Water Quality Program
Annual
Compliance Report

Calendar Year 2004

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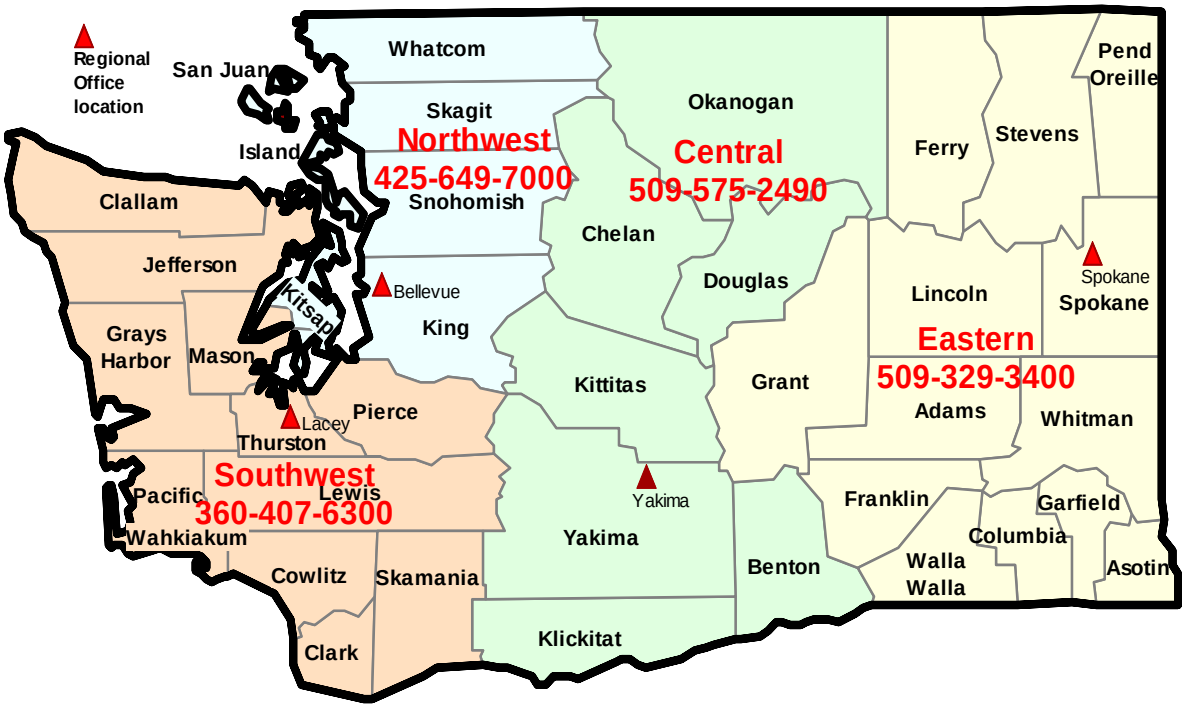

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Acknowledgements

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Executive Summary

This report represents a summary of compliance with water quality laws for calendar year 2004. The Washington State Department of Ecology's (Ecology) global Water Quality Program regulates public and private activities discharging to waters of the state that contribute to or cause pollution. The report provides an overview of the Water Quality Program. It discusses point source and nonpoint source pollution. It also explains both permit-related activities of the program and activities where compliance is sought through non-permitting means such as technical assistance, inspections, education, and enforcement.

Ecology hopes that this report informs the agency as well as the public. This report follows the format used for calendar years 2001, 2002, and 2003. We look forward to receiving constructive comments from people who use this information in an effort to improve reports in future years.

Washington State has over 4,800 industrial and municipal facilities that are issued permits to protect water quality. Ecology issues the permits to allow the industrial or municipal facilities to manage pollution that may be safely discharged to lakes, rivers, marine, or ground waters. Federal or state regulation requires about half of those facilities to provide monthly or quarterly reports (discharge monitoring reports or DMRs) about their discharge.

Those reports and inspections by Ecology showed that, in 2004, Washington had an approximate 98 percent compliance rate for water quality protection. The compliance rate is similar to recent years.

In 2004, the number of permits managed by staff continued to increase. There was a slight increase in the total number of permits while our staffing level remained the same.

Between 1997 and 2004, Ecology slightly reduced the time from the date of a violation to the date Ecology issued an order in response to the noncompliance.

The compliance rate for industrial facilities in calendar year 2004 rose to 98.6 percent for discharge monitoring reports. Ecology closely tracks the number of facilities with five or more violations per year. Out of the 78 facilities with five or more violations, 21 (or 27 percent) did not have some form of documented compliance action or enforcement. This is a reduction of 24 percent from calendar year 2000.

Municipal facilities' compliance rate with their discharge monitoring reports increased to 98 percent. Approximately 32 percent of facilities had five or more violations. Of the 109 municipal facilities that violated their permits five or more times, 23 percent of the facilities did not receive documented compliance action or enforcement.

The facilities covered by general permits that are required to submit discharge monitoring reports, reported a 98 percent compliance rate with permit requirements. For the 88 facilities (10 percent) with five or more violations, Ecology documented compliance or took formal enforcement actions at 171 sites. However, 10 percent of the facilities with five or more violations had no documented action taken.

In summary, for calendar year 2004, the total number of facilities under general permits continued to increase while incrementally the same number of staff resources was dedicated to ensuring compliance at these sites. The compliance rate remained high for municipal and

industrial facilities with individual permits based on the data in discharge monitoring reports. There were slightly fewer industrial and municipal facilities overall. The number of municipal facilities with five or more violations decreased. Ecology took more than 1,873 compliance or enforcement actions on facilities with permits.

The Water Quality Program in Washington

Introduction

Water quality in the state of Washington is protected by a number of different government agencies. Federal, state, county, and local city governments all work together to protect our waterways. The U.S. Environmental Protection Agency (EPA) provides oversight to the National Pollutant Discharge Elimination System (NPDES) permit program and is directly responsible for water quality issues on federal and tribal lands. The Washington State Department of Ecology (Ecology) issues permits for discharges that go directly into state surface and ground waters. Ecology also provides various levels of guidance, oversight, and direct enforcement on a wide range of other activities with the potential to harm the state's waterways. County and city governments protect state waters by ensuring the proper planning, design, and construction for land development activities in their own jurisdictions. Frequently, these governments engage in other projects to protect and enhance our lakes, streams, and rivers. Ecology's regulatory role is reviewed below.

Regulatory Authority

Authority for Ecology to regulate state and federal water pollution is contained in Chapter 90.48 RCW (Revised Code of Washington). The state of Washington began a formal pollution control program in 1945 with the creation of the Pollution Control Commission and enactment of Chapter 90.48 RCW. Washington adopted a wastewater discharge permit system in 1955. In 1971, Washington passed the Pollution Disclosure Act of 1971 (Chapter 90.52 RCW), which required that all dischargers provide a high level of wastewater treatment regardless of the quality of water to which they discharged (technology-based control). In 1972, the federal government also adopted a similarly principled law called the Water Pollution Control Act Amendments of 1972 (PL 92-500). Despite the name ("amendments"), it was essentially a new law. Since 1977, these amendments have been popularly called the Clean Water Act (CWA or "the Act"). In conjunction with our state laws, the Act forms the basis and framework for our water quality regulatory program today (Appendix Table 1). In 1973, Washington State's water pollution control law (Chapter 90.48 RCW) was amended to enable the state to apply to EPA for authority to administer the NPDES program. In November of 1973, Washington became one of the first states to be delegated by the federal government to administer the NPDES program.

Point Source Pollution

A wastewater discharge permit is a legal document issued by Ecology to control the discharge of wastewater to surface waters and ground waters. Surface water discharges are issued NPDES permits under Chapter 173-220 WAC. These are NPDES permits. Ground water discharges are issued state waste discharge permits under Chapter 173-216 WAC. These are our state waste discharge permits. Permits place limits on the quantity and concentrations of contaminants that may be discharged. Permits require treatment of wastewater or impose other operating conditions on dischargers to ensure that permit limits are met and water quality is protected. Permits may also set other conditions and requirements, including monitoring, reporting, spill prevention planning, and other activities.

One key element of the permit program is the concept of "self monitoring." Permit holders are required to representatively sample, accurately test, and truthfully report the quality of the wastewater they discharge. Ecology oversees permit compliance through its laboratory accreditation program, site inspections, review of submitted monitoring data, and review and approval of other permit-required documents.

Types of Wastewater Permits

There are two types of wastewater discharge permits. They are "individual permits" and "general permits." Both approaches are designed to satisfy the requirements for discharge permits under both the federal Clean Water Act and the state law governing water pollution control. They differ in how they define and resolve the wastewater issues of dischargers and how Ecology manages a permit. Extensive information on the permit writing process and related issues can be found at the Ecology Web site at
www.ecy.wa.gov/programs/wq/permits/index.html

Individual Permit

An individual permit is written for a single facility. In general, municipal wastewater treatment plants and businesses with industrial processes that generate wastewater are issued individual permits. Permit issuance includes writing a description of the individual facility (its processes and discharge characteristics) in a "fact sheet." This evaluation of the facility and legal requirements leads to a permit that specifies discharge limits, monitoring, and reporting requirements tailored to the individual facility. This allows a more precise fit between discharge characteristics and permit requirements, but it can be time consuming and expensive. This approach is best suited to permits for facilities that have little in common with other facilities and facilities that have unique processes and environmental concerns. Individual permits may be NPDES permits or state waste discharge permits. There were 781 active individual permits in Washington in 2004, and of these more than half are NPDES permits. There are copies of several individual permits and fact sheets that can be found at the Ecology Web site at
www.ecy.wa.gov/programs/wq/permits/index.html

General Permit

A general permit is written for a group of facilities that are very similar in processes and wastewater characteristics. When enough facilities with similar production processes generate similar pollutants, Ecology considers establishing a general permit. Such permits have one fact sheet that describes the group of facilities as a whole and the general characteristics of the wastewater. A single permit is written for all facilities that meet the requirements for coverage under the general permit. This approach is best suited to a group of facilities that have much in common, in which a standard set of requirements will achieve environmental protection. General permitting has been considered to be the less expensive and time-consuming approach; however, recent data indicate costs of permit development and implementation are higher than originally envisioned. In developing general permits, Ecology publishes information about the general permit in the state register. In addition, Ecology typically holds public workshops and hearings on new general permits. The types of general permits currently in effect are noted in Table 2; an extended table with permit definitions is in the Appendix.

Water Quality Permits as of December 31, 2004

PERMIT TYPE	TOTAL ACTIVE PERMITS
NPDES Major	79
NPDES Minor	361
State to Ground Water	171
State to POTW (publicly-owned treatment works)	170
NPDES Stormwater Construction General Permit	1331
NPDES Industrial Stormwater General Permit	1207
Municipal Stormwater General Permit	7
Boatyard General Permit	106
Dairy General Permit	124
Fish Hatchery General Permit	84
Fresh Fruit Packer General Permit	189
Water Treatment Plant General Permit	31
Sand and Gravel General Permit	922
Aquatic Pesticides General Permit	87

Nonpoint Source Pollution

Nonpoint source (NPS) pollution is pollution that enters a water body from water-based or land-use activities, including atmospheric deposition; surface water runoff from agricultural lands, urban areas, and forest lands; subsurface or underground sources; and discharges from boats or other marine vessels. Sometimes NPS pollution can be traced to several sources - sometimes it cannot be traced at all. Nonpoint source water pollution is recognized as a growing threat to the environment and public health.

Washington State has been a leader in addressing NPS pollution for many years. We already have many tools to achieve clean water through nonpoint source management. Some are regulatory, while the majority are voluntary programs. Watershed planning efforts have addressed problems in many parts of the state, using innovative approaches to management and funding. These innovative approaches may be hampered by the high cost of remedying existing problems, local land use decisions, the lack of multi-agency coordination and focus, and the lack of information concerning watershed processes and conditions.

