or technical assistance visit.
2. A written warning (notice of non-compliance) if violations are found.
3. A field citation (monetary penalty), if problems are serious or prior violations were not corrected.
4. A formal enforcement order and penalty if compliance is not achieved through the field citation. Formal orders may also include revoking a facility compliance tag, which prevents delivery of fuel to out of compliance tanks until the violations are corrected.

Underground storage tank owners and operators can request a technical assistance inspection from Ecology. We will not issue a penalty during a technical assistance inspection unless we discover serious violations that may result in significant harm to human health or the environment.

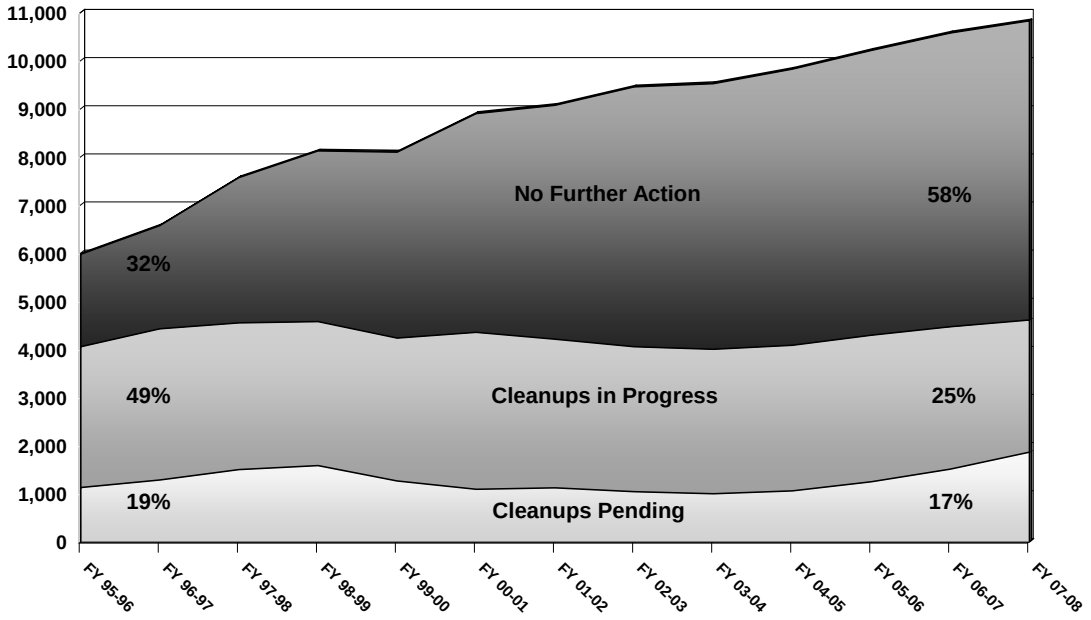
Environmental Trends

The Toxics Cleanup Program has made significant progress since Ecology adopted the Model Toxics Control Act (MTCA) rules in 1990. The graph on the following page shows that as of January 2008 there have been 6,220 contaminated sites cleaned up in Washington State. This represents 58 percent of the 10,825 currently known and suspected contaminated sites in Washington. Most of these cleanups have occurred without the need for formal orders, consent decrees, or unilateral enforcement orders. In addition, cleanup work continues at another 2,746 contaminated sites, which represents 25 percent of all currently known and suspected contaminated sites in Washington. Cleanups need to be started at 1,859 sites, which is 17 percent of the total.

In 1990, Ecology adopted rules for managing underground storage tanks. Since then, the number of reported leaking underground storage tanks has steadily fallen from 924 in 1990 to 90 in 2007.

In 2006, the Washington State legislature amended the underground storage tank law to incorporate more stringent federal Energy Policy Act requirements. In 2008 and 2009, Ecology will be amending the associated tank rules.

Figure 28: Toxic Cleanup Trends of Known and Suspected Contaminated Sites as of January 2008



Enforcement Trends

The Model Toxics Control Account (MTCA) authorizes Ecology to issue penalties up to $25,000 per day for failure to comply with orders and decrees. So far, Ecology has not needed to use this authority because:

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

For the past few years Ecology annually conducted about 600 to 850 underground storage tanks inspections. In 2007, over 1,000 inspections were conducted. This was an extraordinary effort to inspect every underground storage tank facility at least once by mid-2007 to meet a new federal requirement. About 6 percent of the inspections resulted in field penalties. The average field penalty in 2007 was $400 and they ranged from $100 to $1,500 (the maximum currently allowed). Also in 2007, Ecology issued two formal underground storage tank enforcement orders and formal penalties ($8,100 and $20,000). Another new federal requirement which started in 2007 is to inspect all underground storage tanks at least once very three years. Ecology is in the process of hiring additional inspectors to meet that new requirement. Ecology expects compliance rates to improve as underground storage tank facilities are inspected more frequently. If

compliance doesn't improve, Ecology expects to issue more field penalties and formal enforcement orders.

Ecology's Underground Storage Tank (UST) inspectors issue Notices of Non-Compliance (NONC) to owners and operators of underground tanks. NONCs are like warning letters that identify the violations found during the inspection and give timeframes for when the violations should be corrected. Ecology inspectors issue NONCs routinely. In 2007, UST inspectors issued over 500 NONCs. NONCs may not be appealed to the Pollution Control Hearings Board (PCHB) or to State Superior Court. A Notice of Penalty (field citation) may be issued with an NONC. Field citations may be appealed to the PCHB. Underground storage tank NONCs are not shown on in the following table.

