

Chapter 3 -- Enforcement Actions (Metrics)

INTRODUCTION

This chapter describes the enforcement actions that States take when they find violations of environmental laws and regulations. It also summarizes how States track enforcement action effectiveness.

States provided summary or program-level data for:

- Enforcement mechanisms used by the State
- Administrative penalty authority
- Penalties collected from the use of the enforcement mechanisms

States also provided information about the effectiveness of enforcement actions.

STATE ENFORCEMENT ACTIONS

Chapter 2 describes States' efforts to identify regulated facility sites, investigate compliance at the sites, and cite violations when warranted. This section describes the enforcement actions States take when they find a violation.

The States provided information on the frequency of use for the following enforcement mechanisms¹:

- **Oral Notification of Violation** -- An oral notification to the regulated entity of violation(s) of applicable laws, where no further action is contemplated assuming the entity achieves compliance in a timely manner. The Oral Notification of Violation may be a notice by an inspector that a violation was found during an inspection, or it may be a phone call from the State office that a violation has been noted.
- **Field Citation** -- A legal instrument issued by an inspector in the field. It provides the respondent a chance to certify a return to compliance and pay a reduced penalty, without further discussion with the regulatory authority and without further litigation.
- **Letter to Regulated Entity** -- A written notification to the regulated entity of violation(s) of applicable laws, such as a warning letter, where no further action is contemplated, assuming the entity achieves timely compliance. States use a Letter to Regulated Entity for a variety of reasons. In some cases State law requires the agency to issue written notification. Letters may also be the first step the agency takes when informing a regulated entity that the State believes it to be in violation of a State regulation and/or law.

¹ The terms and definitions are from the Exchange Network Data Standards, adopted by Tribes, States, and US EPA in 2002 by the Environmental Data Standards Council. They are listed from the least severe to the most severe although there is no fixed progression among the variety of enforcement actions a State might take.

- **Voluntary Compliance Agreement** -- A consent agreement in which a regulated entity agrees to come into compliance, but which does not invoke the legal enforcement authority of the government. i.e., the agreement is enforceable only as a contract.
- **Written Notice of Violation** -- A written notice sent to a regulated entity, initiating the enforcement process by informing the entity of violation(s) of the applicable law(s), and requesting that the regulated entity take action to come into compliance, with the expectation of further follow-up action by the regulatory agency. States may issue a Written Notice of Violation (NOV) in addition to or instead of a Letter to Regulated Entity.
- **Complaint/Proposed Order** -- A legal instrument that formally initiates a two-step legal procedure in which the Respondent has the right to a specified further process such as a hearing or trial, the objective of which is to secure an independently enforceable Final Order. This type of enforcement action can be either administrative or judicial. This mechanism is used when the facility needs to conduct an extended effort to return to compliance. For example, if a facility has to replace a pollution control device, it may enter into a Complaint/Proposed Order to give it six months to design, order, install, and test the equipment. Operation of the facility may be restricted during this time. The order provides an opportunity for the facility to return to compliance without need for the State to commit resources to a court action.
- **Final Order** -- An administrative or judicial legal instrument that formally concludes an enforcement action, and which imposes on the recipient independently enforceable obligations. Final Orders differ substantially from Complaint/Proposed Orders in that they are issued solely by the agency without consent of the other party, under authority granted to the agency under State law. In a Final Order, the State Agency instructs the regulated entity to take certain steps by a specified deadline or face further escalation of action. For example, a facility may be ordered to cease operation, or to repair or replace a pollution control device. There is often a monetary penalty included with Final Orders.
- **Demand for Stipulated Penalties** -- A written demand that a regulated entity, which is subject to a previous Final Order, pays stipulated penalties specified therein for violation(s) of the terms of the Final Order.
- **Judicial Referral** -- A formal written request to another agency or unit of government to proceed with judicial enforcement (e.g., criminal or civil judicial action) relating to the violation(s) in question. As the final level of an enforcement action, an agency can seek relief either in a civil or a criminal proceeding. Some State agencies have their own attorneys (under agreement with the State Attorney General), but it is more common for Judicial Referrals to go directly to the State Attorney General for disposal. In a few States, Judicial Referrals are made to local prosecutors. Most environmental agencies do not continue to track the enforcement actions once a case has been referred to counsel. At that point, tracking is conducted by the Attorney General's office.

Few States submitted data for all the nine enforcement mechanisms. States generally provided the most information for programs where terms and definitions were more uniform across environmental programs (e.g., Notice of Violation) and where they have been reporting data to

US EPA (e.g., Final Orders). This is not an unexpected result given that each program (State and Federal) had its own unique set of terms and/or definitions for enforcement mechanisms until April 2002 when the data standards were finalized. States ability to report this information should improve as they modernize their information systems and develop common formats for exchanging these data with US EPA.

