# 2007 ANNUAL REPORT

# OF THE

# CLEAN WATER ENFORCEMENT ACT

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

*Calendar Year 2007*

**July 2008**

*New Jersey Department of Environmental Protection*

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# OF THE
# CLEAN WATER ENFORCEMENT ACT

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***July 2008***

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**GOVERNOR**

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Camden County M.U.A.
Cumberland County U.A.
Ewing-Lawrence S. A.
Gloucester County U.A.
Hamilton Twp. Dept. of Water Pollution Control
Hanover S.A.
Joint Meeting of Essex and Union Counties
Linden-Roselle S.A.
Middlesex County U.A.
Morris Township
Mount Holly M.U.A.
North Bergen M.U.A.
Ocean County U.A.
Pequannock, Lincoln Park
Passaic Valley Sewerage Commissioners
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Rockaway Valley Regional S.A.
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Northwest Bergen County U.A.

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Ocean County

Special thanks to John Olko, Office of the Administrator, Water Compliance and Enforcement and Rich Paull, Water Compliance and Enforcement, Northern Field Office for their support and assistance.

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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.

In 1990, the New Jersey Legislature enacted substantial amendments to the Water Pollution Control Act (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 the implementation of the Act 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. 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 on more than fourteen years of implementation and enforcement of the CWEA.

## Permitting

The Department's Division of Water Quality (DWQ) issues Discharge to Surface Water (DSW), Discharge to Groundwater (DGW), Stormwater discharges (DST), 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 that 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 steadily over the past several years, mainly due to increased efforts to address backlogged applications in the ground water permits program and the permitting of previously exempt and/or unidentified facilities now requiring a stormwater discharge permit. The DWQ continues to issue permits to new facilities, while other facilities' permits are being terminated or not renewed. Most permit actions are for new general permit authorizations.

The DWQ has increased the practice of providing a predraft of an individual 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 682 facilities that discharged to the surface waters of the State in 2007, as compared to the 702 facilities regulated in 2006. The Department also regulates facilities discharging to ground water and to POTWs, discharging stormwater only, or that handle, distribute or land apply residuals. These additional types of facilities that the Department also regulates are listed in this report as “Other”. In 2007, the DWQ regulated 4,963 of these other facilities (either separately or combined with a DSW), as compared to the 4,929 regulated in 2006, an increase of .7 percent. The DWQ regulated a total of 5,377 facilities in 2007, compared with 5,358 facilities in 2006, an increase of .4 percent.

Since the Department issues permits for "discharge types" rather than facilities, a facility with more than one discharge type may have more than one permit. As of December 31, 2007, the Department permitted 5,998 discharge types for 5,377 facilities.

In 2007, the Department took 2950 formal permit actions, reflecting a 220 percent increase in permit actions from 2006.

The Department issued 227 new permits and received no hearing requests on these actions. The Department also issued 2427 permit renewals and received 9 hearing requests on these actions. The Department renewed permits for 22 DSW major facilities in 2007. Over the past few years, DWQ has focused its permitting resources on renewing major DSW permits.

For the Stormwater Permitting Program in 2007, 2253 general permit renewal authorizations were issued, 1 new Master General Permit was issued, 2 Master General Permits were renewed, 2 Master General Permit modifications were issued, 143 new general permit authorizations were issued, 82 were modified, and 147 general permit authorizations were terminated. In addition, 5 new individual permits were issued, 28 were renewed, 4 were terminated, and 6 individual permit modifications were completed.

## **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 2007, the Department conducted 3497 facility inspections.

*Violations*

In 2007, the Department assessed penalties against 192 facilities for 800 violations of the WPCA. In comparison, in 1992 the Department assessed penalties against 300 facilities for 2,483 violations.

*Serious Violations*

In 2007, the Department identified and issued formal and informal enforcement actions for 293 serious effluent violations. Serious violations have decreased from a reported high figure of 847 in 1992. This decrease from fifteen 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.

*Significant Non-Compliers (SNC)*

In 2007, the Department issued formal enforcement actions to 17 permittees identified as SNCs. Appendix III-A of this report identifies each SNC and sets forth information concerning each SNC's violations.

*Enforcement Actions*

The Department uses both informal and formal enforcement actions to promote compliance with the WPCA. An informal enforcement action or Notice of Violation (NOV) 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 2007, the Department initiated 714 informal enforcement actions (NOVs) for Surface Water (SW), Ground Water (GW), and Significant Indirect Users (SIU) violations. This includes NOV's issued for Stormwater violations.

*Formal Enforcement Actions:*
In 2007, the Department initiated 192 formal enforcement actions. Since these are the documents in which the Department assesses penalties and, the Department typically initiates penalty actions only against a permittee committing a serious violation or violations which causes it to become an SNC.

*Penalties Assessed and Collected*
In 2007, the Department assessed a total of $4.22 million in civil and civil administrative penalties within 157 distinct enforcement actions.

In 2007, the Department collected $1.94 million in penalties.

## Delegated Local Agencies (DLA)

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 24 DLAs have issued permits to control the discharges from a total of 847 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 795 of the 847 permittees at least once during the calendar year.

The DLAs reported 757 permit violations by permitted facilities in 2007, compared with 967 violations in 2006. The DLAs reported a total of 36 indirect users who qualified as SNCs under the State definition during 2007. The analysis in the 2006 report indicated that 49 indirect users met the SNC definition. Therefore, there was a decrease of 14, or a 28.6 percent decrease in the number of facilities in significant noncompliance. The DLAs reported as a whole that by the end of calendar year 2007, 17 (47.2 percent) of the 36 indirect users in significant noncompliance had achieved compliance. During 2007, the DLAs issued 201 enforcement actions as a result of inspections and/or sampling activities.

In calendar year 2007, 16 of the DLAs assessed a total of $862,861 in penalties for 404 violations while collecting $625,669. In 2006, 18 DLAs assessed $1,268,475 in penalties for 565 violations while collecting $1,352,650.

## Criminal

In 2007, the Division of Criminal Justice conducted a total of eighteen (18) WPCA investigations. The Division also reviewed over 200 Department actions (NOVs, Orders, Penalty Assessments, etc.) for potential criminality. Division State Investigators responded to twenty-three (23) water pollution emergency response incidents, out of a total of 41 emergency response incidents. The Division filed four (4) criminal actions (indictments or accusations) for violations of the requirements of the WPCA. Three (3) of the criminal actions constituted a third degree charge involving a purposeful, knowing or reckless violation of the WPCA. One involved a fourth degree charge for a negligent violation of the WPCA. Three have been resolved through guilty pleas.

In 2007, through the successful prosecution of cases involving water pollution, the Division obtained $1 million in fines and restitution.

## Fiscal

A total of $2,828,838.25 in penalty receipts was deposited in calendar year 2007.

In calendar year 2007, the Clean Water Enforcement Fund disbursed $316,823.00 to the Division of Law for the costs of litigating civil and administrative enforcement cases and other legal services; $71,575.00 to the Office of Administrative Law for costs associates with adjudicating WPCA enforcement cases. The CWEF disbursed $814,589.43 for expenses incurred by the Department.

## Water Quality Assessment

The Water Quality Assessment section of the CWEA Report provides an overview of water quality within New Jersey. The Department assesses the status of rivers, streams, lakes, and coastal waters through extensive water quality monitoring networks. These results are then assessed and compiled biennially into a formal *Integrated Report* (combined 305(b) report and 303(d) List), which is submitted to the US Environmental Protection Agency (USEPA).