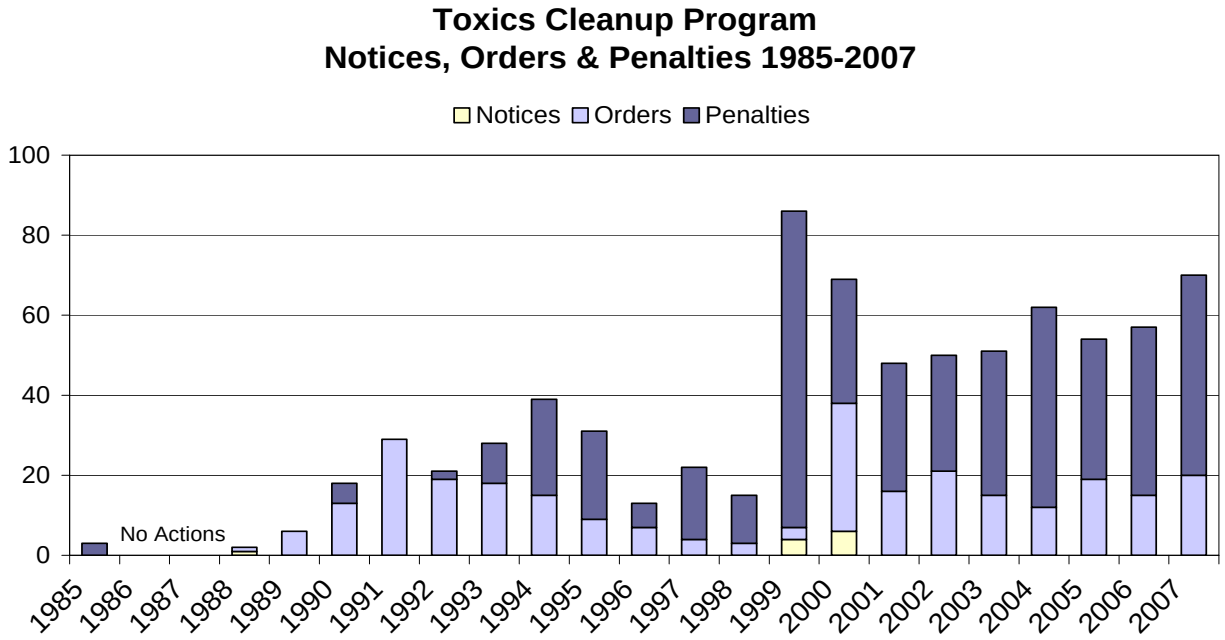
In 1995, the Washington State legislature passed a new law, RCW 43.05, Technical Assistance Programs. This law made it possible for Ecology to provide technical assistance inspections without subjecting the facility to monetary penalties unless the inspector finds a serious potential threat to human health or the environment. The state's delegation of the federal UST program required that it maintain the authority to issue monetary penalties, even during technical assistance visits. The UST program maintains that penalty authority, however its practice is to offer technical assistance as often as possible.

For more information about cleaning up sites contaminated from a leaking underground storage tank, visit Ecology's web site at www.ecy.wa.gov/programs/tcp/cleanup.html.

Table 11: Toxics Cleanup Program Enforcement Actions and Penalty Amounts.

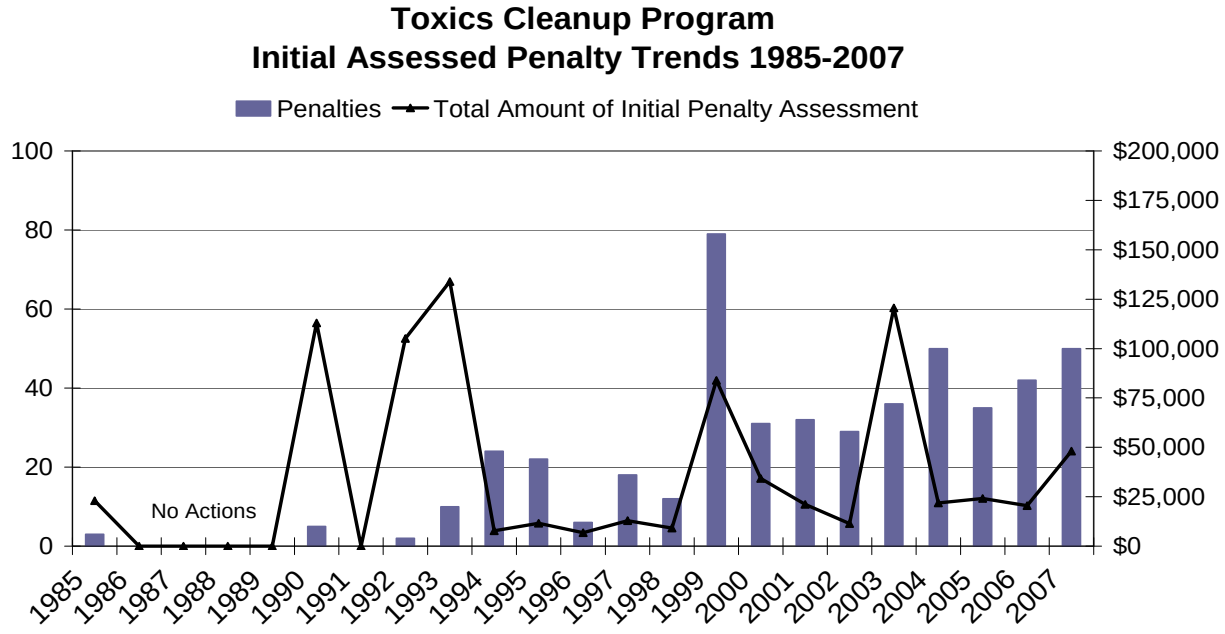
YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1985	0	0	3	3	$23,000
1986	0	0	0	0	$0.00
1987	0	0	0	0	$0.00
1988	1	1	0	2	$0.00
1989	0	6	0	6	$0.00
1990	0	13	5	18	$113,000
1991	0	29	0	29	$0.00
1992	0	19	2	21	$105,052
1993	0	18	10	28	$133,850
1994	0	15	24	39	$7,800
1995	0	9	22	31	$11,600
1996	0	7	6	13	$6,850
1997	0	4	18	22	$12,950
1998	0	3	12	15	$9,100
1999	4	3	79	86	$83,900
2000	6	32	31	69	$34,270
2001	0	16	32	48	$21,100
2002	0	21	29	50	$11,500
2003	0	15	36	51	$120,515
2004	0	12	50	62	$21,850
2005	0	19	35	54	$24,150
2006	0	15	42	57	$20,500
2007	0	20	50	70	$48,100