Figures 3-1 and 3-2 compare data collected for this report with 2001 Report data for three mechanisms (Oral Notification of Violations, Letters to Regulated Entities and Written Notices of Violation) which are similar enough to combine data. The definitions for the remaining six terms are not similar enough to combine the data.

Detailed information about enforcement actions is found in:

- Table 3-1: States and State Programs Reporting Data on Enforcement Mechanisms – 2000 to 2003
- Table 3-2: Total Number of Enforcement Actions by Mechanism – 2000 to 2003
- Table 3-3: Changes in Reporting and Use of Enforcement Actions by Mechanism – 2000 to 2003
- Table 3-4: Number of Actions and Percent of Key Enforcement Mechanisms by Program – 2000 to 2003
- Figure 3-1: States Reporting Data on Oral Notification of Violations, Letters to Regulated Entities and Written Notices of Violation – 1999 to 2003
- Figure 3-2: States Use of Oral Notification of Violations, Letters to Regulated Entities and Written Notices of Violation – 1995 to 2003

Appendix B contains tables with detailed information for the nine different types of enforcement mechanisms.

FINDINGS

States reporting and use of all mechanisms increased during the reporting period and three mechanisms increased substantially:

- Oral Notifications – Number of States increased by 70%, Number of Programs increased by 71% and Number of Actions increased by 2%²
- Field Citations – Number of States increased by 67%, Number of Programs increased by 83% and Number of Actions increased by 203%
- Demand for Stipulated Penalties – Number of States increased by 36%, Number of Programs increased by 75% and Number of Actions increased by 178%
- The proportionate use among mechanisms shifted slightly
- The number of Oral Notification of Violations, Letters to Regulated Entities and Written Notices of Violation increased between 1995 and 2003. This increase is due, in part, to the increased number of States reporting and the increased number of programs reported by States

² The 2003 number of actions reflects a decline of 202 for the 10 States that reported in 2000 and 625 new actions for the 7 additional States reporting in 2003.

For the five key mechanisms, the percentages remain constant by program area across the reporting period with one exception, the Demand for Stipulated Penalties increases substantially in 2003. This increase is attributed to New York's reporting of 572 actions in 2003 and zero for the prior years.

Table 3-1: States and State Programs Reporting Data on Enforcement Mechanisms - 2000 to 2003

Enforcement Mechanism	2000		2001		2002		2003	
	No. of States Reporting	No. of State Programs Reporting	No. of States Reporting	No. of State Programs Reporting	No. of States Reporting	No. of State Programs Reporting	No. of States Reporting	No. of State Programs Reporting
	Oral Notification of Violation	10	14	14	19	15	21	17
Field Citation	6	6	6	6	7	8	10	11
Letter To Regulated Entity	27	63	30	70	31	80	31	79
Voluntary Compliance Agreement	24	42	29	54	27	56	29	58
Written Notice of Violation	38	125	39	134	40	146	39	146
Complaint/Proposed Order	28	65	31	71	30	84	31	84
Final Order	37	114	37	123	38	130	38	134
Demand for Stipulated Penalties	14	24	17	29	19	36	19	42
Judicial Referral	30	66	34	74	32	74	33	75

Table 3-2: Total Number of Enforcement Actions by Mechanism - 2000 to 2003

Enforcement Mechanism	Number of Enforcement Actions			
	2000	2001	2002	2003
Oral Notification of Violation	19,362	18,773	20,665	19,785
Field Citation	226	311	414	687
Letter To Regulated Entity	36,900	44,901	39,575	40,687
Voluntary Compliance Agreement	2,661	3,223	4,148	3,461
Written Notice of Violation	49,839	63,440	67,881	69,970
Complaint/Proposed Order	3,494	3,141	3,315	3,582
Final Order	11,865	12,194	13,082	12,763
Demand for Stipulated Penalties	401	432	566	1,116
Judicial Referral	1,617	4,042	2,145	1,785

Table 3-3: Changes in Reporting and Use of Enforcement Actions by Mechanism - 2000 to 2003

	Increase 2000 to 2003

Enforcement Mechanism	No. of States Reporting	No. of State Programs Reporting	No. of Actions Reported
Oral Notification of Violation	70%	71%	2%
Field Citation	67%	83%	203%
Letter To Regulated Entity	15%	25%	10%
Voluntary Compliance Agreement	21%	38%	30%
Written Notice of Violation	3%	17%	40%
Complaint/Proposed Order	6%	29%	3%
Final Order	5%	18%	8%
Demand for Stipulated Penalties	36%	75%	178%
Judicial Referral	10%	14%	10%

Table 3-4: Number of Actions and Percent of Key Enforcement Mechanisms by Program, 2000 to 2003

