

**2002 ANNUAL REPORT**  
**OF THE**  
**CLEAN WATER ENFORCEMENT ACT**  
**PURSUANT TO N.J.S.A. 58:10A-14.1**

*Calendar Year 2002*



**October 2003**

*New Jersey Department of Environmental Protection*

**2002 ANNUAL REPORT  
OF THE  
CLEAN WATER ENFORCEMENT ACT**

*PURSUANT TO N.J.S.A. 58:10A-14.1*

*October 2003*

**JAMES E. MCGREEVEY  
GOVERNOR**

**BRADLEY M. CAMPBELL  
COMMISSIONER**

**Report Compiled By:**

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WATER COMPLIANCE AND ENFORCEMENT  
P.O. BOX 422  
TRENTON, NEW JERSEY 08625-0422  
(609) 984-5855**

**PRINTED ON RECYCLED PAPER**

## ACKNOWLEDGEMENTS

The New Jersey Department of Environmental Protection would like to thank various individuals and agencies listed below for their contributions to the *2002 Annual Report of the Clean Water Enforcement Act*.

The New Jersey Department of Environmental Protection's Water Compliance and Enforcement Element, under the direction of Lisa Jackson, Assistant Commissioner, Compliance and Enforcement, oversaw the preparation of this report.

### **NJ Department of Environmental Protection - Compliance and Enforcement**

Lisa Jackson, Assistant Commissioner  
James K. Hamilton, Administrator, Water Compliance and Enforcement  
Gene Callahan, Water Compliance and Enforcement, Office of the Administrator

Charles Maack, Water Compliance and Enforcement, Central Field Office  
James Genovese, Water Compliance and Enforcement, Central Field Office  
Jeff Hoffman, Water Compliance and Enforcement, Central Field Office  
Richard Paull, Water Compliance and Enforcement, Central Field Office

Joseph Mikulka, Water Compliance and Enforcement, Northern Field Office  
Robert Plumb, Water Compliance and Enforcement, Northern Field Office  
Stefan Sedlak, Water Compliance and Enforcement, Northern Field Office  
Donald Hirsch, Water Compliance and Enforcement, Northern Field Office  
Isabel Boho, Water Compliance and Enforcement, Northern Field Office  
Joan Rogauskas, Water Compliance and Enforcement, Northern Field Office  
Janet Budesca-Carroll, Water Compliance and Enforcement, Northern Field Office  
Virginia Kennedy, Water Compliance and Enforcement, Northern Field Office

Edward Post, Water Compliance and Enforcement, Southern Field Office  
Michael Pagano, Water Compliance and Enforcement, Southern Field Office  
Linda McCafferty, Water Compliance and Enforcement, Southern Field Office

### **NJ Department of Environmental Protection - Environmental Regulation**

Sam Wolfe, Assistant Commissioner  
Narinder Ahuja, Director, Division of Water Quality  
Mary Jo Aiello, Bureau of Pretreatment and Residuals  
James Murphy, Bureau of Pretreatment and Residuals  
Valentin Kouame, Bureau of Pretreatment and Residuals  
William Boehle, Bureau of Permit Management  
Julio Collazo, Bureau of Permit Management  
Barry Chalofsky, Bureau of Nonpoint Pollution Control

**NJ Department of Environmental Protection - Land Use Management**

Ernie Hahn, Assistant Commissioner

Leslie McGeorge, Administrator, Water Monitoring and Standards

Debra Hammond, Bureau of Water Quality Standards and Assessment, WM&S

**NJ Department of Environmental Protection - Management and Budget**

Ronald Tuminski, Former Assistant Commissioner

Peter Daly, Controller, Financial Operations

**NJ Department of Law and Public Safety**

Lawrence O'Reilly, Assistant Attorney General, Office of the Attorney General, Criminal Justice

Edward Bonanno, Division of Criminal Justice, Environmental Crimes Unit

Bruce Kmosko, Division of Criminal Justice, Environmental Crimes Unit

**Delegated Local Agencies**

Bayshore Regional S. A.

Camden County M. U. A.

Ewing-Lawrence S. A.

Hamilton Twp. Dept. of  
Water Pollution Control

Joint Meeting of Essex and Union Counties

Middlesex County U. A.

Mount Holly M.U.A.

Northwest Bergen County U. A.

Passaic Valley Sewerage Commissioners

Rahway Valley S.A.

Rockaway Valley Regional S. A.

Stony Brook Regional S. A.

Wayne Township

Bergen County U. A.

Cumberland County U. A.

Gloucester County U. A.

Hanover S.A.

Linden-Roselle S. A.

Morris Township

North Bergen M.U.A.

Ocean County U. A.

Pequannock, Lincoln Park  
and Fairfield S. A.

Somerset-Raritan Valley S.A.

Trenton, City of

**County Prosecutors:**

Ocean County

Morris County

Special thanks to Gene Callahan - Office of the Administrator, Water Compliance and Enforcement for his support and assistance.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	i
I. INTRODUCTION.....	1
II. PERMITTING	
A. DIVISION OF WATER QUALITY.....	3
B. NEW DEVELOPMENTS.....	9
III. ENFORCEMENT	
A. INSPECTIONS.....	16
B. VIOLATIONS.....	17
C. ENFORCEMENT ACTIONS.....	28
D. STORMWATER ENFORCEMENT.....	35
E. COMBINED SEWER SYSTEM ENFORCEMENT.....	36
F. PENALTIES ASSESSED AND COLLECTED.....	37
IV. DELEGATED LOCAL AGENCIES	
A. INTRODUCTION.....	43
B. PERMITS.....	44
C. INSPECTIONS AND SAMPLINGS.....	45
D. VIOLATIONS.....	45
E. ENFORCEMENT ACTIONS AND PENALTIES.....	49
F. LIST OF DELEGATED LOCAL AGENCIES (DLAs).....	51
V. CRIMINAL ACTIONS.....	53
VI. FISCAL	
A. CWEA RECEIPTS SCHEDULE AND COST STATEMENT.....	59
VII. WATER QUALITY ASSESSMENT	
A. INTRODUCTION .....	61
B. 2000 WATER QUALITY INVENTORY REPORT.....	61
C. EVALUATION OF POINT SOURCE CONTRIBUTION TO WATER QUALITY .....	64
D. SURFACE WATER QUALITY MONITORING .....	64
E. REFERENCES AND SOURCES OF ADDITIONAL INFORMATION.....	64

## LIST OF TABLES

TABLE II-1	REGULATED FACILITIES <i>2000-2002</i> .....	4
TABLE II-2	REGULATED DISCHARGES BY CATEGORY <i>1999-2002</i> .....	4
TABLE II-3	GENERAL PERMITS.....	5
TABLE II-4	PERMIT ACTIONS TAKEN BY THE DIVISION OF WATER QUALITY 2000-2002.....	8
TABLE II-5	COMPARISON OF PERMIT ACTIONS <i>1999-2002</i> .....	9
TABLE III-1	SUMMARY OF INSPECTIONS PERFORMED BY THE DEPARTMENT <i>1992-2002</i> .....	17
TABLE III-2	SUMMARY OF VIOLATIONS FOR WHICH A PENALTY WAS ASSESSED <i>Calendar Year 2002</i> .....	20
TABLE III-3	SUMMARY OF VIOLATIONS BY CATEGORY <i>(All Facilities-Local and Nonlocal)</i> .....	22
TABLE III-4	SUMMARY OF VIOLATIONS BY CATEGORY <i>(Nonlocal Agencies)</i> .....	23
TABLE III-5	SUMMARY OF VIOLATIONS BY CATEGORY <i>(Local Agencies)</i> .....	24
TABLE III-6	SUMMARY OF ENFORCEMENT ACTIONS.....	33
TABLE III-7	LABORATORY CERTIFICATION ACTIVITIES <i>1995-2002</i>	34
TABLE III-8	STORMWATER INSPECTION AND ENFORCEMENT ACTIVITIES <i>1995-2002</i> .....	35
TABLE III-9	PENALTIES ASSESSED <i>(Local and Nonlocal)</i> .....	38
TABLE IV-1	DELEGATED LOCAL AGENCY PERMIT ACTIVITY SUMMARY <i>Calendar Year 2002</i> .....	44
TABLE IV-2	DELEGATED LOCAL AGENCY SUMMARY OF ALL PERMIT VIOLATIONS <i>Calendar Year 2002</i> .....	46
TABLE VI-1	CLEAN WATER ENFORCEMENT FUND SCHEDULE	

	<i>Calendar Year 2002</i> .....	59
TABLE VI-2	CLEAN WATER ENFORCEMENT COST STATEMENT <i>Calendar Year 2002</i> .....	60

**LIST OF CHARTS**

CHART III-1	SERIOUS VIOLATIONS <i>1992-2002</i> .....	25
CHART III-2	SIGNIFICANT NONCOMPLIERS <i>1992-2002</i> .....	27
CHART III-3	PENALTIES COLLECTED <i>1991-2002</i> .....	41
CHART IV-1	EFFLUENT VIOLATIONS <i>1991-2002</i>	46
CHART IV-2	SIGNIFICANT NON-COMPLIERS AS REPORTED BY DLAs <i>1991-2002</i>	48
CHART IV-3	PENALTY MONEY COLLECTED BY DLAs <i>1991-2002</i>	50

**LIST OF FIGURES**

FIGURE VII-1	NEW JERSEY'S WATERSHED MANAGEMENT AREAS....	62
--------------	---	----

**LIST OF APPENDICES**

APPENDIX III-A	NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION - SIGNIFICANT NONCOMPLIERS.....	A-1
APPENDIX IV-A	DLA - SUMMARY OF RESPONSES.....	A-9
APPENDIX IV-B	DLA - SIGNIFICANT NONCOMPLIERS.....	A-46
APPENDIX IV-C	SPECIFIC PURPOSES FOR WHICH PENALTY MONIES COLLECTED BY THE DLAs HAVE BEEN SPENT.....	A-84





## EXECUTIVE SUMMARY

In 1972, Congress enacted the first comprehensive national clean water legislation in response to growing public concern for serious and widespread water pollution. The Clean Water Act (CWA) is the primary federal law that protects our nation's waters, including lakes, rivers, aquifers and coastal areas.

The CWA established the basic structure for regulating discharges of pollutants into the waters of the United States by making it unlawful for any person to discharge any pollutant from a point source unless a permit was obtained under its provisions. The Water Pollution Control Act (WPCA), enacted in 1977, enabled New Jersey to implement the New Jersey Pollutant Discharge Elimination System (NJPDDES) permitting system required under the CWA. This system specifies that a person must obtain a NJPDDES permit in order to discharge a pollutant into surface water or ground water of the State or to release a pollutant into a municipal treatment works.

In 1990, the Legislature enacted substantial amendments to the WPCA, commonly known as the Clean Water Enforcement Act (CWEA), P.L. 1990, c.28, which included the imposition of mandatory minimum penalties for certain violations of the WPCA. The CWEA requires the Department to prepare an annual report on implementation and enforcement actions which the Department and delegated local agencies (DLAs) have taken during the preceding calendar year. The Department has been implementing the major provisions of the CWEA, including the mandatory penalty scheme, since July 1, 1991; therefore, the information contained in this report enables the Department and the Legislature to reflect upon more than ten years of implementation and enforcement of the CWEA.

### **Permitting**

The Department's Division of Water Quality (DWQ) issues Discharge to Surface Water (DSW), Stormwater, Discharge to Groundwater (DGW), and Land Application of Residuals permits to regulate "discharges" of pollutants to the surface and ground waters of the State. The DWQ also issues Significant Indirect User ("SIU") permits which regulate the discharge of industrial wastewater into sewage treatment plants. The DWQ, at times, issues permits for "discharge types" rather than facilities, therefore a facility with more than one discharge type may have more than one permit.

The number of permitted discharges regulated by the DWQ has been growing slightly over the past several years mainly due to increased efforts to address backlogged applications in the ground water permits program. The DWQ continues to issue permits to new facilities, while other facilities' permits are being terminated or not renewed. Most permit actions are for renewals of existing permits.

The DWQ has increased the practice of providing a predraft of a permit to permittees prior to the formal public notice period. This provides the permittee with an opportunity to correct factual information used in the permit development before issuance of the formal draft permit. General permits contain certain conditions and effluent limitations that are the same for similar types of discharges. Once a general permit is issued, applicants may request authorization to discharge under the final general permit. In such cases, applicants are aware of the permit conditions and effluent limitations before they apply for the permit. Understanding the permit conditions prior to applying for a general permit and providing an opportunity to correct factual information for regular permits greatly improves acceptance of the permit by the permittee and thereby diminishes the filing of

hearing requests. This practice has allowed the DWQ to focus its resources on the issuance of permits.

The Department's DWQ regulated 791 facilities that discharge to the surface waters of the State in 2002, as compared to the 825 facilities regulated in 2001. The Department also regulates facilities discharging to ground water and to POTWs, discharging stormwater only, or that handle, distribute or land apply residuals. The additional types of facilities the Department also regulates are listed in this report as "Other". In 2002, the DWQ regulated 3,329 of these other facilities (either separately or combined with a DSW), as compared to the 3,201 regulated in 2001, an increase of 4 percent. The DWQ regulated a total of 3,890 facilities in 2002, compared with 3,787 facilities in 2001, an increase of 3 percent.

The Department may at times issue permits for "discharge types" rather than facilities, therefore a facility with more than one discharge type may have more than one permit. As of December 31, 2002, the Department permitted 4,212 discharge types for 3,890 facilities.

In 2002, the Department took 2,062 formal permit actions, reflecting a 268 percent increase in permit actions from 2001. This large increase is mainly due to renewal of the authorizations under the Basic Stormwater General Permit.

The Department issued DSW permit renewals to 26 major facilities in 2002. Over the past few years, DWQ has focused its permitting resources on renewing major DSW permits. The Department also issued 114 new permits and received no hearing requests on these actions. The Department issued 1747 permit renewals and received 9 hearing requests on these actions.

For the Stormwater Permitting Program in 2002, 51 new general permit authorizations were issued, 1605 were renewed, none were modified, and 70 general permit authorizations were terminated. In addition, no new individual permits were issued, 16 were renewed, 9 were terminated, and 3 individual permit modifications were completed. Since the inception of the program, the DWQ has received 9,282 Nonapplicability Forms to-date, with 29 received in 2002.

## **Enforcement**

### *Inspections*

The Department is required to inspect permitted facilities and municipal treatment works at least annually. Additional inspections are required when the permittee is identified as a significant noncomplier (SNC). The inspection requirement applies to all facilities except those that discharge only stormwater or non-contact cooling water and to those facilities which a DLA is required to inspect.

In 2002, the Department inspected 1,642 NJPDES permitted facilities. Since some facilities have more than one discharge type, the 1,642 permitted facilities represent 2,028 discharges. Excluding the facilities authorized to discharge under a stormwater program general permit, the Department conducted 2,028 facility inspections in 2002. Of the 2,028 facility inspections performed, 1,884 were full inspections and 129 were interim inspections.

### *Violations*

In 2002, the Department assessed penalties against 82 facilities for 373 violations of the WPCA. The 373 violations addressed by the Department's actions was the second lowest ever recorded with the 291 violations in calendar year 1998 being the lowest. In comparison, in 1992 the Department assessed penalties against 300 facilities for 2,483 violations. A closer look at the data shows that the penalty actions issued in 2002 were similar to those in the past few years in one respect: for penalty actions for effluent violations, more than one-half of the actions (27 of 49) were in response to just a single violation.

Effluent violations comprised 48.0 percent (179) of the 373 violations for which the Department assessed penalties in 2002. Strikingly, since 1992, there has been almost an 86 percent decrease in the number of effluent violations for which the Department assessed penalties (1,446 to 179). Of the 179 effluent violations in 2002, 81.0 percent (145) concerned discharges of nonhazardous pollutants, such as suspended solids, nutrients and fecal coliform. The remaining 19.0 percent (34) concerned discharges of hazardous pollutants, such as chlorine residual, metals, pesticides and organics.

As mentioned above, more than one-half of the penalty actions (27 of 49) issued for effluent violations were in response to just a single violation. Only eight actions involved five or more effluent violations. Of the 179 effluent violations, 79 violations were from just 5 permittees.

Reporting violations accounted for 17.7 percent (66) of the violations for which the Department assessed a penalty. This number is the lowest figure ever reported. It is important to point out that the 66 reporting violations in 2002 is not an indication that numerous permittees are having reporting violations. Only 14 permittees had such violations - three of which were responsible for 59 percent or 39 of the 66 reporting violations.

### *Serious Violations*

In 2002, the Department identified and issued formal enforcement actions for 159 serious effluent violations (33 were from local permittees and 126 from nonlocals). These violations involved discharges from 48 facilities. Of the 159 serious violations, 76.7 percent (122) involved violations of limitations for nonhazardous pollutants, and the remaining 23.3 percent (37) involved violations of limitations for hazardous pollutants. Serious violations have decreased from a reported high figure of 847 in 1992.

However, there was clearly a significant increase for the fourth consecutive year in the number of serious violations by nonlocal agencies. The 126 violations being the most reported since 1997. While this appears to be a disturbing trend, it must be noted that of the 126 nonlocal serious violations that were addressed by a penalty action in 2002, 48 of the violations actually occurred in calendar years 1991-1997. Various reasons were responsible for the extended delay in these violations being addressed. The 48 facilities having serious effluent violations was much lower than the 66 facilities in 2001 but similar to the number reported in the three previous years.

### *Significant Non-Compliers*

In 2002, the Department issued formal enforcement actions to 16 permittees identified as SNCs.

None of the permittees have contested their individual designations as SNCs. In 1992, 81 permittees were issued penalties for becoming an SNC. Therefore, the number of SNCs has dropped by 80 percent since 1992. In 2002, 12 of the 16 SNC permittees were nonlocal agencies and 4 were local agencies. Ten of the permittees violated a DSW permit, three were a DGW permit and three were a SIU permit. In 2002, there were no permittees that continued to be an SNC violator from 2001. In comparison, the number of permittees identified in the 1993 report that continued to be or were repeat SNC violators was 18.

Of the 16 permittees identified as SNCs in 2002, 56 percent (9) had only violations of limitations for nonhazardous pollutants, 6 percent (1) involved only violations of limitations for hazardous pollutants, 19 percent (3) had violations of limitations for both nonhazardous and hazardous pollutants, 13 percent (2) had only violations of reporting requirements and 6 percent (1) had both reporting and effluent violations.

As has been the case since 1996, the percentage of permittees in significant noncompliance in 2002 was less than 2.0 percent of the total NJPDES permittees with monitoring and reporting requirements in their permits.

### *Enforcement Actions*

The Department uses both informal and formal enforcement actions to promote compliance with the WPCA. An informal enforcement action notifies a violator that it has violated a statute, regulation or permit requirement, and directs the violator to take corrective actions to comply. The Department typically takes formal administrative enforcement action when it is required by the CWEA to assess a mandatory penalty or when a permittee has failed to remedy a violation in response to an informal enforcement action previously taken by the Department. The Department only takes formal enforcement action when it has verified that a violation has occurred.

#### *Informal Enforcement Actions:*

In 2002, the Department initiated 559 informal enforcement actions or Notices of Violation (NOVs) compared with 1,273 in 1992.

#### *Formal Enforcement Actions:*

In 2002, the Department initiated 137 formal enforcement actions compared with 752 in 1992 and a high of 941 in 1993.

The reduction in formal actions since 1992 can be traced for the most part to the decrease in the issuance of administrative actions containing penalty assessments that could be adjudicated. Meanwhile, the number of Settlement Agreements with a Penalty (SA/Ps), which typically constitute approximately 50 percent of all formal enforcement actions, was down from a high of 126 in 1995 to only 63 in 2002. This indicates a drop in the number of facilities, which had violations that would trigger mandatory penalties under the CWEA (serious and SNC violations), that chose to enter into SA/Ps to avoid litigation costs and resolve violations quickly.

However, for the first time since the CWEA Annual Reports have been prepared, the number

of formal actions increased over the previous year's figure (137 actions in 2002 compared to 114 actions in 2001). Even so, the number in 2002 was within the same range as the previous four years. The total number of 696 enforcement actions (informal and formal) in 2002 was at its highest level since 1995 when 961 actions were taken.

### *Penalties Assessed and Collected*

In 2002, the Department assessed a total of \$2.27 million in civil and civil administrative penalties within 95 distinct enforcement actions. It is the third lowest yearly assessment on record; with the \$1.30 million assessed in 1998 and the \$1.86 million in 1996 being the only lower amounts. Interestingly, this is the fewest number of total penalty actions taken in a calendar year since keeping records in 1991.