Figure 29:



Compliance with the operation and maintenance requirements on the date of inspection has risen from 35 percent in 2001 to about 48 percent in 2006. Compliance, measured 60 days after an inspection, ranges from 68 to 89 percent.

Figure 30:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Water Quality

Overview

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

Ecology protects Washington's waters by regulating point source (direct) discharges of pollutants to surface and underground waters (groundwater). We accomplish this through a wastewater discharge permit program for sewage treatment plants and other industries that have on-site wastewater treatment. We also have a permit program in place to control the pollution in stormwater runoff from municipal, 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 the everyday actions of citizens and businesses all over the state. Sources include:

- Pesticides and fertilizers running off:
  - Irrigated agricultural land.
  - Rural lands.
- Homeowners' lawns.
- Oil and grease running off parking lots and roads.
- 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 these objectives:

- Prevent point source water pollution.
- Control stormwater pollution.
- Reduce nonpoint source water pollution.
- Provide water quality financial assistance.
- 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. We issue permits to more than 4,000 industrial and municipal facilities in Washington State to make sure they manage pollution so it can be safely discharged to lakes, rivers, marine, or

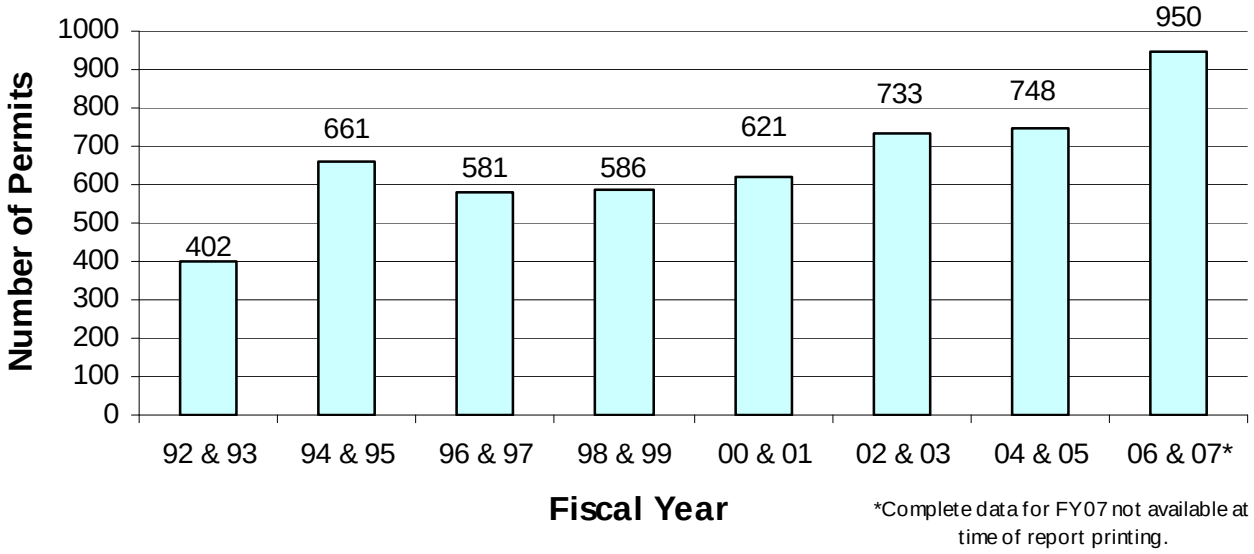
groundwaters. Ecology inspects about 25 percent of the permitted facilities each year.

Table 12: Water Quality Permits as of December 31, 2006 *

PERMIT TYPE	TOTAL ACTIVE PERMITS
NPDES Stormwater Construction General Permit	2,204
NPDES Industrial Stormwater General Permit	1,243
Sand and Gravel General Permit	924
NPDES Minor	348
Fresh Fruit Packer General Permit	186
State to Groundwater	172
State to POTW (publicly-owned treatment works)	169
Aquatic Pesticides General Permit	122
Boatyard General Permit	95
NPDES Major	79
Fish Hatchery General Permit	79
Dairy General Permit	39
Water Treatment Plant General Permit	31
Municipal Stormwater General Permit	7

* 2007 data not available at the time of report printing.