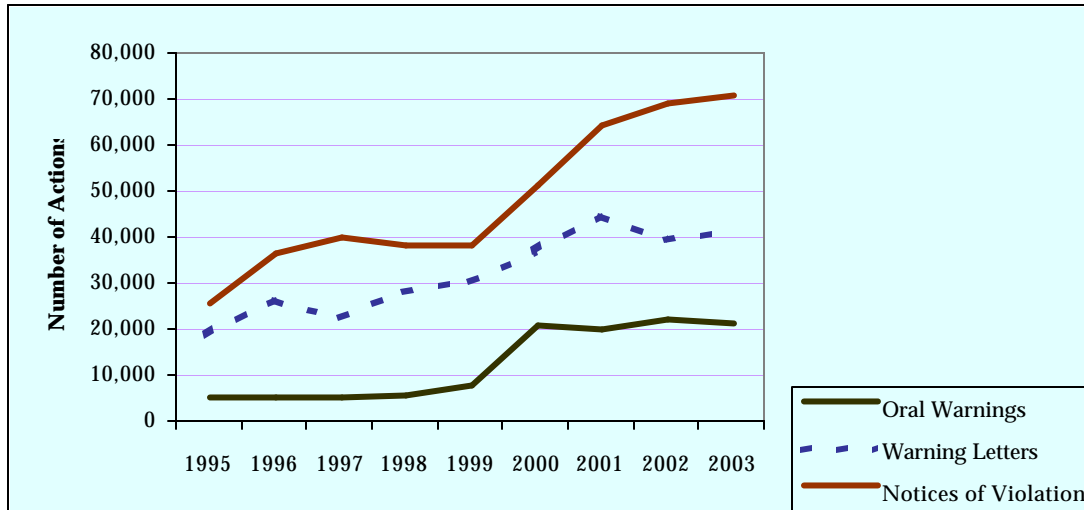
Key Enforcement Mechanisms by Program	2000		2001		2002		2003	
	<u>Number of Actions Taken</u>	<u>Percent of Total³</u>	<u>Number of Actions Taken</u>	<u>Percent of Total</u>	<u>Number of Actions Taken</u>	<u>Percent of Total</u>	<u>Number of Actions Taken</u>	<u>Percent of Total</u>
All								
Oral Notification of Violation	15,831	82%	15,142	81%	16,628	80%	14,160	72%
Letter to Regulated Entity	14,370	39%	14,257	32%	12,772	32%	12,454	31%
Written Notice of Violation	18,592	37%	27,457	43%	23,874	35%	25,239	36%
Final Order	4,980	42%	5,333	44%	5,170	40%	4,876	38%
Demand for Stipulated Penalties	206	51%	233	54%	303	54%	295	26%
Air								
Oral Notification of Violation	258	1%	256	1%	269	1%	254	1%
Letter to Regulated Entity	4,047	11%	3,385	8%	3,126	8%	3,131	8%
Written Notice of Violation	4,891	10%	5,076	8%	5,809	9%	4,959	7%
Final Order	1,654	14%	1,944	16%	2,679	20%	2,469	19%
Demand for Stipulated Penalties	119	30%	113	26%	121	21%	106	9%
Drinking Water								
Oral Notification of Violation	1,559	8%	1,387	7%	1,362	7%	2,222	11%
Letter to Regulated Entity	9,620	26%	15,731	35%	10,491	27%	12,498	31%
Written Notice of Violation	7,588	15%	7,839	12%	9,905	15%	15,066	22%
Final Order	671	6%	686	6%	692	5%	842	7%
Demand for Stipulated Penalties	25	6%	21	5%	49	9%	626	56%
Water								
Oral Notification of Violation	646	3%	584	3%	544	3%	187	1%

³ Reflects the percentage for each Action Type

Key Enforcement Mechanisms by Program	2000		2001		2002		2003	
	Number of Actions Taken	Percent of Total	Number of Actions Taken	Percent of Total	Number of Actions Taken	Percent of Total	Number of Actions Taken	Percent of Total
	Letter to Regulated Entity	1,615	4%	1,739	4%	1,734	4%	1,580
Written Notice of Violation	2,174	4%	5,343	8%	5,153	8%	4,938	7%
Final Order	900	8%	820	7%	971	7%	878	7%
Demand for Stipulated Penalties	14	3%	16	4%	23	4%	21	2%
Hazardous Waste								
Oral Notification of Violation	362	2%	466	2%	476	2%	346	2%
Letter to Regulated Entity	1,280	3%	1,374	3%	2,288	6%	1,939	5%
Written Notice of Violation	2,059	4%	1,775	3%	2,207	3%	1,988	3%
Final Order	404	3%	350	3%	369	3%	381	3%
Demand for Stipulated Penalties	19	5%	26	6%	29	5%	28	3%
Solid Waste								
Oral Notification of Violation	639	3%	732	4%	1,081	5%	2,297	12%
Letter to Regulated Entity	676	2%	833	2%	1,200	3%	2,412	6%
Written Notice of Violation	171	0%	295	0%	781	1%	1,112	2%
Final Order	204	2%	203	2%	274	2%	390	3%
Demand for Stipulated Penalties	0	0%	0	0%	8	1%	3	0%
Remediation								
Oral Notification of Violation	0	0%	0	0%	31	0%	19	0%
Letter to Regulated Entity	419	1%	1,049	2%	405	1%	281	1%
Written Notice of Violation	443	1%	1,092	2%	448	1%	527	1%
Final Order	21	0%	22	0%	27	0%	17	0%
Demand for Stipulated Penalties	0	0%	0	0%	0	0%	2	0%
Underground Storage Tanks								
Oral Notification of Violation	65	0%	192	1%	263	1%	293	1%
Letter to Regulated Entity	1,708	5%	2,512	6%	3,773	10%	2,925	7%
Written Notice of Violation	3,765	8%	4,641	7%	5,402	8%	4,776	7%
Final Order	245	2%	218	2%	327	2%	234	2%
Demand for Stipulated Penalties	0	0%	0	0%	5	1%	0	0%
Other								
Oral Notification of Violation	2	0%	14	0%	11	0%	7	0%
Letter to Regulated Entity	3,165	9%	4,021	9%	3,786	10%	3,467	9%
Written Notice of Violation	10,156	20%	9,942	16%	14,302	21%	11,365	16%
Final Order	2,786	23%	2,618	21%	2,573	20%	2,676	21%
Demand for Stipulated Penalties	18	4%	23	5%	28	5%	35	3%