The Federal Clean Water Act (Act) mandates states to biennially report to the USEPA on the quality of their waters as per their achievement of water quality standards and attainment of designated uses. This report is called the *Water Quality Inventory Report* or the 305(b) Report. In addition, the Act also requires states to biennially provide USEPA with a list of waterbodies for which required technology-based effluent limits are not stringent enough to achieve the state's surface water quality standards. This list is termed the *List of Water Quality Limited Waters* or the *303(d) List*. Since both reporting efforts share the same data sets, New Jersey began integrating these two reports into a single document known as the *Integrated Water Quality Monitoring and Assessment Report* or *Integrated Report.* The Integrated Report presents the extent to which waters of the State are achieving state surface water quality standards and attaining corresponding designated uses, and identifies waters that are impaired and need total maximum daily loads (TMDLs) as required under section 303(d) of the Act. New Jersey submitted its first Integrated Report in 2002.

A key component of the Integrated Report is the Integrated List (also known as the 303(d) List), which identifies the use attainment and assessment status of all waters of the State. The Integrated List is generated by placing all of the State's waterbodies into one of five sublists. Sublist 1 identifies waterbodies where the designated use is assessed and attained and all other designated uses in the assessment unit are assessed and attained (except for fish consumption). Sublist 2 identifies waterbodies where the designated use is assessed and attained but one or more other designated uses are not attained and/or there is insufficient information to make a determination. Sublist 3 identifies waterbodies for which there is insufficient data available to determine if the designated use is attained. Sublist 4 identifies waterbodies where the designated use is not attained but a TMDL has been completed or other enforceable pollution control requirements are reasonably expected to achieve use attainment. Sublist 5 identifies waterbodies where the designated use is not attained or is threatened by a pollutant(s) and a TMDL is required. Sublist 5 is used to develop the List of Water Quality Limited Waters (303(d) List). The most recent final Integrated Report is the 2006 Integrated Report, which forms the basis for the water quality information presented in the CWEA Annual Report. The 2008 Integrated Report is currently under development and should be completed by Summer 2008.

# 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 regarding the 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 information related to inspections, violations, enforcement actions and penalties.

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 overall assessment of surface water quality in New Jersey as reported in the *2004 New Jersey Integrated Water Quality Monitoring and Assessment Report.*

## 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.

### 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, as well as municipalities, counties, certain public complexes, and highway agencies. 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 682 facilities that discharge to the surface waters of the State in 2007, as compared to the 702 facilities regulated in 2006. 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 2007, the DWQ regulated 4,963 of these other facilities (either separately or combined with a DSW), as compared to the 4,929 regulated in 2006, an increase of .7 percent. The DWQ regulated a total of 5,377 facilities in 2007, compared with 5,358 facilities in 2006, an increase of .4 percent.

**TABLE II-1 REGULATED FACILITIES 2005-2007**

| **FACILITIES REGULATED** (including stormwater) | **2005** | **2006** | **2007** | **% Growth 2005-2007** |
|---|---|---|---|---|
| Discharge to Surface Water only | 448 | 429 | 414 | -3.6 |
| DSW/Other combined | 281 | 273 | 268 | -1.8 |
| Other only | 4668 | 4656 | 4695 | .8 |
| **TOTAL** | **5,397** | **5358** | **5377** | **.3** |

The Department issue's 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, 2007, the Department permitted 5,998 discharge types for 5,377 facilities. Table II-2 below provides information regarding the number of discharge types permitted by the Department between 2004 and 2007.

**TABLE II – 2 REGULATED DISCHARGES BY TYPE 2004-2007**

| **ACTIVITY TYPE** | **2004** | **2005** | **2006** | **2007** |
|---|---|---|---|---|
| INDUSTRIAL DSW | 510 | 467 | 466 | 463 |
| MUNICIPAL DSW | 262 | 262 | 313 | 304 |
| SIU | 81 | 82 | 80 | 81 |
| GROUNDWATER | 1145 | 1137 | 1179 | 1238 |
| RESIDUALS | 67 | 59 | 71 | 72 |
| STORMWATER | 3410 | 3838 | 3873 | 3840 |
| **TOTAL** | **5,475** | **5,845** | **5982** | **5998** |

The number of permitted discharges regulated by the DWQ has been growing steadily 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 new general permit authorizations. In 2007, the permitted facility universe increased by 16.

**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 Department requires submission of renewal applications 180 days prior to expiration of the permit for individual NJPDES permits or expiration of a NJPDES general permit authorization. However, certain general NJPDES permits do not require submission of formal renewal applications. 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**

| NJPDES No. | Category | Name of General Permit | Discharge Type | Year Issued |
|---|---|---|---|---|
| NJ0142581 | ABR | Wastewater Beneficial Reuse | DSW | 2006 |
| NJ0070203 | CG | Non-contact Cooling Water | DSW | 2000 |
| NJ0102709 | B4B | Groundwater Petroleum Product Clean-up | DSW | 2003 |
| 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 | 2004 |
| NJ0105767 | EG | Land Application Food Processing Residuals | RES | 2003 |
| NJ0132519 | ZG | Residuals Transfer Facilities | RES | 2004 |
| NJ0132501 | 4G | Residuals – Reed Beds | RES | 2002 |
| NJ0108308 | I1 | Stormwater Basins/SLF | DGW | 2001 |
| NJ0108642 | I2 | Potable WTP Basins/Drying Beds | DGW | 2003 |
| NJ0130281 | T1 | Sanitary Subsurface Disposal | DGW | 2003 |
| NJ0142051 | LSI | Lined Surface Impoundment | DGW | 2004 |
| NJ0168416 | K2 | Dental Facilities Onsite Wastewater Treatment Systems | DGW | 2007 |
| NJ0088315 | 5G2 | Basic Industrial Stormwater | DST | 2002 |
| NJ0088323 | 5G3 | 5G3 –Construction Activity Stormwater | DST | 1997 |
| NJ0108456 | CPM | Concrete Products Manufacturing | DST | 2003 |
| NJ0107671 | SM | Scrap Metal Processing/Auto Recycling | DST | 2004 |
| NJ0132721 | R4 | Hot Mix Asphalt Producers | DST | 2004 |
| NJ0134791 | R5 | Newark Airport Complex | DST | 2000 |
| NJ0138622 | R7 | Wood Recyclers | DST | 2007 |
| NJ0138631 | R8 | Concentrated Animal Feeding Operations | DST | 2003 |
| NJ0141852 | R9 | Tier A Municipal Stormwater | DST | 2004 |
| NJ0141861 | R10 | Tier B Municipal Stormwater | DST | 2004 |
| NJ0141879 | R11 | Public Complex Stormwater | DST | 2004 |
| NJ0141887 | R12 | Highway Agency Stormwater | DST | 2004 |
| NJ0141950 | R13 | R13 -Mining and Quarrying Activity Stormwater General Permit | DST | 2005 |

*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.

The Construction Activity General Permit (NJ0088323) is for construction activities disturbing 1 acre or more, all of which are considered industrial activities. Renewed this past year in 2007, this permit is administered by the 15 local Soil Conservation Districts in conjunction with the Soil Erosion and Sediment Control Plan certification. The Department issued 2,377 construction activity general permit authorizations in 2007. There are a total of 13,630 active authorizations under this general permit.

*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 NJPDES permits for discharges to ground water (including onsite wastewater systems) for facilities that discharge 2000 gallons per day or more or any industrial discharge to ground water.

*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 or rendered safe.