Figure 31: Water Quality - Number of Individual permits Per Enforcement Staff Member



Compliance Assurance

Individual Wastewater Discharge Permits

Ecology expects voluntary compliance with water pollution protection laws. When we detect a violation, we gather the initial information through inspections, documented phone calls, or letters. The violation may result in a warning letter, technical assistance, or both. Ecology requires permitted facilities to monitor their discharges and report them to us by submitting a Discharge Monitoring Report (DMR). We also require them to identify the violations in their report. They must explain the cause of the violations and the actions taken to stop and prevent further violations.

When Ecology cannot get a facility to voluntary comply through informal enforcement actions, we use a progressive method of enforcement. Generally, each response increases in severity until the facility resolves the problem. If the facility continues to not comply, Ecology may 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 enhanced by training treatment plant operators in key positions. State law requires municipal wastewater treatment operators to take training and pass written tests to become certified to run facilities. Operators must also meet continuing education requirements to maintain their certification.

In addition to the Operator Certification Program, Ecology has a well established Environmental Laboratory Accreditation Program. These two efforts contribute significantly to the state's environmental compliance efforts by making sure operators

are qualified to run facilities and collect water quality samples, and that the analyses performed by laboratories are accurate and defensible.

Ecology's Water Quality Program, along with the Federal Environmental Protection Agency, provide direct assistance to smaller municipal wastewater treatment plants through the use of two roving outreach specialists. These specialists travel from plant to plant to respond to facility requests for technical assistance. 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.

General Permits

General Permits cover groups of similar type facilities or similar discharges under one set of permit requirements (Table 12). General permits usually have a small size or other location cutoff below which facilities don't require permit coverage and are managed as nonpoint sources. An individual permit may be required if the general permit is not adequate for local conditions or when a facility is not meeting the requirements of their general permit. Similarly, a facility otherwise excluded from the general permit may be required to obtain general permit coverage as a "significant contributor of pollutants".

Permit requirements vary, but generally require plans containing Best Management Practices with some monitoring. The less experienced and more variable nature of general permittees necessitates compliance efforts that emphasize inspections and technical assistance. Formal enforcement actions such as orders and penalties can be used if more informal methods don't result in compliance.

Nonpoint Pollution

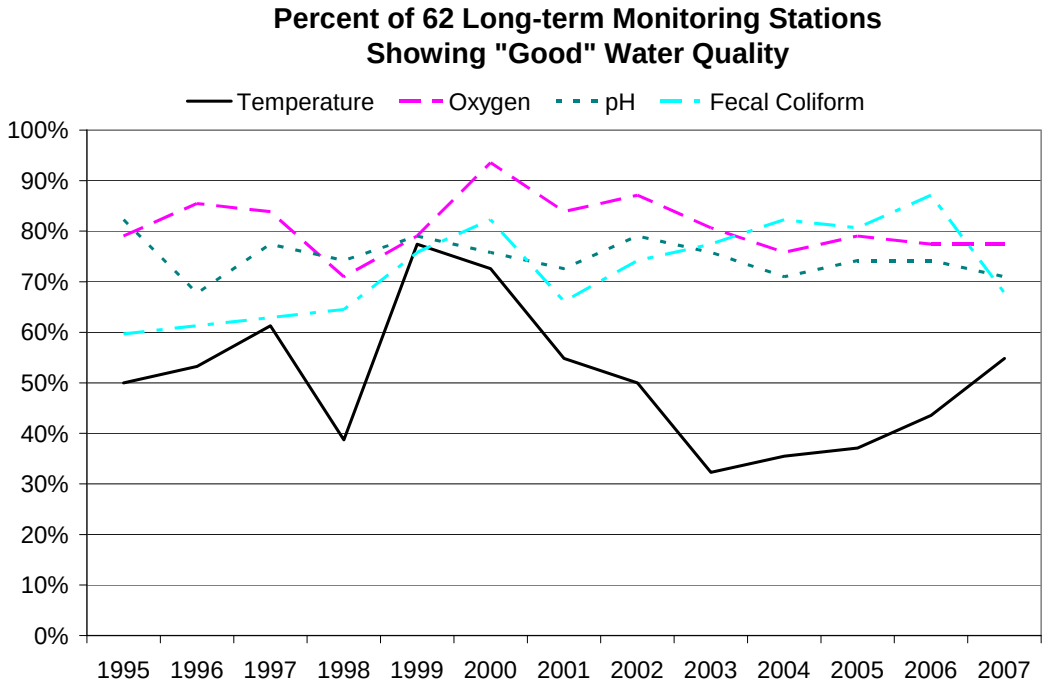
Most pollution in Washington State's waters comes from many different, hard-to-trace sources with no obvious point of discharge. We call it polluted runoff or nonpoint pollution. It includes stormwater (outside of the general permits), agriculture, forestry, recreation, habitat alteration and urban land uses.

Compliance efforts vary from funding through local government and technical assistance to referrals to other agencies and even formal enforcement actions such as orders and penalties. For example, to help address water pollution from agricultural sources, 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 the conservation district's technical assistance programs that help farm owners or operators develop and implement a water quality management plan, or "farm plan."

Environmental Trends

Ecology does not have enough resources to monitor every water body in the state. However, for the past nine years, we have been systematically collecting water quality data at 62 long-term sampling stations around the state. These stations typically correspond to the larger streams in many of the 62 Water Resource Inventory Areas, or watershed planning areas in the state. The graph below indicates the trends over 12 years for four main water quality parameters.

Figure 32:



The decline in the number of stations classified as "good" for fecal coliform bacteria in 2007 may be related to higher than normal precipitation during the winter of 2006-2007. Runoff events can wash bacteria into our waterways. The reason for the improvement in temperature (more "good" stations in 2007) may be that fewer stations had unusually low summer flows than in the previous few years. Higher flows can better "buffer" daily swings in air temperature.