More information on NPS pollution and Ecology's efforts to combat it can be found at www.ecy.wa.gov/programs/wq/nonpoint/index.html#Overview

Enforcement

The CWA and the state Water Pollution Control Act place the responsibility to comply with water quality laws and regulations on the facilities discharging. The Water Quality Program generally uses escalating levels of enforcement to bring facilities into compliance. This escalation may begin with technical assistance and progress through issuance of an order or civil penalty. Formal enforcement is just one of many compliance tools and is often not necessary to achieve compliance. When compliance actions are necessary, the following factors are taken into consideration:

- Seriousness of the violation
- Behavior of the discharger
- Program resources available for compliance

Water Quality Program staff perform their enforcement and compliance duties in accordance with a variety of federal and state laws and regulations. Ecology's Water Quality Program intends to respond to all permit violations.

Water Quality Enforcement Guidelines

The Water Quality Program ensures that a consistent statewide approach to compliance and enforcement activities is taken by following Ecology's *Compliance Assurance Manual*. These guidelines detail the principles and procedures followed in addressing violations. The manual describes various formal and informal tools available to staff as well as the proper use of each compliance tool.

Staff members are alerted to violations through a number of mechanisms. Permittees submit monitoring reports and other studies to allow the staff to determine compliance. Wastewater monitoring results, usually submitted monthly or quarterly are reviewed by Ecology staff. Ecology staff also identify violations or other compliance problems during the review of engineering reports, field inspections, and complaints. Depending on the severity of a violation or series of violations, staff respond by using either informal enforcement tools or formal tools, which are described below.

Informal Tools

When a violation is detected, Water Quality staff gather initial information through inspections, documented phone calls, or letters. The violation may result in a warning letter, technical assistance, or both. Permitted dischargers submit their Discharge Monitoring Report (DMR) and a discussion of the cause of any violation and actions taken to stop and prevent further violations. Another informal tool is the Notice of Correction (NOC), which notifies the violator about the laws and regulations broken, the steps needed to resolve the problem and prevent the possibility of a penalty, and the time frame during which corrective actions must be taken. Both the compliance/enforcement staff and facility managers use these informal tools to gain compliance. Compliance problems may also be addressed through the review and approval of engineering reports throughout the five-year permit cycle and during the permit renewal process.

Formal Tools

Compliance/enforcement specialists initiate formal enforcement for serious violations. This formal process may begin with the issuance of a Notice of Violation (NOV). The NOV requires the violator to provide Ecology with information on the steps that the permittee has taken to resolve a compliance problem. Upon learning more about a violation and the follow up actions taken by the violator, Ecology may issue an administrative order directing the violator to take specific actions to protect water quality. Ecology may issue a penalty of up to $10,000 per day, per violation based upon environmental and human health impacts, past compliance with water quality law, and other factors. Ecology may also consider criminal actions against violators.

The Appeal Process

Administrative orders and penalties may be appealed to the state Pollution Control Hearings Board (PCHB) for adjudication. The PCHB is a quasi-judicial hearings board established in 1970 to provide a more efficient procedure to handle appeals (Chapter 43.21B RCW). You may learn more about the PCHB at www.eho.wa.gov/PCHB.htm. Individuals receiving a penalty can petition Ecology directly within 30 days to eliminate or reduce the size of the penalty.

Certification Programs to Protect the Environment

Washington State recognizes the importance of having good scientific data on which to base environmental decisions, as well as the need for trained treatment plant operators in key positions that protect the environment. To accomplish this Ecology established an accreditation program for environmental laboratories and a certification program for operators of municipal wastewater treatment facilities. These two efforts contribute significantly to the state's environmental compliance efforts by assuring that operators are qualified to run facilities and that samples processed by labs are accurate, consistent, and meet the data quality objectives.

Operator Certification

Municipal wastewater treatment operators must undergo an in-training period and pass written tests to become certified to operate facilities. Operators must obtain continuing education credits to maintain certification. The certification program has an external advisory board comprised of 11 members.

Lab Accreditation

Ecology regularly inspects environmental laboratories through Ecology's Laboratory Accreditation Program. All laboratories performing tests to meet state permit requirements must participate in a program of state inspections and regular testing that cross-check the accuracy of their analyses. More information on the accreditation program and a list of approved laboratories, can be accessed at Ecology's Web site:
www.ecy.wa.gov/programs/eap/labs/labs_main.html

Technical Assistance

Water Quality Program staff offer technical assistance to permitted dischargers and others in the regulated community as an important function shared by all program staff. Staff members frequently work with permittees to prevent violations through the proper design of facilities and the development of corrective action strategies.

Municipal Roving Operators
Ecology's Water Quality Program has entered into a partnership with EPA to provide direct assistance to smaller municipal wastewater treatment plants through the use of two roving outreach specialists. These specialists travel from plant to plant in response to facility requests for assistance. They help ensure compliance with water quality laws and more effective plant operations. One outreach specialist serves facilities located on the west side of the Cascade Mountains and one serves facilities on the east side of the mountains.

Facility Managers
Ecology facility managers have a number of important responsibilities, including writing wastewater discharge permits, helping municipal permittees with questions regarding state grant and loan programs, reviewing reports, and performing facility inspections. Facility managers answer questions via telephone about water quality regulations. They meet with permit holders providing valuable assistance in their daily interactions with the permittees and community stakeholders.

Nonpoint Technical Assistance
Ecology's Nonpoint technical assistance program is described on page 26 of this report.

Monitoring Water Quality Compliance

Effluent Limits
Ecology establishes effluent limits and monitoring requirements in permits it issues to point source dischargers. Effluent limits cap the amount of a particular pollutant that can be legally discharged by a regulated facility. Effluent limits are derived in two ways: (1) technology-based effluent limits are based on the reasonable achievable level of wastewater treatment, and (2) water quality-based effluent limits are derived to prevent exceedance of water quality standards in the receiving water. Ecology expects full compliance with the effluent limits in the permits it issues.

Understanding Compliance Rates
A compliance rate represents the number of effluent limits in compliance, as a percent of the total "opportunities" for compliance. Opportunities are the number of effluent limits times the number of days reported within a given time frame. The compliance rate used in this report represents only one measure of environmental compliance, and the measure has its limitations. For instance, a higher compliance rate may not reflect the severity of environmental damage caused by the violations.

Enforcement Resources vs. Duties
In the early 1990s, Ecology changed the manner in which it performed compliance and enforcement by creating positions solely responsible for performing formal enforcement. Previously, permit writers and inspectors were responsible for all aspects of permit management, including compliance and enforcement. In order to effectively manage workloads and provide an objective analysis, Ecology dedicated 6.3 enforcement staff members in the four regions.

In 2003, as a result of budget reductions, Ecology lost three nonpoint compliance staff to the salmon recovery efforts in the state. Ecology also lost seven dairy inspectors who performed compliance and enforcement functions (Figure 1). As a result other nonpoint source staff occasionally perform enforcement as part of their job.

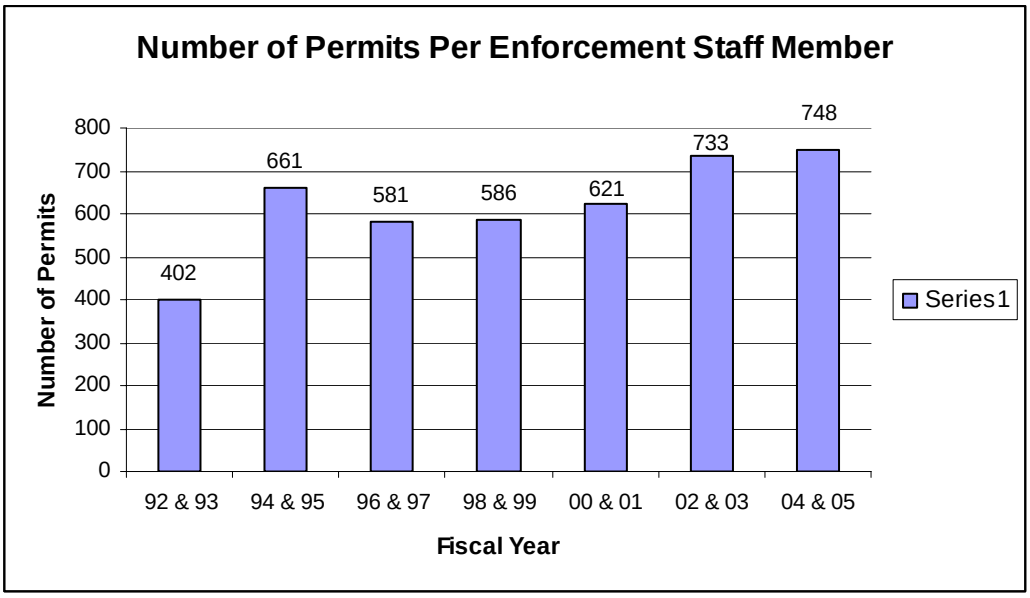

Figure 1

How the Program is Delivered

The Water Quality Program delivers its services through Ecology's four regional offices and through the industrial section of the Solid Waste Program. The industrial section is located at Ecology's headquarters offices.

The industrial section manages environmental permitting and compliance for the large industrial facilities of the state. These facilities include the oil, aluminum, and pulp and paper industries, several chemical manufacturers, and a variety of small industries associated with these larger industries, such as co-generation facilities. Although the industrial section is not within the water quality program, it uses the guidelines that are developed for water quality permits. The industrial section not only writes the water quality permits but, depending on the type of facility, also prepares for permits air emission units and hazardous and solid waste facilities.

Ecology's four regional offices deliver all other water quality services for point and nonpoint sources within the state. The four regions are identified in the front cover of this report. The work is further divided within each region into municipal and industrial dischargers. In some cases a general permit may be issued from the Ecology headquarters; however, compliance and enforcement for these sites are the responsibility of the regions.

How Timely Is the Program?

One measure of program effectiveness is the time required to issue an enforcement action after detection of a violation. Generally, enforcement actions or compliance responses should be taken within 45 days of the date of detection of the violations. Initial formal enforcement action (including penalties and administrative orders) should be taken as soon as possible, but no later than 90 days from the date of violation detection, unless adequate justification for delay exists. For significant violations formal enforcement response must be taken as expeditiously as possible, but no later than 30 days from date of detection. The timeliness of enforcement action is based on a pattern of recurring behavior after technical assistance has been provided is difficult to measure. Ecology staff work to develop performance measures that will more accurately reflect the effectiveness of the program.

Industrial Facility Compliance

Permit Universe/Complexity

A wide variety of industries and businesses that discharge pollutants to state waters are required to obtain a wastewater discharge permit. This includes large industries such as oil refineries, aluminum smelters, and pulp and paper processors. Individual permits may also be required for smaller industries such as food processors, metal finishers, and circuit board manufacturers. Businesses whose waste is essentially the same character and strength of household waste that discharge to a wastewater treatment plant (WWTP) do not need a permit. Figure 2 identifies the number of facilities with individual permits managed by each region and the industrial section between 2000 and 2004.