**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 2007, the Department took 2,950 formal permit actions, reflecting a 220 percent increase in permit actions from 2006. Approximately 8 percent of the final permit actions were new facilities, 82 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 2007, the Department received 9 requests for adjudicatory hearings, compared to 14 requests received in 2006. This is a request rate of .3 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 22 major facilities in 2007. Over the past few years, DWQ has focused its permitting resources on renewing major DSW permits. The Department also issued 227 new permits and received no hearing requests on these actions. The Department issued 2427 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
## 2004 - 2007

| TYPE OF PERMIT ACTION | 2004 | Contested 2004 | 2005 | Contested 2005 | 2006 | Contested 2006 | 2007 | Contested 2007 |
|---|---|---|---|---|---|---|---|---|
| **Industrial Surface Water** | | | | | | | | |
| -New | 17 | 0 | 22 | 0 | 18 | 0 | 25 | 0 |
| -Renewals | 31 | 0 | 66 | 1 | 26 | 1 | 54 | 1 |
| -Modifications | 38 | 0 | 22 | 0 | 39 | 0 | 35 | 0 |
| -Terminations | 57 | 0 | 27 | 0 | 16 | 0 | 33 | 0 |
| **Subtotal** | 143 | 0 | 137 | 1 | 99 | 1 | 147 | 1 |
| **Municipal Surface Water** | | | | | | | | |
| -New | 0 | 0 | 0 | 0 | 47 | 0 | 1 | 0 |
| -Renewals | 49 | 8 | 40 | 11 | 26 | 9 | 28 | 8 |
| -Modifications | 17 | 0 | 28 | 0 | 54 | 0 | 35 | 0 |
| -Terminations | 5 | 0 | 4 | 0 | 5 | 0 | 0 | 0 |
| **Subtotal** | 71 | 8 | 72 | 11 | 132 | 9 | 64 | 8 |
| **Significant Indirect User** | | | | | | | | |
| -New | 3 | 0 | 6 | 0 | 3 | 0 | 7 | 0 |
| -Renewals | 7 | 0 | 10 | 0 | 11 | 0 | 6 | 0 |
| -Modifications | 6 | 0 | 1 | 0 | 5 | 0 | 6 | 0 |
| -Terminations | 0 | 0 | 5 | 0 | 1 | 0 | 3 | 0 |
| **Subtotal** | 16 | 0 | 22 | 0 | 20 | 0 | 22 | 0 |
| **Ground Water** | | | | | | | | |
| -New | 51 | 0 | 50 | 0 | 28 | 2 | 56 | 0 |
| -Renewals | 199 | 0 | 31 | 0 | 31 | 0 | 36 | 0 |
| -Modifications | 8 | 0 | 12 | 0 | 9 | 0 | 13 | 0 |
| -Terminations | 27 | 0 | 15 | 0 | 12 | 0 | 9 | 0 |
| **Subtotal** | 285 | 0 | 108 | 0 | 80 | 2 | 114 | 0 |
| **Land Application of Residuals** | | | | | | | | |
| -New | 4 | 0 | 5 | 0 | 1 | 0 | 6 | 0 |
| -Renewals | 7 | 0 | 2 | 0 | 4 | 1 | 3 | 0 |
| -Modifications | 2 | 0 | 2 | 0 | 3 | 0 | 1 | 0 |
| -Terminations | 4 | 0 | 2 | 0 | 3 | 0 | 1 | 0 |
| **Subtotal** | 17 | 0 | 11 | 0 | 11 | 1 | 11 | 0 |
| **Stormwater** | | | | | | | | |
| -New | 954 | 0 | 255 | 0 | 376 | 0 | 132 | 0 |
| -Renewals | 165 | 0 | 271 | 0 | 24 | 1 | 2300 | 0 |
| -Modifications | 24 | 0 | 684 | 0 | 14 | 0 | 2 | 0 |
| -Terminations | 97 | 0 | 123 | 0 | 166 | 0 | 158 | 0 |
| **Subtotal** | 1240 | 0 | 1333 | 0 | 580 | 1 | 2592 | 0 |
| **TOTALS** | 1772 | 8 | 1683 | 12 | 922 | 14 | 2950 | 9 |

For the Stormwater Permitting Program in 2007, 2253 general permit renewal authorizations were issued, 1 new Master General Permit was issued, 2 Master General Permit renewals were issued, 2 Master General Permit modifications were issued and 143 new general permit authorizations were issued, 82 were modified, and 147 general permit authorizations were terminated. In addition, 5 new individual permits were issued, 28 were renewed, 4 were terminated, and 6 individual permit modifications were completed.

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 2004 - 2007**

| TYPE OF PERMIT ACTION | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|
| New | 1,029 | 338 | 473 | 227 |
| Renewal | 458 | 420 | 122 | 2427 |
| Modifications | 95 | 749 | 124 | 92 |
| Terminations (Revocations) | 190 | 176 | 203 | 204 |
| TOTAL ACTIONS | 1772 | 1683 | 922 | 2950 |

## B. NEW DEVELOPMENTS

**Section One - Municipal Stormwater Regulation Annual Regional Meetings**

The BNPC sponsored its second series of annual meetings with municipal stormwater coordinators. Staff from the Division of Watershed Management and Water Compliance and Enforcement were also present at the meetings. The purpose of these meetings was to foster a long-term partnership with all municipal coordinators in an effort to increase permit compliance. The annual meetings provide a forum for the Department to share the latest permit compliance guidance with the municipal stormwater coordinators, as well as providing the coordinators the opportunity to share their experiences with the Department staff and with each other. This year, over 320 coordinators attended one of 7 regional meetings in Somerset, Bergen, Ocean, Gloucester, Atlantic and Sussex Counties.

Additional meetings were also held with representatives from county governments, as well as transportation agencies, to discuss various aspects of the Public Complex and Highway Agency Municipal Stormwater Permits.

**Section Two - Cleanwater New Jersey Campaign**

The US Environmental Protection Agency, through the Stormwater Phase II Municipal Permit Program Rules requires all regulated entities in the country, which in New Jersey is every municipality, county, and most state, interstate and federal agencies, to conduct a public education program for all of the citizens of the State. The most efficient and cost-effective way to educate all of the residents of the State is via Public Service Announcements. The requirements mandate that the permitted entities provide, among other things, Public Service Announcements.

Given the unique nature of the mass media market in New Jersey (divided between two of the most expensive media markets in the country) it was determined that having 566 municipalities and approximately 100 other entities provide this education effort would be enormously expensive. Therefore, it was decided that in order to maximize the efficiency and economies of scale, the Department would conduct most of this program. All of the 650 regulated entities are required to pay annual permit fees under their NJPDES permit. Part of that fee is specifically allocated to fund the $500,000 Stormwater Education Program known as "Clean Water NJ Campaign" (Campaign). Implementation of the program by the Department reduces the burden on municipalities and reduces the overall cost of compliance.

To date, the Campaign has placed statewide commercials in most of New Jersey's radio stations, as well as television commercials on WMBC-TV in Newton, WMGM-TV in Atlantic City, WNJU-TV in Linden, WWOR-TV in New York and Telemundo, in 2005. Commercials were also run on many statewide cable television networks in 2006 and 2007. In addition, the Campaign produced six radio commercials, two adult television commercials and one animated television commercial for this effort.

The Campaign also has developed posters, tip cards and held a photo contest for high school students to raise awareness of stormwater pollution and awarded savings bonds to three winners.