In 2002, the Department collected \$3,841,786 in penalties from 112 permittees. This was the highest amount collected since 1995 and was a reversal of the decreasing or stagnant trend seen over the past 6 years or so. There were 11 payments made greater than \$100,000. On the other hand, of the 126 payments received by the Department, 62 were for \$5,000 or less.

### **Delegated Local Agencies**

A DLA is a political subdivision of the State, or an agency or instrumentality thereof, which owns or operates a municipal treatment works and implements a Department approved industrial pretreatment program. During calendar year 2002, one additional local agency, the Cumberland County Utilities Authority, received Department approval of its industrial pretreatment program. Approval of the CCMUA program brings the total number of DLAs to 24. These 24 DLAs have issued permits to control the discharges from a total of 1,007 facilities discharging to their sewage treatment plants.

The CWEA requires DLAs to annually inspect each permitted facility discharging into their sewage treatment plant. For Categorical/Significant/Major (CSM) permittees, the CWEA requires the DLA to annually conduct a representative sampling of the permittees' effluent. For Other Regulated (OR) permittees, the DLA is required to perform sampling only once every three years. The DLAs inspected and sampled 943 of the 1,007 permittees at least once during the calendar year.

The DLAs reported 1,266 permit violations by permitted facilities in 2002, compared with 1,382 violations in 2001. The DLAs reported a total of 50 indirect users who qualified as SNCs under the State definition during 2002. The analysis in the 2001 report indicated that 56 indirect users met the SNC definition. Therefore, there was a decrease of 6, or a 10.7 percent reduction in the number of facilities in significant noncompliance. The DLAs reported as a whole that by the end of calendar year 2002, 27 (54.0 percent) of the 50 indirect users in significant noncompliance had achieved compliance. During 2002, the DLAs issued 400 enforcement actions as a result of inspections and/or sampling activities.

In calendar year 2002, 14 of the DLAs assessed a total of \$1,800,413 in penalties for 653 violations while collecting \$1,148,645. In 2001, 15 DLAs assessed \$1,132,651 in penalties for 431 violations while collecting \$1,244,449.

## **Criminal**

In 2002, the Division of Criminal Justice conducted a total of 25 WPCA investigations. The Division also reviewed over 800 department actions (NOV's, Orders, Penalty Assessments, etc.) for potential criminality. The Division's state investigators responded to 26 water pollution emergency response incidents. The Division filed three criminal actions (indictments or accusations) for violations of the WPCA. (The Division filed a total of 14 criminal actions in Environmental Cases.) All of them have been resolved through guilty pleas. The Division thus obtained a total of three convictions against three defendants for violations of the WPCA. The Division also entered into two consent agreements that resolved two Division water pollution investigations. In 2002, through the successful prosecution of cases involving water pollution, the Division obtained 13 years jail time and \$408,500 in fines and restitution.

In 2002, county prosecutors' offices filed six criminal actions for violations of the WPCA. This included a total of four complaints and two accusations. This total is derived from actions filed by the prosecutors of Morris (4) and Passaic (2) counties. The Morris County Prosecutor's Office also secured a sentencing from a 2001 indictment.

## **Fiscal**

A total of \$2,221,026 in penalty receipts was deposited in the second half of FY2002 and \$1,790,945 in penalty receipts was deposited during the first half of fiscal year 2003.

In calendar year 2002, the Fund disbursed \$275,779 to the Division of Law for the costs of litigating civil and administrative enforcement cases and other legal services; \$60,298 to the Office of Administrative Law for costs associated with adjudicating WPCA enforcement cases; and \$76,655 to the Office of Information Technology. The CWFEB disbursed \$782,606 for expenses incurred by the Department.

## **Water Quality Assessment**

Each year, the Department assesses the status of rivers, streams, lakes and coastal waters through its water quality monitoring networks. These results are then compiled and assessed biannually. The 2002 data has been combined with the 2002 303(d) List to form the *2002 New Jersey Integrated Water Quality Monitoring and Assessment Report*.

### Nontidal Rivers and Streams

Overall results indicate that dissolved oxygen levels in the state are relatively healthy. The improvement of unionized ammonia concentrations in waters statewide has been dramatic. Over 98% of stations assessed fully met the standards for Total Dissolved Solids (TDS). The assessment results show that almost half of the stations do not meet Total Phosphorus (TP) standards. As a result of new data collection for metals, 38 sampling sites were delisted from the 1998 303(d) List after new data confirmed that water quality met the SWQS.

## Tidal Rivers and Coastal Waters

- Of the 95 miles of tidal rivers assessed for dissolved oxygen, 76 miles (80%) were assessed to be in full attainment, 19 miles were in non-attainment (20%) due to periodic drops in DO.
- Of the 258 square miles of open estuarine waters assessed from southern Raritan Bay south to Cape May, 67% had sufficient dissolved oxygen levels to support a healthy biota. The remaining 33 % were assessed as being in non-attainment due to periodic drops in DO levels to unacceptable levels.
- Of 454 square miles of ocean water assessed (Sandy Hook south to Cape May and 3 nautical miles off the coast) for dissolved oxygen, 30 percent (136 sq. mi.) had acceptable levels and the remaining 70 percent (318 sq. mi.) had unacceptably low levels brought about by a benthic low DO cell which forms off the coast during the summer months and breaks up in the fall.
- Seventeen sites representing 179 tidal river miles were assessed for metals in tidal rivers. Of the 91 individual metal listings on the 1998 303(d) List, 40 metals (44%) were delisted from the 17 assessed sites. Aside from these delistings, all 179 river miles still had at least one metal on the 303(d) List.





## I. INTRODUCTION

In 1972, Congress enacted the first comprehensive national clean water legislation in response to growing public concern for serious and widespread water pollution. The Clean Water Act (CWA) is the primary federal law that protects our nation's waters, including lakes, rivers, aquifers and coastal areas.

The CWA established the basic structure for regulating discharges of pollutants into the waters of the United States by making it unlawful for any person to discharge any pollutant from a point source unless a permit was obtained under its provisions. It also gave the United States Environmental Protection Agency (EPA) the authority to implement pollution control programs such as setting wastewater standards for industry and to delegate the primary responsibility to issue permits for discharges of pollutants and to enforce the permit system to individual states.

The Water Pollution Control Act (WPCA), enacted in 1977, enabled New Jersey to implement the permitting system required under the CWA. The WPCA established the New Jersey Pollutant Discharge Elimination System (NJPDES), whereby a person must obtain a NJPDES permit in order to discharge a pollutant into surface water or ground water of the State or to release a pollutant into a municipal treatment works.

The NJPDES permit is a legally binding agreement between a permittee and the Department, authorizing the permittee to discharge effluent into the State's waters under specified terms and conditions. These conditions include (a) the specific pollutants in the effluent stream, (b) the amount or concentration of those pollutants which the effluent may contain, (c) the type and number of tests of the effluent to be performed and (d) the reporting of test results to determine compliance. The permit normally provides for monthly reporting of these test results to the Department in a Discharge Monitoring Report (DMR).

In 1990, the Legislature enacted substantial amendments to the WPCA, commonly known as the Clean Water Enforcement Act (CWEA), P.L. 1990, c.28. The CWEA added strength to the enforcement of New Jersey's water pollution control program by including the imposition of mandatory minimum penalties for certain violations of the WPCA. The CWEA also requires the Department to prepare a report and submit it to the Governor and the Legislature by March 31 of each year on implementation and enforcement actions which the Department and delegated local agencies (DLAs) have taken during the preceding calendar year. The statute also specifies the items that the report must contain. In accordance with the CWEA, specifically N.J.S.A. 58:10A-14.1-14.2, this report provides information about Permitting, Enforcement Actions, DLAs, Criminal Actions, Fiscal, and Water Quality Assessment.

The Permitting chapter provides information related to permits, including the number of facilities permitted, the number of new permits, permit renewals and permit modifications issued and the number of permit approvals contested.

The Enforcement chapter provides the following:

- A. Information related to inspections, including the number of facilities (including publicly owned treatment works) and the number of discharges inspected at least once by the Department;

- B. Information related to violations and violators including the number of enforcement actions resulting from facility inspections, the number of permit violations, the number of violations of administrative orders and administrative consent orders, the number of violations of milestones in compliance schedules which have continued for more than 90 days, the number of effluent violations which constitute serious violations, the number of permittees qualifying as significant noncompliers, the number of violations for which civil penalties or civil administrative penalties have been assessed, the number of unpermitted discharges, and the number of affirmative defenses granted; and
- C. Information related to enforcement actions and penalties, including the dollar amount of civil penalties and civil administrative penalties assessed, the dollar amount of civil penalties and civil administrative penalties collected, and the dollar amount of enforcement costs recovered in civil actions and civil administrative actions.

The DLA chapter provides enforcement and permitting information relating to local agencies' operations of sewage treatment plants with industrial pretreatment programs approved by the Department.

The Criminal Actions chapter provides information concerning criminal actions filed by the New Jersey State Attorney General and by county prosecutors.

The Fiscal chapter provides financial information, including the purposes for which program monies have been expended.

The Water Quality Assessment chapter provides an assessment of surface water quality in the context of the Department's Results Based Management system. Information on the Department's Ambient Stream Monitoring Network (ASMN) has been provided along with the current status of water quality in the State's streams, lakes and coastal waters.

## II. PERMITTING

The CWEA requires the Department to report the total number of facilities permitted pursuant to the WPCA, the number of new permits, renewals and modifications issued by the Department and permit actions contested in the preceding calendar year. This information is presented below. Since 2000, the former section on Stormwater Permitting has been incorporated into the Division of Water Quality (DWQ) section.

### A. DIVISION OF WATER QUALITY

The Department issues Discharge to Surface Water (DSW), Stormwater, Discharge to Groundwater (DGW), and Land Application of Residuals permits to regulate "discharges" of pollutants to the surface and ground waters of the State. DSW permits include Industrial permits issued to facilities discharging various types of wastewater (such as process water, cooling water, decontaminated groundwater, and commingled stormwater) to surface waters and Municipal permits issued to publicly owned treatment works ("POTWs") and privately owned treatment plants discharging primarily sanitary wastewater. Stormwater permits are required for stormwater discharges associated with industrial activity. Significant Indirect User ("SIU") permits regulate the discharge of industrial wastewater into sewage treatment plants. Facilities that discharge pollutants directly or indirectly to the ground waters of the State are issued DGW permits. Facilities that distribute, handle or land apply residuals are issued a Land Application of Residuals permit.

#### **Section One - Number of Facilities Permitted:**

The Department's DWQ regulated 791 facilities that discharge to the surface waters of the State in 2002, as compared to the 825 facilities regulated in 2001. The Department also regulates facilities discharging to ground water and to POTWs, discharging stormwater only, or that handle, distribute or land apply residuals. These types of facilities are listed under "Other" in Table II-1. Some facilities have both a DSW discharge and another type of discharge. In reports prior to year 2000, permit statistics for stormwater permits were reported separately from the other permit categories. Commencing with the 2000 report the information on stormwater permits was consolidated with the rest of the NJPDES permit information. In 2002, the DWQ regulated 3,329 of these other facilities (either separately or combined with a DSW), as compared to the 3,201 regulated in 2001, an increase of 4 percent. The DWQ regulated a total of 3,890 facilities in 2002, compared with 3,787 facilities in 2001, an increase of 3 percent.

**TABLE II-1**

**REGULATED FACILITIES  
2000-2002**

<b>FACILITIES REGULATED</b> (including stormwater starting in 2000)	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>% Growth 2001-2002</b>
Discharge to Surface Water only	613	586	561	-4.2
DSW/Other combined	219	239	230	-3.8
Other only	3,084	2,962	3,099	+4.6
<b>TOTAL</b>	<b>3,916</b>	<b>3,787</b>	<b>3,890</b>	<b>+2.7</b>

The Department may at times issue permits for "discharge types" rather than facilities, therefore a facility with more than one discharge type may have more than one permit. As of December 31, 2002, the Department permitted 4,212 discharge types for 3,890 facilities. Table II-2 below provides information regarding the number of discharge types permitted by the Department between 1999 and 2002.

**TABLE II - 2  
REGULATED DISCHARGES BY TYPE  
1999-2002**

<b>DISCHARGE ACTIVITY TYPE</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
INDUSTRIAL DSW	558	557	547	555
MUNICIPAL DSW	276	275	258	250
SIU	68	75	83	78
GROUNDWATER	889	878	998	1,091
RESIDUALS	71	72	64	66
STORMWATER	2,033	2,251	2,204	2,172
<b>TOTAL</b>	<b>3,895</b>	<b>4,108</b>	<b>4,154</b>	<b>4,212</b>

The number of permitted discharges (adjusted for the inclusion of the stormwater discharges) regulated by the DWQ has been growing slightly over the past several years. The Department continues to issue permits to new facilities, while other facilities' permits are being terminated or not renewed. Most permit actions are for renewals of existing permits. In 2002, the permitted facility universe increased by 58, mainly due to increased efforts to address backlogged applications in the ground water permits program.

**Section Two - Types of Permits and Permit Actions:**

The Department issues several different types of NJPDES permits. Permits are limited to a maximum term of five years. The permittee must reapply 180 days before the current permit expires if a permittee anticipates continuation of the discharge. The Department has classified its NJPDES permit actions based upon the technical complexity of the permit application and the potential environmental or health effects of the discharge, and reports the following permit categories in the Permit Activity Report in accordance with P.L. 1991, c.423:

*Requests for Authorization to discharge under a general permit:*

General permits reduce permit processing time because a standard set of conditions, specific to a discharge type or activity, are developed (rather than issuing individual permits for each discharge or activity). This permitting approach is well suited for regulating similar facilities or activities that have the same monitoring requirements. The following general permits are currently effective:

**TABLE II - 3  
GENERAL PERMITS**

<b>NJPDES No.</b>	<b>Category</b>	<b>Name of General Permit</b>	<b>Discharge Type</b>	<b>Year Issued</b>
NJ0070203	CG	Non-contact Cooling Water	DSW	2000
NJ0102709	B4B	Groundwater Petroleum Product Clean-up	DSW	1998
NJ0128589	B6	Swimming Pool Discharges	DSW	1998
NJ0134511	B7	Construction Dewatering	DSW	1999
NJ0132993	BG	Hydrostatic Test Water	DSW	1999
NJ0105023	CSO	Combined Sewer Overflow	DSW	2000
NJ0105767	EG	Land Application Food Processing Residuals	RES	1998
NJ0132519	ZG	Residuals Transfer Facilities	RES	1999
NJ0132501	4G	Residuals – Reed Beds	RES	2002
NJ0108308	I1	Stormwater Basins/SLF	DGW	2001
NJ0108642	I2	Potable WTP Basins/Drying Beds	DGW	1996
NJ0130281	T1	Sanitary Subsurface Disposal	DGW	1998
NJ0088315	5G2	Basic Industrial Stormwater	DST	2002
NJ0108456	CPM	Concrete Products Manufacturing	DST	1995
NJ0107671	SM	Scrap Metal Processing/Auto Recycling	DST	1999
NJ0134791	R5	Newark Airport Complex	DST	2000
NJ0138631	R8	Concentrated Animal Feeding Operations	DST	2003

In 2003, the Department anticipates renewing the Potable WTP Basin/Drying Bed General Permit and the Concrete Products Manufacturing General Permit. The Concrete Products general permit is being expanded to regulate stormwater discharges to groundwater. In addition, the Department will be issuing several new general permits for stormwater discharges from Asphalt Paving Mix Manufacturing Operations, Mining and Quarrying Activities, and for the Phase II Municipal Stormwater Program. A DGW general permit for Lined Surface Impoundments is also expected.

*Surface Water Permits:*

These are individual permits and renewals issued for the discharge of sanitary, industrial, cooling, decontaminated ground water and stormwater runoff not eligible for coverage under a general permit.

*Stormwater Permits:*

These are individual permits and renewals issued for the discharge of stormwater runoff not eligible for coverage under a general permit.

*Construction Activity Stormwater General Permits:*

The Construction Activity General Permit (NJ0088323) is for construction activities disturbing five acres or more and certain mining activities, all of which are considered industrial activities. Last renewed in 2002, this permit is administered by the 17 local Soil Conservation Districts in conjunction with the Soil Erosion and Sediment Control Plan certification. The Department issued 576 construction activity general permit authorizations in 2002 for a total of 4,564 authorizations issued to-date from the program's inception.

*Ground Water Permits:*

These are individual new permits and renewals issued to facilities for wastewater that is discharged directly or indirectly to the ground water of the State. The DWQ issues ground water permits for septic systems, infiltration-percolation lagoons, spray irrigation systems, overland flow and landfills.

*Significant Indirect Users:*

These are individual permits and renewals issued for wastewater discharges to publicly owned treatment works. There are 24 Delegated Local Agencies (DLAs) with the authority to issue SIU permits for significant discharges occurring within their respective service areas. The Department is responsible for permitting SIU discharges for the remainder of the State.

*Land Application of Residuals:*

These are individual permits and renewals issued to regulate the distribution, handling and land application of residuals originating from sewage treatment plants, industrial treatment plants, water treatment plants and food processing operations.

*Permit Modifications:*

These are modifications to existing permits and are usually requested by the NJPDES permittee. These modifications range from a transfer of ownership, or reduction in monitoring frequency, to a total re-design of a wastewater treatment plant operation. The Department can issue modifications for all discharge types except Requests for Authorization under a general permit. Permit modifications do not extend the expiration date of the permit.

*Permit Terminations (Revocations):*

These actions are also often initiated by the permittee when the regulated discharge of pollutants has ceased, usually as a result of regionalization, closure or recycling. Prior to terminating or revoking a permit, the Department ensures that sludge has been removed, outfalls have been sealed, and the treatment plant has been dismantled.

### **Section Three - Permit Actions:**

Table II-4 summarizes formal permit actions by the categories described above. For the purposes of this presentation, "Request for Authorizations" are included as new or renewals, as appropriate, under the applicable discharge type. Since the Construction General Permit (NJ0088323) is administered by the local Soil Conservation Districts, those permit actions are not summarized here. In each permit category, the number of new permits, renewal permits, permit modifications, and terminations (revocations) are listed.

In 2002, the Department took 2,062 formal permit actions, reflecting a 268 percent increase in permit actions from 2001. This large increase is mainly due to renewal of the authorizations under the Basic Stormwater General Permit. Approximately 5 percent of the final permit actions were new facilities, 85 percent of the actions were permit renewals, 3 percent were for permit modifications, and 7 percent were for permit terminations. New permits and permit renewals may be controversial, particularly when the Department imposes new requirements or more stringent effluent limitations, and have historically been contested. In 2002, the Department received 10 requests for adjudicatory hearings, compared to 16 requests received in 2001. This is a request rate of 0.5 percent as a percent of permit actions. The Department recommends meeting with the applicant prior to issuing a draft permit to ensure that the data submitted in the application is current and to obtain any additional information that might be useful. This has resulted in better permits and a reduced number of requests for adjudicatory hearings.

The Department issued DSW permit renewals to 26 major facilities in 2002. Over the past few years, DWQ has focused its permitting resources on renewing major DSW permits. The Department also issued 114 new permits and received no hearing requests on these actions. The Department issued 1747 permit renewals and received 9 hearing requests on these actions. The relatively low number of hearing requests can be attributed to the increased use of general permits and to providing predrafts to permittees. The general permits contain certain conditions and effluent limitations that are the same for similar types of discharges. Once a general permit is issued, applicants may request authorization to discharge under the final general permit. In such cases, applicants are aware of the permit conditions and effluent limitations before they apply for the permit. In the case of regular permits, the DWQ has increased the practice of providing a predraft of a permit to permittees prior to the formal public notice period. This provides the permittee with an opportunity to correct factual information used in the permit development before issuance of the formal draft permit. Understanding the permit conditions prior to applying for a general permit and providing an opportunity to correct factual information for regular permits greatly improves acceptance of the permit by the permittee and thereby diminishes the filing of hearing requests.