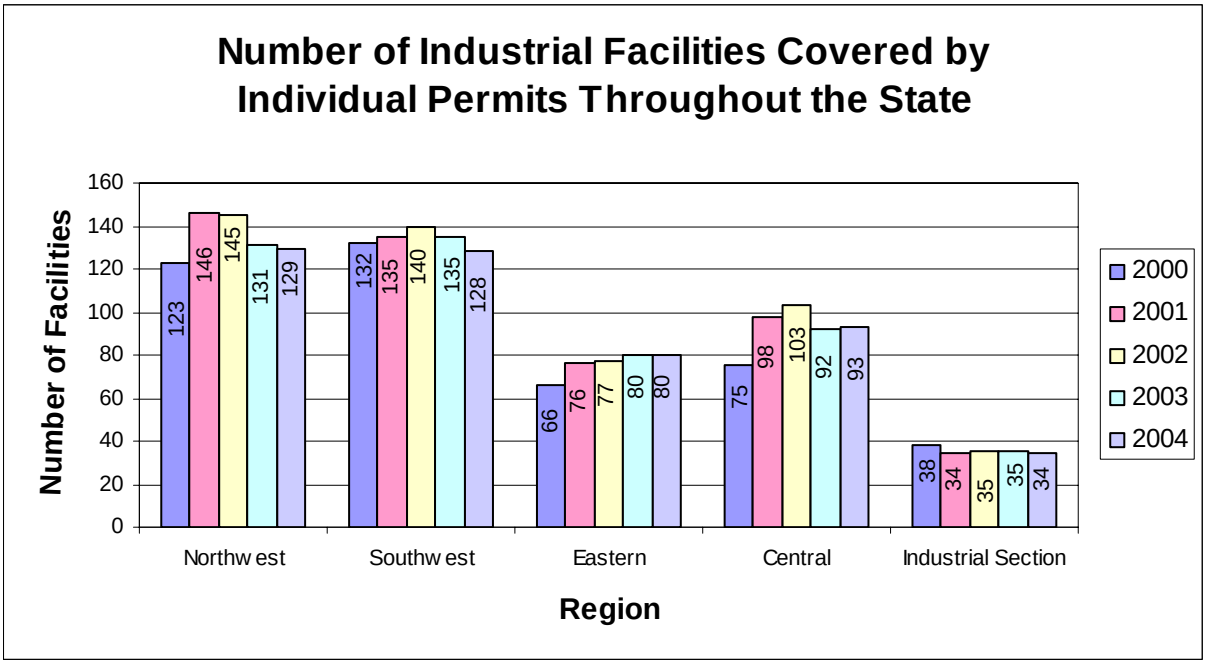

Figure 2

Effluent testing varies greatly among industrial facilities. The scope and frequency of testing is based largely upon the size and complexity of an industry and its potential to harm the environment. Some facilities may conduct only quarterly testing, whereas more complex facilities have daily monitoring requirements. Unlike operators at municipal wastewater treatment plants, the operators of treatment equipment at industrial facilities are not required to be certified by the state.

Ecology facility managers ensure compliance at the permitted facilities they manage and working collaboratively with regional enforcement staff. Facility managers may use the various enforcement tools such as available under Chapter 90.48 RCW, as well as "informal" enforcement tools consisting of technical assistance calls and visits, warning letters, and Notices of Correction.

What Violations Occurred

Figure 3 shows that there were 19,474 more compliance opportunities in 2004 than in 1999. Even so, 199 fewer violations exceeded 20 percent of the permitted effluent limit in 2004 than in 1999.

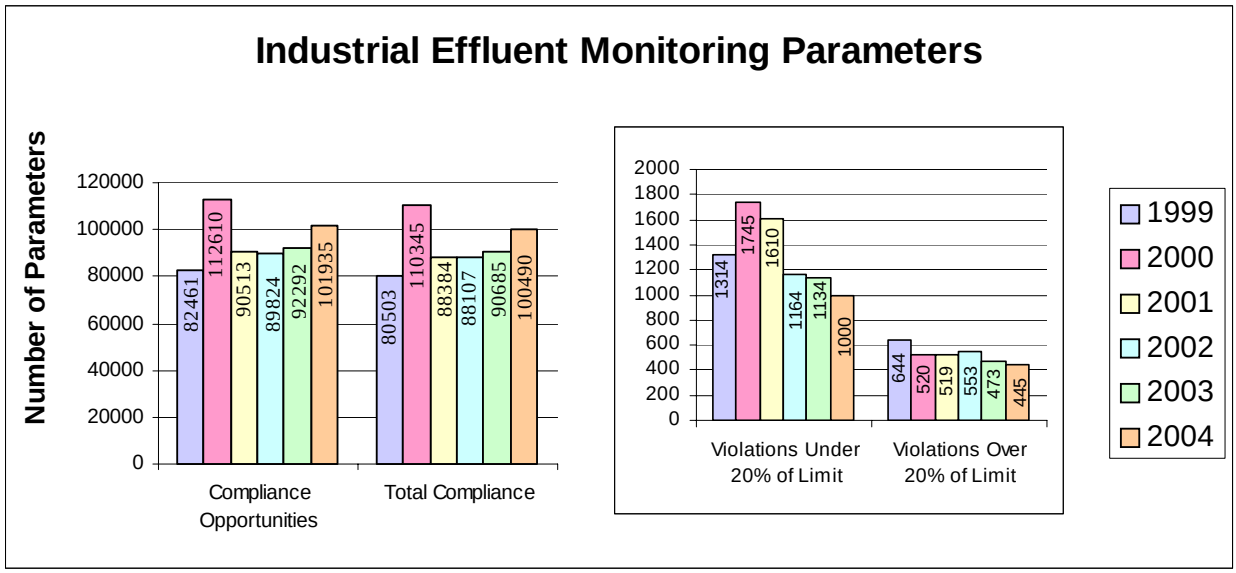

Figure 3

The eastern region had the lowest industrial compliance rate at 98.2 percent (Figure 4). In eastern region, the compliance rate has been improving since 2000.

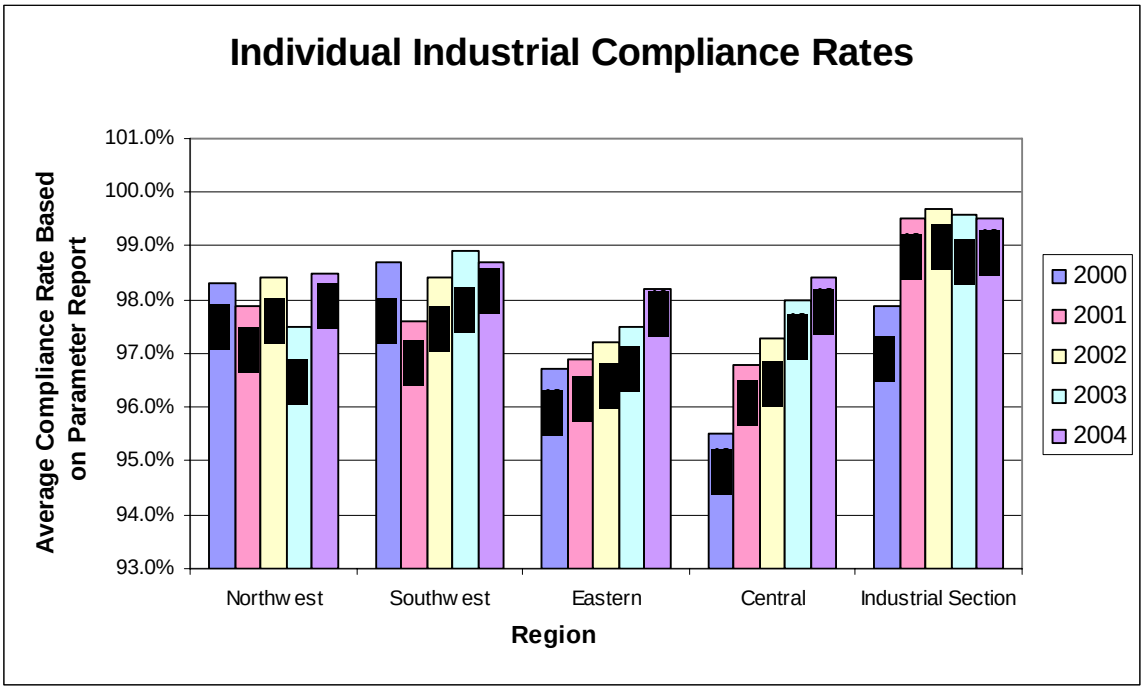

Figure 4

Statewide the compliance rate has increased over the last five years. In 1995, the industrial compliance rate was 89.5 percent compared to the 2004 compliance rate of 98.6 percent, an increase of nearly 10 percent in compliance over nine years (see Figure 5).

Figure 5

Figure 6 shows that 4256 industrial facilities were required to submit discharge monitoring reports (DMRs) in 2004, compared to 480 facilities in 1999. Despite the decrease of facilities submitting DMRs, the numbers of facilities with five or more violations increased from 71 in 1999 to 78 2004.

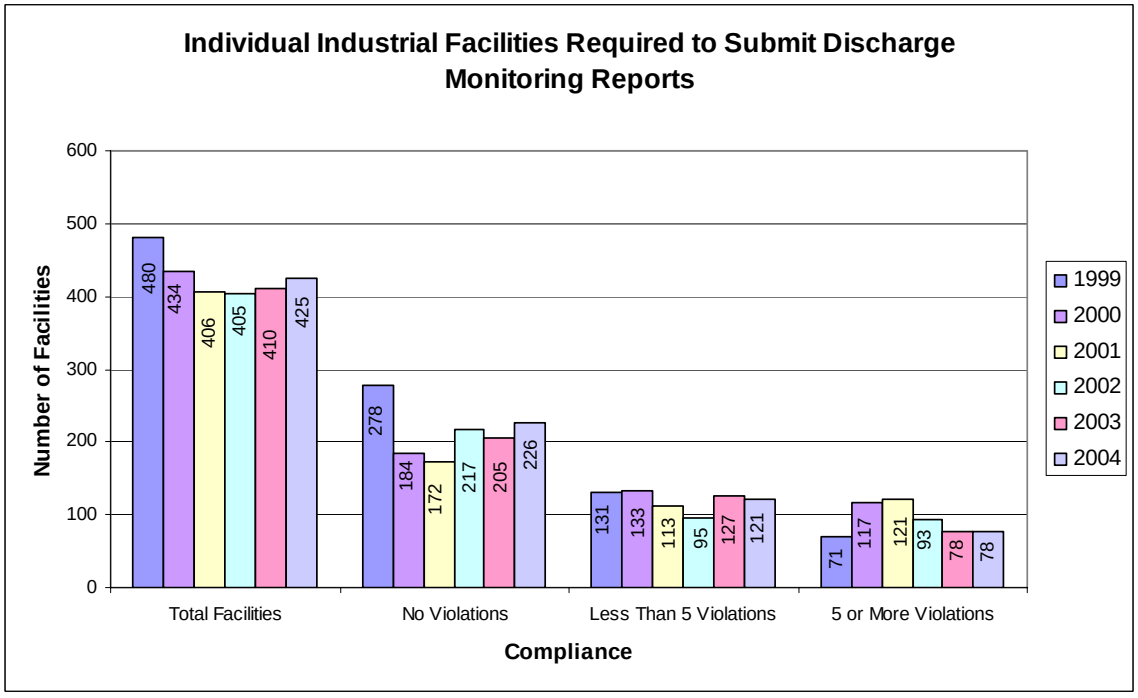

Figure 6

Ecology focuses on facilities with five or more violations as an indicator of repeat violators, with a goal of decreasing the number of these facilities. The Southwest Regional Office had the greatest number of individually-permitted industrial facilities. Of these, 14 percent had five or more discharge violations during the calendar year 2004. Of the 74 industrial facilities required to submit discharge reports in the eastern region, 31 percent had five or more discharge violations (Figure 7). The northwest region reduced the percentage of facilities with five or more violations from 24 percent in 2000 to 9 percent in 2004.