**Section Three - pH Certification Seminar**

The BNPC worked with the Division of Environmental Safety and Health's Office of Quality Assurance (OQA) to sponsor "pH Certification Seminars" for members of the NJ Concrete Aggregate Association and other facilities authorized under the Concrete Products Manufacturers Industry-Specific General Stormwater Permit. This permit requires permittees to analyze stormwater runoff samples for pH. These facilities do not have their own labs and because the sampling protocol requires the samples to be analyzed within 15 minutes of taking the sample, they asked the Department for assistance with complying with this permit requirement. The OQA developed and conducted a training program that would enable the permittees to become certified to analyze their own samples for pH on-site. Three seminars were held on April 16, 17 and 20th throughout the State with approximately 60 attendees. Following completion of the seminar attendees received a certificate attesting that they are qualified to perform immediate pH analysis at their facilities.

**Section Four - Permits for Environmental Results**

New Jersey is cooperating with the USEPA in a nation-wide process to carefully assess each program's effectiveness, identify strengths and target areas for improvement. As part of this process, EPA and NJ have jointly selected a sub-group of expired permits that meet certain pre-established criteria to be considered under the "Permitting for Environmental Results" (PER) strategy. For the second consecutive year, NJ has been recognized by the EPA has having met and exceeded all permitting goals for the PER program. New Jersey is one of the few states to accomplish this noteworthy goal.

**Section Five - NJPDES Permit Universe Status**

The total universe of NJPDES issued permits as of September 30, 2007 is 5,571 permits. This is down from 5,605 permits as of September 30, 2006, a 0.60% decrease. Of these 5,571 permits, 5,224 (94%) are current, while 347 are beyond their renewal date. The Division is continuing its efforts to further reduce the number of facilities operating with such expired but administratively

extended permits.

**Section Six - New Jersey CSO Abatement Program**

New Jersey's older urban communities are the most densely populated cities in the nation and are predominately serviced by Combined Sewer Systems (CSO's). The Department and the regulatory communities have been working over the past two decades in addressing the infrastructure and water quality challenges associated with the CSO's.

In 1995, the Department issued the General Permit (NJ0105023) for CSO's (the "GP"). The GP was developed to regulate the operation of all combined sewer collection and conveyance systems. The GP required the implementation of applicable Nine Minimum Controls and initiated the first step in the development of CSO Long Term Control Plans (LTCP's) by requiring "land-side" monitoring and modeling activities consistent with the National CSO Control Policy.

New Jersey has adopted and is implementing a comprehensive solids and floatables control program supported with state financial assistance in the form of planning and design grants and low-interest construction loans. New Jersey requires all owners and/or operators of CSO Points to implement controls that will capture and remove solids and floatable materials that cannot pass through a bar screen having a bar spacing of 0.5 inches (13.0 mm). This requirement is an enforceable commitment under the New Jersey Pollutant Discharge Elimination System permit program.

As of September 2007, 70% of the planned solids and floatables control facilities have been constructed and are operating. The operating control facilities have captured and removed about 600 tons of solids and floatables materials during calendar year 2006. Three permittees have separated combined sewer systems and eliminated the CSO points.

The receiving waterbody monitoring and modeling activities are currently being orchestrated under the Total Maximum Daily Load (TMDL) program and in conjunction with the New York/New Jersey Harbor Estuary Program.

The Department is coordinating the development of CSO LTCPs with USEPA Region II. CSO pathogens are measured in terms of fecal coliform concentrations. The majority of the CSO discharge points influence the NY/NJ Harbor Complex. In August 2004, the Department issued a modified GP (NJ0105023) requiring the CSO owners to undertake certain Cost and Performance studies for pathogen control. The Department received all Cost and Performance Analysis reports by the April 1, 2007 deadline. The information generated under these studies has been provided to the USEPA and will be considered in the development of TMDL's for the NY/NJ Harbor Complex. As per current schedule, the USEPA is likely to develop a pathogen TMDL for the NY/NJ Harbor Complex in 2008.

**Section Seven - Dental Mercury Regulations Now in Effect**

The Department adopted revisions to the NJPDES regulations at N.J.A.C. 7:14A-21.12 that became effective October 1, 2007. These regulations set forth specific requirements for mercury and amalgam waste collection and management for all dental facilities that place or remove amalgam fillings. Dental amalgam contains approximately 50% mercury. These new requirements will affect approximately 3,400 dental facilities in New Jersey, and will result in removal and recycling of approximately 2,550 pounds of mercury per year. The new regulations were published in the October 1, 2007 *New Jersey Register* at 39 N.J.R. 4117(a).

The new regulations require that each affected dental facility implement best management practices, or BMPs, for mercury amalgam no later than one year after the effective date of the regulation, and that each affected dental facility install an amalgam separator that meets the ISO 11143 (1999) standards, thus being capable of removing at least 95 percent of the mercury from the waste stream, no later than two years after the effective date of the regulation. Dental facilities that do not comply will be required to apply for a significant indirect user (SIU) permit from either the Department or an industrial pretreatment program (IPP) permit from a delegated local agency, as appropriate.

The Department recognizes that not all "dental facilities" use amalgam or generate amalgam waste. This is particularly true for the dental specialty areas. As such, the new regulations explicitly exempt orthodontics, periodontics, endodontics, oral and maxillofacial surgery, oral and maxillofacial radiology, and oral and maxillofacial pathology from the regulations.

**Section Eight - PCB PMP Rule**

On January 16, 2007 the Department adopted new rules at N.J.A.C. 11.13 and 14.4 (part of the NJPDES rules) that establish monitoring and Pollutant Minimization Plans (PMPs), requirements for major dischargers that discharge effluent into Polychlorinated Biphenyls (PCBs) impaired waterbody segments of the State. PCBs are man-made organic compounds that are chemically stable, non-flammable, have a high boiling point and were used in hundreds of industrial and commercial applications including electrical, heat transfer and hydraulic equipment. The USEPA has concluded that PCBs are probable human carcinogens. Humans are most frequently exposed to PCBs by eating fish and shellfish from contaminated waters and by eating other types of animals that feed on these organisms.

The Department's new rule requires affected facilities to monitor their effluent using a new, highly sensitive test method (Method 1668A) to determine the level of PCBs present. Because PCBs are ubiquitous in the environment and no longer being manufactured, those facilities that discharge PCBs at levels above background will be required to implement PMPs. The purpose of the PMP is to identify and eliminate discrete sources of PCBs, therefore reducing the level of human exposure. The Department is in the process of issuing modifications to all current, affected permits and will also include this condition in appropriate expired permits upon their renewal.

**Section Nine - Basic Industrial Stormwater General Permit**

The Bureau of Nonpoint Pollution Control (BNPC) renewed its Basic Industrial Stormwater General Permit, effective June 1, 2007, which authorizes the discharges of stormwater to surface and ground water from over 2,300 facilities throughout the State. The Basic Industrial Stormwater General Permit requires that facilities eliminate the exposure of industrial source materials to stormwater primarily through the use of pollution prevention techniques and source control. The Bureau also created easy-to-use Word fill-in forms for the facility's Stormwater Pollution Prevention Plans (SPPP). The SPPP guidance document was also revised and updated.

**Section Ten - NJPDES Stormwater Construction General Permit**

The BNPC renewed the NJPDES Stormwater Construction General Permit (NJ0088323) effective March 1, 2007. This statewide permit was issued to regulate stormwater impacts at more than 4,000 active construction sites which disturbed 1 acre or more of land. The permit was modified to remove mining and quarrying operations from eligibility. These activities are now regulated under another general permit (NJ0141950). The Department jointly administers the issuance of the Construction

General Permit authorizations with the 15 local Soil Conservation Districts (SCD's).