**TABLE II - 4  
PERMIT ACTIONS TAKEN BY THE DIVISION OF WATER QUALITY**

2000 - 2002

TYPE OF PERMIT ACTION	2000	Contested 2000	2001	Contested 2001	2002	Contested 2002
<b>Industrial Surface Water</b>						
- New	26	0	14	2	12	0
- Renewals	81	1	49	0	50	0
- Modifications	10	0	12	0	17	0
- Terminations	22	0	59	0	36	0
<b>Subtotal</b>	139	1	134	2	115	0
<b>Municipal Surface Water</b>						
- New	0	0	0	0	0	0
- Renewals	38	4	31	9	24	4
- Modifications	26	0	18	0	23	0
- Terminations	2	0	5	0	0	0
<b>Subtotal</b>	66	4	54	9	47	4
<b>Significant Indirect User</b>						
- New	9	0	10	0	10	0
- Renewals	17	0	8	0	10	0
- Modifications	0	0	0	0	8	1
- Terminations	3	0	2	0	11	0
<b>Subtotal</b>	29	0	20	0	29	1
<b>Ground Water</b>						
- New	45	0	37	2	37	0
- Renewals	18	0	48	2	37	3
- Modifications	5	0	3	0	8	0
- Terminations	21	0	11	0	13	0
<b>Subtotal</b>	89	0	99	4	95	3
<b>Land Application of Residuals</b>						
- New	4	0	1	0	4	0
- Renewals	3	0	7	1	5	0
- Modifications	0	0	0	0	1	0
- Terminations	3	0	2	0	2	0
<b>Subtotal</b>	10	0	10	1	12	0
<b>Stormwater</b>						
- New	88	0	145	0	51	0
- Renewals	63	0	22	0	1621	2
- Modifications	5	0	12	0	3	0
- Terminations	91	0	64	0	79	0
<b>Subtotal</b>	247	0	243	0	1754	2
<b>TOTALS</b>	580	5	560	16	2062	10



For the Stormwater Permitting Program in 2002, 51 new general permit authorizations were issued, 1605 were renewed, none were modified, and 70 general permit authorizations were terminated. In addition, no new individual permits were issued, 16 were renewed, 9 were terminated, and 3 individual permit modifications were completed. The DWQ has also received 9,282 Nonapplicability Forms to-date, with 29 received in 2002.

Table II-5 reflects the total number of permit actions taken by the DWQ in each of the last four years.

**TABLE II - 5  
COMPARISON OF PERMIT ACTIONS  
1999 - 2002**

<b>TYPE OF PERMIT ACTION</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
New	190	172	207	114
Renewal	134	220	165	1,747
Modifications	41	46	45	60
Terminations (Revocations)	205	142	143	141
<b>TOTAL ACTIONS</b>	<b>570</b>	<b>580</b>	<b>560</b>	<b>2,062</b>

## **B. NEW DEVELOPMENTS**

### **Section One - Four General Permits Renewed or Issued**

The Division issued the renewed NJPDES general permit for stormwater discharges from industrial facilities in June 2002 and the NJPDES general permit for stormwater discharges from construction sites greater than 5 acres in March 2002. The new Concentrated Animal Feeding Operations (CAFO) general permit was issued in January 2003. The Division also issued a NJPDES General Permit in December 2002 for residuals operations using phragmites reed beds. General permits reduce permit processing time because a standard set of conditions, specific to a discharge type or activity, are developed (rather than issuing individual permits for each discharge or activity). This permitting approach is well suited for regulating similar facilities or activities that have the same monitoring requirements. In addition, it makes permit requirements consistent across the regulated community.

The following is a brief description of the new and renewed general permits:

- **Basic Industrial General Stormwater Permit**

The Division reissued the 5G2 Basic Industrial General Stormwater Permit (NJ0088315) to authorize discharges of stormwater to surface and ground water from regulated industrial facilities. The permit requires the preparation of a Stormwater Pollution Prevention Plan which, when implemented, ensures the elimination within 18 months of authorization of all exposure of industrial materials and activities to stormwater. This permit previously only regulated discharges to surface

water. The regulation of discharges to ground water was added in order to protect drinking water supplies and the water quality of New Jersey's aquifers. The authorizations of 1,540 facilities were renewed under the general permit upon issuance.

- **Construction Activity Stormwater General Permit**

The Construction Activity Stormwater General Permit (NJ0088323) was renewed by the Division to authorize stormwater discharges from construction activities disturbing 5 acres or more and certain mining activities. The permit requires the development and certification of a soil erosion and sediment control plan to reduce the environmental damage that can result when rainwater falls on land disturbed by construction and mining activities. This rainwater causes erosion and sediment laden runoff to enter our lakes, rivers, and other water bodies. As of December 31, 2002, there were 4,564 active authorizations under this permit.

- **Concentrated Animal Feeding Operations (CAFO) General Permit**

The Division issued a new general permit for Concentrated Animal Feeding Operations (CAFO) in January 2003. The CAFO General Permit (NJ0138631) authorizes new and existing discharges from concentrated animal feeding operations and designated animal feeding operations that are required under the federal Clean Water Act to obtain a permit. The permit requires, among other things, that CAFOs comply with the federal effluent limitation guideline and prepare and implement a Comprehensive Waste Management Plan in accordance with Natural Resource Conservation Service technical guidance.

- **Residuals-Reed Beds General Permit**

The Residuals-Reed Beds General Permit (NJ0132501) was issued by the Division to authorize a residuals management process by which sewage sludge from the treatment of sanitary wastewater is discharged to basins in which the reed grass *Phragmites* or similar species is cultivated to facilitate the sludge drying and treatment process. The reed grass species has the ability to absorb water and convey oxygen to the sludge creating a favorable environment for further biological breakdown with a corresponding volume reduction. These drying beds can be operated for over five years before the remaining sludge residues have to be removed. The general permit was developed to streamline permit issuance for this type of sludge process. While ideally suited for small domestic treatment works (less than 1.0 mgd), the reed bed process has proven successful and cost-effective at larger treatment works up to 8.0 mgd. Ten domestic treatment works are eligible for authorization under the general permit.

## **Section Two - Municipal and Industrial Surface Water Permitting**

Significant progress was achieved in reducing the backlog of major permits for municipal and industrial surface water permits. The goal of reducing the backlog to less than 20% for majors was achieved. In January 2002, the starting backlog for major permits was 35%. The backlog was reduced to 18% for majors at the end of calendar year 2002.

Excessive phosphorus in freshwater streams, lakes, and rivers results in algae blooms, depleted oxygen levels, adverse impacts on aquatic populations, and taste and odor problems in potable waters. Numerical exceedances of the phosphorus criteria in the Surface Water Quality Standards (SWQS) necessitates the imposition of water quality based effluent limitations (WQBELs) in NJPDES discharge to surface water permits. The Department has begun to incorporate necessary WQBELs for phosphorus in appropriate permits along with a compliance schedule. However, in

accordance with the provisions of the SWQS, the Department will provide the permittees an opportunity to demonstrate why the limitation should not apply to their discharge. Specifically, WQBELs for phosphorus will not apply if phosphorus is not the limiting nutrient and does not otherwise render the water body unsuitable for designated uses.

### **Section Three - Financial Incentive for the Beneficial Reuse of Effluent**

The Beneficial Reuse Program promotes the taking of what was considered to be wastewater, giving it a high degree of treatment, and then using the resulting high quality effluent to supplement potable water usage. In conjunction with the Beneficial Reuse Program (implemented through the NJPDES/DSW permit), new rules at N.J.A.C. 7:14D were adopted by the Department to provide financial incentives to encourage the reuse of further treated effluent in industrial processes. The rules implement N.J.S.A. 54:10A-5.31 and N.J.S.A. 54:32B-8.36 which enables persons who purchase treatment and/or conveyance equipment for purposes of conveying and further treating effluent from a wastewater treatment facility for reuse in an industrial process to apply to the Department for a determination of environmental benefit (DEB). An applicant who receives a DEB from the Department can file with the Division of Taxation a claim for a corporate business tax credit and/or sales tax refund for the qualifying equipment.

### **Section Four - 2002 Drought and Emergency Effluent Reuse Authorizations**

The Department is continuing its efforts under the Beneficial Reuse Program to promote wastewater effluent reuse and to issue permits for reuse operations. In response to the recurring drought, attention was focused on effluent reuse to assist in conservation and protection of the State's water resources. Consistent with the Executive Order No. 11 issued by Governor James E. McGreevey on March 4, 2002, DEP Commissioner, Bradley M. Campbell issued Administrative Order No. 2002-05 on March 12, 2002 establishing statewide water use restrictions due to the drought conditions. In accordance with the provisions of the referenced Administrative Order regarding the use of non-potable water as an alternative source for activities normally supplied by potable sources, the Division of Water Quality developed and issued drought emergency authorizations to allow effluent reuse as a component of statewide water conservation efforts. Seventy-seven (77) such authorizations were issued to municipalities, sewerage authorities, municipal utility authorities, etc. for a variety of "restricted access" activities (i.e., street sweeping, sewer jetting, dust control, watering of roadside plants, irrigation at wholesale nurseries, sewage treatment plant washdown water, etc.). A database system was also developed to track the approvals and their respective reuse activities.

### **Section Five - New Delegated Pretreatment Program Approval**

In 2002, the Division of Water Quality's Bureau of Pretreatment and Residuals approved the Cumberland County Utilities Authority's (CCUA) industrial pretreatment program. This brings the total of currently delegated pretreatment programs to 24. The CCUA currently receives wastewater from six (6) SIUs within its service area. With program delegation, the CCUA is now responsible for issuing permits to these SIUs, as well as enforcing the permits, and inspecting and sampling each of these facilities.

### **Section Six - Municipal Stormwater Regulation Program and Underground Injection Control**

The Division developed and, on January 6, 2003, proposed a new Municipal Stormwater Regulation Program within the NJPDES Permit Program in order to address U.S. Environmental Protection Agency requirements for municipal stormwater discharge permits (also known as “Phase II”). This program will regulate all municipalities and counties, as well as many state and federal agencies in the State. The program integrates the NJPDES program with other aspects of stormwater management regulated under the Stormwater Management Act. In addition, proposed amendments will address the 1999 changes to the Federal Underground Injection Control (UIC) regulations and revise other UIC requirements relating to the issuance of the permits.

The proposed rule also expands NJPDES permit requirements for stormwater discharges associated with construction activity, excludes stormwater discharges from industrial facilities that have “Permanent No Exposure” of industrial activities or materials to stormwater from the NJPDES permit requirement, extends the deadline by which certain publicly owned or operated industrial facilities must apply for a NJPDES stormwater permit, and eliminates the August 7, 2001 deadline by which other “Phase II” sources must apply for a NJPDES stormwater permit.

The Division issued four draft general permits in January 2003 to implement the proposed Municipal Stormwater Regulation Program. The four permits are:

- **Tier A Municipal Stormwater General Permit**

The Tier A Permit (NJ0141852) is primarily for 467 municipalities assigned to “Tier A” under proposed NJPDES rule changes.

- **Tier B Municipal Stormwater General Permit**

The Tier B Permit (NJ0141861) is primarily for 99 municipalities assigned to “Tier B” under proposed NJPDES rule changes.

- **Public Complex Stormwater General Permit**

The Public Complex Permit (NJ0141879) is primarily for county, State, interstate, and Federal agencies that operate “public complexes” (e.g., colleges or universities, hospitals, prisons, office complexes, or military bases) as described in proposed NJPDES rule changes.

- **Highway Agency Stormwater General Permit**

The Highway Permit (NJ0141887) is primarily for county, State, interstate, and Federal agencies that operate “highways and other thoroughfares” as described in proposed NJPDES rule changes.

Three public hearings were held on both the rules and the general permits during February, 2003. The public comment period on the rules and the permits closed on April 7, 2003. The Department is preparing responses to all comments submitted.

## **Section Seven - NJPDES Program to Introduce Electronic Monitoring Report Forms**

Electronic Data Interchange (EDI) is coming to the Division of Water Quality. Following a series of meetings and work sessions with stakeholders that began in March 2001, a conceptual design was developed. The electronic Monitoring Report Form (MRF) is designed to utilize a Microsoft Excel '97 based template. The Division pilot tested the New Jersey Pollutant Discharge Elimination System (NJPDES) EDI application in the Fall of 2002. Participants were able to submit all of their MRFs electronically via the Internet. The NJPDES EDI application will be available through the

NJDEP On-Line web portal at: <https://www.njdeponline.com>. Once the Division receives an EDI application form and approves it, the permittee will have the ability to access and download their MRFs on-line. Only those participants involved in the pilot program will have access to the application until the system is generally introduced in the Spring of 2003. At that time the Division will contact permittees through mailings and will conduct several informational meetings to introduce NJPDES EDI to interested permittees.

### **Section Eight - Information Available on DWQ Web Site**

The Division of Water Quality continues to maintain a number of helpful documents on its website which were previously distributed to permittees with their Monitoring Report Forms (MRF). These may be accessed at: [www.state.nj.us/dep/dwq/bpm.htm](http://www.state.nj.us/dep/dwq/bpm.htm).

Additionally, various NJPDES permit forms and checklists may be accessed at: [www.state.nj.us/dep/dwq/forms.htm](http://www.state.nj.us/dep/dwq/forms.htm).

Other permitting and technical information may be viewed and/or downloaded at: [www.state.nj.us/dep/dwq/permitng.htm](http://www.state.nj.us/dep/dwq/permitng.htm).

The Division receives many public requests for information from the NJPDES database. Some of the more popular and most requested information has been posted on the web site for download and updates and expanded information is made available on a periodic basis. The direct link for accessing this information is [www.state.nj.us/dep/dwq/database.htm](http://www.state.nj.us/dep/dwq/database.htm). Recently added to the Division web site is a crosslink to a series of reports that are available through the Department's Open Public Records Act web site. These semi-custom reports are generated through a link to the NJEMS database system. In addition to lists of permits selectable by a variety of categories, this interactive link allows for the retrieval and download of NJPDES DMR and WCR data. The DMR and WCR data is available for user selected periods beginning in July 2000. The report displays the raw data as reported by the permittees to the Department.

### **III. ENFORCEMENT**

The CWEA requires the Department to report information annually concerning the number of inspections conducted, the number and types of violations identified, the number of enforcement actions initiated and the dollar amount of penalties assessed and collected. The provisions of the CWEA relevant to this Chapter are as follows:

*Inspections:*

The CWEA requires the Department to inspect permitted facilities and municipal treatment works at least annually. Additional inspections are required when the permittee is identified as a significant noncomplier (discussed below). The inspection requirement applies to all facilities except those that discharge only stormwater or non-contact cooling water and to those facilities which DLA is required to inspect. A DLA must inspect facilities discharging into its municipal treatment works, again excluding those facilities that discharge only stormwater or non-contact cooling water. Neither the Department nor a DLA is, however, required to inspect permitted facilities that discharge stormwater runoff which has come into contact with a Superfund site, listed on EPA's National Priorities List, or municipal treatment works receiving such stormwater runoff.

*Mandatory minimum penalties:*

Mandatory minimum penalties under the CWEA apply to violations of the WPCA that are considered serious violations and to violations by permittees designated as significant noncompliers (SNCs). A serious violation is an exceedance of an effluent limitation in a NJPDES permit by 20 percent or more for a hazardous pollutant or by 40 percent or more for a nonhazardous pollutant. An SNC is a permittee which:

1. Commits a serious violation for the same pollutant at the same discharge point source in any two months of any six-month period;
2. Exceeds the monthly average in any four months of any six-month period; or
3. Fails to submit a completed DMR in any two months of any six-month period.

For serious violations, the CWEA requires mandatory minimum penalties of \$1,000 per violation. SNCs are subject to mandatory minimum penalties of \$5,000 per violation.

The CWEA also requires the Department to impose a mandatory penalty when a permittee omits from a DMR required information relevant to an effluent limitation. The penalty is \$100 per day per effluent parameter omitted.

Effective January 19, 1999, the DLAs were required to assess mandatory minimum penalties against any indirect user that commits either a serious violation, a violation that causes a user to become or remain in significant noncompliance or an omission violation as noted in the preceding paragraph.

*Affirmative defenses:*

The CWEA establishes the following basis for affirmative defenses to mandatory minimum penalties: upsets, bypasses and testing or laboratory errors.

An upset is an exceptional incident (such as a flood or storm event) beyond the permittee's reasonable control that causes unintentional and temporary noncompliance with an effluent

limitation. As part of the affirmative defense, the permittee must identify the cause of the upset whenever possible and establish that the permitted facility was being operated properly at the time of the upset and that all remedial measures required by the Department or the DLA were taken.

A bypass is an intentional diversion of waste streams from any portion of a treatment works. Whether or not the permittee anticipated the need for the bypass, a permittee may raise the affirmative defense only if the bypass was unavoidable to prevent loss of life, personal injury or severe property damage and there was no feasible alternative to the bypass. If the bypass was anticipated, the permittee should have provided the Department with prior notice in order to be eligible for the affirmative defense. If the bypass was unanticipated, the permittee should demonstrate that it was properly operating its facility and that it promptly notified the Department or the DLA as well as took remedial measures required by the Department or the DLA.

To establish an affirmative defense for testing or laboratory error, the permittee must establish that an exceedance of an effluent limitation resulted from unanticipated test interferences, sample contamination, analytical defects, procedural deficiencies in sampling or other similar circumstances beyond the permittee's control.

#### *Compliance schedules:*

Under the CWEA, the Department may establish a compliance schedule for a permittee to complete remedial measures necessary for compliance. However, the permittee must provide financial assurance for completion of those remedial measures in the form of a bond or other security approved by the Commissioner.

### **A. INSPECTIONS**

Each fiscal year the Department performs one full inspection of every regulated facility and an additional interim inspection, as needed, to determine compliance. In a full inspection, the Department reviews all DMRs and evaluates the entire water pollution control process for each discharge, including operation and maintenance practices, as well as monitoring and sampling procedures. As part of an interim inspection, the Department reviews the facility's DMRs and focuses upon specific compliance issues.

In 2002, the Department inspected 1,642 NJPDES permitted facilities. Since some facilities have more than one discharge type, the 1642 permitted facilities represent 2,028 discharges. Excluding the facilities authorized to discharge under a stormwater program general permit, the Department conducted 2,028 facility inspections in 2002. Of the 2,028 facility inspections performed, 1,884 were full inspections and 129 were interim inspections.

The data presented below concerning the number of facilities and discharges inspected are organized into two categories of facilities: local and nonlocal. A local facility is a POTW or other facility, such as a school, landfill or wastewater treatment plant, that is operated by a local agency (a political subdivision of the State, or an agency or instrumentality thereof). A nonlocal facility is any facility that is not operated by a local agency. The CWEA distinguishes between these two types of facilities in a number of ways. For instance, for local agencies, the CWEA establishes different criteria for financial assurance requirements as well as different settlement criteria.

The data presented below also distinguishes between the three different types of NJPDES permits: DSW, DGW, and discharges into a municipal treatment works by an SIU.



Table III-1 sets forth the number of inspections the Department performed from 1992 through 2002, by type of discharge and by type of facility. The Department eliminated routine interim inspections after July 1, 1994, which has significantly decreased the total number of inspections. Additionally, between 1992 and March of 1998, the number of permitted facilities had been steadily decreasing, with the largest decrease occurring in calendar years 1993 and 1994. In March of 1998, approximately 350 general permit authorizations were issued to facilities discharging sanitary wastewater to septic systems (T1 permits). The Department immediately commenced annual inspections of these T1 permit systems, which explains the sudden increase in the number of DGW inspections performed beginning in 1998. In fact, it was not until 1999 that all these facilities were inspected, and the number of DGW inspections in 1999 once again increased. Both the numbers of DSW and SIU inspections have leveled off and have been within fairly consistent ranges for the past eight years. It is important to note that this table presents the number of inspections performed - not the number of discharges or facilities - in the listed categories.

**TABLE III - 1  
SUMMARY OF NJPDES INSPECTIONS PERFORMED**

<b>NUMBER OF INSPECTIONS</b>											
<b>BY DISCHARGE TYPE</b>											
<b>Discharge Type</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>DSW</b>	2,550	2,380	1,773	1,267	1,098	1,160	1,164	1,168	1,015	1,166	1,035
<b>DGW</b>	705	763	640	515	499	498	761	969	874	1,010	915
<b>SIU</b>	185	162	120	80	83	85	75	87	65	82	78
<b>TOTALS</b>	<b>3,440</b>	<b>3,305</b>	<b>2,533</b>	<b>1,862</b>	<b>1,680</b>	<b>1,743</b>	<b>2,000</b>	<b>2,224</b>	<b>1,954</b>	<b>2,258</b>	<b>2,028</b>
<b>BY FACILITY TYPE</b>											
<b>Facility Type</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Local</b>	716	695	660	454	456	505	493	590	527	558	515
<b>Nonlocal</b>	2,203	2,562	1,816	1,360	1,202	1,205	1,491	1,634	1,427	1,700	1,513
<b>TOTALS</b>	<b>2,919</b>	<b>3,257</b>	<b>2,476</b>	<b>1,814</b>	<b>1,658</b>	<b>1,710</b>	<b>1,984</b>	<b>2,224</b>	<b>1,954</b>	<b>2,258</b>	<b>2,028</b>

## **B. VIOLATIONS**

### **Section One - Results of Facility Inspections:**

The Department is required to report the number of enforcement actions resulting from facility inspections. Whenever one or more serious or an SNC violation is discovered during an inspection, the Department issues a Notice of Violation (NOV) to the facility. NOV's are not typically issued for minor violations.