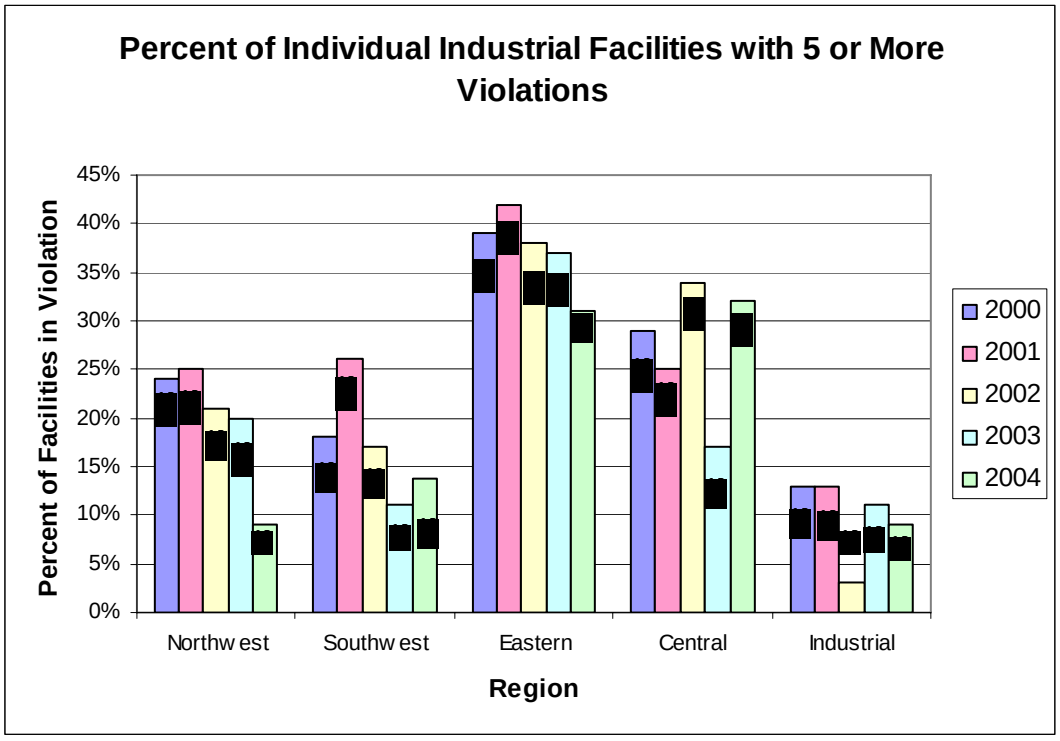

Figure 7

What Actions Were Taken

In 2004 Ecology took 503 formal and informal enforcement actions to improve industrial facility compliance in 2004.

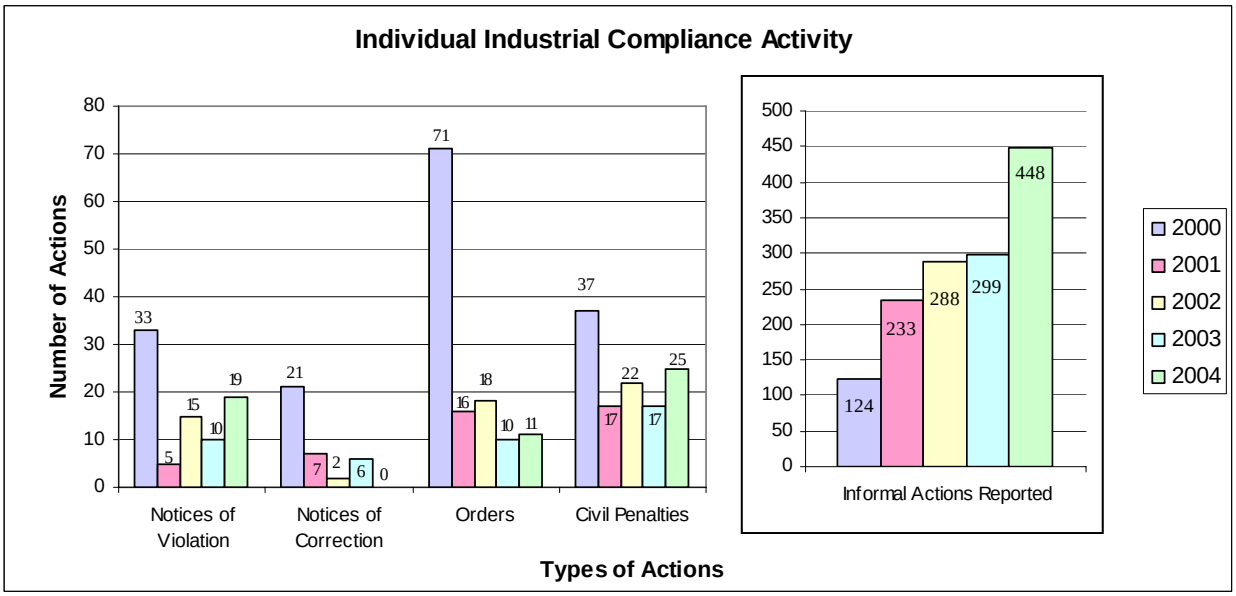

Figure 8

Of the 78 facilities that reported five or more violations Ecology took the following action:

- 19 formal actions 1
- 168 informal actions
- 21 facilities received no enforcement action (see Figure 9).

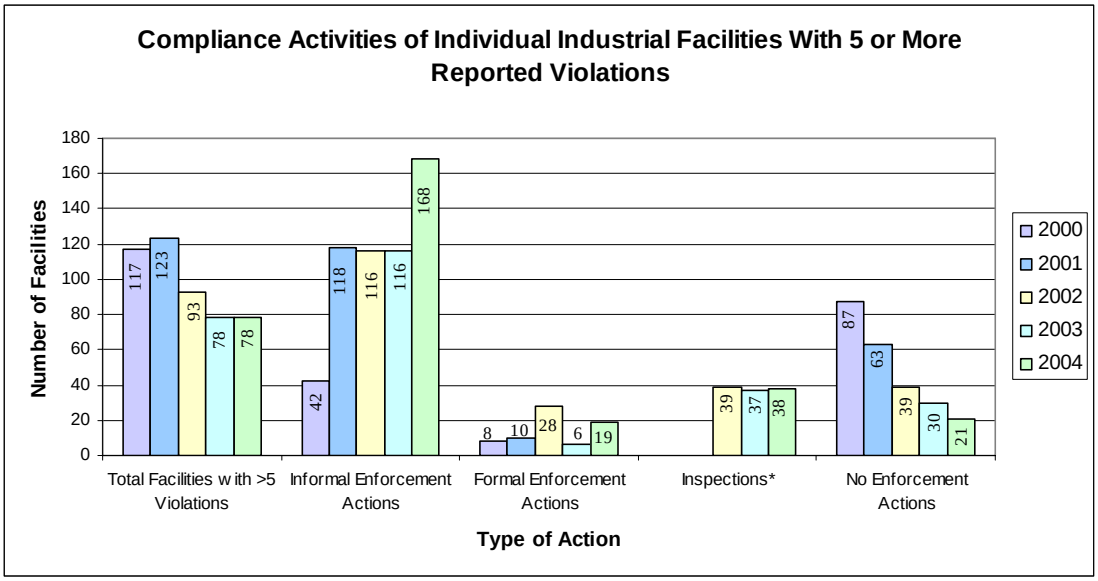

Figure 9

*Note that Ecology began tracking facilities with five or more violations starting 2002.

Municipal Facility Compliance

Permit Universe/Complexity

Municipal wastewater treatment plants (WWTPs) that discharge to surface waters, apply wastewater to land, or discharge more than 14,500 gpd (gallons per day) to subsurface waters are required to have a permit to discharge.

WWTPs use a combination of biological, physical, and chemical processes to treat the wastewater generated in homes and businesses. The size of WWTPs varies from small communities to large cities. Washington State has a total of 317 WWTPs that are designed to treat from 1,200 to more than 215 million gallons per day. The greatest numbers of municipal facilities are located in the eastern and southwest regions (see Figure 10).

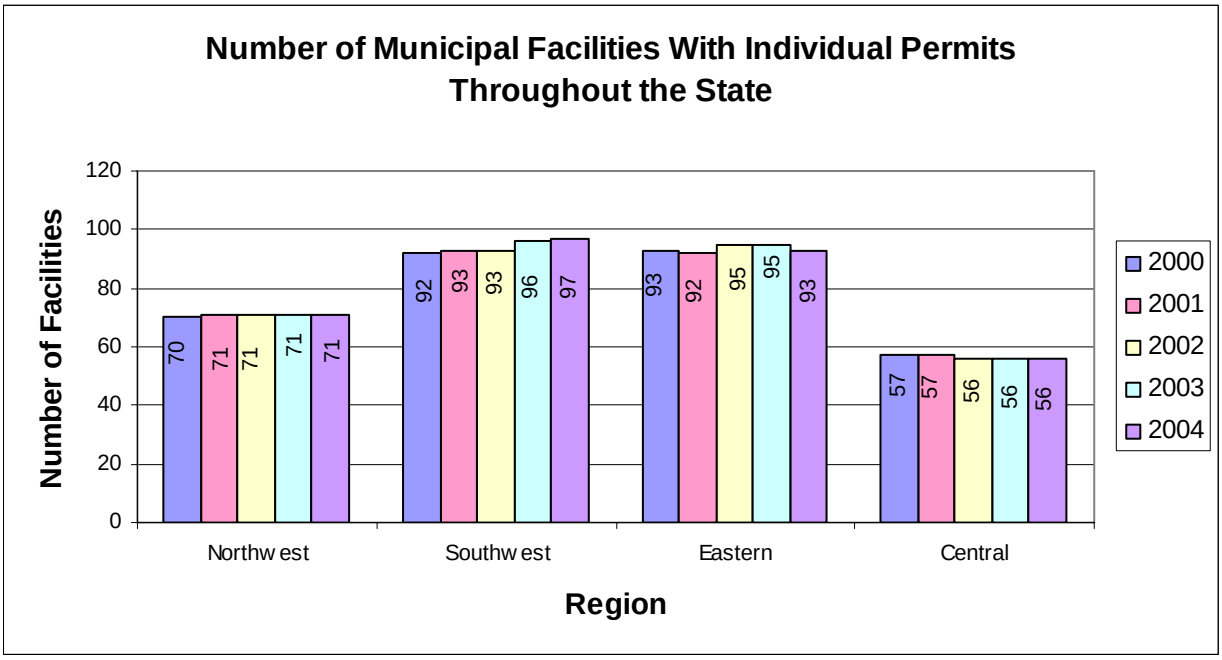

Figure 10

On average, each person generates between 70 and 100 gallons of wastewater per day. Local government (e.g., a city, a county, or a local sewer district) operates most municipal WWTPs. Smaller numbers of plants are operated by state agencies (e.g., correction centers, state parks), private communities, and private businesses.

WWTPs vary in complexity based on differences in the number and type of mechanical components and processes at each facility. However, due to the similar nature of the wastes, the types of monitoring conducted at facilities are generally the same. Small facilities typically perform a minimum of 60 laboratory tests per month on the treated wastewater, whereas a larger facility may perform well over 120 analyses per month. In addition, these WWTPs must also perform internal tests and may perform biological studies to ensure their discharges comply with

state laws and regulations. For most facilities, Ecology's compliance and enforcement staff and permit managers review data on a monthly basis and conduct periodic inspections.

Two dedicated Ecology positions provide technical assistance statewide to small facilities on request. Although these staff cannot perform enforcement, they are required to report any compliance problems they observe during their technical assistance visits. As with other permitted facilities, the majority of compliance activities involve phone calls, warning letters, technical assistance, engineering review and assistance, and inspections.

Ecology may impose sewer moratoria on overloaded plants that are unable to comply with permit requirements. Moratoria, or sewer connection bans, prevent or limit hookups to a sewer system when the system exceeds its capacity or receives more waste than it was designed to treat. During 2004, there were 12 moratoria in place state-wide.

What Violations Occurred

For individual municipal facilities the number of compliance opportunities increased from 1999 to 2004 by 13,853. Compliance increased proportionally. The number of violations that exceeded 20 percent of the permitted limits decreased slightly in 2004 (Figure 11).