Additionally, in order to enhance permit compliance, staff from the Bureau, along with representatives from the SCD, provided presentations to approximately 150 local building code officials and builders at two regional seminars in Monmouth and Morris Counties.

**Section Eleven - DGW General Permit for Basin Discharge to Ground Water**

The DGW general permit for Basin Discharge to Ground Water (NJG0108308) was renewed on February 1, 2007 to regulate discharges from stormwater basins at the twelve operating (accepting waste) sanitary landfills in the State. For the purpose of this permit, "basin" is a collective term used to describe a variety of regulated units at NJPDES-DGW permitted facilities, including infiltration/percolation lagoons or surface impoundments. Solid waste permits issued to sanitary landfills for operation include requirements for leachate detection and collection, which prevent the discharge to ground water of any water that comes in contact with solid waste. This general permit requires monitoring at basins to assure that stormwater discharges do not cause an adverse impact upon ground water quality.

**Section Twelve - Hot Mix Asphalt Producers**

The BNPC issued a major modification to this general permit NJ0132721 which became effective in April 2007. The modifications to this permit added requirements for stormwater discharges to ground water (DGW) and changed submittal and compliance schedules from Effective Date of Permit (EDP) to Effective Date of Permit Authorization (EDPA), where appropriate. The following administrative corrections were also made: (1) Stormwater-only monitoring frequency was changed from a limited monthly schedule to a regular quarterly schedule. (2) Permit requirements for submittals of SPPP Preparation, Implementation and Annual Certifications were modified to reflect the Department's new certification form. (3) Clarification for management of recyclables and language regarding water recycling was added, and (4) new definitions were added.

**Section Thirteen - Information Available on DWQ Web Site**

The Division of Water Quality maintains many useful documents on its website at http://www.nj.gov/dep/dwq/. One of the new documents added this year is the NJPDES Monitoring Report Form Reference Manual. This long awaited document replaces the previously published Discharge Monitoring Report Instruction Manual. The NJPDES MRF Reference Manual can be downloaded from the Bureau of Permit Management web page at http://www.state.nj.us/dep/dwq/bpm.htm. Please continue to check the *What's New in Water* section at the DWQ home page for the latest information.

Also new at the DWQ website is the new 68 page website for the Division's Bureau of Nonpoint Pollution Control. The new website is more user friendly and also includes all of the television and radio commercials that are part of the "Cleanwater NJ Campaign." The website presents all of the Bureau's stormwater and ground water individual and general permit guidance, as well as its onsite wastewater program material, in an easily navigable and informative site. All program applications and forms are readily available and the layout of the site is both simple and logical. The site can be viewed at http://www.state.nj.us/dep/dwq/bnpc_home.htm. Other useful information on stormwater may be found at www.njstormwater.org/ and www.cleanwater.org/.

Various NJPDES permit forms and checklists can be accessed at www.nj.gov/dep/dwq/forms.htm. Other permitting and technical information may be viewed and/or downloaded at : www.nj.gov/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.nj.gov/dep/dwq/database.htm. The Division web site also includes a cross link to a series of reports that are available through the Department's Open Public Records Act web site (i.e., via the DEP Data Miner utility). 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.

## A. INTRODUCTION

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. Since 1992 Water Compliance and Enforcement has provided this required information which has demonstrated a dramatic increase in compliance with the WPCA.

*Mandatory minimum penalties:*
Mandatory minimum penalties under the CWEA apply to violations of the WPCA that are defined as 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 and shall accrue for a minimum of 30 days.

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. (see Chapter IV. page---for the details of the enforcement actions taken by DLAs)

## B. INSPECTIONS

*Number of 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.

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. To determine the need for an interim inspection, the Department reviews the facility's DMRs and focuses upon specific compliance issues.

In 2007, the Department conducted 3497 facility inspections. This number includes 2034 Stormwater inspections that are included in the report.

## C. 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.

NOVs 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 a NOV. The Department will also initiate a formal enforcement action whenever it is required by the CWEA to assess a mandatory minimum penalty.

*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 does 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.

*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 Administrative Orders (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.

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 resolves an outstanding confirmed violation or an administrative enforcement action and provides for payment of penalties not previously assessed.

**Enforcement Actions Initiated in 2007:**

*Informal Enforcement Actions:*
In 2007, the Department initiated 714 informal enforcement actions (NOVs) for Surface Water (SW), Ground Water (GW), and Significant Indirect Users (SIU) violations. This includes NOV's issued for Stormwater violations. There were more NOV's issued in 2007 (714) when compared to 2006 (609).

*Formal Enforcement Actions:*
In 2007, the Department initiated 192 formal enforcement actions compared with 157 in 2006. Since these are the documents in which the Department assesses penalties and, the Department typically initiates penalty actions only against a permittee committing a serious violation or violations which causes it to become an SNC.

The number of formal actions issued (192) in 2007 is an increase from the low reported in 2003 (117). The total number of enforcement actions (informal and formal) in 2007 was 871.

**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 Discharge Monitoring Report (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 total number of permit violations that were reported in 2007 was 3011.

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

In 2007, the Department assessed penalties against 192 facilities for 800 violations of the WPCA. The 800 violations addressed by the Department's actions were more than the number of violations addressed in 2006 (681). In comparison, in 1992 the Department assessed penalties against 300 facilities for 2,483 violations.

**Section Four - 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 2007, for the eighth 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.

*Violations of Compliance Schedules:*
In 2007, the Department did not take any formal actions for violations of a compliance schedule set forth in an ACO.

**Section Five - 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.

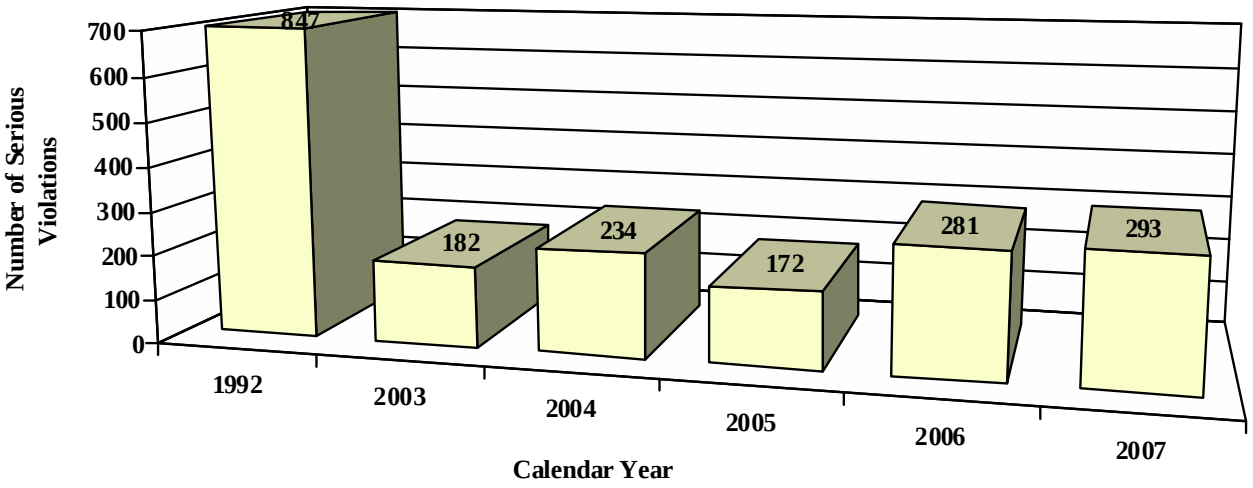
In 2007, the Department identified 47 unpermitted discharges at facilities that then received an enforcement action for the unpermitted discharge.