Figure 3-1: States Reporting Data on Oral Notification of Violations, Letters to Regulated Entities and Written Notices of Violation Oral Warnings, Warning Letters, and Notices of Violation 1999-2003--(See Figure 3-1 Map in Separate File)

Figure 3-2: States Use of Oral Notification of Violations, Letters to Regulated Entities and Written Notices of Violation, 1995 to 2003



AUTHORITY TO ASSESS PENALTIES

This section describes States' efforts to assess and collect fines through *Administrative Penalty Authority (APA)*. States with APA can assess fines when they allege an environmental violation. If the regulated entity disagrees, it can pursue legal remedy, if not the entity pays the fine. In 2003, 36 states reported having APA for one or more programs. In the 2001 survey, ECOS asked States a similar question and 27 States reported having APA for one or more programs in 1999.

Detailed information about Administrative Penalty Authority is found in:

- Figure 3-3: Overview of State Administrative Penalty Authority by Program in 2003
- Table 3-5: State Agency Programs with Administrative Penalty Authorities – 2000 to 2003
- Figure 3-4: Administrative Penalty Authority by State Program in 1999 and 2003
- Figure 3-5: Administrative Penalty Authority Reported by States – 1999 to 2003

FINDINGS

- States reported 124 individual programs with APA in 1999 and 121 in 2003.
- Conclusions about whether the number of APA programs decreased between 1999 and 2003 is difficult since seven states that reported APA programs in 1999 did not report any in 2003 (either because they did not participate in the second survey -- AL, GA, and NH or did not submit data about their administrative penalty programs in the second survey – CT, IL, PA, and WI).
- Six states that reported APA data by individual program for 1999 reported APA data for all programs for 2003 (DE, ID, NC, NJ, RI, and WA)
- Six states reported data on APA for the first time in 2003 (AK, FL, MA, MD, NV, and TX).
- The only significant change is an increase APA in the Drinking Water Program between 1999 and 2003.

Figure 3-3: Overview of State Administrative Penalty Authority (APA) by Program in 2003