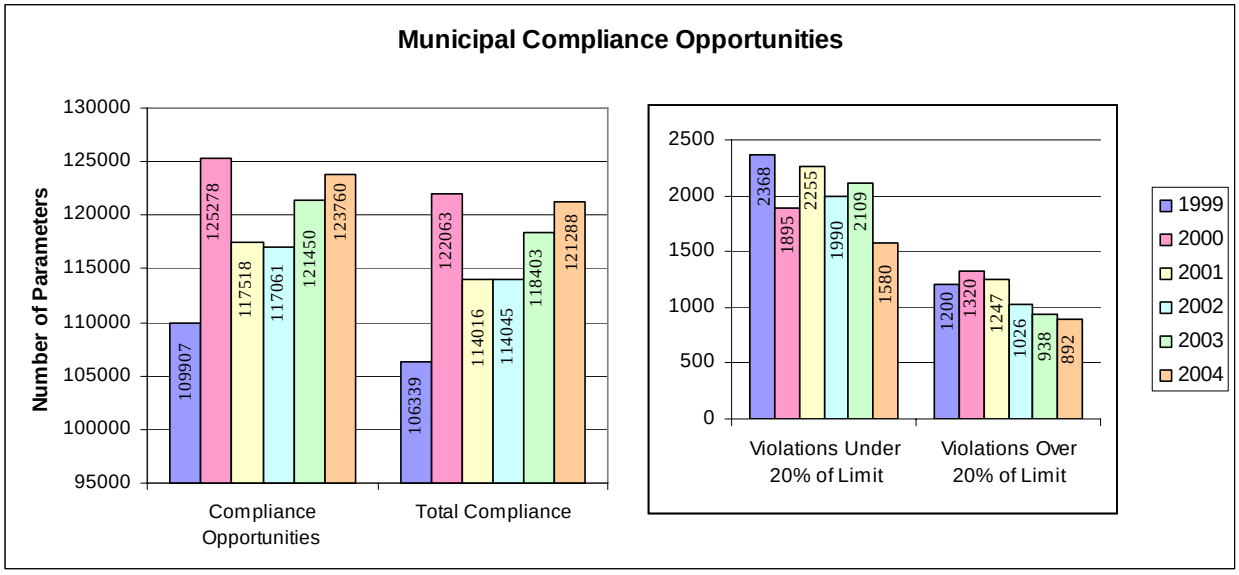

Figure 11

The highest compliance rate (99.1 percent) occurred for facilities in the Northwest Regional Office. The eastern region had the lowest municipal compliance rate at 95.7 percent; however, that represented a 2.1 percent increase since 2001 (Figure 12).

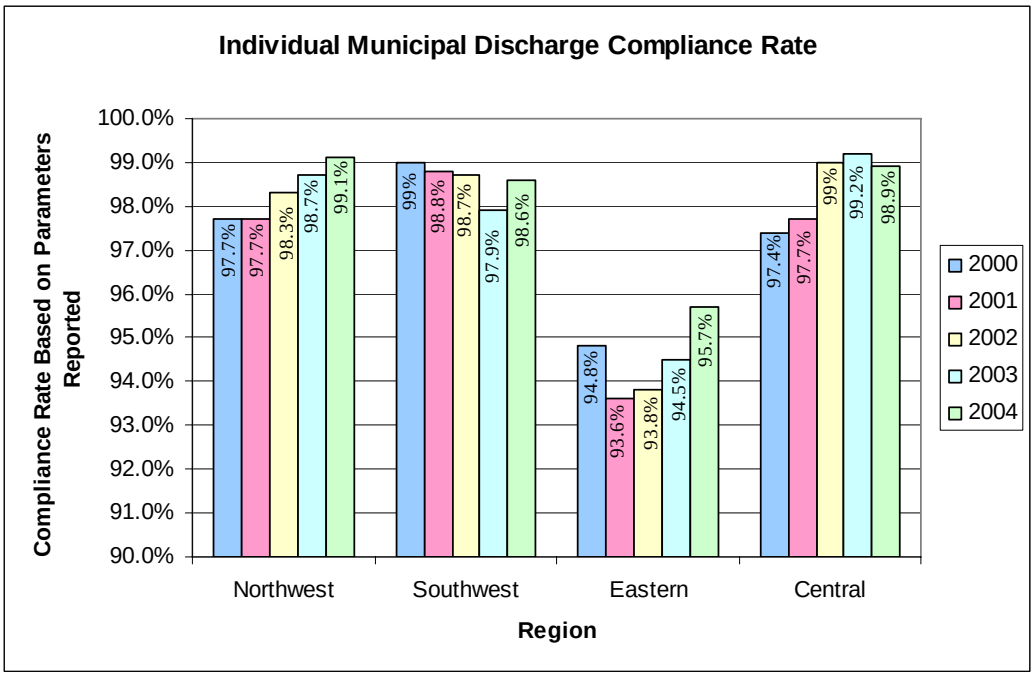

Figure 12

Generally, the statewide compliance rate for individual municipal facilities has increased. The municipal compliance rate increased from 92.7 percent in 1996 to 98 percent in 2004, an increase of 5.3 percent in compliance over eight years (Figure 13).

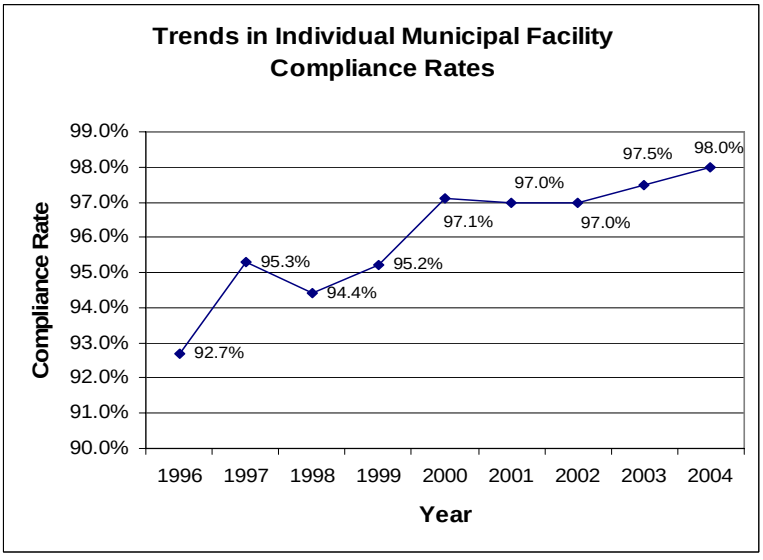

Figure 13

Ecology focuses resources on facilities with five or more violations per year to improve compliance. The number of facilities with five or more violations or more decreased from 157 in 1999 to 109 in 2004 (Figure 14).

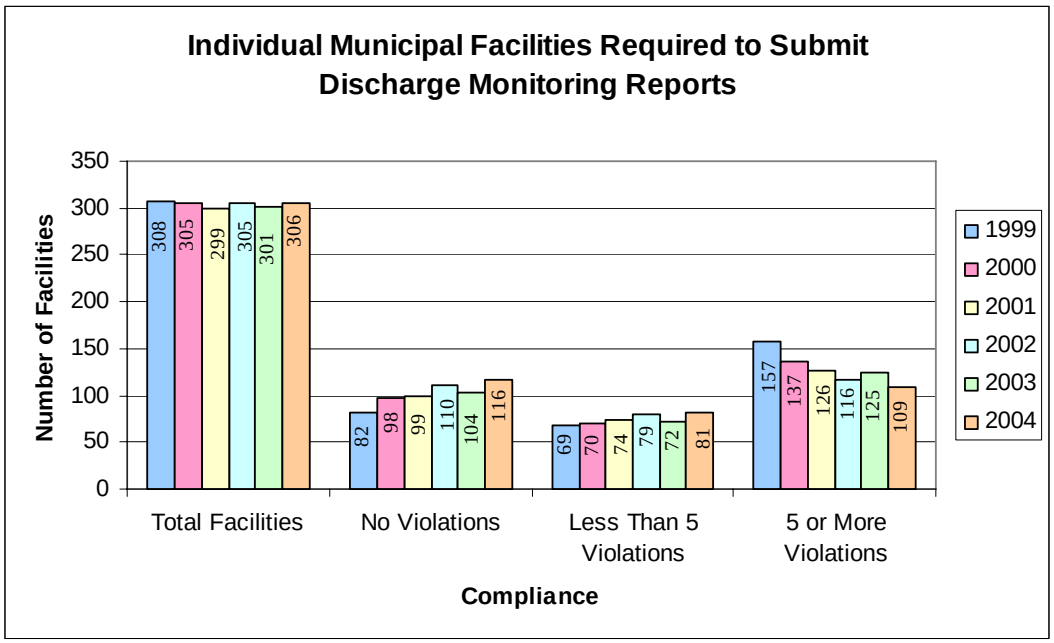

Figure 14

The highest percentage of violating municipal facilities occurred in Ecology's eastern region (Figure 15). Of the 87 municipal facilities required to submit DMRs in 2004 in the discharge reports in the Eastern region, 60 percent had five or more discharge violations. Only 21 percent of the northwest region's 70 facilities had five or more violations.

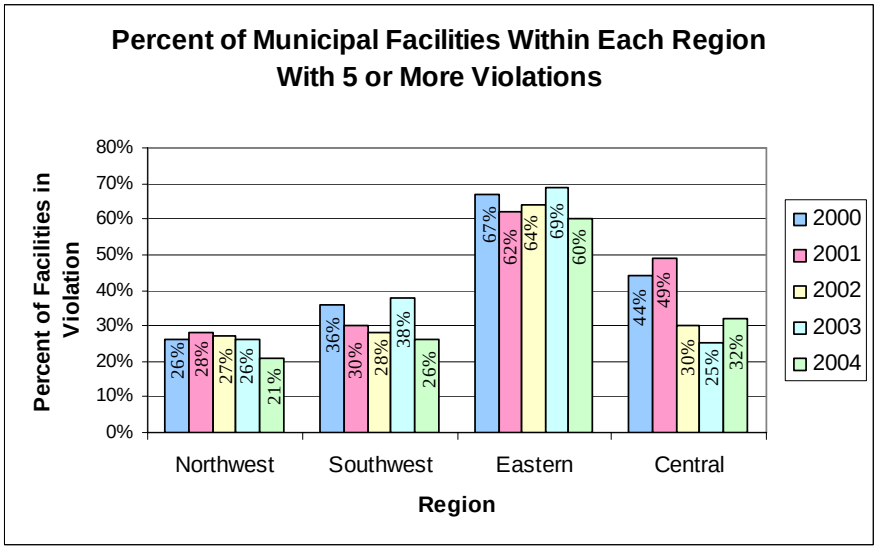

Figure 15

What Actions Were Taken

In 2004, 615 enforcement actions were taken to improve municipal compliance. In addition, 12 moratoria were in place, up one from 2003. (Figure 16)

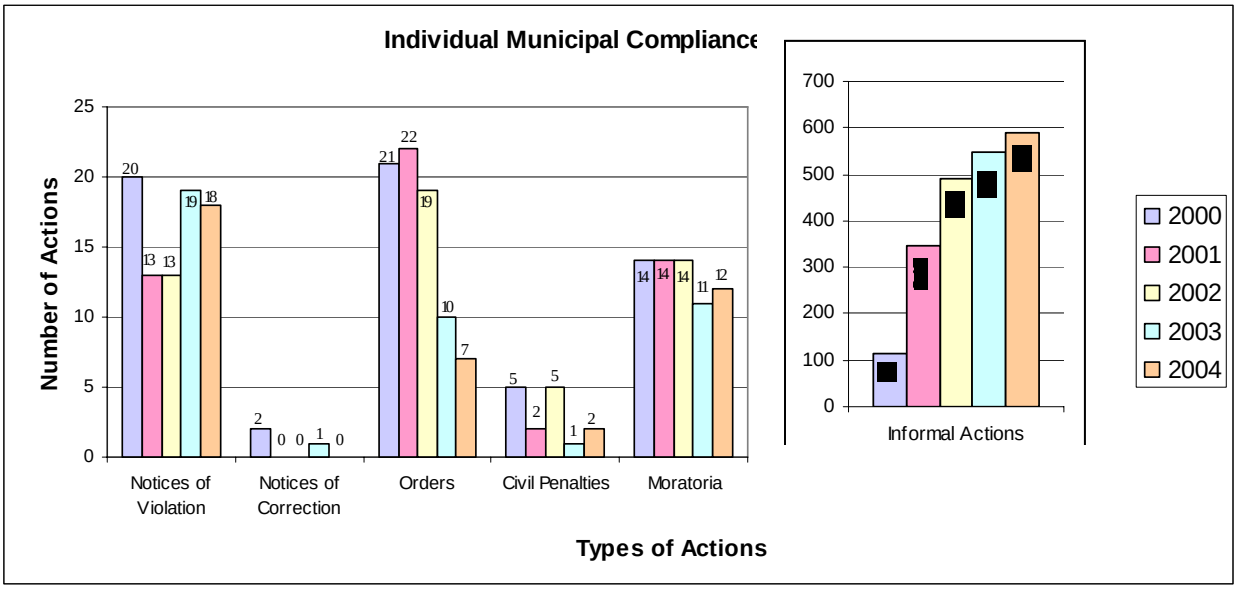

Figure 16

A total of 109 municipal facilities reported five or more violations in 2004. There were 35 facilities in violation that did not receive any enforcement actions (Figure 17). Please note that inspections for facilities with five or more violations are a new category for 2002.