**Section Six - 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.

In 2007, the Department granted 17 affirmative defenses for violations that were considered serious as defined in the Clean Water Enforcement Act.

**SERIOUS VIOLATIONS**
**Chart III-1**




**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 2007, the Department identified and issued formal and informal enforcement actions for 293 serious effluent violations. Serious violations have decreased from a reported high figure of 847 in 1992. This decrease from fifteen 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.

**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 2007, the Department issued formal enforcement actions to **17** permittees identified as SNCs. Appendix III-A of this report identifies each SNC and sets forth information concerning each SNC's violations.

**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 2007 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.

## D. 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 2007, the Department assessed a total of $4.22 million in civil and civil administrative penalties within 192 distinct enforcement actions. This is a slight decrease from $4.38 million assessed 2006. Table III-1 outlines the penalties assessed by the Department in 2007.

**TABLE III-1**
**LOCAL (LOC) AND NONLOCAL (NL) PENALTIES ASSESSED**
**FOR 2007**

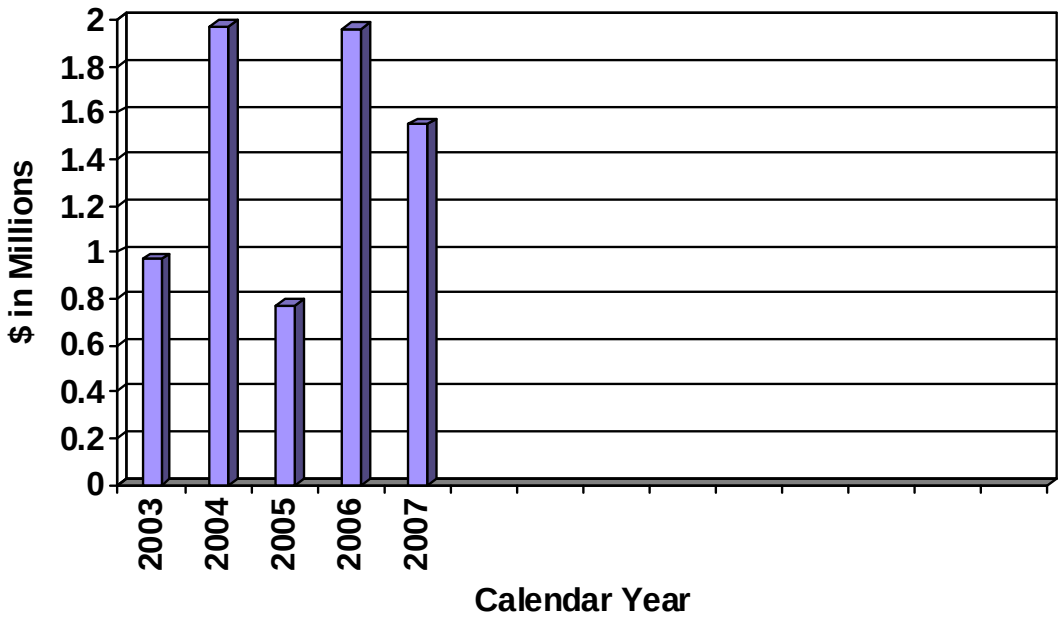
| | **2007** | |
|---|---|---|
| **PENALTY RANGES** | $ AMOUNT ASSESSED **IN RANGE** | **TOTAL #** OF ACTIONS |
| >$500,000 | $773,700 | 1 |
| $250,001 – 500,000 | $320,390 | 1 |
| $100,001 – 250,000 | $543,627 | 4 |
| $25,001 – 100,000 | $1,175,906 | 28 |
| $1 - 25,000 | $1,415,371 | 158 |
| **TOTALS** | **$4,228,995** | **192** |

**Section Two - Penalties Collected:**

In 2007, the Department collected $1,555,814 million in penalties. This is down from last years amount collected ($1,944,496 million).

As shown in Chart III-2 below, penalty collections have averaged $1.4 million over the past five years. It is anticipated that the amount of penalties collected each year will remain in the neighborhood of $1.5 to 2.0 million or drop slightly lower. Of course, one large payment of an outstanding assessment could temporarily reverse this trend.

**CHART III - 2**
**PENALTIES COLLECTED 2003-2007**



# 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 capacity which it contributes, its potential to affect the POTW's operation adversely, or its potential to violate a pretreatment standard or requirement.

Twenty-four DLAs had obtained the Department's approval for their industrial pretreatment programs, which they implement with oversight by the Department. During calendar year 2007, two DLAs, Hamilton Township and the City of Trenton, had their IPP programs revoked (effective 10/1/07 for both facilities) by the Department due to the small number of permittees discharging to each facility. The Department assumed responsibility for implementing the IPP in these areas, including permit issuance and enforcement. These two facilities still submitted CWEA annual reports, and their results are tabulated and included within this report. A listing of the DLAs is provided at the end of this chapter in Section F. The Department's oversight of approved pretreatment programs 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, 2008 statutory deadline as well as any addenda received

as of February 29, 2008. Table IV-4 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 847 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.

In 2006, the DLAs issued a total of 40 new permits, 205 renewals, and 82 permit modifications with one permit contested by interested parties. Of the DLA regulated total of 868 dischargers, 531 were classified as CSM and 337 were classified as OR. In 2007, the DLAs issued 30 new permits, 158 renewals, and 138 permit modifications with one permit contested by interested parties. As of December 31, 2007, the DLAs had issued permits to 528 CSM facilities and 319 OR facilities for a total of 847 permits. Table IV-1 details the permit actions mentioned above and identifies the CSM and OR categories.

As noted in Table IV-1 below, three (3) permittees had their permit limits relaxed through an administrative order (AO) or an administrative consent order (ACO) issued by a DLA. In all three (3) of these cases, the limits were relaxed for conventional pollutants (BOD, COD, pH, etc.). In 2006, the DLAs issued seven (7) AOs or ACOs that relaxed the local limits.

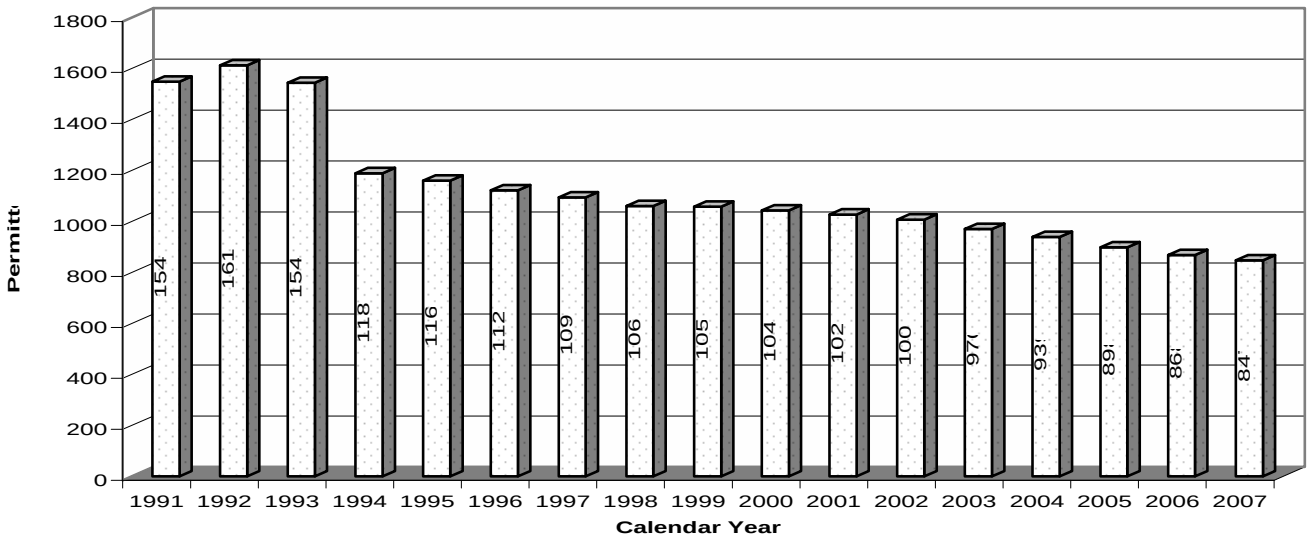
**TABLE IV - 1**
**PERMIT ACTIVITY SUMMARY**
**January 1 - December 31, 2007**