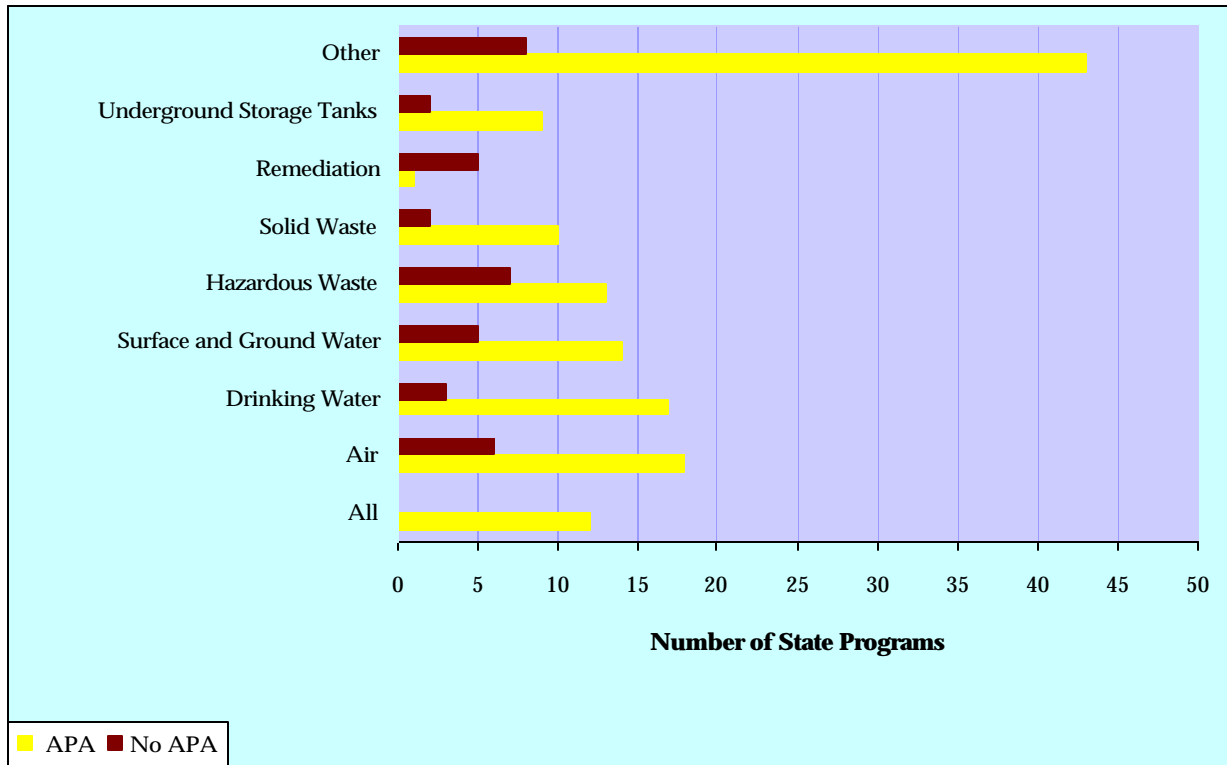


Table 3-5: State Agency Programs with Administrative Penalty Authorities - 2000 to 2003

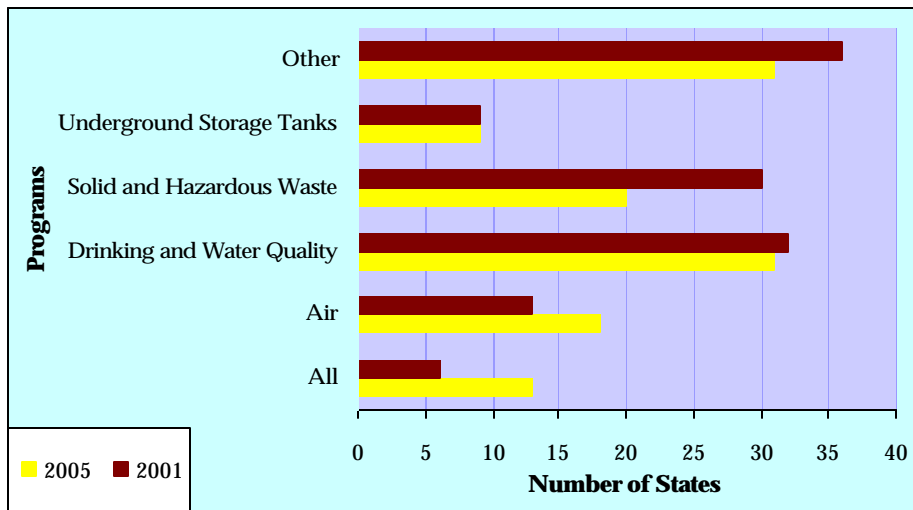
State	Programs							
	All	Air	Drinking Water	Surface and Groundwater	Hazardous Waste	Solid Waste	Underground Storage Tanks	Others
AK	x							
CA			x					
CO		x			x			
DE								Ground Water Discharges, Sediment and Stormwater Management, Accidental Release Prevention, Beach Preservation
FL	x							

State	Programs							
	All	Air	Drinking Water	Surface and Groundwater	Hazardous Waste	Solid Waste	Underground Storage Tanks	
HI		x			x	x	x	Others
IA		x	x	x		x		Flood Plain Regulation, Manure Management Plans (Non-EPA), Storm Water
ID	x							
IL		x	x	x				Land Programs
IN		x	x	x	x			
KS				x	x		x	Emergency Planning and Community Right-to-Know, Asbestos, Drycleaners
KY								Groundwater Protection Plan and Wellhead Protection Program
LA			x					
MA	x							
MD	x							
MI		x	x	x				Leaking Underground Storage Tanks, Community Water Supply
MN		x	x		x	x		Asbestos & Demolition, Construction Stormwater, Storage Tanks (Aboveground and Underground), Water Quality Point Source
MO				x				
MT		x	x	x	x		x	
NC	x							
ND		x	x	x	x		x	Asbestos, Lead-based Paint
NE	x							
NJ	x							
NV	x							
NY								Radiation, Pesticides, Spill Prevention and Bulk Storage, Mined Land Reclamation, Oil and Gas
OH				x	x	x		Air Pollution Control Program