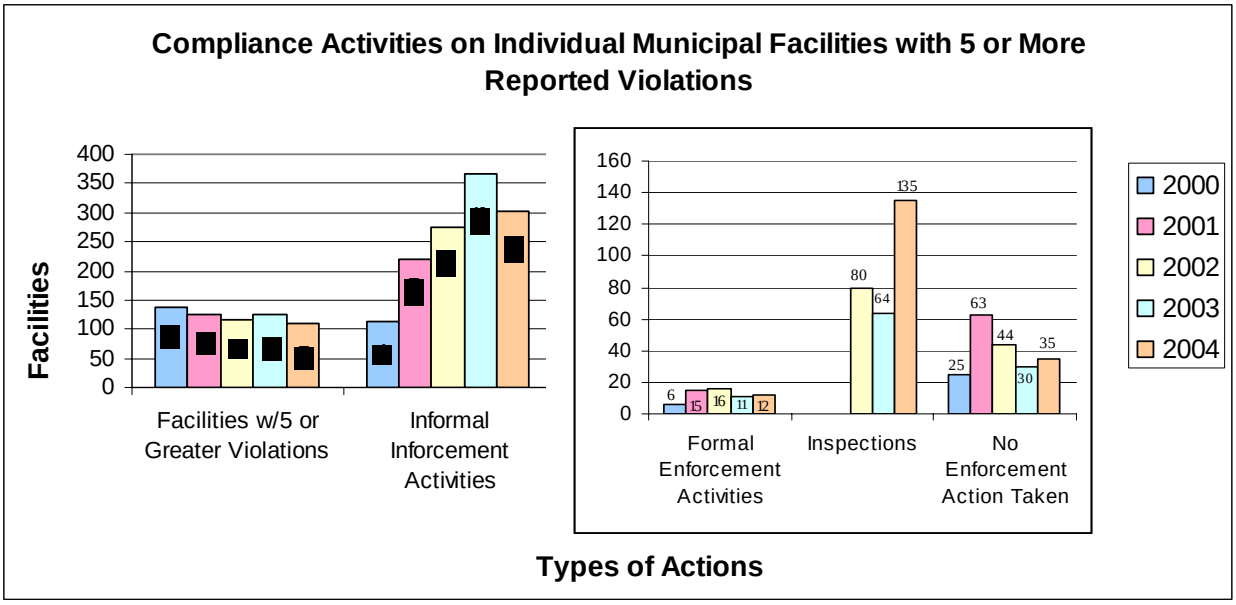

Figure 17

General Permit Compliance

Permit Universe/Complexity

Ecology develops general permits (NPDES and/or state wastewater discharge permits) an entire category of discharger. Facilities covered by general permits typically have simple manufacturing processes, a limited number of pollutants, and pollution controls that often use best management practices (BMPs) rather than a complex treatment process. General permit holders may submit monitoring data on a monthly or quarterly basis. These include:

- Fish hatcheries
- Water treatment plants
- Sand and gravel operations
- Boatyards
- Fruit packing plants

The other general permits (construction and industrial stormwater and dairies) did not conduct sampling in 2004, but were monitored by site inspections. Compliance by construction and industrial stormwater permit holders is verified only through site inspections. The number of general permits by type can be seen in Figure 18. The aquatic pesticides general permits were new in 2002.

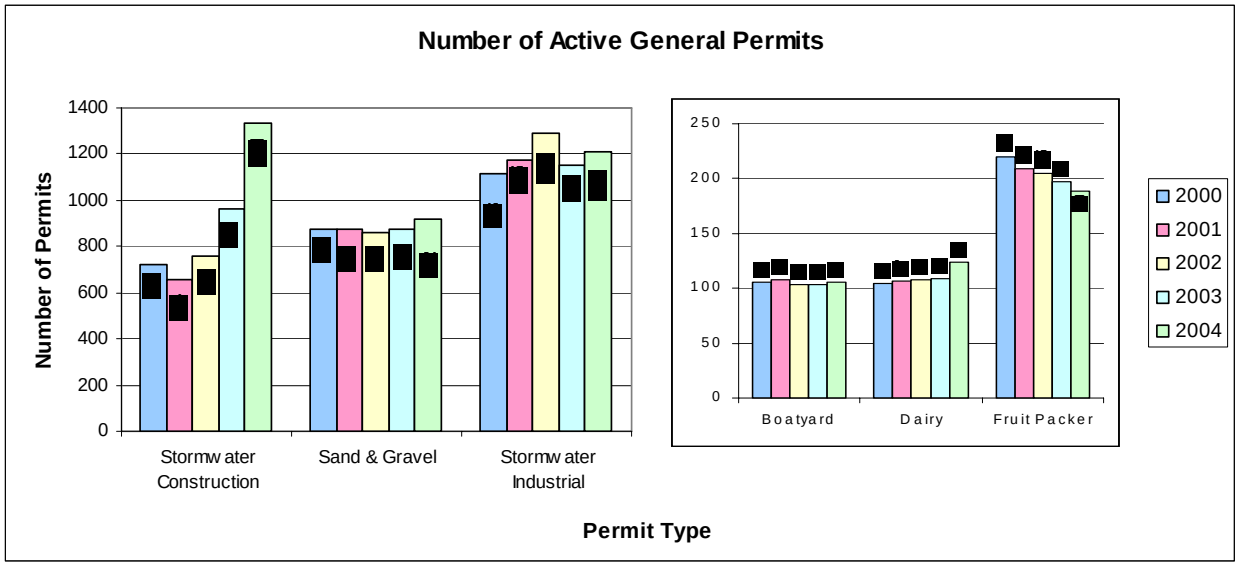

Figure 18

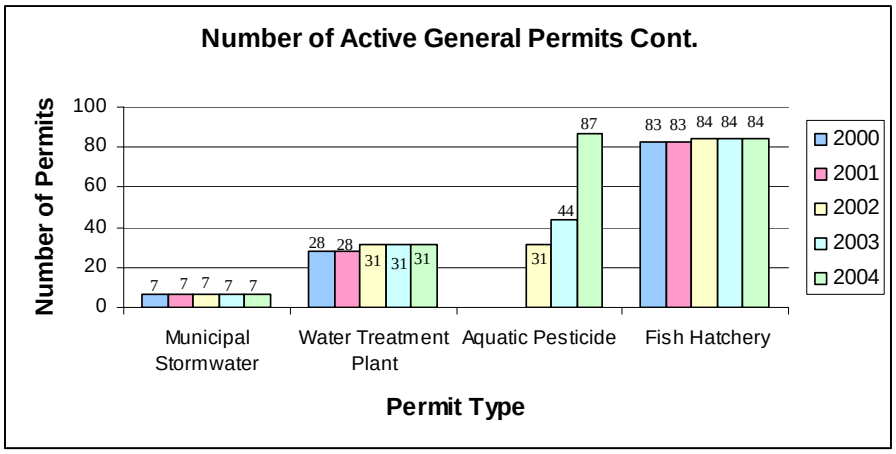

Figure 18

Ecology regulated dairies until July 1, 2003, when functions pertaining to the regulation of dairies and Animal Feeding Operations were transferred to the Department of Agriculture. This transition phase will continue until the Department of Agriculture receives full NPDES delegation from the US EPA. As part of the transition, Ecology completed enforcement actions that were in progress at the time of the transition. Ecology continues to perform enforcement on non-point facilities, but enforcement on permitted or point source facilities is conducted by the Department of Agriculture. For more information on the Department of Agriculture's program, including enforcement, see their web site at: ***http://agr.wa.gov/FoodAnimal/Livestock-Nutrient/Livestocknutrient.htm***.

What Violations Occurred

Figure 19 illustrates the number of compliance opportunities available for general permits.

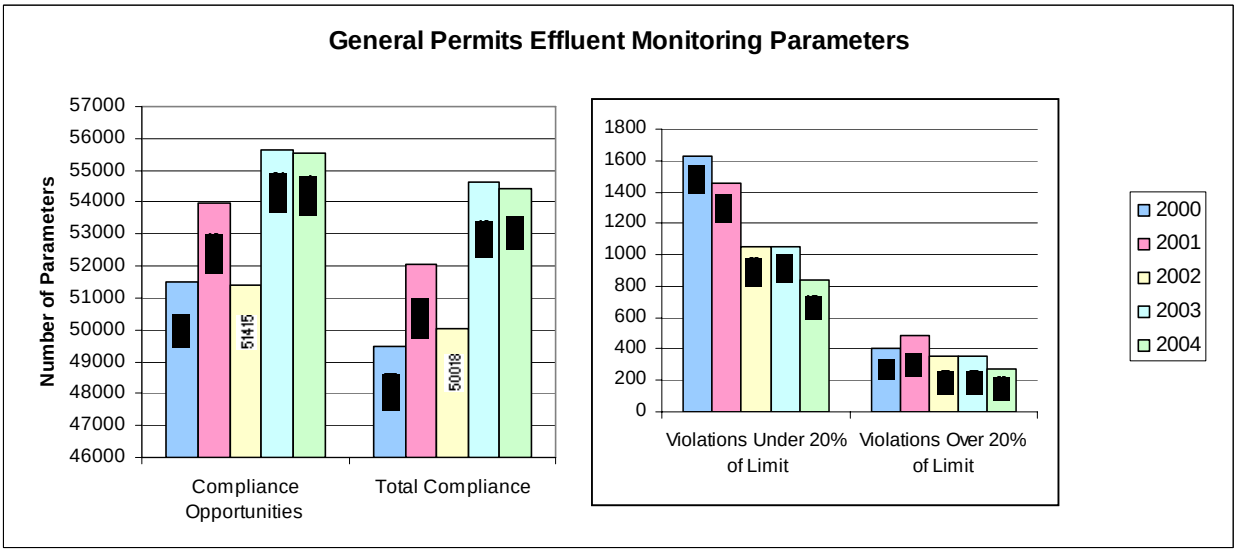

Figure 19

The percent of violations for general permittees that submit DMRs was lower than that for individual permittees. In examining these general permits by region (Figure 20), all regions have a compliance rate of 97.5 percent or greater. (Mobile facilities are facilities such as sand and gravel operations that move from site to site and between regions).