| PERMIT ACTIONS | CSM | OR | TOTAL |
|---|---|---|---|
| **New Permits** | **13** | **17** | **30** |
| **Permit Renewals** | **85** | **73** | **158** |
| **Permit Modifications** | **86** | **52** | **138** |
| **Permits contested by interested parties** | **1** | **0** | **1** |
| **AO/ACO compliance schedules relaxing local limits** | **2** | **1** | **3** |

The number of permittees regulated by DLAs has been steadily decreasing since 1992, the first full year of reporting under the CWEA. As noted in Chart IV-1, the permitted universe peaked in 1992, with 1,612 permittees under the regulation of DLAs. DLAs reported 847 permittees under their regulation at the end of calendar year 2007, representing a decrease of 47.5% (or 765 permittees)

since 1992. A significant decrease (319) in the number of permittees is noted between 1993 and 1994. A majority of this decrease in permittees (249 of 319 permittees, or 78.1%) can be attributed to the Township of Wayne "delisting" facilities regulated only for oil and grease.

**CHART IV-1**
**TOTAL NUMBER OF PERMITTEES REGULATED BY DLAS**




## C. INSPECTIONS AND SAMPLINGS

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.

The DLAs inspected and sampled 795 of the 847 permittees at least once during the calendar year. The DLAs inspected and sampled 492 (93.2 percent) of the 528 CSM permittees and 303 (95.0 percent) of the 319 OR facilities. In 2006, the DLAs inspected and sampled 838 of the permittees at least once. The DLAs inspected and sampled 504 (94.9 percent) of the 531 CSM permittees and 334 (99.1 percent) of the 337 OR permittees. In 2007, there was a shortfall of approximately 7 percent in the number of CSM facilities both inspected and sampled, as compared 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 303 of the 319 OR facilities (or 95.0 percent of the universe) in calendar year 2007, as compared to the statutory requirement of 33 percent.

## D. VIOLATIONS

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

The DLAs reported 757 permit violations by permitted facilities in 2007, compared with 967 violations in 2006. 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, has been submitted late, or has been submitted in an incomplete manner.

Of the 757 permit violations reported in 2007, 541 (71.5 percent) were effluent violations, and 216 (28.5 percent) were reporting violations, compared with 675 (69.8 percent) effluent violations and 292 (30.2 percent) reporting violations in 2006. The total number of violations reported decreased by 210 (21.7 percent) compared to 2006.

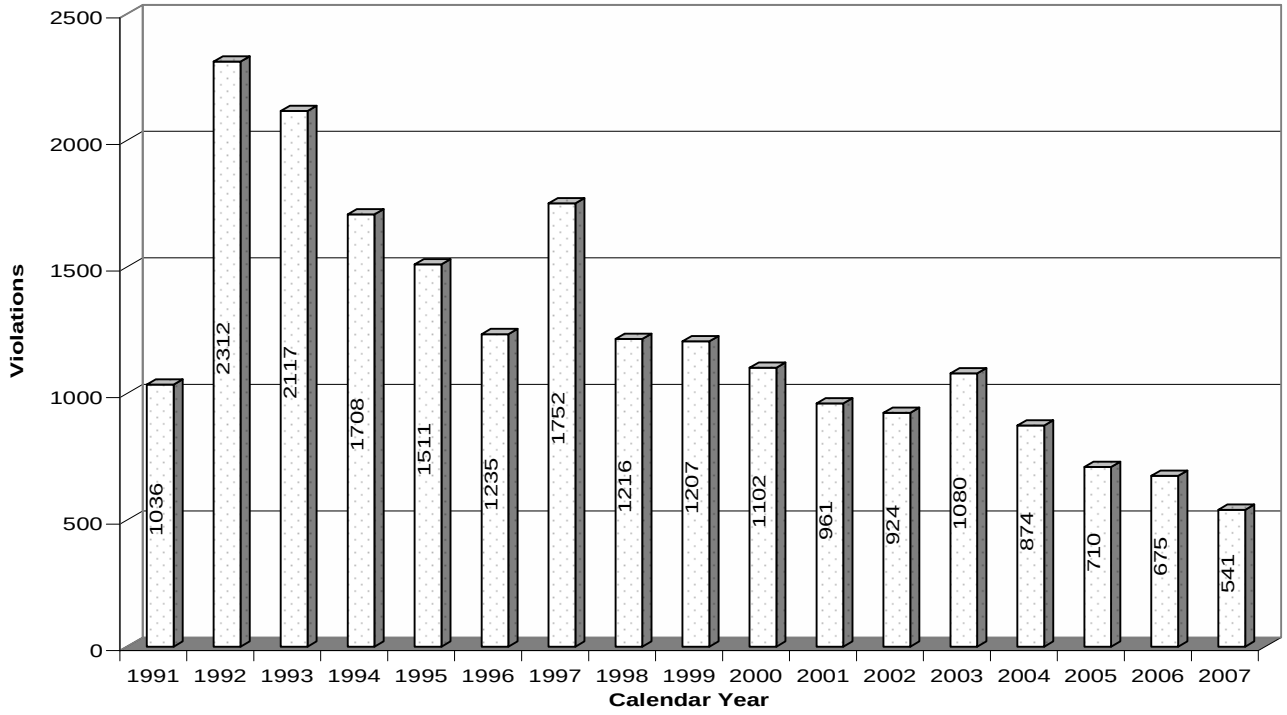
Of the 541 effluent violations, 280 (51.8 percent) were for non-hazardous discharges of conventional pollutants, such as suspended solids and nutrients, and 261 (48.2 percent) were for hazardous pollutant discharges, such as metals, organics and other toxic substances. In 2006, 355 effluent violations were for non-hazardous pollutants and 320 effluent violations were for hazardous pollutants. Of the total number of effluent violations in 2007, 230 (42.5 percent) constituted serious violations compared with 234 (34.7 percent) serious violations in 2006. 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, 2007**

| VIOLATION TYPE | CSM | OR | TOTAL | % |
|---|---|---|---|---|
| Non-hazardous pollutants | 207 | 73 | 280 | 37.0 |
| Hazardous pollutants | 181 | 80 | 261 | 34.5 |
| Reporting violations | 125 | 91 | 216 | 28.5 |
| TOTALS | 513 | 244 | 757 | 100.0 |

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-2 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 541 in 2007, a decrease of 76.6 percent.

**CHART IV-2**
**EFFLUENT VIOLATIONS BY DLA PERMITTEES**




**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 2007, the DLAs reported two unpermitted discharges. Although one facility (new) was considered as "unpermitted" by the delegated local agency, the permit issuance for this facility is underway. For the second facility, the DLA was in the process of determining the applicability of the categorical regulations to the facility. Both of these facilities were determined to be subject to federal categorical standards. In 2006, the DLAs reported one unpermitted discharge.