State	Programs							
	All	Air	Drinking Water	Surface and Groundwater	Hazardous Waste	Solid Waste	Underground Storage Tanks	Others
OK		x	x	x	x			
OR		x	x	x	x	x	x	
RI	x							
SC		x	x	x	x	x	x	
SD								Remediation, Minerals & Mining Program, Underground Injection Control
TN		x		x	x		x	Underground Injection Control, Safe Dams, Water Wells
TX	x							
UT		x					x	
VA			x					
VT		x	x	x	x	x	x	
WA	x							
WI			x					

Figure 3-4: Administrative Penalty Authority Reported By States - 1999 and 2003 (See Figure 3-4 Map in Separate File)

Figure 3-5: Administrative Penalty Authority by State Program in 1999 and 2003



PENALTIES ASSESSED AND COLLECTED

This section summarizes penalties assessed and collected by States. A penalty is a *monetary sanction for failure to comply with requirements*. States provided information about the monetary penalties that they assessed and collected in four categories: administrative penalties, civil penalties, supplemental environmental projects (SEPs), and criminal penalties⁴.

States reporting of this data was inconsistent and incomplete. Some States provided penalty data for some programs, some provided data for one or two categories of penalties, and a few included penalties for non-regulated environmental programs. The variations in penalty amounts between years are generally due to large one-time fines assessed or collected.

There is not a one to one relationship between penalties assessed and penalties collected for any given year since penalties are not always collected in the same year in which they are assessed and some assessments are reduced through settlements. States submitted similar data about penalties collected in the first survey.

Detailed information about penalties assessed and collected is found in:

- Table 3-6: Penalties Assessed and Collected by States – 2000 to 2003
- Table 3-7: Penalties Collected by States – 1995 to 2003

FINDINGS

- In 2000, a single State (Texas) accounts for 71 percent of the in Civil Penalty assessments (\$87,298,628) and 86 percent of Civil Penalty collections (\$87,228,128). **TEXAS PLEASE PROVIDE SOME WORDS TO EXPLAIN WHY SUCH A LARGE AMOUNT**
- In 2003 Massachusetts accounts for 71 percent of the Criminal Penalties assessed (\$1,442,300) and Montana accounts for 98 percent of the Criminal Penalties collected (\$3,022,348). **MASSACHUSETTS and MONTANA PLEASE PROVIDE SOME WORDS TO EXPLAIN WHY SUCH A LARGE AMOUNT**
- Total collections increased by 49 percent between 1995 and 2003 due to increases in administrative and civil penalties, and decreases in SEPs and criminal penalties.
- States collect more money from civil and administrative penalty authorities than the other categories.

⁴ During the development of the questionnaire, States expressed concern about their ability to respond to this set of questions due to the variety of ways that states document it. Some states maintain documentation at the total level and some maintain it by the survey categories. Also in many states, the Attorney General's office maintains data on the collected amounts. However, they agreed to report within these constraints.

Table 3-6: Penalties Assessed and Collected by States - 2000 to 2003

Penalty Type	Penalty Amounts			
	2000	2001	2002	2003
Administrative				
<i>Assessed</i>	\$52,995,436	\$62,465,512	\$70,075,709	\$49,552,478
<i>Collected</i>	\$38,956,031	\$40,729,696	\$55,069,476	\$53,305,027
Civil				
<i>Assessed</i>	\$122,545,005	\$45,526,172	\$78,151,904	\$65,742,025
<i>Collected</i>	\$101,234,622	\$25,915,837	\$36,132,384	\$40,817,612
SEPs				
<i>Assessed</i>	\$27,091,316	\$18,838,872	\$20,930,728	\$29,394,931
<i>Collected</i>	\$16,314,467	\$14,462,139	\$18,805,664	\$12,731,190
Criminal				
<i>Assessed</i>	\$250,100	\$168,690	\$2,031,167	\$462,919
<i>Collected</i>	\$127,400	\$4,500	\$3,081,608	\$248,252
TOTALS				
<i>Assessed</i>	\$202,881,857	\$126,999,247	\$171,189,507	\$145,152,352
<i>Collected</i>	\$156,632,520	\$81,112,172	\$113,089,132	\$107,102,080

Table 3-7: Penalties Collected by States - 1995 to 2003

Year	Amount Collected					Total
	Administrative Penalties	Civil Penalties	SEPs	Criminal Penalties	Combined	
1995	\$33,262,747	\$9,471,077	\$18,718,784	\$760,543	\$9,644,148	\$71,857,299
1996	\$28,409,026	\$16,234,871	\$15,370,871	\$775,976	\$11,137,634	\$71,928,378
1997	\$30,998,584	\$20,031,175	\$26,104,265	\$5,275,960	\$5,608,445	\$88,018,429
1998	\$31,557,746	\$33,166,856	\$33,369,630	\$7,948,922	\$17,668,168	\$123,711,322
1999	\$39,930,138	\$16,359,231	\$15,520,172	\$261,764	\$7,001,742	\$79,073,047
2000	\$38,956,031	\$101,234,622	\$16,314,467	\$127,400		\$156,632,520
2001	\$40,729,696	\$25,915,837	\$14,462,139	\$4,500		\$81,112,172
2002	\$55,069,476	\$36,132,384	\$18,805,664	\$3,081,608		\$113,089,132
2003	\$53,305,027	\$40,817,612	\$12,731,190	\$248,252		\$107,102,081

TRACKING ENFORCEMENT ACTION EFFECTIVENESS

This section summarizes how states track enforcement action effectiveness. ECOS asked States whether or not, they tracked data on the effectiveness or benefits on a case specific (e.g. pounds of pollution prevented, remediation costs saved) and/or programmatic basis (e.g., discharge or emissions trends).