NOV's identify violations and direct the facility operator to correct the activity or condition constituting the violation within a specified period of time. As further discussed in Section C. Enforcement Actions, these documents are considered informal enforcement actions. The Department initiates a formal enforcement action, which may include the assessment of a civil administrative penalty, if a permittee fails to remedy a violation identified in an NOV. The Department will also initiate a formal enforcement action whenever it is required by the CWEA to

assess a mandatory minimum penalty.

## **Section Two - Total Number of Permit Violations:**

The Department is required to report the number of actual permit violations that occurred in the preceding calendar year. There are two types of permit violations, effluent violations and reporting violations. Effluent violations occur when a discharge exceeds the limits established within the NJPDES permit or the interim limits established in a consent order. Reporting violations occur when a permittee fails to submit a DMR or submits a DMR that does not provide all of the required information. It is important to note that enforcement actions are taken only on verified violations. The number of effluent violations that were addressed by the issuance of a formal enforcement action in 2002 is reported in Section Six below.

## **Section Three - Violations of Administrative Orders and Consent Orders:**

The CWEA requires the Department to report the number of violations of administrative orders (AOs), administrative consent orders (ACOs) and compliance schedule milestones (dates set forth in an ACO for starting and/or completing construction, or for attaining full compliance). The Department must also report the number of permittees that are out of compliance by more than 90 days from the date established in a compliance schedule for starting and/or completing construction, or for attaining full compliance. Although not expressly required by the CWEA, the Department also includes in this section of the report, the number of violations of judicial orders (JOs) and judicial consent orders (JCOs). Information concerning violations is presented below.

### *Violations of Interim Effluent Limitations:*

In 2002, for the third consecutive year, the Department did not identify any violations of an interim effluent limitation established in an AO or ACO. In contrast, in 1992, the Department identified 191 violations of interim effluent limitations established in 29 ACOs. Of those 191 violations, 95 percent (181) involved nonhazardous pollutants and 5 percent (10) involved hazardous pollutants.

### *Violations of Compliance Schedules:*

In 2002, the Department did not take any formal actions against any permittee which was more than 90 days out of compliance with the schedule established in its ACO.

## **Section Four - Unpermitted Discharges:**

An unpermitted discharge is the release of pollutants into surface water, ground water or a municipal treatment works when the discharger does not hold a valid NJPDES permit or when the discharge is not authorized under the discharger's permit.

In 2002, the Department issued 148 informal NOV's and 22 formal enforcement actions against 157 facilities responsible for unpermitted discharges. Of the 170 total unpermitted discharge enforcement actions, 36 involved discharges to ground water and 145 involved discharges to surface water. None involved a discharge into a municipal treatment works by an SIU. A few actions addressed both an unpermitted discharge to ground water and to surface water.

## **Section Five - Affirmative Defenses:**

The CWEA requires the Department to report the number of affirmative defenses granted that

involved serious violations. The CWEA specifically provides affirmative defenses to penalty liability for serious violations and violations by significant noncompliers. It also indicates that the Department may allow these defenses for any effluent violation for which NJPDES regulations also provide defenses. The CWEA requires the permittee to assert the affirmative defense promptly after the violation occurs, enabling the Department to evaluate the asserted defense before assessing a penalty. Therefore, this report includes information on all affirmative defenses asserted, as well as affirmative defenses granted, for serious violations.

This year, in addition to the information on affirmative defenses for effluent violations, the Department is once again providing data on extenuating circumstance-type defenses, as provided for pursuant to N.J.S.A. 58:10A-10.1.d and N.J.A.C. 7:14-8.9(e), for DMR omissions or DMR nonsubmittal.

In 2002, the Department granted 29 affirmative defenses asserted by 26 facilities for 48 effluent violations or parameter omissions. Eighteen of the affirmative defenses granted concerned upsets, 7 concerned defenses granted for extenuating circumstances, 3 concerned laboratory error and one of the defenses was attributed to a bypass. In the 29 defenses granted, 39 violations concerned a discharge to surface water, 5 involved discharges to ground water and 4 related to SIU discharges. Ten of the defenses granted involved discharges by local agencies, whereas 19 involved nonlocal agency permittees.

In 2002, the Department rejected 9 affirmative defenses asserted by 9 facilities for 14 effluent violations. Five of the affirmative defenses denied concerned upsets, 2 concerned laboratory error, and one was attributed to extenuating circumstances. None of the defenses were attributed to a bypass. In the 9 defenses denied, 14 violations concerned a discharge to surface water and 2 involved discharges to ground water. None were related to SIU discharges. Four of the defenses denied involved discharges by local agencies and 5 involved nonlocal agency permittees.

### **Section Six - Violations for Which the Department Assessed a Penalty:**

In 2002, the Department assessed penalties against 82 facilities for 373 violations of the WPCA. The 373 violations addressed by the Department's actions was the second lowest ever recorded with the 291 violations in calendar year 1998 being the lowest. In comparison, in 1992 the Department assessed penalties against 300 facilities for 2,483 violations. A closer look at the data shows that the penalty actions issued in 2002 were similar to those in the past few years in one respect: for penalty actions for effluent violations, more than one-half of the actions (27 of 49) were in response to just a single violation.

Table III-2 below groups violations into the following categories: effluent violations, violations of compliance schedules, DMR reporting violations and other violations.

**TABLE III - 2**

**SUMMARY OF VIOLATIONS FOR WHICH A PENALTY WAS ASSESSED  
Calendar Year 2002**

<b>VIOLATION CATEGORY</b>	<b>Number</b>	<b>Percentage</b>
<b>Effluent</b>	<b>179</b>	<b>48.0</b>
- Nonhazardous	145	81.0
- Hazardous	34	19.0
<b>Compliance Schedule</b>	<b>0</b>	<b>0.0</b>
<b>Reporting</b>	<b>66</b>	<b>17.7</b>
- Nonsubmittal	4	6.1
- Omissions	62	93.9
<b>Other</b>	<b>128</b>	<b>34.3</b>
<b>TOTALS</b>	<b>373</b>	<b>100.0</b>

Effluent violations comprised 48.0 percent (179) of the 373 violations for which the Department assessed penalties in 2002. Strikingly, since 1992, there has been almost an 86 percent decrease in the number of effluent violations for which the Department assessed penalties (1,446 to 179). In 1992, effluent violations accounted for 58.2 percent of all violations. Of the 179 effluent violations in 2002, 81.0 percent (145) concerned discharges of nonhazardous pollutants, such as suspended solids, nutrients and fecal coliform. The remaining 19.0 percent (34) concerned discharges of hazardous pollutants, such as chlorine residual, metals, pesticides and organics.

As mentioned above, more than one-half of the penalty actions (27 of 49) issued for effluent violations were in response to just a single violation. Only eight actions involved five or more effluent violations. Of the 179 effluent violations, 79 violations were from just 5 permittees. They were: Marcal Paper Mills, Inc. - NJ0002674 - (32 violations), Waste Management Recycling of New Jersey, Inc. - NJ0064106 - (17 violations), Greenwood Waterside Townhouses - NJ0065706 - (17 violations), Airtron Division/Litton Systems, Inc. - NJ0025739 - (12 violations) and Neuhauser USA/Uptown Bakery - NJ0136298 - (11 violations).

Reporting violations accounted for 17.7 percent (66) of the violations for which the Department assessed a penalty. This number is the lowest figure ever reported. It is important to point out that the 66 reporting violations in 2002 is not an indication that numerous permittees are having reporting violations. Only 14 permittees had such violations - three of which were responsible for 59 percent or 39 of the 66 reporting violations: Port Authority of NY & NJ - Teterboro Airport - NJ0028941 - (18 violations), Sidmak Laboratories, Inc. - NJ0108430 - (11 violations) and United Wire Hanger Corporation - NJ0052540 - (10 violations). Overall, the decrease in the number of reporting violations can be attributed to the Department's continual outreach efforts to explain the reporting requirements. The familiarity and comfort with the reporting procedures by the regulated community is a direct result of the Department's increased emphasis since 1988 on both issuance of enforcement actions and providing comprehensive compliance assistance.

The "Other" Violations category includes Combined Sewer Overflows (CSO) permit requirements, unpermitted discharges, improper sampling, and sewer connection/extension violations. Of the 128 Other Violations addressed in formal enforcement actions, 86 of the violations were in a SA/P executed with Pfizer, Inc. - Consumer Health Care Division - NJ0103713.

Local agencies accounted for 58 of the violations for which the Department assessed penalties, nonlocal agencies accounted for the remaining 315 violations.

Table III-3 below lists the number and percentage of effluent, compliance schedule and reporting violations by calendar year for local and nonlocal agencies.

Table III-4 contains only the data from **nonlocal** agencies. Noteworthy on this table is the fact that the total number of DMR non-submittal and omission violations was the lowest ever reported (60).

Table III-5 illustrates the violation data just for **local** agencies. Noteworthy on this table is the fact that the total number of violations for which the Department issued a penalty action was the lowest ever reported (58).

**TABLE III - 3  
SUMMARY OF VIOLATIONS BY CATEGORY ~ LOCAL AND NONLOCAL**

		Violation Category								
Year	Number / Percentage	Effluent			Compliance Schedule	Discharge Monitoring Report			Other	Totals (columns 5,6,9,10)
		Non-hazardous	Hazardous	Subtotal		Non-submittal	Omissions	Subtotal		
<b>1992</b>	<b>Number</b>	1,192	254	1,446	73	38	370	408	556	2,483
	<b>Percentage</b>	82.4%	17.6%	58.2%	2.9%	9.3%	90.7%	16.4%	22.4%	100.0%
<b>1993</b>	<b>Number</b>	1,167	253	1,420	2	35	213	248	384	2,054
	<b>Percentage</b>	82.2%	17.8%	69.1%	0.1%	14.1%	85.9%	12.1%	18.7%	100.0%
<b>1994</b>	<b>Number</b>	758	146	904	7	3	139	142	691	1,744
	<b>Percentage</b>	83.8%	16.2%	51.8%	0.4%	2.1%	97.9%	8.1%	39.6%	100.0%
<b>1995</b>	<b>Number</b>	578	99	677	0	7	107	114	72	863
	<b>Percentage</b>	85.4%	14.6%	78.4%	0.0%	6.1%	93.9%	13.2%	8.3%	100.0%
<b>1996</b>	<b>Number</b>	221	85	306	94	0	88	88	39	527
	<b>Percentage</b>	72.2%	27.8%	58.1%	17.8%	0.0%	100.0%	16.7%	7.4%	100.0%
<b>1997<sup>1</sup></b>	<b>Number</b>	426	64	490	8	8	246	254	71	823
	<b>Percentage</b>	86.9%	13.1%	59.5%	1.0%	3.1%	96.9%	30.9%	8.6%	100.0%
<b>1998</b>	<b>Number</b>	103	18	121	1	1	84	85	84	291
	<b>Percentage</b>	85.1%	14.9%	41.6%	0.3%	1.2%	98.8%	29.2%	28.9%	100.0%
<b>1999<sup>2</sup></b>	<b>Number</b>	72	41	113	5	20	199	219	622	959
	<b>Percentage</b>	63.7%	36.3%	11.8%	0.5%	9.1%	90.9%	22.8%	64.9%	100.0%
<b>2000</b>	<b>Number</b>	165	19	184	1	27	179	206	193	584
	<b>Percentage</b>	89.7%	10.3%	31.5%	0.2%	13.1%	86.9%	35.3%	33.0%	100.0%
<b>2001</b>	<b>Number</b>	156	49	205	2	41	194	235	154	596
	<b>Percentage</b>	76.1%	23.9%	34.4%	0.3%	17.4%	82.6%	39.4%	25.8%	100.0%
<b>2002</b>	<b>Number</b>	145	34	179	0	4	62	66	128	373
	<b>Percentage</b>	81.0%	19.0%	48.0%	0.0%	6.1%	93.9%	17.7%	34.3%	100.0%

<sup>1</sup>Of the 490 Effluent violations for 1997, 70 are attributable to the Ringwood Board of Education - Robert Erskine School STP; 63 to the Lighthouse Bar and Restaurant; 59 to the New Jersey Turnpike Authority; 57 to the RVSA; and 37 to the Burlington County Solid Waste Facility. Of the 254 Discharge Monitoring Report violations for 1997, 197 are attributable to the Lighthouse Bar and Restaurant.

<sup>2</sup>Five facilities were responsible for 168 of the 219 Discharge Monitoring Reports violations Kearfott Guidance & Navigation Corporation, Plant #1 (65 omission violations); Kearfott Guidance & Navigation Corporation, Plant #3 (55 omission violations); Phillips Electronics North America Corporation (22 omission violations); Anadigics, Inc. (16 omission violations); and John T. Handy, Inc. (10 DMR nonsubmittal violations). Of the 622 Other violations, 480 violations were noted at one facility - Harmony Dale Farms.

**TABLE III - 4  
SUMMARY OF VIOLATIONS BY CATEGORY ~ NONLOCAL AGENCIES**

		Violation Category								
Year	Number / Percentage	Effluent			Compliance Schedule	Discharge Monitoring Report			Other	Grand Total (columns 5,6,9,10)
		Non-hazardous	Hazardous	Total		Non-submittal	Omissions	Total		
<b>1992</b>	Number	782	209	991	2	38	336	374	538	1,905
	Percentage	78.9%	21.1%	52.0%	0.1%	10.2%	89.8%	19.6%	28.2%	100.0%
<b>1993</b>	Number	672	223	895	0	24	181	205	346	1,446
	Percentage	75.1%	24.9%	61.9%	0.0%	11.7%	88.3%	14.2%	23.9%	100.0%
<b>1994</b>	Number	595	118	713	0	2	119	121	135	969
	Percentage	83.5%	16.5%	73.6%	0.0%	1.7%	98.3%	12.5%	13.9%	100.0%
<b>1995</b>	Number	348	68	416	0	7	103	110	40	566
	Percentage	83.7%	16.3%	73.5%	0.0%	6.4%	93.6%	19.4%	7.1%	100.0%
<b>1996</b>	Number	156	55	211	0	0	86	86	26	323
	Percentage	73.9%	26.1%	65.3%	0.0%	0.0%	100.0%	26.6%	8.0%	100.0%
<b>1997</b>	Number	187	24	211	1	6	234	240	52	504
	Percentage	88.6%	11.4%	41.9%	0.2%	2.5%	97.5%	47.6%	10.3%	100.0%
<b>1998</b>	Number	76	9	85	1	1	78	79	42	207
	Percentage	89.4%	10.6%	41.1%	0.5%	1.3%	98.7%	38.2%	20.3%	100.0%
<b>1999</b>	Number	54	28	82	0	18	183	201	558	841
	Percentage	65.9%	34.1%	9.8%	0.0%	9.0%	91.0%	23.9%	66.3%	100.0%
<b>2000</b>	Number	97	11	108	0	27	160	187	181	476
	Percentage	89.8%	10.2%	22.7%	0.0%	14.4%	85.6%	39.3%	38.0%	100.0%
<b>2001</b>	Number	105	35	140	0	41	184	225	25	390
	Percentage	75.0%	25.0%	35.9%	0.0%	18.2%	81.8%	57.7%	6.4%	100.0%
<b>2002</b>	Number	119	22	141	0	4	56	60	114	315
	Percentage	84.4%	15.6%	44.8%	0.0%	6.7%	93.3%	19.0%	36.2%	100.0%

**TABLE III - 5  
SUMMARY OF VIOLATIONS BY CATEGORY ~ LOCAL AGENCIES**

		Violation Category								
Year	Number / Percentage	Effluent			Compliance Schedule	Discharge Monitoring Report			Other	Grand Total <small>(columns 5,6,9,10)</small>
		Non-hazardous	Hazardous	Total		Non-submittal	Omissions	Total		
<b>1992</b>	Number	410	45	455	71	0	34	34	18	578
	Percentage	90.1%	9.9%	78.7%	12.3%	0.0%	100.0%	5.9%	3.1%	100.0%
<b>1993</b>	Number	495	30	525	2	11	32	43	38	608
	Percentage	94.3%	5.7%	86.3%	0.3%	25.6%	74.4%	7.1%	6.3%	100.0%
<b>1994</b>	Number	163	28	191	7	0	20	20	556	774
	Percentage	85.3%	14.7%	24.7%	0.9%	0.0%	100.0%	2.6%	71.8%	100.0%
<b>1995</b>	Number	230	31	261	0	0	4	4	32	297
	Percentage	88.1%	11.9%	87.9%	0.0%	0.0%	100.0%	1.3%	10.8%	100.0%
<b>1996</b>	Number	65	30	95	94	0	2	2	13	204
	Percentage	68.4%	31.6%	46.6%	46.1%	0.0%	100.0%	1.0%	6.4%	100.0%
<b>1997</b>	Number	239	40	279	7	2	12	14	19	319
	Percentage	85.7%	14.3%	87.5%	2.2%	14.3%	85.7%	4.4%	6.0%	100.0%
<b>1998</b>	Number	27	9	36	0	0	6	6	42	84
	Percentage	75.0%	25.0%	42.9%	0.0%	0.0%	100.0%	7.1%	50.0%	100.0%
<b>1999</b>	Number	18	13	31	5	2	16	18	64	118
	Percentage	58.1%	41.9%	26.3%	4.2%	11.1%	88.9%	15.3%	54.2%	100.0%
<b>2000</b>	Number	68	8	76	1	0	19	19	12	108
	Percentage	89.5%	10.5%	70.4%	0.9%	0.0%	100.0%	17.6%	11.1%	100.0%
<b>2001</b>	Number	51	14	65	2	0	10	10	129	206
	Percentage	78.5%	21.5%	31.6%	1.0%	0.0%	100.0%	4.9%	62.6%	100.0%
<b>2002</b>	Number	26	12	38	0	0	6	6	14	58
	Percentage	68.4%	31.6%	65.5%	0.0%	0.0%	100.0%	10.3%	24.2%	100.0%



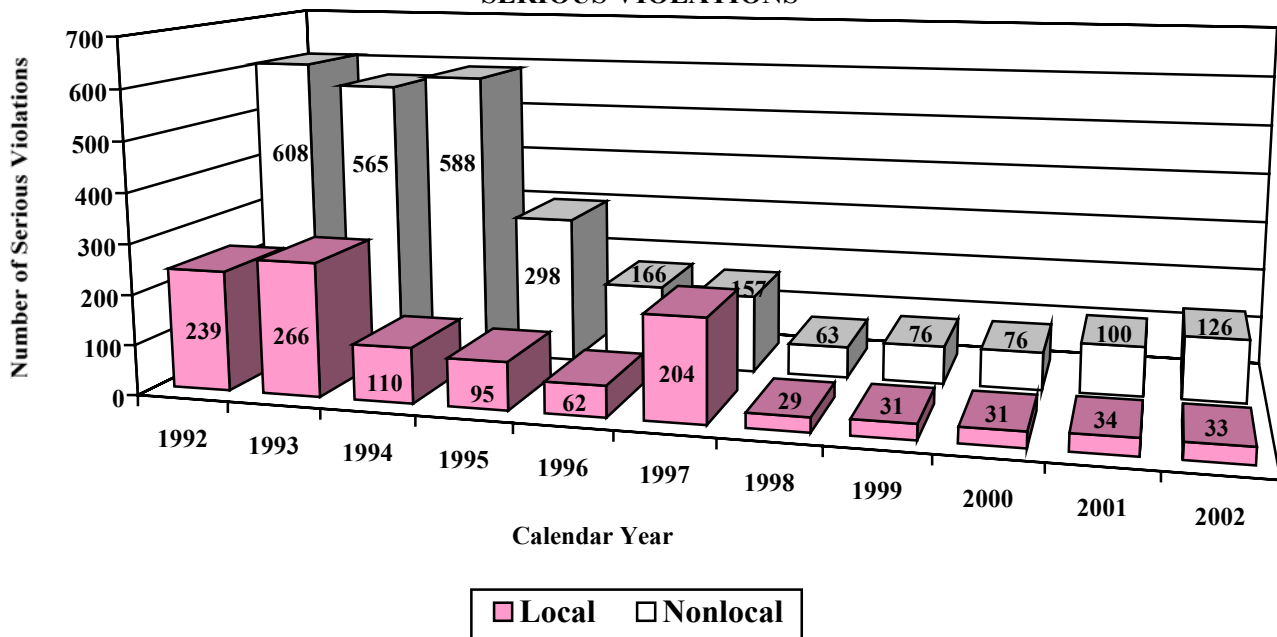
**Section Seven - Serious Violations:**

The CWEA requires the Department to report the number of actual effluent violations constituting serious violations, including those violations that are being contested by the permittee. The CWEA defines a serious violation as an exceedance of a valid effluent limitation by 20 percent or more for hazardous pollutants and by 40 percent or more for nonhazardous pollutants. The CWEA establishes mandatory minimum penalties for serious violations and requires the Department to assess a penalty for a serious violation within six months of the violation.