Ecology also collects a large amount of water quality data generated by many other studies and projects. We use this data to prepare a list of water bodies that do not meet the state's water quality standards, known as the 303(d) list. We also use the list to target the development and implementation of total maximum daily load (TMDL) plans called water cleanup plans.

The four main pollutants that cause a water body to be listed as polluted are:

- Temperature
- Fecal coliform
- Oxygen
- pH.

Since 1996, the number of water bodies listed for fecal coliform, oxygen, and pH has declined while those listed for temperature have increased. Changes in the number of listings may be due to data availability and not necessarily from environmental trends. High temperatures can be caused by the loss of vegetation along streams and the low water flows in rivers and streams. The fecal coliform trend in both 303(d) listings and in Figure 32 is not surprising. Since state lawmakers adopted the Dairy Nutrient Management Act in 1998*, Ecology and many people across the state have worked hard to reduce the amount of fecal coliform bacteria that enters state waters.

* Note: The Legislature gave responsibility for dairy farm inspections to the Department of Agriculture in 2003.

Enforcement Trends

Ecology issues permits to more than 4,000 industrial and municipal facilities in Washington to protect water quality. In 2005, the Water Quality Program took more than 1,512 compliance or enforcement actions (not including inspections) on facilities with permits (2006 data not available at time of report printing). To evaluate the effectiveness of our enforcement activity, we evaluate the compliance rates and number of facilities with five or more violations per year. In 2005, wastewater monitoring reports and Ecology inspections showed that Washington had a compliance rate of approximately 98 percent for water quality protection. The type of enforcement action and the amount of penalty depends on the type of the violations and the potential impacts to public health and the environment. 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 website at www.ecy.wa.gov/programs/wq/wqhome.html.

For information on the condition of Washington's waters, visit Ecology's website at: www.ecy.wa.gov/programs/eap/env-info.html.

Table 13: Water Quality Program Enforcement Actions and Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1985	42	91	79	212	$395,528
1986	78	99	106	283	$440,718
1987	78	66	99	243	$271,351
1988	38	20	39	97	$256,300
1989	37	21	39	97	$417,252
1990	65	32	29	126	$229,250
1991	49	34	36	119	$304,250
1992	48	55	34	137	$303,700
1993	44	66	21	131	$112,500
1994	63	89	57	209	$538,000
1995	68	67	28	163	$185,400
1996	47	47	49	143	$510,799
1997	32	63	80	175	$782,000
1998	55	76	83	214	$404,040
1999	132	92	83	307	$1,107,893
2000	150	170	35	355	$305,000
2001	69	117	60	246	$231,900
2002	98	87	98	283	$569,200
2003	98	56	83	237	$361,618
2004	39	24	28	91	$444,045
2005	36	35	35	106	$518,861
2006	32	48	59	140	$705,155
2007	33	63	46	142	$1,180,381

Figure 33:

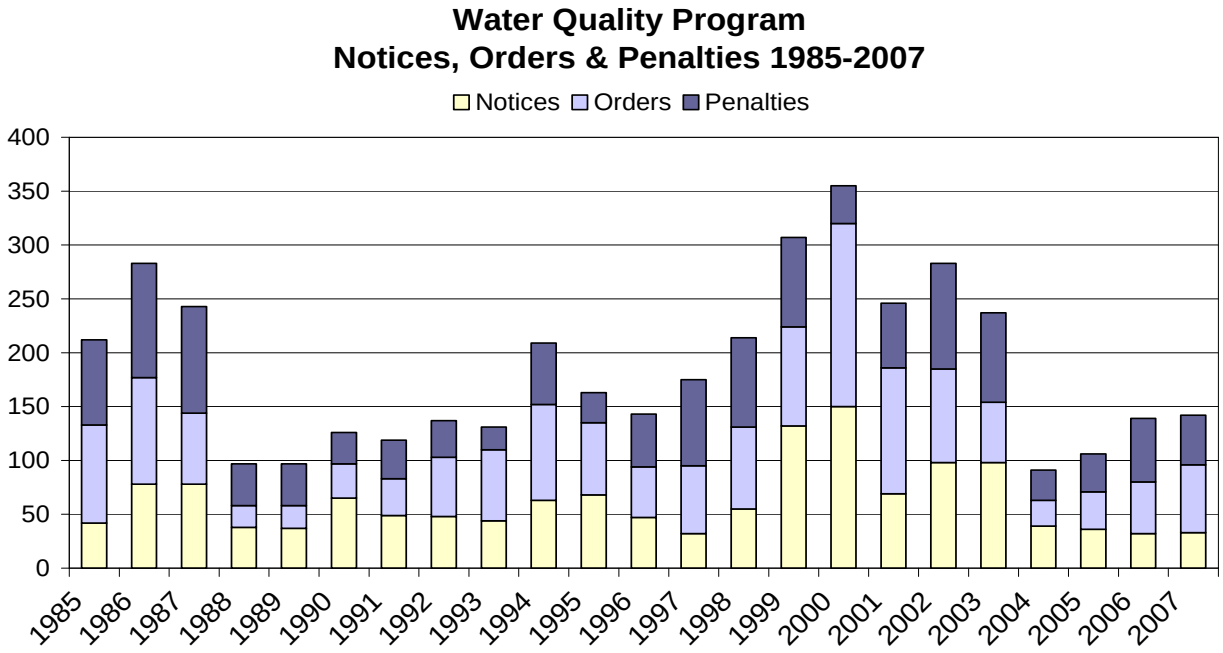
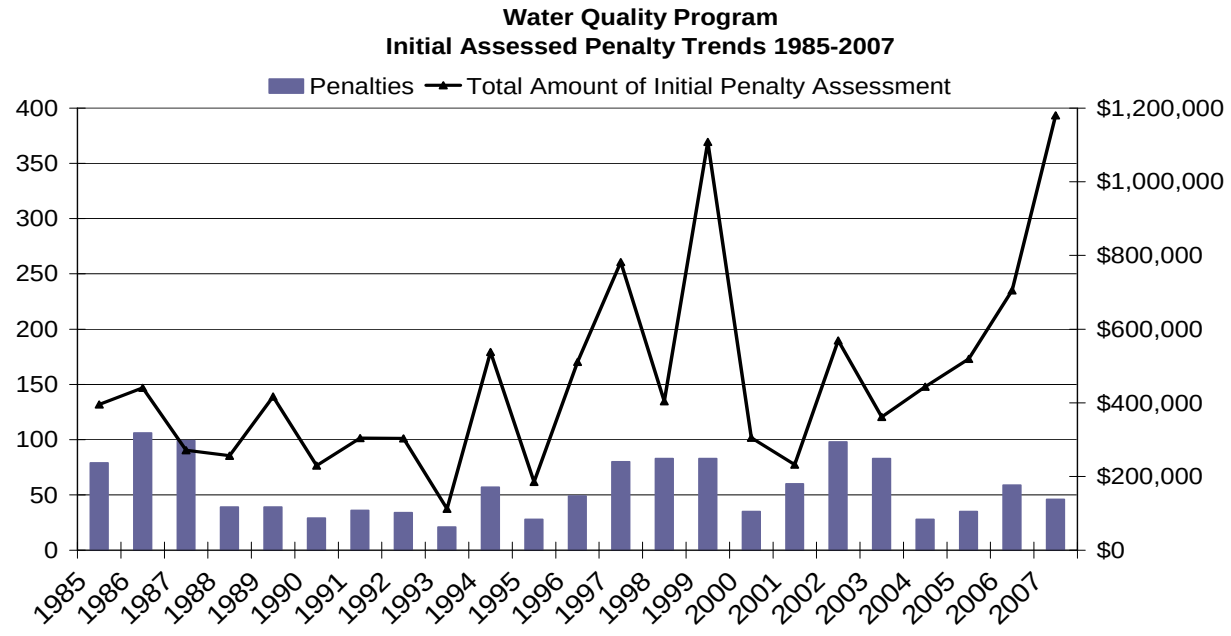


Figure 34:



Note: The penalty issued dates prior to 2004 came from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action and not the date the action was taken.

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 how to meet the growing demands for water that are fueled by population and economic growth, while maintaining the natural environment. The threat of extinction to once abundant fish stocks due to poor water quality and inadequate stream flow are significant factors in the debate about water resources.

Water use and water resources management are regulated by a complex web of state 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, the Water Resources Program is working on these objectives:

- Promote compliance with water law.
- Manage water rights through sound and timely decision-making.
- Prepare for and respond to drought and climate change.
- Assess, set, and achieve instream flows.
- Support water use efficiency.
- Regulate well construction.
- Ensure dam safety.
- Support local watershed management of water resources.
- Provide water resources data and information.
- Adjudicate water rights and water right claims.
- Regulate instream flows to protect existing water rights.

Water Resources Program Compliance Activities

The Water Resources Program allocates water by reviewing and processing applications for new water rights and changes to existing water rights and claims. A water right is legal permission to withdraw or divert a certain amount of water from a specific source for use in a specific place for one or more specific purposes. The program works to make sure all 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.
- The environment is protected.

Ecology licenses and regulates well drillers. We investigate complaints to make sure all well drilling activities comply with the state minimum construction standards for wells. The well driller and property owner are responsible for meeting the standards and for protecting groundwater from contamination or impairment.

Ecology also regulates dams that capture and store at least 10 acre-feet or more of water or watery materials such as mine tailings, sewage, and manure waste. Through plan reviews and construction inspections, we make sure these facilities are properly designed and constructed. To reasonably secure the safety of human life and property, we also conduct inspections of existing dams to assure proper operation and maintenance.

Compliance Assurance

Ecology's goal is to achieve voluntary compliance with state water laws. We do this through education, outreach, technical assistance, training, and licensing activities. These efforts are geared toward the public, water users in specific areas, and individuals. Enforcement actions are important tools that we use in a limited number of special cases when:

- Voluntary or informal compliance efforts are not successful.
- Water rights are impaired.
- Risks to safety, health, and the environment are high.
- We have sufficient resources to use formal enforcement actions.

Current compliance priorities are to:

- Make sure a minimum of 90% of all water right withdrawals and diversions in the 16 basins, where fish stocks are depressed, are metered and reported, and to implement an online reporting system for this metering data.
- Provide compliance information, assistance, and formal enforcement action in extreme cases and in specific areas, and issue penalties as appropriate.
- Monitor water use (metering, gauging, reporting) and take enforcement actions to make sure purchased trust water rights are protected.
- Regulate water use during periods of low flows to protect senior water users and streams that have stream flow limits.

- Continue formal and informal actions to gain compliance with court rulings in the Yakima adjudication.
- Communicate our enforcement actions for water right violations to discourage future violations.
- Provide compliance expertise for special projects, including the Lummi Peninsula Settlement, Walla Walla exempt well requirements, and the Bertrand watershed.