Detailed information about tracking enforcement action effectiveness is found in:

- Table 3-8: States Tracking the Effectiveness or Benefits of Enforcement Efforts on a Case-Specific Basis
- Table 3-9: States Tracking the Effectiveness or Benefits of Enforcement Efforts by Program

Table 3-8: States Tracking the Effectiveness or Benefits of Enforcement Efforts on a Case-Specific Basis

Program/State	Comments																												
All (6)																													
KY	<i>During an initiative to address open dumping ENF tracked the number of tons of municipal solid waste removed from each open dump location. Each enforcement action undertaken required the responsible party to remove waste from the dump or required removal from another location. ENF tracked the amount of municipal solid waste removed by each party.</i>																												
MA	<i>In some programs, an estimate of P2 benefits or other environmental benefits directly achieved from the enforcement are estimated by the inspector.</i>																												
NJ	<i>This is limited to a few programs and is not consistently applied within those programs that do capture it. The most consistent development of this information occurs in the Land Use program. The following data was submitted to US EPA as part of the State Review Framework, under element 13:</i> <table border="1" data-bbox="535 1155 1234 1375"> <thead> <tr> <th>Measure</th> <th>Years</th> <th>Units</th> <th>Area restored</th> </tr> </thead> <tbody> <tr> <td>Freshwater Wetlands</td> <td>2001- 2004</td> <td>sq. ft.</td> <td>2,136,617</td> </tr> <tr> <td>Transition Areas</td> <td>2001- 2004</td> <td>sq. ft.</td> <td>898,722</td> </tr> <tr> <td>Coastal Wetland</td> <td>2002 - 2004</td> <td>sq. ft.</td> <td>351,849</td> </tr> <tr> <td>Flood Hazard Area</td> <td>2002 - 2004</td> <td>sq. ft.</td> <td>421,722</td> </tr> <tr> <td>Stream Corridor</td> <td>2002 - 2004</td> <td>Linear ft.</td> <td>1,666</td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td>3,808,910</td> </tr> </tbody> </table>	Measure	Years	Units	Area restored	Freshwater Wetlands	2001- 2004	sq. ft.	2,136,617	Transition Areas	2001- 2004	sq. ft.	898,722	Coastal Wetland	2002 - 2004	sq. ft.	351,849	Flood Hazard Area	2002 - 2004	sq. ft.	421,722	Stream Corridor	2002 - 2004	Linear ft.	1,666	Total			3,808,910
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Total			3,808,910																										
PA	<i>Varies program to program.</i>																												
RI	<i>Tracked through case conclusion data sheets.</i>																												
TX	<i>Measurable data is used.</i>																												
Air (5)																													
CO	<i>This is done in part through use of EPA's "Case Conclusion Data Sheets" which have been used for special compliance projects.</i>																												
IN	<i>In cases involving emissions exceedences, we attempt to calculate the reduction in emissions caused by the violators return to compliance on a "pounds of pollution reduced" basis. The numbers are normalized to reflect the reduction in each instance, if the violation continued for a one-year period.</i>																												
MN	<i>This is estimated in some programs, but rarely in the air program.</i>																												