In 2002, the Department identified and issued formal enforcement actions for 159 serious effluent violations (33 were from local permittees and 126 from nonlocals). These violations involved discharges from 48 facilities. Two of these permittees have appealed penalty assessments for 3 of these violations. Of the 159 serious violations, 76.7 percent (122) involved violations of limitations for nonhazardous pollutants, and the remaining 23.3 percent (37) involved violations of limitations for hazardous pollutants. In Chart III-1 below, the serious violations are separated into those from either local or nonlocal permittees. Serious violations have decreased from a reported high figure of 847 in 1992. This staggering decrease from ten years ago is a very positive trend indicating the regulated community, as a whole, is paying close attention to monitoring their discharges and taking the appropriate corrective action to prevent their facilities from having serious violations.

However, there was clearly a significant increase for the fourth consecutive year in the number of serious violations by nonlocal agencies. The 126 violations being the most reported since 1997. While this appears to be a disturbing trend, it must be noted that of the 126 nonlocal serious violations that were addressed by a penalty action in 2002, 48 of the violations actually occurred in calendar years 1991-1997. Various reasons were responsible for the extended delay in these violations being addressed. The 48 facilities having serious effluent violations was much lower than the 66 facilities in 2001 but similar to the number reported in the three previous years.

**CHART III - 1  
SERIOUS VIOLATIONS**



## **Section Eight - Significant Noncompliers:**

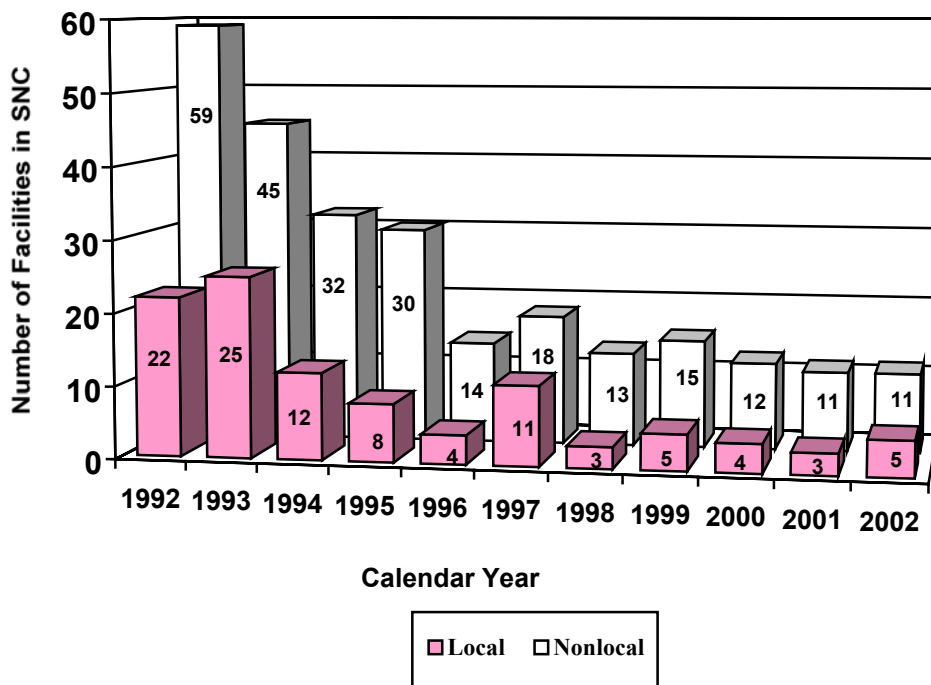
The CWEA requires the Department to report the number of permittees qualifying as SNCs, including permittees contesting such designation and to provide certain information pertaining to each permittee designated as an SNC. An SNC is a permittee which: (1) commits a serious violation for the same pollutant at the same discharge point source in any two months of any six-month period; (2) exceeds the monthly average in any four months of any six-month period or (3) fails to submit a completed DMR in any two months of any six-month period (N.J.S.A. 58:10A-3w). The Department reviews each violation to determine whether the violation has caused the permittee to become an SNC or continue to be an SNC. If the permittee is or has become an SNC, the Department initiates formal enforcement action, assessing a civil administrative penalty in an amount at least equal to the statutory minimum, and directing the SNC to attain compliance.

In 2002, the Department issued formal enforcement actions to 16 permittees identified as SNCs. None of the permittees have contested their individual designations as SNCs. Appendix III-A of this report identifies each SNC and sets forth information concerning each SNC's violations. In 1992, 81 permittees were issued penalties for becoming an SNC. Therefore, the number of SNCs has dropped by 80 percent since 1992. In 2002, 12 of the 16 SNC permittees were nonlocal agencies and 4 were local agencies. Ten of the permittees violated a DSW permit, three were a DGW permit and three were a SIU permit. In 2002, there were no permittees that continued to be an SNC violator from 2000. In comparison, the number of permittees identified in the 1993 report that continued to be or were repeat SNC violators was 18.

Of the 16 permittees identified as SNCs in 2002, 56 percent (9) had only violations of limitations for nonhazardous pollutants, 6 percent (1) involved only violations of limitations for hazardous pollutants, 19 percent (3) had violations of limitations for both nonhazardous and hazardous pollutants, 13 percent (2) had only violations of reporting requirements and 6 percent (1) had both reporting and effluent violations.

As has been the case since 1996, the percentage of permittees in significant noncompliance in 2002 was less than 2.0 percent of the total NJPDES permittees with monitoring and reporting requirements in their permits. Chart III-2 below shows the number of local and nonlocal facilities which the Water Compliance and Enforcement Element has taken formal enforcement action against because they had reporting or discharge violations of their permit effluent limitations that caused them to be, or continue to be, in significant noncompliance as defined by the 1990 amendments to the WPCA (N.J.S.A. 58:10A-1 et seq.).

**CHART III - 2  
SIGNIFICANT NONCOMPLIERS**



There were greater than two times more nonlocal facilities than locals in SNC in calendar year 2002. Similar ratios have been seen in most calendar years with calendar year 1997 being the exception. Additionally, the significant noncompliance rates between nonlocals and local entities have been essentially the same because there are almost three times as many nonlocal dischargers than local (approximately 1,100 to 400 respectively as of 2000). Since calendar year 1996, the percentage of NJPDES permitted facilities in significant noncompliance has remained below two percent.

Chart III-2 shows a significant decreasing trend, which has flattened out over the past seven years of the overall ten year period (1997 being the single year exception), in the total number of chronic violators having serious discharge violations or failing to submit discharge monitoring reports which places them in significant noncompliance. Given the large total number of permitted discharges with reporting requirements and effluent limitations compared to the limited number of facilities in significant noncompliance during the past two years, a continuation of the steep decrease previously seen or any noteworthy further decrease in the number of facilities in significant noncompliance is not likely or expected. Only slight variation in the numbers is expected from year to year as we have seen again this year. Any new and more restrictive discharge limitations imposed in NJPDES permits in the future could actually result in nominal increases in the number of SNCs. However, the regulated community is more educated and prepared to address any such limitations and take the steps necessary to achieve and maintain compliance and therefore, avoid SNC designation.

The Department believes its multifaceted compliance assistance program has played a major role in the significant reduction in SNCs and violations overall. The DMR manual, which was initially published in 1991 with a second edition in 1993 and updates in 2000 (through guidance on the new

reporting forms), has been invaluable in providing guidance to permittees in proper discharge monitoring and completion of their DMRs. Seminars and training courses conducted with various organizations have assisted permittees and licensed operators in achieving a better understanding of the WPCA requirements. This has also resulted in numerous wastewater treatment system improvements at both local and nonlocal facilities.

However, the largest portion of the assistance program over the years has been performed by department personnel both during permit pre-application meetings, as part of the DWQ's technical assistance program, and in particular, while conducting compliance evaluation inspections. During these activities, detailed assistance and guidance has been given to the permittee on virtually every aspect of the NJPDES program. This education and outreach effort undoubtedly has played a significant role in the tremendous increase in compliance by the regulated community.

### **Section Nine - Violations for which the Department Did Not Assess a Penalty:**

The Department assesses a penalty only after conducting an inspection or confirming the violation by some other contact with the permittee. Accordingly, serious violations and violations which cause a permittee to become an SNC, which were reported on DMRs but not confirmed before the end of the 2002 calendar year, will be the subject of penalty assessments once the Department confirms that the violations occurred. If the Department establishes that a report of an exceedance was in error (for example, if the reported exceedance is attributable to a mistake in the reporting or processing of discharge data), the Department does not take an enforcement action for the reported exceedance.

## **C. ENFORCEMENT ACTIONS**

### **Section One - Types of Enforcement Actions:**

#### *Informal Enforcement Actions:*

The Department uses both formal and informal enforcement actions to promote compliance with the WPCA. An informal enforcement action notifies a violator that it has violated a statute, regulation or permit requirement, and directs the violator to take corrective actions to comply. Typically, informal actions are a first step in the enforcement process and are taken at the time the Department identifies a violation. The Department does not assess penalties in informal enforcement actions, which are preliminary in nature and do not provide an opportunity to contest the action in an adjudicatory hearing. However, the Department is always willing and available to discuss the violation with a permittee.

The Department takes an informal enforcement action by issuing an NOV at the time a violation is identified during a field inspection. An NOV not only identifies a violation but also requires the violator to advise the Department of the action taken to remedy the violation.

Until July of 1994, the Department counted inspection letters that gave an Unacceptable rating to a facility as Directive Letters (DRLs) since corrective action was directed to be performed. Inspection reports no longer contain ratings and they are no longer counted as a type of informal enforcement action. The Department decided to modify its tracking and reporting protocol of DRLs

for various administrative reasons back in 1995. In addition, the Department believes it is more appropriate to place emphasis on the NOV's (rather than DRLs) which are typically issued to facilities at the time of inspections if violations are noted.

As noted earlier, the Department has eliminated routine interim inspections. If a review of discharge data indicates an individual serious violation, the Department will contact the permittee to confirm the violation(s) prior to assessing a penalty.

#### *Formal Enforcement Actions:*

The Department typically takes formal administrative enforcement action when it is required by the CWEA to assess a mandatory penalty or when a permittee has failed to remedy a violation in response to an informal enforcement action previously taken by the Department. The Department only takes formal enforcement action when it has verified that a violation has occurred. The Department usually initiates formal administrative enforcement action through the issuance of an (AO) or Settlement Agreement with Penalty (SA/P). The Department has utilized several types of AOs.

An AO is a unilateral enforcement action taken by the Department ordering a violator to take corrective action. The Department usually issues an AO to require a permittee to comply with its permit and may prescribe specific measures to be taken by the violator.

An Administrative Order/Notice of Civil Administrative Penalty Assessment (AO/NOCAPA) identifies a violation, assesses a civil administrative penalty, and also orders a violator to take specific, detailed compliance measures.

A Notice of Civil Administrative Penalty Assessment (NOCAPA) is an action that identifies a violation and assesses a civil administrative penalty. Compliance has already been achieved in most cases.

An Attorney General Referral (AGR) is made by the Department to the New Jersey State Attorney General to initiate a civil enforcement action against a violator to compel compliance, collect a penalty, or an activity or condition poses an immediate and substantial threat to public health and the environment. An AGR is also made when a permittee has failed to work cooperatively with the Department toward attaining compliance despite formal administrative enforcement actions. The State Attorney General, on behalf of the Department, will then file civil enforcement actions in the New Jersey State Superior Court against the violator. When the Court finds that a defendant has violated the WPCA, it will typically issue a JO directing the defendant to comply within a specified period of time and may also require the defendant to pay a civil penalty (JO/P).

The Department issues Stipulated Penalty Demand Letters (SPDLs) to permittees demanding payment of penalties stipulated under an ACO or JCO for the permittee's failure to comply with terms of the order.

At one time, the Department issued Enforcement Directives (EDs) to grant or deny the assertion of an affirmative defense or a Force Majeure claim. While the Department continues to respond to such

claims, in July of 1999 it ceased labeling and counting these actions as EDs, which explains the abrupt decrease in the number issued.

## **Section Two - Types of Settlement Agreements:**

The Department resolves administrative and judicial enforcement actions through the execution of several types of Settlement Agreements (SAs).

An SA resolves an administrative enforcement action, including a penalty previously assessed by the Department. The SA does not typically impose requirements for corrective action. An SA/P usually resolves an outstanding confirmed violation or an administrative enforcement action and provides for payment of penalties not previously assessed.

An ACO requires a permittee to take specific measures to attain compliance through a binding agreement between the Department and the violator. It may resolve a previously issued civil administrative enforcement action. A consent order may provide interim effluent limitations, relaxing limits contained in a permit until specified improvements are made in accordance with a compliance schedule. Compliance schedules usually establish milestones for starting and completing construction of required facility improvements, or implementing other measures to achieve compliance. Consent orders also normally provide for stipulated penalties - to be paid by the violator if it fails to comply with the compliance schedule or exceeds interim effluent limitations.

A JCO resolves a judicial enforcement action and is therefore subject to the Court's approval and its ongoing jurisdiction.

An ACO/P or JCO/P assesses a new penalty in addition to requiring a permittee to take specific measures to attain compliance.

## **Section Three - Enforcement Actions Initiated in 2002:**

### *Informal Enforcement Actions:*

In 2002, the Department initiated 559 informal enforcement actions (NOVs) compared with 1,273 in 1992. Table III-6 summarizes the enforcement actions taken from 1992 through 2002.

### *Formal Enforcement Actions:*

In 2002, the Department initiated 137 formal enforcement actions compared with 752 in 1992 and a high of 941 in 1993. While a large portion of the decrease is due to the elimination of the ED category as previously explained, both Orders (37 in 2002 vs. 274 in 1992) and Settlements (100 in 2002 vs. 152 in 1992) of all types decreased over the past ten years. Since these are the documents in which the Department assesses penalties and, since the Department typically initiates penalty actions only against a permittee committing a serious violation or violations which causes it to become an SNC, this is consistent with the overall improved compliance trend noted previously.

The reduction in formal actions since 1992 can be traced for the most part to the decrease in the issuance of administrative actions containing penalty assessments that could be adjudicated. Meanwhile, the number of SA/Ps, which typically constitute approximately 50 percent of all formal

enforcement actions, was down from a high of 126 in 1995 to only 63 in 2002. This indicates a drop in the number of facilities, which had violations that would trigger mandatory penalties under the CWEA (serious and SNC violations), that chose to enter into SA/Ps to avoid litigation costs and resolve violations quickly.

However, for the first time since the CWEA Annual Reports have been prepared, the number of formal actions increased over the previous year's figure (137 actions in 2002 compared to 114 actions in 2001). Even so, the number in 2002 was within the same range as the previous four years. The total number of 696 enforcement actions (informal and formal) in 2002 was at its highest level since 1995 when 961 actions were taken.

Interestingly, in 2002, as the year before, more than 80% of the total number of enforcement actions taken were NOV's (informal actions). This percentage has continued to trend higher over the past ten years.

In 2002, the Department executed one ACO/P with Waste Management Recycling of New Jersey, Inc. which established interim enforcement effluent limitations that modified permit limitations. In 1992, the Department executed 18 agreements that established interim enforcement effluent limitations.





**TABLE III - 6  
SUMMARY OF ENFORCEMENT ACTIONS**

<b>TYPE OF ENFORCEMENT ACTION</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>INFORMAL ACTIONS</b>	1273	1,055	561	323	226	247	314	340	336	540	559
- DRL	505	337	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
- NOV	768	718	487	323	226	247	314	340	336	540	559
<b>FORMAL ACTIONS</b>	752	941	913	638	449	383	236	165	127	114	137
- ENFORCEMENT DIRECTIVES	317	480	522	371	304	233	117	N/A	N/A	N/A	N/A
- <b>ORDERS</b>	274	198	147	71	47	50	45	69	37	23	37
AO	0	6	0	1	2	0	0	0	0	0	4
AO/NOCAPA	8	3	9	1	0	18	23	44	28	15	19
NOCAPA	7	8	6	8	9	4	8	12	5	3	5
IRO/P <sup>1</sup>	222	129	77	29	11	10	N/A	N/A	N/A	N/A	N/A
SPDL	34	45	32	20	17	11	6	7	2	1	1
JO	1	5	5	1	3	2	4	1	0	2	1
JO/P	2	2	4	4	0	0	2	1	1	1	0
AGR	-	6	14	7	5	5	2	4	1	1	7
- SETTLEMENTS	152	260	244	196	98	100	74	96	90	91	100
ACO	32	26	21	14	6	4	1	2	5	2	4
ACO/P	17	30	15	8	8	7	5	3	1	4	3
SA	56	121	80	45	10	11	9	11	16	12	25
SA/P	32	77	121	126	74	75	57	77	65	72	63
JCO	4	4	3	2	0	2	2	1	0	0	4
JCO/P	2	2	4	1	0	1	0	2	3	1	1
- AUTO PAYMENTS	9	3	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>TOTALS</b>	<b>2,025</b>	<b>1,996</b>	<b>1,474</b>	<b>961</b>	<b>675</b>	<b>630</b>	<b>550</b>	<b>505</b>	<b>463</b>	<b>654</b>	<b>696</b>

<sup>1</sup> An Immediate Response Order with Penalty (IRO/P) was an administrative order that usually ordered a permittee to comply with its permit and also assessed a civil administrative penalty. In July of 1998, the Department modified its tracking and reporting protocol of IRO/Ps. This type of enforcement action was eliminated since it was essentially the same as AO/NOCAPA.

#### Section Four - Laboratory Certification Program:

On July 1, 1995, the Water Compliance and Enforcement Element received enforcement jurisdiction over the Laboratory Certification program for violations under the WPCA as well as other statutes. The Air and Environmental Quality Element within the Department previously performed this function.

Formal enforcement actions are taken based upon violations discovered by the Department's Office of Quality Assurance during its audits of certified laboratories or as a result of a laboratory's failure to comply with the proficiency testing program. While the actions shown below in Table III-7 were taken pursuant to the WPCA, they are being reported here separately from the other sections of this report since inclusion of these actions would alter any trend analysis contained herein. Additionally, some of the enforcement actions involve the issuance of a Notice of Certification Suspension that is unique to only this program. The statistics for calendar year 2002 and earlier listed in Table III-7 are not included in Table III-6 or Table III-9.

**TABLE III - 7  
LABORATORY CERTIFICATION ACTIVITIES**

TYPE OF ACTIVITY	1995	1996	1997	1998	1999	2000	2001	2002
- ENFORCEMENT ACTIONS								
AO/NOCAPA	9	4	1	4	10	4	1	1
AO/S	81	3	72	33	1	0	0	0
AO/P/S	1	1	0	0	0	0	0	0
IRO/P	0	2	0	0	0	0	0	N/A
ACO/P	0	0	1	0	0	0	0	0
SA	0	2	2	1	0	3	3	2
SA/P	0	0	0	0	1	0	0	0
PENALTIES ASSESSED	\$6,900	\$3,000	\$13,725	\$84,000	\$157,500	\$48,000	\$53,250	\$25,000
PENALTIES COLLECTED	\$1,500	\$7,500	\$1,350	\$4,004	\$27,560	\$11,473	\$40,877	\$48,500

Notes: AO/S - Administrative Order and Notice of Certification Suspension

AO/P/S - Administrative Order, Notice of Civil Administrative Penalty Assessment and Notice of Certification Suspension

The issuance of AO/Ss ceased after 1998 because of the temporary suspension of the EPA laboratory proficiency study program in June of 1998. As part of this program in New Jersey, a laboratory's repeated failure to analyze proficiency samples and submit the results or failure to obtain results within the determined acceptable range of values would be cause for an AO/S to be issued. A new proficiency study program was established in late 2002 and therefore Certification Suspensions will resume.

The \$157,500 in civil administrative penalties assessed in 1999 was much higher than in past years due to the increased number of referrals received from the Office of Quality Assurance based upon audits they performed of certified laboratories.

## D. STORMWATER ENFORCEMENT

The information provided in this section pertains exclusively to facilities that received authorization to discharge under a general stormwater permit. Any data related to facilities which discharge stormwater under an individual permit is included elsewhere in this report under the appropriate section. The statistics for calendar year 2002 and earlier listed in Table III-8 are not included in Table III-6 or Table III-9.