Formal enforcement actions and responses are reserved to times when voluntary compliance is not achieved. Below is an example of the progression from voluntary compliance to formal enforcement for a water rights case:

1. Contact the person who complained, and/or the alleged violator. After we make contact, we may further investigate the complaint, depending on the information received.
2. Pursue voluntary compliance through outreach via phone, site visit, written communications, and/or meetings.
3. Provide information to the violator about the potential need for them to apply for a new water right or water right change.
4. Refer the violator to their local government for land use issues, Department of Fish and Wildlife for habitat issues, and other Department of Ecology programs, as appropriate.
5. Follow up through a letter to bring formal closure or to document with a time line what efforts will be made to gain compliance.
6. Schedule a follow up site visit to verify water is no longer being used illegally.

If the business or individual continues to use water illegally and refuses to voluntarily comply, we may take the following formal enforcement actions:

1. Send a series of escalating letters that explains the formal enforcement process and the actions we will take if they do not comply within a certain timeframe.
2. Issue an administrative cease and desist order with a penalty notice.
3. Continue with follow-up site visit(s). This includes:
   - Interviewing neighbors
   - Collecting complaint and witness statements
   - Taking pictures of the property and the water source being used
   - Documenting continued illegal use
4. Issue Notice of Penalty.

Environmental Trends

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

- In many areas, there is not enough water to allocate for future uses without impairing senior water rights, reducing stream flows, and depleting aquifers.
- The threat of extinction of once-abundant fish stocks due to over-appropriation of surface water and groundwater connected with surface water resources.
- Competition and lawsuits over water.
- Repeated drought conditions that result in dry streams, withered crops, dead fish, reduced hydropower production, and increased wildfires.
- Growing interest and investment in water use efficiency technology, reclaimed water, rainwater catchments, and methods that take salt or chemicals out of water.

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

Compliance Priorities

The current compliance priority of the Water Resources Program is to meter and report water use in 16 basins with depressed fish stocks, and over 50% of our compliance staff are dedicated to the metering effort. Ecology has:

- Sent orders to over 1,000 water users in these basins to meter and report their water use, as required under a court settlement agreement. This represents an estimated 80% of the water volume used in those basins.
- Required new water users and those who have applied for changes, in these basins, to install meters and report their water use.
- Provided funds to help users install meters.

In 2005, the Yakima County Superior Court ordered all water right owners in the Yakima River Basin to install an approved metering or measuring device at each confirmed surface water diversion point below 2,000 feet elevation by April 1, 2006. Those with confirmed rights with diversion points above 2,000 feet elevation were to have an approved metering or measuring device installed by April 1, 2007. In addition

to the orders in Table 14 and Figure 35, we have sent out 924 letters to Yakima Basin water rights holders notifying them of the court order. They may request a variance from us for more time to install a meter, which we review and may grant within reason and verification.

Our compliance and metering staff have been assisting water users who have requested variances in order to design and install meters in conjunction with fish screens, and training of meter installers is on-going.

In the Walla Walla River basin the existing water management rule (adopted in 1977) was amended to better manage and protect the current conditions of the watershed. Population and economic growth are increasing in areas of the Walla Walla Basin where water resources are already limited. As part of the rule amendments, future permit-exempt groundwater withdrawals from the gravel aquifer, in populated areas will be controlled and managed through metering and other means. Our compliance staff is working with the Walla Walla County Conservation District to help provide a standard design for installing those meters.

In the Walla Walla basin our compliance staff will also be involved in enforcing the instream flow water rights that have been established, the closure of the gravel (shallow) aquifers, and limitations on stock watering based on legal lot sizes.

In addition to the court-ordered metering and reporting requirements, new permits or changes to existing permits contain metering requirements. Overseeing compliance with these permit provisions is requiring more staff time. The metering program will be expanding over the next three years to include the Columbia River water rights.

The Water Resources Program acquired funding to develop a data and reporting management system for metering data. The database has been completed, and we have concluded the transfer of data. We are currently working to set up an electronic filing process for larger water users, and are following-up with water users to make sure they are complying with the metering and reporting requirements.

Enforcement Trends

The jump in the number of enforcement orders in 2001 (Figure 35) was due to the large number of orders we issued to require the metering of water use. The 1994 peak in penalties (Figure 35) is from efforts to deal with a large number of well-drilling violations, including proper licensing and well sealing.

For more information about the Water Resources Program, visit the Water Resources Program Web site at www.ecy.wa.gov/programs/wr/wrhome.html.

Table 14: Water Resource Program Enforcement Actions and Penalty Amounts.

YEAR	Notices	Orders	Penalties	Total Enforcement Actions	Total Amount of Initial Penalty Assessment
1985	4	25	13	42	$4,400
1986	27	60	13	100	$2,200
1987	38	37	7	82	$1,700
1988	12	19	21	52	$6,875
1989	10	14	19	43	$12,875
1990	4	19	10	33	$12,500
1991	0	38	12	50	$20,200
1992	0	48	17	65	$30,280
1993	0	65	15	80	$14,400
1994	0	63	51	114	$88,900
1995	0	89	6	95	$30,300
1996	0	18	3	21	$15,500
1997	0	9	4	13	$5,400
1998	0	17	7	24	$20,600
1999	0	26	7	33	$98,300
2000	0	102	11	113	$318,900
2001	1	490	6	497	$208,600
2002	0	31	4	35	$56,300
2003	3	29	1	33	$7,300
2004	2	15	1	18	$20,200
2005	1	17	2	20	$11,250
2006*	8	8	2	18	$2,100
2007	4	3	1	8	$200

* In addition, 924 court orders were issued in 2006.