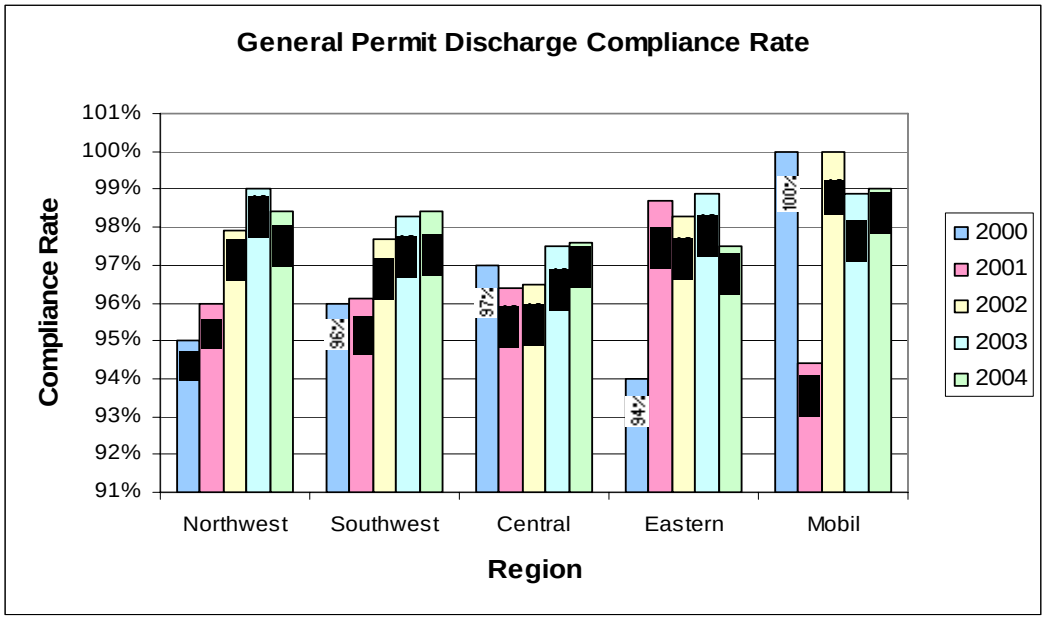

Figure 20

For general permits requiring DMRs, the compliance rate remained at 96 percent between 1998 and 2001 (Figure 21). Since 2001, the compliance rate has increased by two percent.

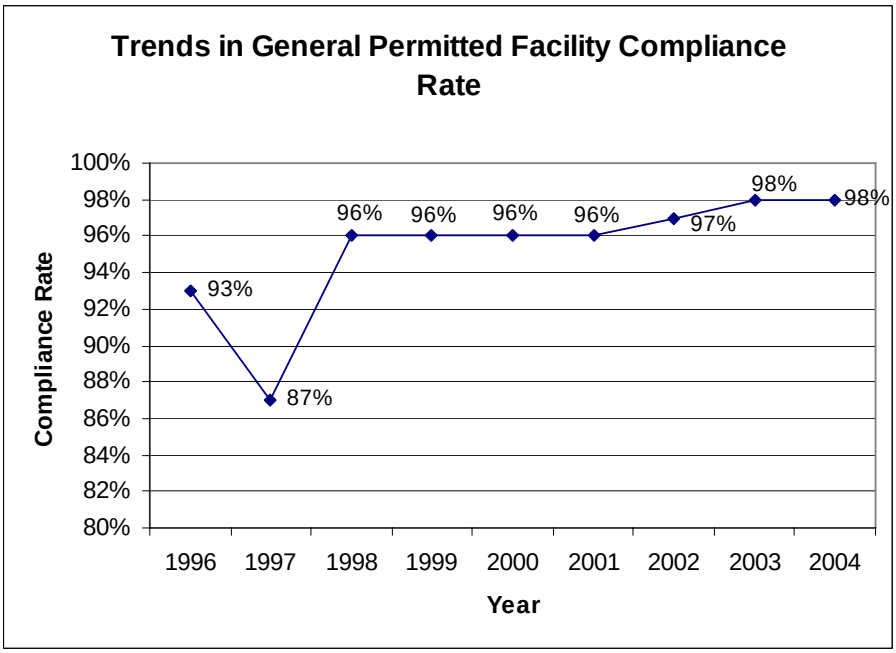

Figure 21

Of the 853 facilities covered by general permits with DMRs, 632 maintained 100 percent compliance. Sixty-eight facilities had five or more violations in 2004 (Figure 22).

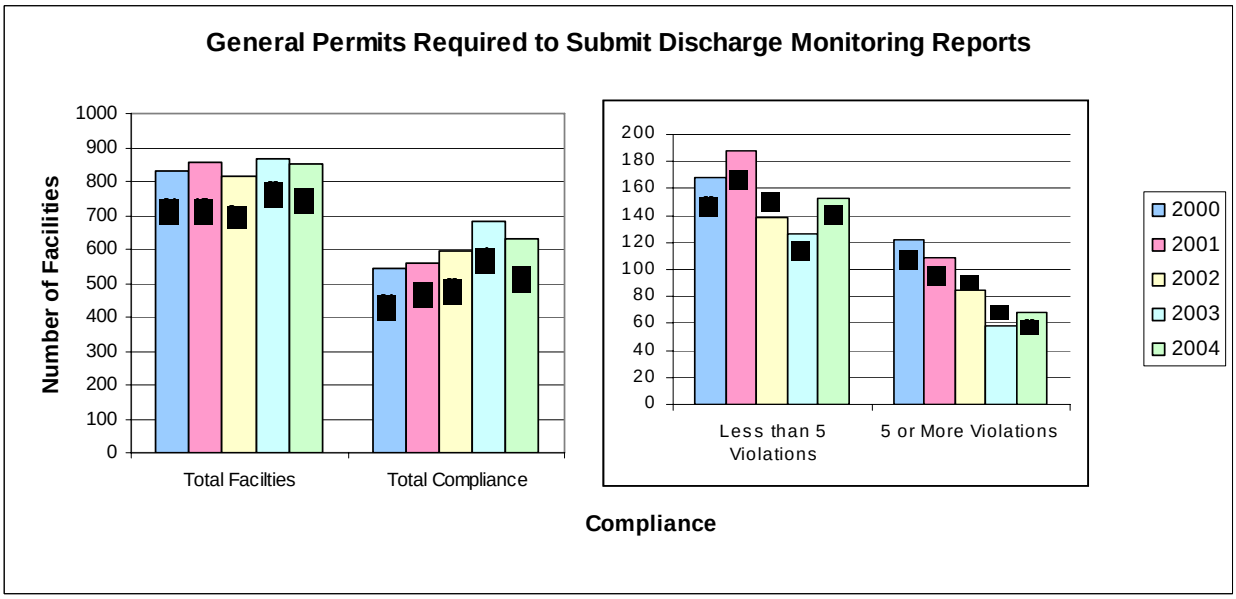

Figure 22

Facilities covered by general permits have a lower percentage of facilities with five or more violations compared to facilities with individual permits. Currently Ecology's central and southwest regions had the greatest numbers of facilities with five or more violations. The eastern and northwest regions had the fewest (Figure 23).

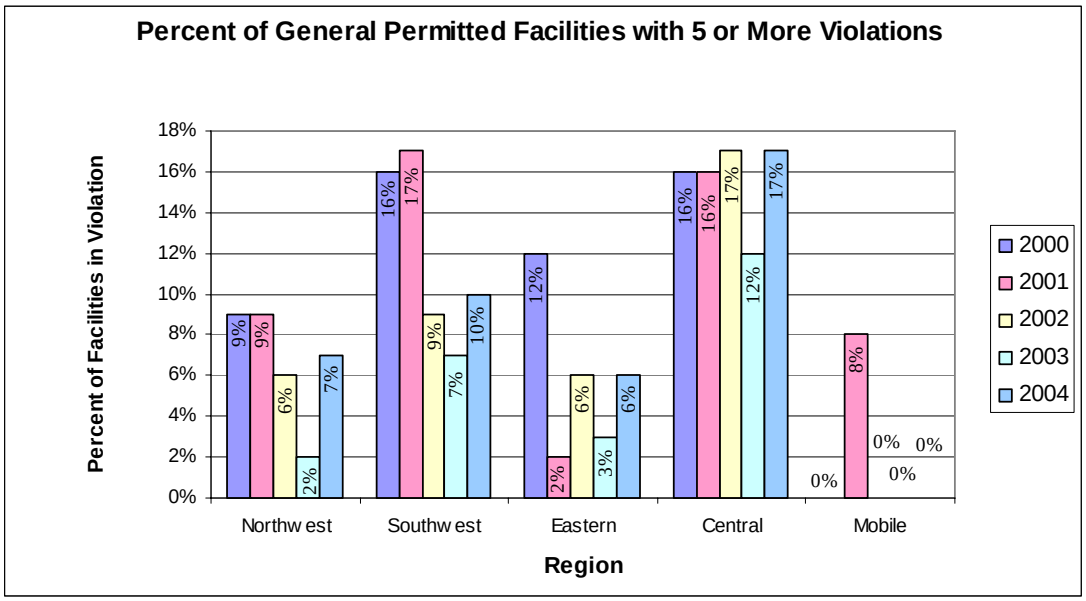

Figure 23

What Actions Were Taken

Ecology took a total of 755 enforcement actions to improve general permit compliance in 2004. These actions were comprised primarily of informal compliance actions. (Figure 24).

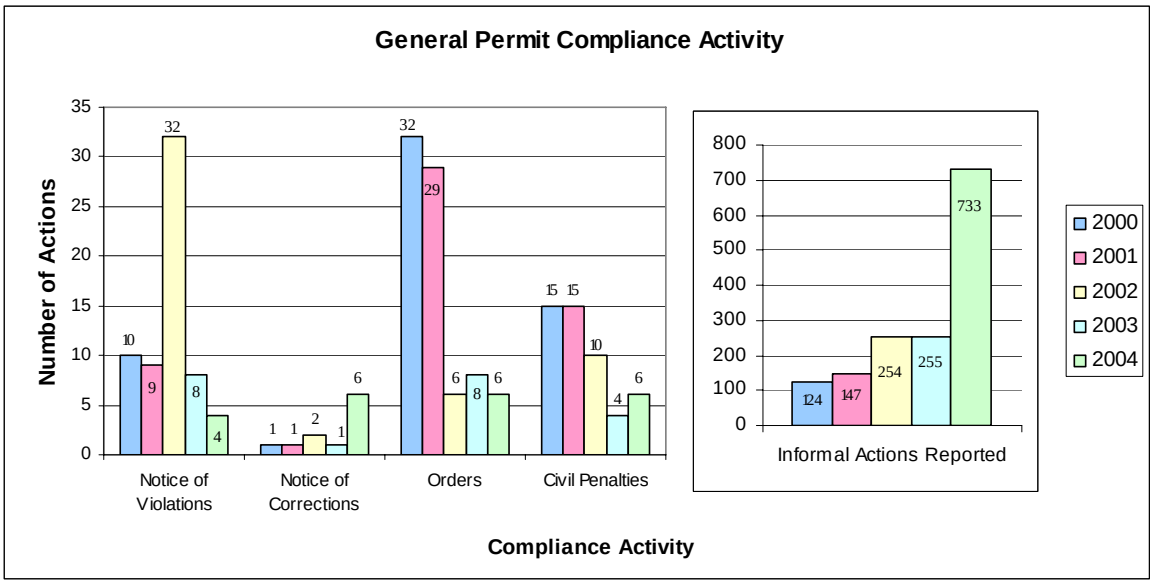

Figure 24

Figure 25 shows facilities with five or more violations. Thirteen percent had no documented enforcement action, a reduction from 87 percent in 2000. (Note that the category for inspections for facilities with five or more violations was new in 2002).