**TABLE III - 8  
STORMWATER INSPECTION AND ENFORCEMENT ACTIVITIES**

TYPE OF ENFORCEMENT ACTIVITY	1995	1996	1997	1998	1999	2000	2001	2002
<b>FULL COMPLIANCE INSPECTIONS</b>	51	900	531	701	660	511	847	762
<b>DISCHARGE INVESTIGATIONS</b>	N/A	52	164	50	60	45	76	48
<b>INFORMAL ACTIONS - NOV</b>	2	196	90	78	49	89	124	231
<b>FORMAL ACTIONS</b>								
<b>- ENFORCEMENT DIRECTIVES</b>	1	48	30	12	N/A	N/A	N/A	N/A
<b>-ORDERS</b>								
AO/NOCAPA	2	1	3	5	11	3	2	5
APA	1	0	0	0	0	0	0	0
IRO/P	1	2	1	N/A	N/A	N/A	N/A	N/A
AGR	0	0	0	1	0	2	0	2
<b>- SETTLEMENTS</b>								
ACO	0	0	0	0	1	1	0	0
ACO/P	0	0	1	0	0	0	0	0
SA	4	0	0	1	0	0	2	0
SA/P	0	2	1	0	1	0	1	2
<b>PENALTIES ASSESSED</b>	-	\$11,250	\$14,135	\$31,750	\$44,850	\$25,000	\$42,500	\$127,767
<b>PENALTIES COLLECTED</b>	-	\$4,500	\$3,500	\$7,510	\$19,063	\$6,284	\$30,875	\$13,750

Since 1996, the Department's compliance and enforcement efforts have been shifted from inspecting those facilities identified by EPA rules as requiring a stormwater permit and those facilities which the Department determined may have responded erroneously that they did not have a stormwater DSW. Now, the focus is on conducting compliance evaluation inspections of facilities authorized to discharge.

One item which deserves attention is the amount of penalties assessed in 2002 (\$127,767). This figure is significantly higher than any previous years' assessment.

## E. COMBINED SEWER SYSTEM ENFORCEMENT

The Department issued a general NJPDES - DSW Permit (permit) for Combined Sewer Systems (CSS) and Combined Sewer Overflows (CSO) in order to comply with the New Jersey Sewage Infrastructure Improvement Act. The effective date of the permit was March 1, 1995. The permit required that, within one month of the effective date of the permit, each individual CSS owner and CSO discharger request authorization to discharge. The permit also required that authorized CSO dischargers develop Combined Sewer Overflow Interim and Long-term Solids/Floatables Control Plans on or before March 1, 1996. These requirements are the first steps in the control of pollutants from these types of systems. The CSO General Permit (NJ0105023) requires a comprehensive discharge-point-by-discharge-point evaluation of the control methods to be used. The general permit requires that the permittee capture and remove solids and floatables that can not pass through a bar screen having a 0.5-inch opening. The permit does not specify the technology to be used. If solids/floatables removal can not meet the 0.5-inch standard, the permittee must demonstrate the most appropriate alternative control measures for each CSO point that can not meet this standard. The alternatives chosen would be based on an incremental cost/performance analysis. The general permit requires that these solids/floatables control plans be implemented according to a compliance schedule. The overall process of addressing these CSO discharges is expected to take a number of years and cost an estimated \$3.4 billion.

This general permit was renewed by the division in February 2000. Any person who currently owns and/or operates any part of a combined sewer system must apply for this NJPDES General Permit. Water Compliance & Enforcement (WC&E) has been coordinating a major effort with the DWQ to ensure that all CSO owners are appropriately committed to both the interim and long-term solids and floatables control measures required by these general NJPDES permits. When WC&E identifies situations where permittees are not in compliance with the planning, design or construction milestones in their NJPDES permits, it issues appropriate formal enforcement actions which establish an alternative compliance schedule and assesses penalties for the noncompliance. The penalties are comprised of both a punitive component and an economic benefit component (the economic benefit realized by the violator in delaying expenditures necessary for attaining compliance).

The following is a summary of some of the major CSO enforcement actions in 2002:

**City of Paterson -** A JCO was executed by the Department and the City of Paterson on April 22, 2002 which requires Paterson to adhere to a schedule to construct Solids/Floatables Control measures, to update and implement a CSO Pollution Prevention Plan and an Operation and Maintenance Plan. In settlement of violations of the WPCA and to address economic benefit it derived from delaying compliance, Paterson also agreed to pay a total penalty of \$379,169.

The total penalties assessed referenced above were included in Table III-9. WC&E continues to closely monitor permittees' progress with their compliance schedules.

## **F. PENALTIES ASSESSED AND COLLECTED**

The CWEA requires the Department to report the dollar amount of all civil and civil administrative

penalties assessed and collected.

**Section One - Penalties Assessed:**

In 2002, the Department assessed a total of \$2.27 million in civil and civil administrative penalties within 95 distinct enforcement actions. This is a moderate decrease from the \$2.81 million assessed in 2001. It is also the third lowest yearly assessment on record; with the \$1.30 million assessed in 1998 and the \$1.86 million in 1996 being the only lower amounts. Interestingly, this is the fewest number of total penalty actions taken in a calendar year since keeping records in 1991.

**TABLE III - 9  
LOCAL (LOC) AND NONLOCAL (NL) PENALTIES ASSESSED**

PENALTY RANGES	1993			1994			1995		
	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED
>\$500,000	\$13,033,000	3	00/03	\$17,829,680	4	01/03	\$942,000	1	00/01
250,001 - \$500,000	2,000,987	6	03/03	0	0	00/00	723,750	2	02/00
100,001 - 250,000	2,549,141	17	04/13	1,332,999	9	02/07	1,138,746	8	01/07
25,000 - 100,000	2,556,330	57	22/35	1,433,252	33	11/22	1,128,432	25	06/19
1 - 25,000	1,909,697	214	49/165	1,621,187	212	59/153	776,803	161	27/134
<b>TOTALS</b>	<b>\$22,049,155</b>	<b>297</b>	<b>78/219</b>	<b>\$22,217,118</b>	<b>258</b>	<b>73/185</b>	<b>\$4,709,731</b>	<b>197</b>	<b>36/161</b>

PENALTY RANGES	1996			1997			1998		
	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED
>\$500,000	\$0	0	00/00	\$659,000	1	00/01	0	0	00/00
250,001 - \$500,000	0	0	00/00	259,000	1	01/00	0	0	00/00
100,001 - 250,000	515,081	3	00/03	624,440	4	03/01	117,398	1	00/01
25,000 - 100,000	855,699	17	06/11	920,520	20	09/11	731,334	15	06/09
1 - 25,000	484,660	101	31/70	656,313	99	32/67	447,569	84	27/57
<b>TOTALS</b>	<b>\$1,855,440</b>	<b>121</b>	<b>37/84</b>	<b>\$3,119,273</b>	<b>125</b>	<b>45/80</b>	<b>1,296,301</b>	<b>100</b>	<b>33/67</b>

**TABLE III - 9  
LOCAL (LOC) AND NONLOCAL (NL) PENALTIES ASSESSED (continued)**

PENALTY RANGES	1999			2000			2001		
	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED
>\$500,000	\$659,000	1	00/01	\$0	0	00/00	\$671,375	1	01/00
250,001 - \$500,000	259,000	1	01/00	\$267,900	1	00/01	\$720,127	2	00/02
100,001 - 250,000	624,440	4	03/01	\$939,553	6	01/05	\$514,536	3	01/02
25,000 - 100,000	920,520	20	09/11	\$667,580	14	06/08	\$556,681	13	03/10
1 - 25,000	656,313	99	32/67	\$502,200	84	21/63	\$346,098	79	29/50
<b>TOTALS</b>	<b>\$3,119,273</b>	<b>125</b>	<b>45/80</b>	<b>\$2,377,233</b>	<b>105</b>	<b>28/77</b>	<b>\$2,808,817</b>	<b>98</b>	<b>34/64</b>

PENALTY RANGES	2002		
	\$ AMOUNT ASSESSED IN RANGE	TOTAL # OF ACTIONS	LOC/NL PENALTY ASSESSED
>\$500,000	\$917,669	2	01/01
250,001 - \$500,000	\$0	0	00/00
100,001 - 250,000	\$314,000	2	00/02
25,000 - 100,000	\$588,237	13	02/11
1 - 25,000	\$452,169	77	25/52
<b>TOTALS</b>	<b>\$2,272,075</b>	<b>95</b>	<b>28/67</b>

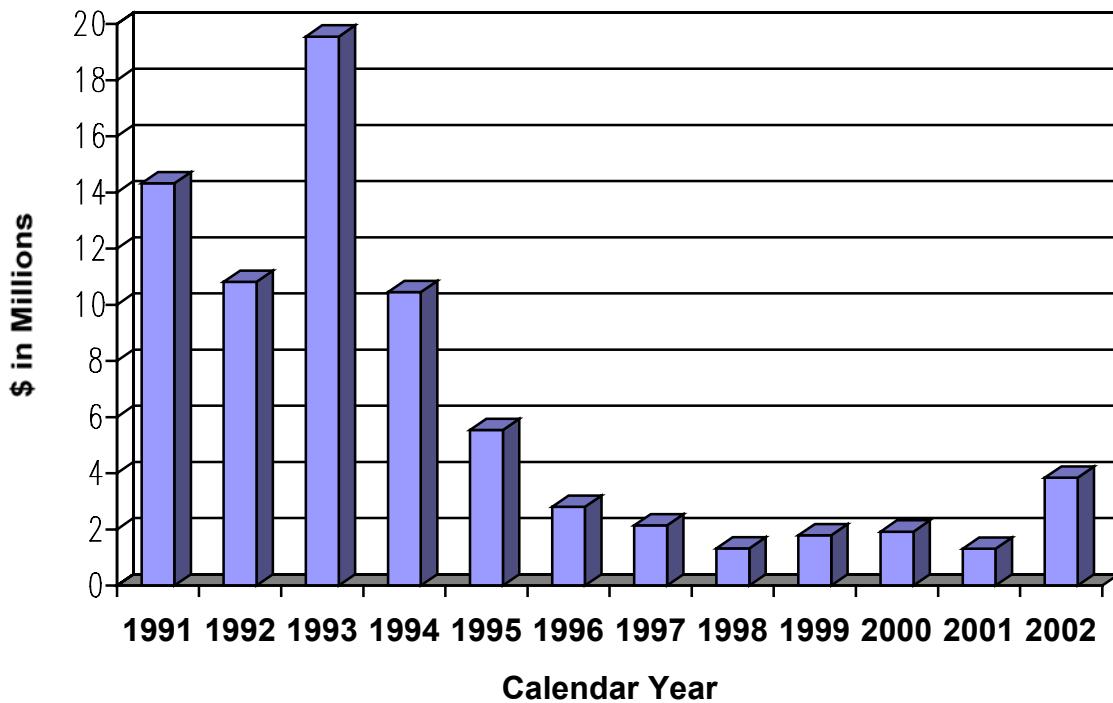




## Section Two - Penalties Collected:

In 2002, the Department collected \$3,841,786 in penalties from 112 permittees. This was the highest amount collected since 1995 and was a reversal of the decreasing or stagnant trend seen over the past 6 years or so. There were 11 payments made greater than \$100,000 with the highest 2 being \$645,000 from Rahway Sewerage Authority and \$538,500 from Pfizer Inc. - Consumer Health Care Division. On the other hand, of the 126 payments received by the Department, 62 were for \$5,000 or less. The total amount includes partial payments that the Department has received pursuant to payment schedules and collections from previous years' penalty assessments. As shown in Chart III-3 below, penalty collections have ranged from a high of \$19.6 million in 1993 to a low of \$1.3 million in 1998 and 2001. The decreasing trend seen (till this year) was consistent with the decrease in assessments over the past few years compared to earlier years. It is anticipated that the amount of penalties collected each year will remain in the neighborhood of \$2.0 million or drop slightly lower. Of course, one large payment of an outstanding assessment could temporarily reverse this trend.

**CHART III - 3  
PENALTIES COLLECTED 1991-2002**





## IV. DELEGATED LOCAL AGENCIES

### A. INTRODUCTION

A DLA is a political subdivision of the State, or an agency or instrumentality thereof, which owns or operates a municipal treatment works and implements a department approved industrial pretreatment program. The Department approves pretreatment programs pursuant to the General Pretreatment Regulations for Existing and New Sources of Pollution, 40 CFR Part 403, as adopted in the NJPDES regulations, N.J.A.C. 7:14A-1 et seq. Under these Federal regulations, the Department may approve a pretreatment program only if the DLA has specified types of legal authority and implements specified procedures including the following:

1. Control indirect discharges through permit, order or similar means to ensure compliance with applicable pretreatment standards;
2. Randomly sample and analyze the effluent from indirect users and conduct surveillance activities in order to identify, independent of information supplied by indirect users, occasional and continuing noncompliance with pretreatment standards;
3. Inspect and sample the effluent from each significant indirect user at least once a year;
4. Investigate and respond to instances of noncompliance through appropriate enforcement action.

An indirect discharge is an introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c), or (d) of the Federal CWA. The DLA classifies an indirect discharger as an SIU if the user is subject to the Federal Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N, or based upon factors such as the quantity of its discharge, the percentage of the POTW's loading which it contributes, its potential to affect the POTW's operation adversely, or its potential to violate a pretreatment standard or requirement.

During calendar year 2002, one additional local agency, the Cumberland County Utilities Authority, received Department approval of its industrial pretreatment program. Approval of the CCMUA program brings the total number of DLAs to 24.

Twenty-four DLAs currently have obtained the Department's approval for their industrial pretreatment programs, which they implement with oversight by the Department. A listing of the DLAs is provided at the end of this chapter. The Department's oversight includes: (i) conducting periodic audits of the DLA's pretreatment program; (ii) reviewing the annual report required by 40 CFR Part 403; and (iii) providing technical assistance the DLA requests. The audit includes a review of industry files maintained by the DLA to determine whether the DLA has met its permitting, sampling, inspection, and enforcement obligations. The annual report required by 40 CFR Part 403 is a detailed discussion of the implementation of the approved pretreatment program and includes elements that allow the Department to gauge the program's success.

In addition to the Federal reporting requirements, the CWEA requires each DLA to file information with the Department annually, for inclusion in the Department's annual CWEA report. The information discussed in this chapter represents cumulative totals from these 24 DLA submissions received by the February 1, 2003 statutory deadline as well as any addenda received as of March 3, 2003. Appendix IV-A summarizes the information submitted by the DLAs. The original documents are available for review upon request.

## B. PERMITS

The 24 DLAs have issued permits to control the discharges from a total of 1,007 facilities discharging to their sewage treatment plants. In its report, each DLA groups these dischargers into two categories based on the flow and character of the discharge.

Categorical/Significant/Major (CSM) includes: (i) dischargers in categories of industries for which EPA has established national pretreatment standards pursuant to 40 CFR 403.6; (ii) dischargers defined as significant by either Federal, State or local definition; and (iii) dischargers which are considered major under the applicable local definition.

Other Regulated (OR) includes any permitted discharger that does not fall within CSM.

The CWEA requires DLAs to annually inspect each permitted facility discharging into their sewage treatment plant. For CSM permittees, the CWEA requires the DLA to annually conduct a representative sampling of the permittees' effluent. For OR permittees, the DLA is required to perform sampling only once every three years.

In 2001, the DLAs issued a total of 57 new permits, 378 renewals, and 164 permit modifications with one permit contested by an interested party. Of the DLA regulated total of 1,027 dischargers; 596 were classified as CSM and 431 were classified as OR. In 2002, the DLAs issued 51 new permits, 322 renewals, and 149 permit modifications with zero permits contested by interested parties. As of December 31, 2002, the DLAs had issued permits to 597 CSM facilities and 410 OR facilities for a total of 1,007 permits. Table IV - 1 Details the permit actions mentioned above and identifies the CSM and OR categories.

**TABLE IV - 1  
PERMIT ACTIVITY SUMMARY  
January 1 - December 31, 2002**

PERMIT ACTIONS	CSM	OR	TOTAL
New Permits	29	22	51
Permit Renewals	166	156	322
Permit Modifications	98	51	149
Permits contested by interested parties	0	0	0
AO/ACO compliance schedules relaxing local limits	7	6	13

### **C. INSPECTIONS AND SAMPLINGS**

The CWEA requires a DLA to inspect, at least annually, each permitted facility discharging into its sewage treatment plant. Under the CWEA, a DLA must sample the effluent from each of the CSM permittees annually and conduct sampling of the OR permittees once every three years.

The DLAs inspected and sampled 943 of the 1,007 permittees at least once during the calendar year. The DLAs inspected and sampled 564 (94.5 percent) of the 597 CSM permittees and 379 (92.4 percent) of the 410 OR facilities. In 2001, the DLAs inspected and sampled 990 of the permittees at least once. The DLAs inspected and sampled 566 (95.0 percent) of the 596 CSM permittees and 424 (98.4 percent) of the 431 OR permittees. In 2002, there was a shortfall of approximately 5 percent in the number of CSM facilities both inspected and sampled, similar to the 5 percent shortfall from last year. A significant number of the facilities that were not sampled/inspected during the calendar year were either not currently discharging, had not begun discharging, or were new permittees thus causing the shortfall. In assessing compliance with pretreatment program requirements, EPA guidance indicates that a 20 percent shortfall would place the DLA in reportable noncompliance. There was no sampling/inspection shortfall in the OR category as the CWEA only requires one third of these facilities to be both sampled and inspected annually. The DLAs inspected and sampled 379 of the 410 OR facilities (or 92.4 percent of the universe) in calendar year 2002, as compared to the statutory requirement of 33 percent.

### **D. VIOLATIONS**

#### **Section One - Violations by Permitted Facilities:**

The DLAs reported 1,266 permit violations by permitted facilities in 2002, compared with 1,382 violations in 2001. Violations fall into the following categories: (i) effluent violations where the discharge exceeds the limits established within the permit; and (ii) reporting violations where self-monitoring data has not been submitted or has been submitted in an incomplete manner.

Of the 1,266 permit violations reported in 2002, 924 (73.0 percent) were effluent violations, and 342 (27.0 percent) were reporting violations, compared with 961 (69.5 percent) effluent violations and 421 (30.5 percent) reporting violations in 2001. The total number of violations reported decreased by 116 (8.4 percent) compared to 2001.

Of the 924 effluent violations, 433 (46.9 percent) were for non-hazardous discharges of conventional pollutants, such as suspended solids and nutrients, and 491 (53.1 percent) were for hazardous pollutant discharges, such as metals, organics and other toxic substances. In 2001, 390 effluent violations were for non-hazardous pollutants and 571 effluent violations were for hazardous pollutants. Of the total number of effluent violations in 2002, 377 (40.8 percent) constituted serious violations compared with 333 (34.7 percent) serious violations in 2001.

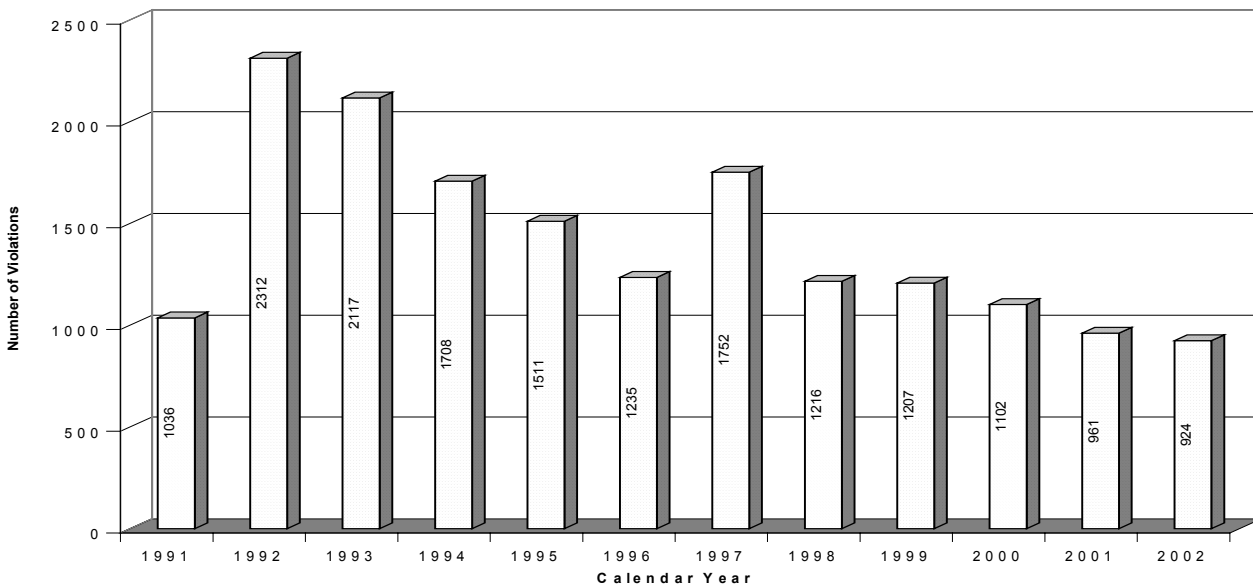
Table IV-2 - Details the permit violations mentioned above and identifies the CSM and OR categories.