Figure 35:

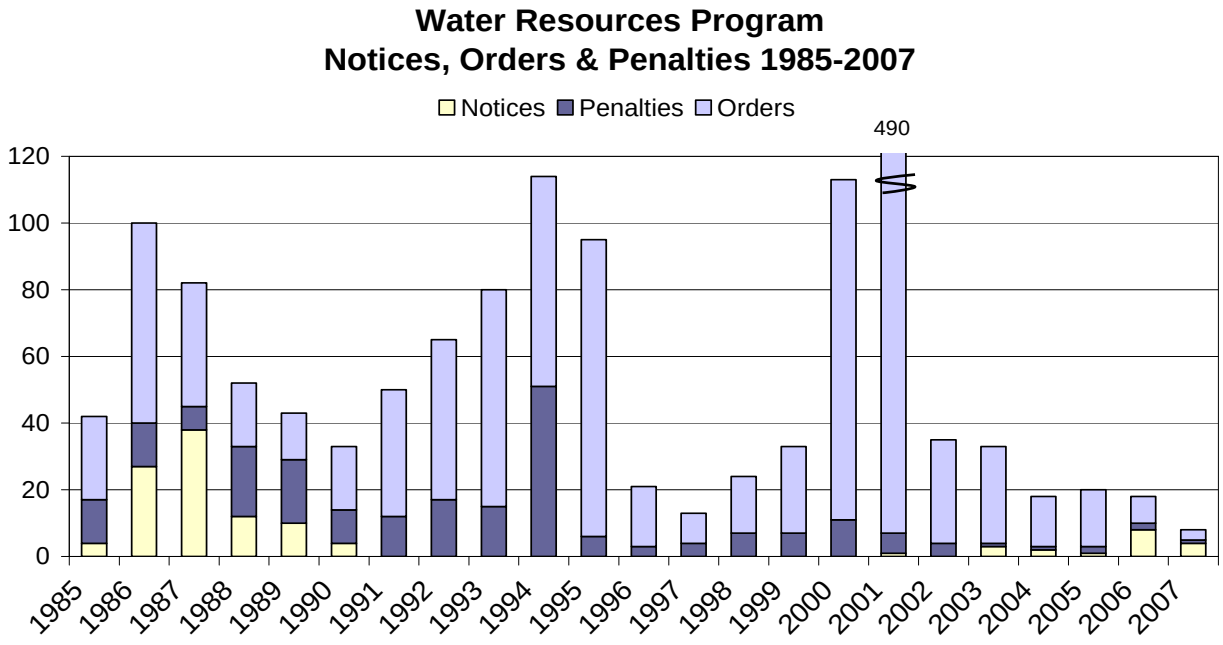
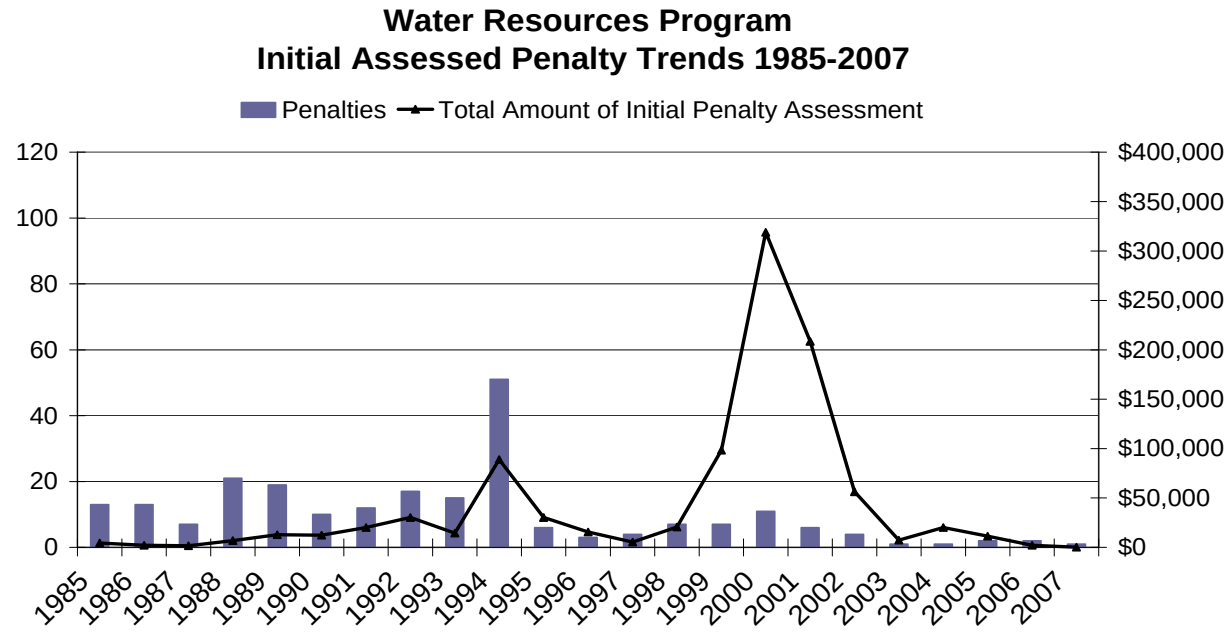


Figure 36:



Note: The penalty issued dates prior to 2004 are derived from the dates Ecology inspectors requested an enforcement/docket tracking number for the enforcement action not the date the action was taken.

Additional Ecology Enforcement Information

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

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