Program/State	Comments
OH	<i>As each air pollution enforcement case is closed, emissions reductions that have occurred as a result of the case (i.e., closure of an emissions unit, installation/upgrade of emissions controls, etc.) are calculated by field office and/or enforcement staff. This information is tabulated during the year and reported in Ohio EPA's year- end enforcement report.</i>
OK	<i>The Air Quality Division calculates the environmental benefit that occurs as a result of our enforcement actions. We track which pollutant was reduced and the amount it was reduced specific to each case. For each calculation we include the means of reduction, the description of the calculation, and the actual calculation itself.</i>
Drinking Water (1)	
CA	<i>The effectiveness is measured in terms of returning water systems to compliance.</i>
Surface and Ground Water (2)	
KS	<i>Facilities are monitored through compliance and enforcement procedures.</i>
MO	<i>Water quality is protected when the facility is returned to compliance with its permitted effluent limitations.</i>
Hazardous Waste (4)	
CO	<i>This is a required element of SEP Completion Reports which are required in each compliance order that includes a SEP.</i>
IN	<i>HW (hazardous waste) diverted from municipal waste streams - # of pounds HW sites remediated - # of sites HW sites unregulated brought into the RCRA system (non-notifiers) - # of sites HW removed and properly disposed (waste illegally stored) - # of gallons HW removed and properly managed under RCRA - # of gallons.</i>
MN	<i>This is estimated in some programs.</i>
OH	<i>We do track the benefits of enforcement actions that require remediation of a facility where illegal disposal of hazardous waste occurred, e.g., number of pounds of hazardous waste removed, number of tons of contaminated soils treated. We also track the decrease in waste generated as a result of the implementation of SEPs.</i>
Solid Waste (2)	
IN	<i>The number of solid waste facilities brought back into compliance, the number of solid waste (open dump) sites remediated, the number of abandon waste tire piles cleaned up, the number of Confined Animal Feeding Operation spill sites remediated and non-spill sites brought back into compliance.</i>
MN	<i>This is estimated in some programs.</i>
Remediation (1)	
OH	<i>Acres brought back into productive use (currently evaluating other potential measures.)</i>
Underground Storage Tanks (2)	
IN	<i>Numbers of UST sites brought into compliance and numbers of UST systems brought into compliance, as well as the numbers of LUST sites remediated.</i>
UT	<i>Acres of soil and water in their UST Program</i>
Other (6)	
CT	<i>For UST program- the gallons of releases from USTs prevented by issuance of enforcement action are tracked.</i>

Program/State	Comments
MN	<p><i>Number of units of improper waste kept from the waste stream is tracked.</i></p> <p><i>Effectiveness/Benefit is estimated in the Storage Tanks (Aboveground and Underground) program.</i></p> <p><i>Effectiveness/Benefit is estimated in some Water Quality Point Source programs</i></p>
OH	<p><i>DDAGW currently tracks the following environmental measures: Number of people whose drinking water is improved.</i></p> <p><i>Division of Surface Water currently tracks the following environmental measures: 401 Stream Mitigation (feet), Abandoned/Tied into Regional POTW (gpd), Ag -Bus - Storage Capacity (gallons), Failing on-lot systems (lots), Landfill Addressed (acres), Overflows Addressed (CSO 's),</i></p>

Table 3-9: States Tacking the Effectiveness or Benefits of Enforcement Efforts by Program

Program/State	Comments
All (4)	
NJ	<i>We can and do track the results specific to a program, but this is done inconsistently and is mostly limited to Land Use.</i>
PA	<i>Varies program to program.</i>
RI	<i>Case conclusion data sheets and data base entries by program.</i>
TX	<i>Pollutant reductions in waste, air emissions, and discharges to water.</i>
Air (2)	
OK	<i>The Air Quality Division maintains a spreadsheet containing the emission reductions for each case. The totals are reported each year in the ODEQ Annual Report.</i>
VT	<i>Done with annual emissions inventory and air quality modeling and planning.</i>
WA	<i>Based on internal and external strategic priorities and measures, DOH tracks and reports quarterly performance measures pertaining to drinking water program activities. Elements measured through this activity are assessed for trends, effectiveness, and consistency.</i>
Surface and Ground Water (1)	
KS	<i>KDHE monitors facilities through permit compliance with schedule of compliances, discharge monitoring reports, and inspections. As a safety net, KDHE has a stream monitoring program that would pick up any significant changes.</i>
Hazardous Waste (4)	
CO	<i>SEP Completion Report information is put into a cross-media database from which totals can be pulled.</i>
MI	<i>Performance is evaluated based on staff effectiveness in meeting the EPA civil enforcement response policy goals and timelines.</i>
OH	<i>We track the most commonly cited violations found during our inspections. We use this information to develop outreach and compliance assistance tools to our regulated community. Acres brought back into productive use (currently evaluating other potential measures.)</i>
SD	<i>Yes, but in a fairly subjective way in that we consider repeat violators and repeat violations because these will factor into any subsequent enforcement action</i>
VA	<i>Annual reporting of the types and amounts of solid waste managed by permitted facilities is utilized to gauge the effectiveness of regulations and permits on supporting the waste management hierarchy. Also the recycling report is used to gauge compliance with the mandatory 25% recycling rate.</i>
Underground Storage Tanks (2)	
MI	<i>For program- specific actions/initiatives the effectiveness is tracked by the number of facilities or UST systems that are in compliance, returned to compliance, and/or referred for escalated enforcement.</i>
SC	<i>Compare release rate per regulated tank to the historical average.</i>
Other (5)	
CT	<i>For the UST program-the ratio of releases from USTs to the total number of USTs is measured</i>
MI	<i>Example is CSO/SSO program; this agency publishes an annual report on such discharges.</i>
OH	<i>Division of Surface Water (DSW) tracks the effectiveness/benefits of regulatory action in terms of environmental benefits achieved through enforcement. DSW also has information regarding site specific stream segments</i>
SD	<i>Underground Injection Control via submitted data by regulated entity; Annual field and site inspections/visits</i>
VT	<i>Acres of wetland lost/gained</i>