**TABLE IV-2  
SUMMARY OF ALL PERMIT VIOLATIONS  
January 1 - December 31, 2002**

VIOLATION TYPE	CSM	OR	TOTAL	%
Non-hazardous pollutants	241	192	433	34.2
Hazardous pollutants	308	183	491	38.8
Reporting violations	231	111	342	27.0
<b>TOTALS</b>	<b>780</b>	<b>486</b>	<b>1,266</b>	<b>100.0</b>

Based on a compilation of data from the CWEA annual reports submitted by the delegated local agencies since 1991, the number of effluent violations (for both hazardous and non-hazardous pollutants) has tended to decrease from year to year (see Chart IV-1 below). Compared to the first full reporting year (calendar year 1992), discharge violations by indirect users discharging to delegated local agencies have declined from 2312 in 1992 to 924 in 2002, a decreased of 60.0 percent.

**CHART IV-1  
IU EFFLUENT VIOLATIONS  
As Reported by DLAs 1991-2002**



## **Section Two - Unpermitted Discharges and Pass Throughs:**

An unpermitted discharge is the release of pollutants, into the sanitary sewer, which is not covered under an existing permit. Unpermitted discharges include any newly identified facilities that have recently come within the jurisdiction of a DLA due to service area expansions by regional sewerage facilities and therefore must obtain a permit. In 2002, the DLAs reported one unpermitted discharge. Although this facility was considered as "unpermitted" by the delegated local agency, the facility had notified the DLA that it would be undergoing plant changes and expansion that would require the facility to obtain a permit. The DLA is in the process of drafting a discharge permit for this OR facility. In 2001, the DLAs reported 7 unpermitted discharges.

The term pass through means a discharge which exits the treatment plant and enters the waters of the State in quantities or concentrations which alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the treatment plant's permit, including an increase in the magnitude or duration of a violation. Two pass through incidents were reported in 2002. Both of these incidents occurred at the Cumberland County Utilities Authority sewage treatment plant and were attributed to an excess discharge of BOD by one industrial user.

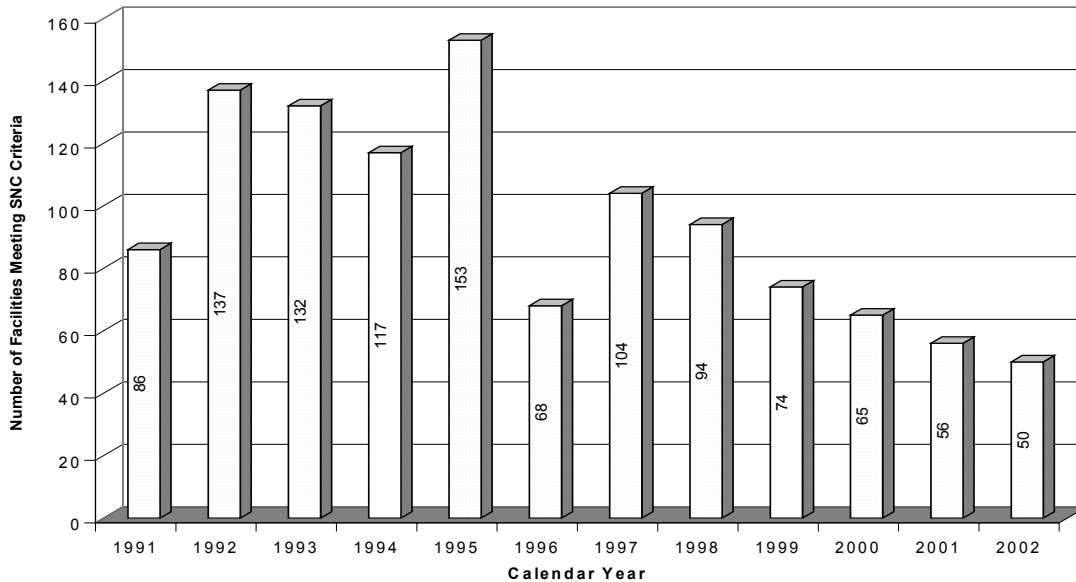
## **Section Three - Significant Noncompliance:**

The CWEA requires that DLAs identify facilities designated as SNCs in accordance with the definition of significant noncompliance as defined by the New Jersey WPCA under N.J.S.A. 58:10A-3.w.

The DLAs reported a total of 50 indirect users who qualified as SNCs under the State definition during 2002. The analysis in the 2001 report indicated that 56 indirect users met the SNC definition. Therefore, there was a decrease of 6, or a 10.7 percent reduction in the number of facilities in significant noncompliance. The DLAs reported as a whole that by the end of calendar year 2002, 27 (54.0 percent) of the 50 indirect users in significant noncompliance had achieved compliance. Appendix IV-B provides information submitted by each DLA regarding the individual indirect users in significant noncompliance.

For facilities discharging into a delegated local agency, Chart IV-2 shows a decreasing trend in the number of indirect users meeting the SNC criteria. For calendar year 1995, the increase or spike can be attributed to implementation of new local limits by the Passaic Valley Sewerage Commissioners (PVSC) and failure by 67 companies in the PVSC service area to submit a local limits baseline monitoring report to PVSC by the prescribed time. Over the eleven year period from 1992 (the first full calendar year of reporting) to 2002, the number of facilities meeting SNC criteria shows a decrease of 63.5 percent. Overall, the percentage of total DLA indirect users meeting the SNC criteria is below 5 percent.

**CHART IV-2  
SIGNIFICANT NONCOMPLIERS AS REPORTED BY DLAs  
1991-2002**



**Section Four - Violations of Administrative Orders and Administrative Consent Orders**

Three DLAs reported that their users had 28 violations of AOs or ACOs, including violations of interim limits, compliance schedule milestones for starting or completing construction, and failure to attain full compliance (one OR facility was responsible for 25 of these violations). No indirect users were reported to have violated their compliance schedules by more than 90 days. In 2001, the DLAs reported 4 violations of AOs and ACOs and four exceedances by more than 90 days were reported.

As required by the Act, a DLA must report any permittee who was at least six months behind in the construction phase of a compliance schedule. No permittees were reported to have met this criterion in 2002.

**Section Five - Affirmative Defenses:**

Five DLAs granted 37 affirmative defenses for upsets, bypasses, testing or laboratory errors for serious violations. Thirteen (or 35.2 percent) of the 37 affirmative defenses were given due to laboratory error, 12 (or 32.4 percent) for upset or bypass, and 12 (or 32.4 percent) were for matrix interference problems or violations involving net-gross calculations where violations were due to excessive amounts of pollutants in the industries' incoming water supply. In calendar year 2001, 39 affirmative defenses were granted by seven DLAs.



## **E. ENFORCEMENT ACTIONS AND PENALTIES**

### **Section One - Enforcement Actions:**

During 2002, the DLAs issued 400 enforcement actions as a result of inspections and/or sampling activities. CSM permittees were the subject of 52.8 percent (211) of these actions, and OR permittees were the subject of the remaining 47.2 percent (189). One DLA, PVSC, is responsible for the majority (257, or 62.3 percent) of these actions and most of these enforcement actions taken by PVSC were due to pH violations. In 2001, the DLAs issued 502 enforcement actions. CSM permittees were the subject of 281 (56.0 percent) of these actions and OR permittees were subject to 221 (44.0 percent) of these enforcement actions

It is important to note that the Department requires that DLAs respond to all indirect user violations. This section of this report only reflects the 400 enforcement actions taken as a result of DLA inspection and sampling activity as specifically required by statute and not those enforcement actions taken by DLAs based upon indirect user self-monitoring report results. Subsequent sections of this chapter reflect these additional enforcement actions taken by DLAs.

### **Section Two - Penalty Assessments and Collections:**

In calendar year 2002, 14 of the DLAs assessed a total of \$1,800,413 in penalties for 653 violations while collecting \$1,148,645. In 2001, 15 DLAs assessed \$1,132,651 in penalties for 431 violations while collecting \$1,244,449.

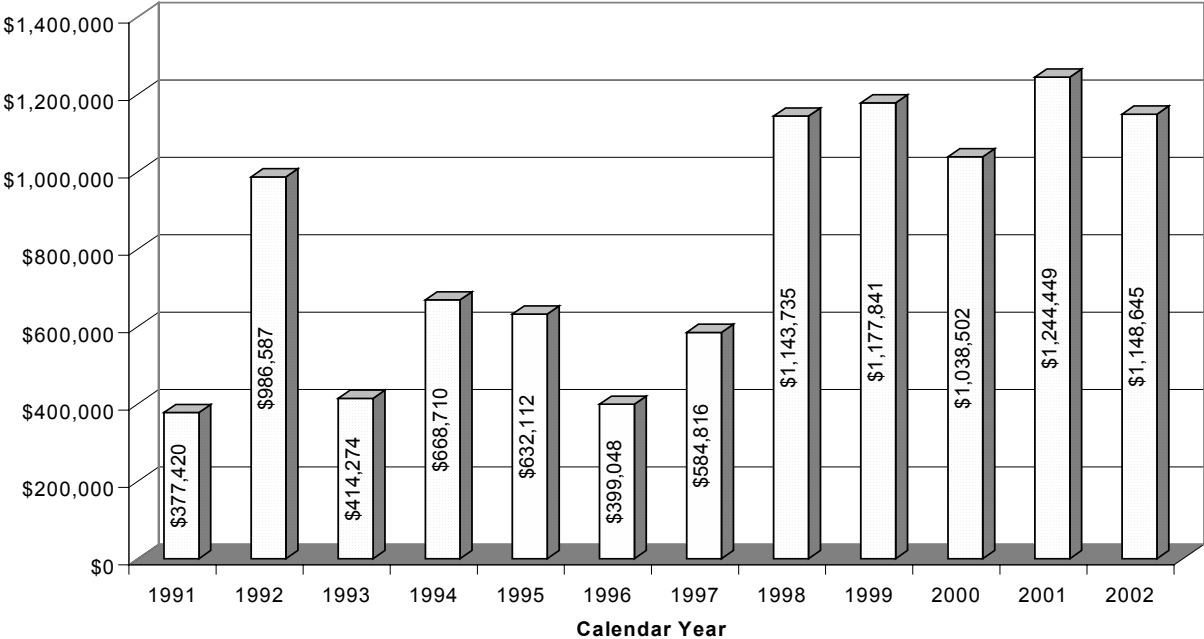
Three DLAs, the Joint Meeting of Essex and Union Counties, Northwest Bergen County Utilities Authority, and the City of Trenton Sewer Utility, recovered enforcement costs in civil actions and civil administrative actions totaling \$10,115.

None of the DLAs reported that the county prosecutor for their service area had filed any criminal actions in 2002.

The CWEA mandates that 10 percent of all penalties collected by DLAs be deposited in the State Licensed Operator Training Account, but allows DLAs flexibility concerning the expenditure of the remaining balance. The DLAs use the penalty money primarily to offset the cost of the pretreatment program, and do so by depositing the money in their general operating account. Accordingly, penalty receipts collected by DLAs are used to fund salaries, sampling equipment, contract services such as legal and engineering assistance, as well as to purchase computer equipment and fund public education programs. Appendix IV-C lists the specific purposes for which penalty monies were expended.

Chart IV-3 shows the penalty money collected by the DLAs since the implementation of the CWEA in 1991. The Chart shows that since 1998, when DLAs began assessing mandatory minimum penalties, penalties collected have remained relatively constant.

**CHART IV-3  
PENALTY MONEY COLLECTED BY DLAs  
1991-2002**



## F. LIST OF DLAs

Each of the DLAs listed below has filed the required CWEA annual report:

<u>Delegated Local Agency</u>	<u>Facility Mailing Address</u>
Bayshore Regional S.A.	100 Oak Street Union Beach, NJ 07735
Bergen County U.A.	PO Box 122 Little Ferry, NJ 07643
Camden County M.U.A.	PO Box 1432 Camden, NJ 08101
Cumberland County U.A.	333 Water Street Bridgeton, NJ 08302
Ewing-Lawrence S.A.	600 Whitehead Road Lawrenceville, NJ 08648
Gloucester County U.A.	PO Box 340 Thorofare, NJ 08086
Hamilton Township Dept. of Pollution Control	300 Hobson Ave. Hamilton, NJ 08610
Hanover S.A.	PO Box 250 Whippany, NJ 07981
Joint Meeting of Essex and Union Counties	500 South First Street Elizabeth, NJ 07202
Linden-Roselle S.A.	PO Box 4118 Linden, NJ 07036
Middlesex County U.A.	PO Box 159 Sayreville, NJ 08872
Morris Township	50 Woodland Ave. PO Box 7603 Convent Station, NJ 07961
Mount Holly M.U.A.	37 Washington St. PO Box 486 Mount Holly, NJ 08060

North Bergen M.U.A.	6200 Tonnelle Ave. North Bergen, NJ 07047
Northwest Bergen County U.A.	30 Wyckoff Avenue Waldwick, NJ 07463
Ocean County U.A.	PO Box P Bayville, NJ 08721
Passaic Valley Sewerage Commissioners	600 Wilson Avenue Newark, NJ 07105
Pequannock, Lincoln Park and Fairfield S.A.	PO Box 188 Lincoln Park, NJ 07035
Rahway Valley S.A.	1050 E. Hazelwood Ave. Rahway, NJ 07065
Rockaway Valley Regional S.A.	99 Green Bank Rd, RD#1 Boonton, NJ 07005
Somerset-Raritan Valley S.A.	PO Box 6400 Bridgewater, NJ 08807
Stony Brook Regional S.A.	290 River Road Princeton, NJ 08540
Trenton, City of	1502 Lamberton Road Trenton, NJ 08611
Wayne Township	475 Valley Road Municipal Bldg. Wayne, NJ 07470

## V. CRIMINAL ACTIONS

In 2002, the Attorney General, through the Division of Criminal Justice, Environmental Crimes Bureau, and several county prosecutors, continued its commitment to the enforcement of the criminal provisions of the Water Pollution Control Act (WPCA), N.J.S.A. 58:10A-10(f). In 2002, as part of its Urban Initiative, the Division made the detection and prosecution of pollution in vulnerable urban areas a priority.

The Division of Criminal Justice, Environmental Crimes Bureau, investigates and prosecutes violations of the State's water pollution laws on a statewide basis, as well as violations of air pollution, hazardous waste, solid waste and regulated medical waste laws. It also investigates and prosecutes traditional crimes, such as racketeering, thefts, frauds and official misconduct that have an impact on environmental regulatory programs, including the Department's water pollution program. The Division handles matters brought to its attention by the Department, county health departments, local police and fire departments and citizens. In addition, the Division coordinates the criminal enforcement efforts of the county prosecutors and provides technical and legal training and assistance to those offices.

In 2002, the Division of Criminal Justice conducted a total of 25 WPCA investigations. The Division also reviewed over 800 department actions (NOV's, Orders, Penalty Assessments, etc.) for potential criminality. Division state investigators responded to 26 water pollution emergency response incidents, out of a total of 35 emergency response incidents. The Division filed three criminal actions (indictments or accusations) for violations of the WPCA. This included three counts in three accusations. (The Division filed a total of 14 criminal actions in Environmental Cases.) One of these constituted a third degree charge involving a purposeful, knowing or reckless unlawful discharge of a pollutant into the State's waters and two involved fourth degree charges for negligent discharge of a pollutant into State waters. All of them have been resolved through guilty pleas. The Division thus obtained a total of three convictions against three defendants for violations of the WPCA. The Division also entered into two consent agreements that resolved two Division water pollution investigations. In 2002, through the successful prosecution of cases involving water pollution, the Division obtained 13 years jail time and \$408,500 in fines and restitution.

In addition to its own investigative and prosecutorial activities, the Division worked closely with county prosecutors' offices to assist them in the handling of WPCA investigations. The Division provided regular legal and technical advice to the counties.

In 2002, county prosecutors' offices filed six criminal actions for violations of the WPCA. This included a total of four complaints and two accusations. This total is derived from actions filed by the prosecutors of Morris (4) and Passaic (2) counties. Of this total, four were third degree charges and two were fourth degree charges involving unlawful negligent discharge into the State's waters. The Morris County Prosecutor's Office also secured a sentencing from a 2001 indictment.

Discussed below are the WPCA criminal actions and dispositions secured by the Division and by

county prosecutors.

In **State v. Meadowlands Plating, et al.** (Indictment Nos. SGJ434-00-09(1) & (2)), the Court sentenced defendant James O'Brien to 12 1/2 years State prison for second degree unlawful abandonment of toxic pollutants (N.J.S.A. 2C:17-2a(2)) and second degree theft (N.J.S.A. 2C:20-4). This is one of the largest sentences the State has ever received in an environmental case. The Court also sentenced defendant Padraig Tarrant to five years probation, \$125,000 restitution to US EPA, and a \$4,000 fine for unlawfully storing hazardous waste, specifically, electroplating waste at the Meadowlands/MPF Plating facility in Bergen County. The Court sentenced defendant John Canavari to 18 months probation, \$75,000 restitution to US EPA, and a \$3,000 fine for unlawfully storing hazardous waste, and theft by deception. The Court sentenced defendant Marchese to 18 months probation, a \$4,000 fine, and \$25,000 restitution for unlawfully storing hazardous waste and theft. Between 1996 and 1998, defendants unlawfully stored corrosive hazardous waste and wastewater treatment sludge in electroplating vats and tanks, in drums, and in rolloff containers. When they closed the plant, they left behind the toxic waste from the plating operation. At one time, Meadowlands was one of the largest electroplating facilities in the State. Defendants also obtained over \$75,000 from a lending corporation for the purchase of equipment and fixtures, including pollution control equipment, and failed to use that money for that purpose as required by the US Small Business Administration Authorization and Loan Agreement. In addition to unlawfully storing and abandoning hazardous waste on site, the defendants also unlawfully discharged wastewater into the sewer system.

In **State v. Sylvan Callica**, the Division of Criminal Justice obtained a guilty plea from the defendant to second degree unlawful discharge of a hazardous substance. The case involved pumping out of thousands of gallons of oil-contaminated water and oil from two large underground storage tanks at a Jersey City trucking company into a storm drain which led into the Hackensack River. The Honorable Elaine Davis, P.J.S.C., sentenced Callica to serve 180 days in the county jail and to pay a \$1000 fine. Callica was also placed on probation for three years.

In **State v. Ken Diamond** (Accusation No. 02-07-1227A), the State filed an accusation against Ken Diamond, the owner of Grand Technologies, Englishtown, for a third degree reckless violation of the Water Pollution Control Act, contrary to N.J.S.A. 58:10A-10f. Defendant, as a condition of admission into Pretrial Intervention, has agreed to pay \$10,000 to the Clean Water Enforcement Fund. Defendant was charged with recklessly discharging contaminated rinse water on several occasions from Grand Technologies onto the ground and ultimately into a nearby stream.

In **State v. Dye Tex Corp. and Joseph Vendette** (Accusation Nos. 02-12-1118 and 02-12-1117), the State filed Accusations in Passaic County Superior Court against the defendant company and its president for a fourth degree violation of the Air Pollution Control Act (N.J.S.A. 26:2C-19) and a fourth degree violation of the Water Pollution Control Act (N.J.S.A. 58:10A-10f). Both defendants pled guilty to the charges before the Honorable Marilyn C. Clark, P.J.S.C., with Vendette being admitted into pretrial intervention, conditioned upon paying \$10,000 to the Clean Water Enforcement Fund and paying all outstanding DEP fines and penalties. In 2001, on numerous

occasions, in spite of repeated DEP directives, Dye Tex discharged dark plumes of smoke that violated the facility's permits for opacity limits. The defendants also removed the facility's pH monitoring probe from its waste water effluent. The facility has industrial pretreatment permit #21200008 from the Passaic Valley Sewerage Commission.

In **State v. Joseph Johanson** (Indictment No. 01-10-00093-S), defendant Joseph Johanson pled guilty to unlawfully disposing of solid waste at Johanson swine farm in Salem County in 1999 and 2000. The Court sentenced defendant Joseph Johanson to one year probation, conditioned upon paying a \$2,500 fine and, pursuant to all DEP directives, fully cleaning up and properly disposing of all the solid waste he disposed of at Johanson swine farm. Defendant had been charged in 2001 with unlawfully disposing of solid waste at the swine farm and polluting a local stream from solid waste runoff.