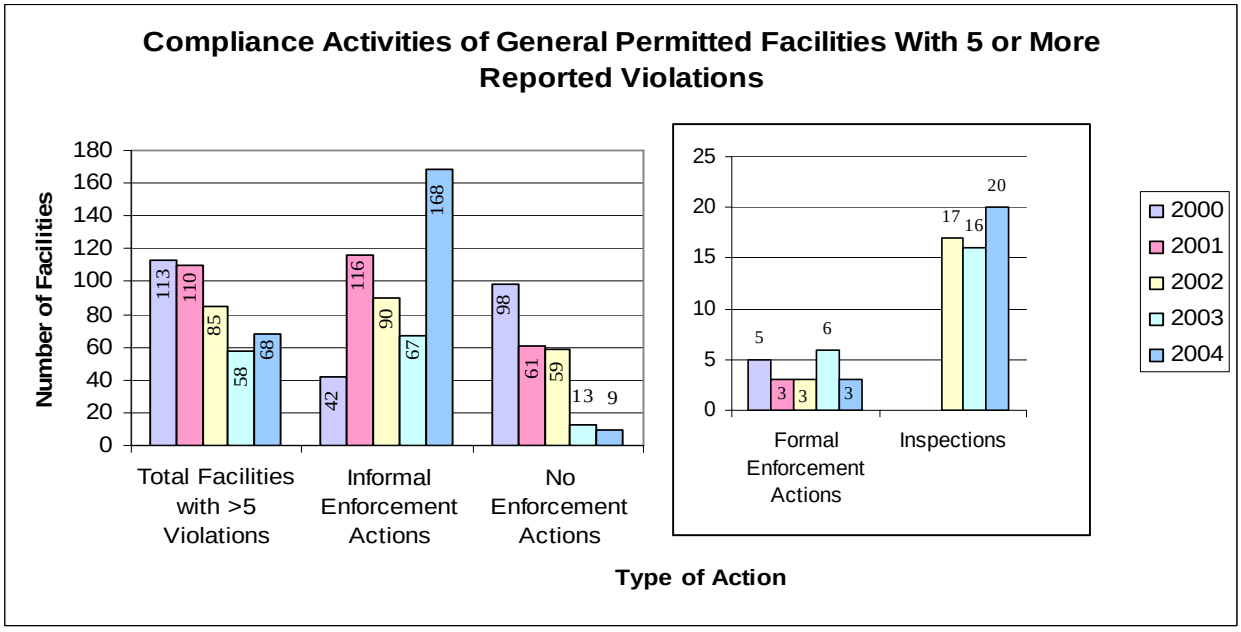

Figure 25

Nonpoint Compliance

Introduction

Nonpoint water pollution is defined as "pollution that enters any waters of the state from any dispersed land-based or water-based activities …not otherwise regulated under the National Pollutant Discharge Elimination System program (NPDES)." (Chapter 173-201A-020 WAC) Forty-four separate state laws apply to nonpoint water pollution and are administered by 13 separate agencies. Most county and municipal jurisdictions also have ordinances that control nonpoint source pollution.

The inclusion of the municipal stormwater program and use of NPDES general permits for boatyards, sand and gravel operations, construction sites, and dairies has reduced the size of the nonpoint universe. The forest practices program and non-permitted aquatic pesticide control continue to control nonpoint source pollution. Specific strategies to reduce nonpoint pollution often include developing total maximum daily loads (TMDLs) for nonpoint parameters. TMDLS require work with local basin groups to identify strategies for implementing nonpoint controls. The primary thrust for compliance is pollution prevention through to provide technical assistance and information for landowners.

When efforts to prevent pollution fail, Ecology approaches the local authority or jurisdiction and works with their staff to settle the matter at the lowest level of enforcement. Developing and fostering these relationships is key to preventing and minimizing pollution problems. For violations causing significant environmental harm that is not pursued by a local authority, Ecology may take formal enforcement action.

Nondairy Agricultural Compliance

Nonpoint sources are the leading cause of water pollution across the nation and in Washington. Water Quality staff offer technical assistance to agricultural operations, stormwater, forestry, and aquatic pesticide activities. These operations generally address pollution through the use of best management practices (BMPs).

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

Nonpoint Compliance Associated with the Governor's Salmon Recovery Plan

The Governor's Salmon Recovery Plan seeks to ensure compliance with water quality laws and protect fish through a balanced program of education, technical assistance, and cost sharing within a regulatory framework. To put this strategy in place, the Legislature initially funded three FTEs at Ecology for water quality compliance on behalf of salmon recovery. These positions were subsequently lost to budget reductions.

For agricultural activities the state provides millions of dollars for conservation districts and the Natural Resource Conservation Service for technical assistance. Nearly $200 million are also provided for cost sharing under the Conservation Reserve Enhancement Program (CREP) and other financial assistance programs.

A balanced program consists of enforcement where voluntary efforts alone do not achieve compliance. Where enforcement is necessary, other incentives must be in place to enforcement. Enforcement does not necessarily mean a penalty. Ecology's policy uses the mildest enforcement necessary to achieve compliance. In many cases, this can consist of a Notice of Correction, Notice of Violation, or an Administrative Order.

Ecology works with local watershed groups to identify areas where enforcement may be necessary. It may be an element of a TMDL, or triggered by a shellfish closure, or by lack of voluntary compliance. Limiting factors analysis for salmon restoration may also indicate where enforcement may be appropriate. Actions that would trigger enforcement include:

- Repeat violations
- Follow-up to an initial inspection
- Referrals from local governments and conservation districts.

When viewed in the context of programs like CREP, the cost of enforcement represents a very small percentage of the overall strategy. At the same time, it serves as a backstop to encourage people to move forward in a voluntary manner.

Timber, Fish, and Wildlife (TFW) Compliance

The Department of Natural Resources (DNR) assumes the lead agency role for enforcement of forest practices. Ecology approves the water quality rules that are adopted by the Forest Practices Board. Ecology provides DNR and landowners with assistance on water quality issues as forest practices are proposed.

Ecology may take independent action under its enforcement authority in Chapter 90.48 RCW. However, this occurs only after consultation with DNR, and only if the non-compliance with water quality standards occurred as a result of violations of the forest practices rules and any forest practice permits or enforcement orders.

Under the Forest Practices Act, Chapter 76.09.100 RCW, if Ecology determines that a person has failed to comply with the forest practices rules relating to water quality protection and DNR has not issued a notice to comply or stop work order, Ecology informs DNR. If DNR does not take action within 24 hours, then Ecology may petition the chair of the Forest Practices Appeals Board to require DNR to take action.

Pesticide Compliance

Use of Aquatic Pesticides

In 2001, the Ninth Circuit Court decision (Talent) established the need for NPDES permits for the application of aquatic pesticides. Since the Talent decision, Ecology has issued short-term modifications through NPDES permits for pesticides that could impact aquatic systems. Ecology issued the following permits for pesticide applications:

- An individual permit for the control of ghost shrimp with carbaryl to the Oyster Grower's Association.
- An individual permit to the Department of Agriculture for the control of invasive moths.
- An individual statewide permit to the Department of Fish and Wildlife for use of rotenone.

Ecology has also issued a number of NPDES general permits for pesticide application including permits to:

- Eradicate or control state-listed noxious and quarantine weed species
- Control nuisance weeds
- Control aquatic plant growth in irrigation canals
- Control mosquitoes

Because of the more recent 9th Circuit Court decision (Fairhaven vs. Hagener), as well as an EPA rule likely to be promulgated early in 2006, Ecology will be issuing general and individual permits under both state and federal permitting authority beginning in 2006.

Summary

The total number of permits Ecology issues continues to incrementally increase, although the same number of staff available to conduct enforcement. This continues to force the agency to prioritize which of many compliance problems are most harmful to the environment.

The compliance rate remains high for individually permitted municipal and industrial facilities based on the number of parameters each facility must report through the DMRs. The number of municipal and industrial facilities with five or more violations has decreased. The number of industrial facilities has increased; however, the number of parameters monitored by these facilities has decreased in the last two years.

Ecology hopes that this report will inform the department as well as the public. We would appreciate receiving constructive comments from users of this information, so that next year's report can improve.

Appendix

Table 1 Expanded Major Laws and Regulations Administered by the Water Quality Program.

TITLE	STATE LAW	STATE RULE	FEDERAL RULE
Water Pollution Control	CHAPTER 90.48 RCW		
Technical Assistance Programs	CHAPTER 43.05		
Pollution Control Hearings Board	CHAPTER 43.21B RCW		
Forest Practices Act	CHAPTER 76.09 RCW		
Dairy Nutrient Management Act	CHAPTER 90.64 RCW		
Protection of the Environment			Code of Federal Regulations Title 40
Water Quality Standards for Ground Water		CHAPTER 173-200 WAC	
Water Quality Standards for Surface Waters		CHAPTER 173-201A WAC	
Forest Practices Rules and Regulations to Protect Water Quality		CHAPTER 173-202 WAC	
Whole Effluent Toxicity Rule		CHAPTER 173-205 WAC	
State Waste Discharge Permit System		CHAPTER 173-216 WAC	
National Pollutant Discharge Elimination System Permit Program		CHAPTER 173-220 WAC	
Discharge Standards and Limitations for Domestic Wastewater Facilities		CHAPTER 173-221 WAC	
Certification of Operators of Wastewater Treatment Plants		CHAPTER 173-230 WAC	
Submission of Plans and Reports for Construction of Wastewater Facilities (CSO Facilities)		CHAPTER 173-240 WAC (CHAPTER 173-245 WAC)	

Table 2. Types of General Permits Issued by the Department of Ecology

PERMIT TYPE	# OF CURRENTLY ACTIVE PERMITS	DISCHARGE DESCRIPTION
NPDES Major	79	A wastewater discharge permit issued to a facility that discharges wastewater to surface water and is deemed to be a "major" discharger by EPA and the state of Washington. A "major discharger" is a facility discharging to surface water that scores 80 or more points on the EPA NPDES permit rating work sheet. The criteria evaluated include: toxic pollutant potential, wastewater flow and stream flow volumes, conventional pollutant loading, potential for public health impact, potential for water quality impact, proximity to near coastal waters.
NPDES Minor	361	A wastewater discharge permit issued to a facility that discharges wastewater to surface water and is deemed to be a "minor" discharger by EPA. A "minor discharger" is a facility discharging to surface water that scores less than 80 points on the EPA NPDES permit rating work sheet.
State to Ground Water	171	A wastewater discharge permit issued to a facility that discharges wastewater by land application to underground water.
State to POTW	170	A wastewater discharge permit issued to a commercial or industrial facility that discharges wastewater to a municipal sanitary sewerage system.
NPDES Stormwater Construction General Permit	1331	All building construction activities clearing five or more acres of land.
NPDES Industrial Stormwater General Permit	1207	All industries with a surface water discharge that has a potential to pollute state waters.
Municipal Stormwater General Permit	7	Stormwater discharge is the runoff from roofs, pavement, and compacted surfaces in urban areas that have the potential to pollute state waters.
Boatyard General Permit	106	Commercial business engaged in the construction, repair, and maintenance of small vessels, 85 percent of which are 65 feet or less in length or which constitute less than 85 percent of gross receipts.
Dairy General Permit	124	Commercial dairy farms meeting the definition of a concentrated animal feeding operation (CAFO) are required to apply for permit coverage and develop and implement a dairy nutrient management plan to strictly limit the discharge of manure and contaminated runoff to surface or ground water.
Fish Hatchery General Permit	84	All upland fin-fish hatching or rearing facilities that discharge at least 30 days a year to surface waters of the state which: produce more than 20,000 lbs. of fish per year, or feed more than 5,000 lbs. of fish food in any one calendar month, or are considered to be a significant contributor of pollution as determined by Ecology.
Fresh Fruit Packer General Permit	189	All new and existing fresh fruit packing facilities that receive, pack, store, and/or ship either hard or soft fruit.
Water Treatment Plant General Permit	31	Discharges of wastewater from the production of potable water at facilities with a maximum production capability of 50,000 gallons per day. Plants producing industrial water are also included if water treatment is their primary function.
Sand and Gravel General Permit	922	Discharges of process water, mine dewatering water, and stormwater associated with sand and gravel operations, rock quarries, and similar mining operations, including stockpiles of mined materials. Also covers concrete batch operations and hot mix asphalt production.