**In the Matter of Eastern Concrete Materials, Inc.**, the Division of Criminal Justice entered into a consent agreement with Eastern Concrete in which Eastern has agreed to pay \$69,000 to the Clean Water Enforcement Fund and \$30,000 to the Hackensack Riverkeeper. This settlement resolved an investigation into the discharge of high pH concrete barrel washout water from Eastern's facility in Secaucus into the Hackensack River between November 2001 and February 2002.

**In the Matter of Atlantic States Cast Iron Pipe**, the Environmental Crimes Bureau entered into a settlement agreement with Atlantic States in which Atlantic States has agreed to pay \$50,000 to an environmental group dedicated to protecting the Delaware River and surrounding waterways, as well as to take a series of steps to improve the operations of its plant. In December 1999, there was a discharge of petroleum contaminated water from the Phillipsburg stormwater system into the Delaware River in the area of the Atlantic States facility.

In **State v. Rafael Munguia**, the Morris County Prosecutor's Office filed an Accusation in 2001 charging defendant with fourth degree water pollution. On July 24, 2001, during the investigation of an accidental fire at 152 River Road, Montville Township, NJ, an illegal discharge pipe was discovered from the home's septic tank into a wetlands area. The house had a high volume of septic waste since it was an over-occupied rooming house. The owner of the home admitted to installing the pipe. Defendant pled guilty before the Honorable John J. Harper, J.S.C., and he was sentenced in March of 2002. He received a probationary sentence and was ordered to pay a fine of \$50,000 to the Clean Water Enforcement Fund.

In **State v. Guy Morrison** and **State v. Sparta Sand and Gravel**, in October of 2001, the Chester Police Department responded to a report of a cement mixer dumping its load into a stream next to Rogers Road, in Chester Township, N.J. Upon their arrival, they observed a cement mixer on the side of the road and a large amount of cement on the ground running into the stream. The driver of the vehicle, Guy Patrick Morrison, stated that he was working at the Briar Cliff at Chester Construction site and he was directed by a mason to this stream to clean his vehicle. The cement mixer is owned by Sparta Sand and Gravel, Lafayette, N.J. Sparta Sand and Gravel, as well as Mr. Morrison, were charged in complaints with fourth degree water pollution. NJDEP directed Sparta

Sand and Gravel to clean the site up. On May 1, 2002, Morrison was admitted into PTI for 12 months by the Honorable Catherine M. Langlois, J.S.C. Mr. Morrison was ordered to make a \$500 donation to the CWEF. Sparta Sand and Gravel entered into a Consent Order with the Morris County Prosecutor's Office. In return for having the criminal charge dismissed, the company agreed to make a \$1,000 donation to the CWEF.

On May 4, 2002, Maria Coppola of the DEP responded to the Lincoln Park Airport in Lincoln Park, N.J., to investigate allegations of water pollution. Ms. Coppola observed an illegal sump pump submerged into a holding tank in the leach field. The sump pump was pumping sewage from the malfunctioning leach field into a storm drain. The storm drain ultimately fed into the Passaic River. A search warrant was executed at the Lincoln Park Airport. Mr. Rendeiro was arrested and charged with third degree water pollution. The investigation is ongoing.

In **State v. George A. Colon**, on June 5, 2002, George A. Colon was driving his truck on Route 46 in Rockaway Borough, N.J., when several people informed him that he was leaking diesel fuel onto the roadway. Mr. Colon stated he was aware of this but only had a little further to go. Mr. Colon made a U-turn and proceeded for several miles to Denville, N.J., where the Denville Police stopped him. Mr. Colon was subsequently charged with third degree water pollution. On November 4, 2002, Mr. Colon was admitted into PTI by the Honorable B. Theodore Bozonelis, J.S.C., for a period of 24 months. Mr. Colon was ordered to perform 50 hours of community service and to make a \$2,500 donation to the CWEF.

In **State v. Sun Metal Finishing, Inc.** and **State v. O'Brien**, the corporate defendant pleaded guilty to a two count Accusation charging two third degree violations: one violation concerned N.J.S.A. 13:1E-9(g)(3), knowingly disposing of hazardous waste without authorization from the New Jersey Department of Environmental Protection, and the other violation concerned N.J.S.A. 58:10A-10f(2), purposefully, knowingly or recklessly making a false certification in a record or other document filed or required to be maintained. This action, brought by the Passaic County Prosecutor's Office, involved the illegal discharge of hazardous waste bypassing the pretreatment regulator causing the flow to go directly to the sanitary sewer. (The company is located in Paterson and has industrial pretreatment permit #27403862 issued by the Passaic Valley Sewerage Commission). The company also submitted false certifications on documents required to be filed with the DEP. The Honorable Marilyn C. Clark, P.J.S.C., signed a Pretrial Intervention Order allowing the corporate defendant entry into same upon the payment of a \$200,000 fine; \$100,000 payable to the Passaic Valley Sewerage Commission, the other \$100,000 payable to the Passaic County Prosecutor's Office Clean Water fund.

Sun Metal Finishing owner, Michael O'Brien, pleaded guilty to a two count Accusation charging two third degree violations. The violations are the same as enumerated supra for the corporate defendant. The Honorable Marilyn C. Clark, P.J.S.C., signed a Pretrial Intervention Order allowing Mr. O'Brien entry into the same.

In summary, the Attorney General, through the Division of Criminal Justice, and county prosecutors,



filed 9 WPCA criminal actions in 2002, involving 5 third degree charges and 4 fourth degree charges, and secured 9 final dispositions for criminal violations of the WPCA. (One of the dispositions involved a case filed before January of 2002.) The Division and counties' activities in 2002 demonstrate the State's continuing commitment to criminal enforcement under the WPCA.



## VI. FISCAL

### A. CWEA FUND SCHEDULE AND COST STATEMENT

The CWEA establishes the CWEF and provides that all monies from penalties, fines and recoveries of costs collected by the Department shall be deposited into the CWEF. The CWEA further provides, pursuant to N.J.S.A. 58:10A-14.4, that unless otherwise specifically provided by law, monies in the CWEF shall be utilized exclusively by the Department for enforcement and implementation of the WPCA. However, beginning in July 1995 (fiscal year 1996) the Department was placed on budget. Accordingly, a General Fund appropriation is provided for the program. In turn, all fine and penalty revenues are deposited in the General Fund.

The CWEA, in accordance with N.J.S.A. 58:10A-14.2a(21), requires the Department to include in this report the specific purposes for which penalty monies collected have been expended, displayed in line format by type of expenditure, and the position numbers and titles funded in whole or in part from the penalty monies. Accordingly, the CWEA Fund Schedule (Table VI-1) presents the monies deposited into the CWEF and the Program Cost Statement (Table VI-2) presents the specific purposes for which the monies in the CWEF were expended in 2002, based upon cost accounting data.

#### *The CWEF Schedule*

A total of \$2,221,026 in penalty receipts was deposited in the second half of FY2002 and \$1,790,945 in penalty receipts was deposited during the first half of fiscal year 2003.

**TABLE VI – 1**  
**CLEAN WATER ENFORCEMENT FUND SCHEDULE**  
**For the period from January 1, 2002 through December 31, 2002**

	January – June 2002	July – December 2002
Total Penalties Recorded	\$2,221,026	\$1,790,945

#### *The CWEA Program Cost Statement*

The WPCA Program Cost Statement (Table VI-2) represents disbursements from the CWEF in accordance with N.J.S.A. 58:10A-14.4, for the costs associated with the implementation and enforcement of the WPCA. In calendar year 2002, the Fund disbursed \$275,779 to the Division of Law for the costs of litigating civil and administrative enforcement cases and other legal services; \$60,298 to the Office of Administrative Law for costs associated with adjudicating WPCA enforcement cases; and \$76,655 to the Office of Information Technology. The CWEF disbursed \$782,606 for expenses incurred by the Department (see Table VI-2 for additional details).

**TABLE VI-2**  
**CLEAN WATER ENFORCEMENT COST STATEMENT**

**For the period from January 1, 2002 through December 31, 2002**

	FY2002 January - June	FY2003 July – December
Division of Law (Dept. of Law & Public Safety)	\$275,779	\$0
Office of Administrative Law	60,298	0
Office of Information Technology	76,655	0
Department of Environmental Protection		
- Salaries	300,218	297,412
- Materials and Supplies	6,237	7,751
- Services Other than Personal	22,787	23,110
- Maintenance and Fixed Charges	90,508	34,583
- Equipment	0	0
DEP Subtotal	419,750	362,856
<b>Total Disbursements</b>	<b>\$832,481</b>	<b>\$362,856</b>

## VII. WATER QUALITY ASSESSMENT

### A. Introduction

This Water Quality Assessment section of the CWEA Report provides an overview of water quality within New Jersey. Direct evaluation of the effects of point source compliance on water quality is challenging because of the difficulty in measuring the effects of permit violations on ambient water quality. Because permit compliance rates remain very high and permit violations are often of very short duration, in-stream monitoring that corresponds spatially and temporally to permit violations is not feasible. Water quality as reflected in ambient monitoring and summarized here largely reflects loadings resulting from point sources discharging at permitted levels combined with nonpoint sources and groundwater inputs. Results obtained in the past, however, do indicate that improving effluent quality does improve overall water quality.

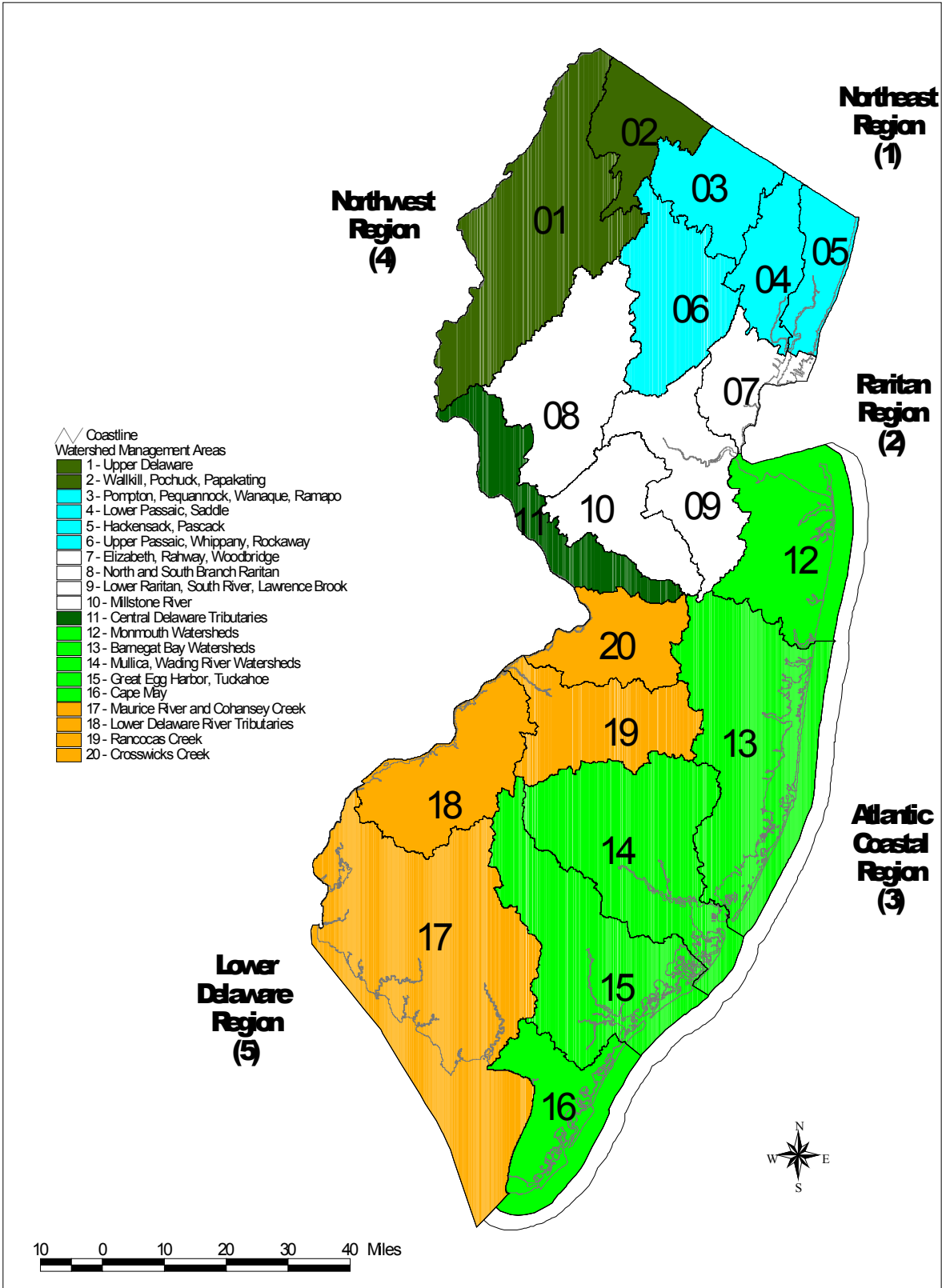
New Jersey's twenty (20) watershed management areas (WMAs) are shown on Figure VII-1.

### B. 2002 Water Quality Inventory Report

Each year, the Department assesses the status of rivers, streams, lakes and coastal waters through its water quality monitoring networks. These results are then compiled and assessed biannually into a formal *Water Quality Inventory Report* (also called the 305b report from Section 305b of the CWA) which is submitted to the EPA. The most recent Inventory Report is the 2002 Report, which forms the basis for the water quality information presented here. As a footnote, the 2002 305(b) Report has been combined with the 2002 303(d) List to form the *2002 New Jersey Integrated Water Quality Monitoring and Assessment Report*.

The surface water quality summary presented here is based upon data collected between 1996 and 2000, principally from networks with as many as 800 sites. The biological network includes approximately 800 sites; the physical/chemical water monitoring network (ASMN) includes over 100 sites, with a combination of both fixed and randomly selected stream sites. Additional data are obtained from supplemental networks designed to assess special issues such as heavy metals. Resulting data are then compared to applicable Surface Water Quality Standards (SWQS) criteria.

**Figure II-1 New Jersey Watershed Management Areas and Regions**



## **Status and Trends in Water Quality:**

The overall results for water quality from the 2002 Report are as follows.

### Nontidal Rivers and Streams

- Overall results indicate that dissolved oxygen levels in the state are relatively healthy. The 2002 assessment shows that only 3 of 238 sites (1%) are not attaining dissolved oxygen criteria. This represents only 44 river miles (of 2,308 miles assessed) not attaining standards for dissolved oxygen in the state.
- Prior to upgrades and regionalization of sewage treatment plants, ammonia exceedances were common in streams receiving effluent. Since then, the improvement of unionized ammonia concentrations in waters statewide has been dramatic. Of the 241 stations assessed, all are fully attaining the Surface Water Quality Standards (SWQS) criteria.
- Over 98% of stations assessed fully met the standards for total dissolved solids (TDS).
- A total of 257 stations (representing 2,179 river miles) were assessed for total phosphorus (TP). The average TP for all sites was 0.1 mg/l. The assessment results show that almost half of the stations do not meet TP standards (45% non-attaining, 55% attaining).
- Observations revealed that 20 stations with low pH exceedances were located in areas directly surrounding the Pinelands yet are classified as FW-2 and not PL waters within the SWQS. These areas are characterized as having environmental conditions such as soils, geology, and vegetation very similar to the Pinelands, therefore, there is speculation that the low pH at these sampling sites may be attributable to natural conditions rather than an impairment.
- As a result of new data collection, 43% of the metal impairment listings on the 1998 303(d) List (a total of 142 individual metal listings; one metal listing is a metal at a site) from 38 sampling sites were delisted from the 1998 303(d) List after new data confirmed that water quality met the SWQS. Thirty-five metal listings (in 25 sites) from 1998 were found to continue to have exceedances of metal standards, and 152 listings (in 33 sites) were carried over from the 1998 303(d) List due to no new available data or data were insufficient to make a new assessment.

### Tidal Rivers and Coastal Waters

- Of the 95 miles of tidal rivers assessed for dissolved oxygen, 76 miles (80%) were assessed to be in full attainment, 19 miles were in non-attainment (20%) due to periodic drops in DO. Areas of non-support included tidal portions of the Shark River and Jumping Brook, tidal Patcong Creek and the Middle River within the Great Egg Harbor River watershed, and the lower tidal portions of the Maurice River.
- Of the 258 square miles of open estuarine waters assessed from southern Raritan Bay south to Cape May, 67% had sufficient dissolved oxygen levels to support a healthy biota. The remaining 33 % were assessed as being in non-attainment due to periodic drops in DO levels to unacceptable levels. Locations where DO violations were observed centered around the Shark

River, Lower Manasquan River, Great Bay, Absecon and Lakes Bay, Sculls Bay, and Great Egg Harbor Inlet.

- Of 454 square miles of ocean water assessed (Sandy Hook south to Cape May and 3 nautical miles off the coast) for dissolved oxygen, 30 percent (136 sq. mi.) had acceptable levels and the remaining 70 percent (318 sq. mi.) had unacceptably low levels brought about by a benthic low DO cell which forms off the coast during the summer months and breaks up in the fall. The areas of acceptable DO are centered approximately one mile off the coast from Barnegat Inlet, Absecon Inlet and a three mile eastward transect just above Hereford Inlet. Occurrences of low DO in the ocean have been attributed to a combination of natural processes and anthropogenic inputs of nutrients (point and nonpoint sources). Ocean waters naturally stratify as they warm in the summer, and as phytoplankton bloom and die during the summer, natural biological activity decomposes the algae which in turn reduces DO levels near the ocean floor. The significance of temporary low DO conditions to aquatic life is unclear at this time. As additional data are compiled, the information will be adjusted to reflect these new data.
- Seventeen sites representing 179 tidal river miles were assessed for metals in tidal rivers. Of the 91 individual metal listings on the 1998 303(d) List, 40 metals (44%) were delisted from the 17 assessed sites. Aside from these delistings, all 179 river miles still had at least one metal on the 303(d) List.

### **C. Evaluation of Point Source Contribution to Water Quality**

Generic assessments of causes and sources of impairment are provided in the 2000 and 2002 Water Quality Inventory Reports. As the TMDL program progresses and more TMDLs are completed, future Integrated Water Monitoring and Assessment Reports will present more rigorous and quantitative source and cause assessments.

### **D. Surface Water Quality Monitoring**

Monitoring data are used to establish baseline conditions, determine water quality trends, identify water pollution solutions or further clarify water quality problems. The Department's primary surface water quality monitoring unit is the Water Monitoring and Standards element. The current stream monitoring network (SMN) has been operating since the autumn of 1997 and was discussed in the beginning of this Water Quality section. This network focuses on water quality status and trends to support the development of indicators, identify pollution sources and assess relative pollution impacts in each of the Department's 20 watershed management areas. This network is supplemented by biological monitoring and additional monitoring designed to assess specific issues such as heavy metals, baseline water quality, etc. Additional information regarding surface water quality monitoring can be obtained at [www.state.nj.us/dep/wmm/bfbm](http://www.state.nj.us/dep/wmm/bfbm).

### **E. References and Sources of Additional Information**

Additional information regarding water quality in New Jersey may be obtained by visiting the Water Monitoring and Standards' Assessment Team website and the Division of Watershed Management websites. Web addresses are:

[www.state.nj.us/dep/wmm/sqwqt/wat](http://www.state.nj.us/dep/wmm/sqwqt/wat)  
[www.state.nj.us/dep/watershedmgt](http://www.state.nj.us/dep/watershedmgt)



Ayers, M. A., J.G. Kennen and P.E. Stackelberg. *Water Quality in the Long Island-New Jersey Coastal Drainages, 1996-98*. US Geological Survey Circular 1201. West Trenton, New Jersey. <http://www.nj.usgs.gov/nawqa/linj.html>

NJ Department of Environmental Protection. *2000 New Jersey Water Quality Inventory Report*. Trenton, New Jersey. [www.state.nj.us/dep/wmm/sqwqt/wat/reports-historical.htm](http://www.state.nj.us/dep/wmm/sqwqt/wat/reports-historical.htm)

NJ Department of Environmental Protection. *New Jersey 2002 Integrated Water Quality Monitoring and Assessment Report [305(b) and 303(d)]*. Trenton, New Jersey. [www.state.nj.us/dep/wmm/sqwqt/wat/integratedlist/integratedlist.htm](http://www.state.nj.us/dep/wmm/sqwqt/wat/integratedlist/integratedlist.htm)

NJ Department of Environmental Protection. June, 1998. *Environmental Indicators Technical Report*. 235 pp.

US Environmental Protection Agency. September, 1997. *Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates*. EPA-841-B-97-002A.