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. In 2007, one pass through incident was reported. This incident was caused by a spill and resulted in or contributed to the receiving treatment plant violating it discharge permit for chemical oxygen demand, or COD. No pass through incidents were reported in 2006.

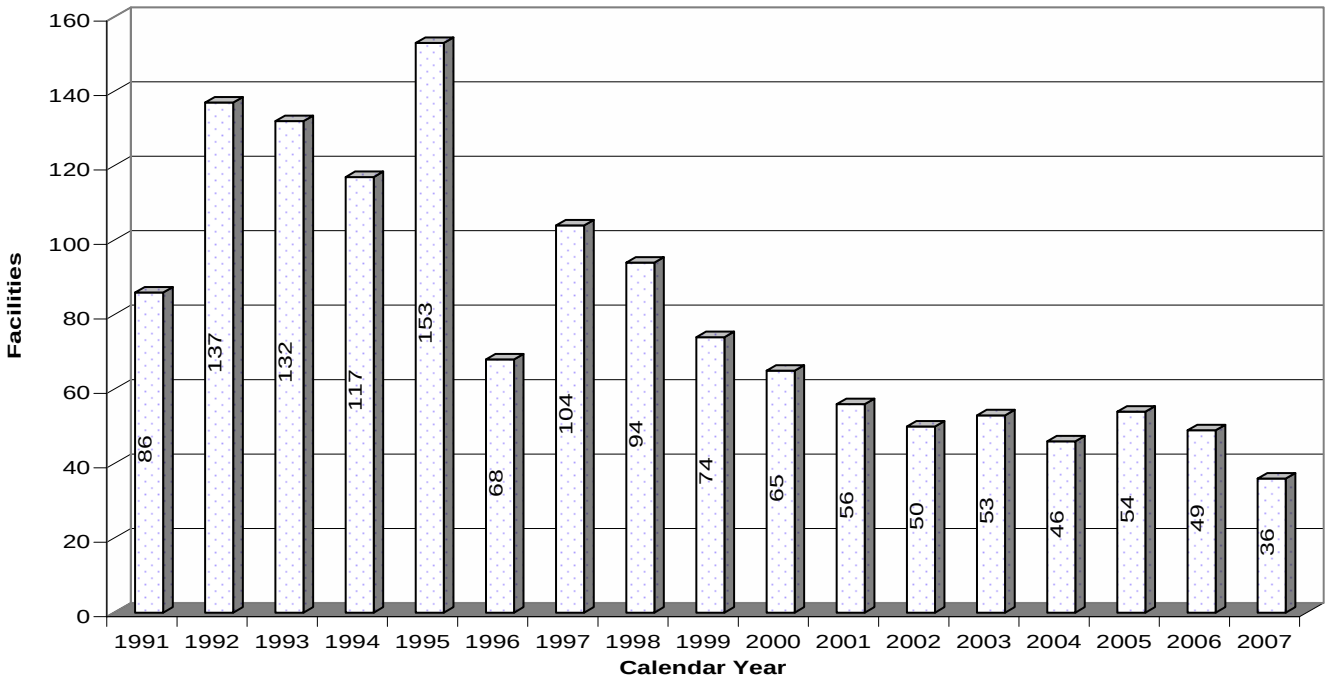
**Section Three - Significant Noncompliance:**

The CWEA requires that DLAs identify facilities designated as SNC 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 36 indirect users who qualified as SNC under the State definition during 2007. The analysis in the 2006 report indicated that 49 indirect users met the SNC definition. Therefore, there was a decrease by 14, or 28.6 percent, in the number of facilities that met the significant noncompliance criteria. The DLAs reported as a whole that by the end of calendar year 2007, 17 (47.2 percent) of the 36 indirect users in significant noncompliance had achieved compliance. Table IV-3 provides a listing, as submitted by the DLAs, of IUs that met the SNC criteria during calendar year 2007.

For facilities discharging into a delegated local agency, Chart IV-3 shows the 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 deadline. Over the twelve year period from 1992 (the first full calendar year of reporting) through 2007, the number of facilities meeting SNC criteria shows a decrease of 74.5 percent. The percentage of DLA indirect users meeting the SNC criteria in 2007 was 4.1 percent. For CSMs only, this drops to 2.5 percent. EPA guidance indicates that a 15 percent SNC rate for CSMs would place a DLA in reportable noncompliance.

**CHART IV-3**
**SIGNIFICANT NONCOMPLIERS AS REPORTED BY DLAs**



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

Two DLAs reported that users had two (2) violations of their AOs or ACOs, including violations of interim limits, compliance schedule milestones for starting or completing construction, or failure to attain full compliance. In 2006, three DLAs reported that users had 17 violations of their AOs or ACOs.

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. One permittee was at least six months behind in the construction phase of a compliance schedule in 2007. This facility, Harry Berkowitz Industries (aka Berkowitz Fat Co.) in Newark, was eventually ordered by the Department to shut down and cease operations for these and other environmental violations. This facility is no longer operating.

**Section Five - Affirmative Defenses:**

Eight DLAs granted 25 affirmative defenses for upsets, bypasses, testing or laboratory errors for serious violations. Twenty-one (84.0 percent) of the 25 affirmative defenses were given due to laboratory error, and 4 (16.0 percent) for upset or bypass. In calendar year 2006, 34 affirmative defenses were granted by eight DLAs: 26 (76.5%) for laboratory error; 6 (17.6%) for upset or bypass; and 2 (5.9%) for matrix interference or net-gross calculation violations.

## E. ENFORCEMENT ACTIONS AND PENALTIES

**Section One - Enforcement Actions:**

During 2007, the DLAs issued 201 enforcement actions as a result of inspections and/or sampling activities. CSM permittees were the subject of 61.2 percent (123) of these actions, and OR permittees were the subject of the remaining 38.8 percent (78). One DLA, PVSC, is responsible for a large percentage (70, or 34.8 percent) of these actions and most of these enforcement actions initiated by PVSC were due to pH violations. In 2006, the DLAs issued 263 enforcement actions. CSM permittees were the subject of 158 (60 percent) of these actions and OR permittees were subject to 105 (40 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 201 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.

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

In calendar year 2007, 16 of the DLAs assessed a total of $862,861 in penalties for 404 violations while collecting $625,669. In 2006, 18 DLAs assessed $1,268,475 in penalties for 565 violations while collecting $1,352,650.

No DLAs reported that they recovered enforcement costs in civil and/or civil administrative actions in calendar year 2007. Two (2) DLAs reported that they recovered enforcement costs in civil and/or civil administrative actions in calendar year 2006.

DLAs may refer cases to the Attorney General's office or to the County Prosecutor for further enforcement action. In calendar year 2007, two (2) cases were referred. In 2006, no cases were reported to either the Attorney General or County Prosecutor offices for further enforcement action.

The CWEA mandates that 10 percent of all administrative 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. The specific purposes for which penalty monies were expended are noted in the DLA reports and are available for review upon request.

Chart IV-4 shows the monetary penalties assessed by the DLAs since the implementation of the CWEA in 1991. The monetary penalties assessed by DLAs in 2007 was about one-third less than assessed in the previous year. This decrease is not attributed to lack of enforcement by the DLAs, but rather a decrease in number of effluent and reporting violations by permittees.

**CHART IV-4**
**PENALTY MONEY ASSESSED BY DLAs**

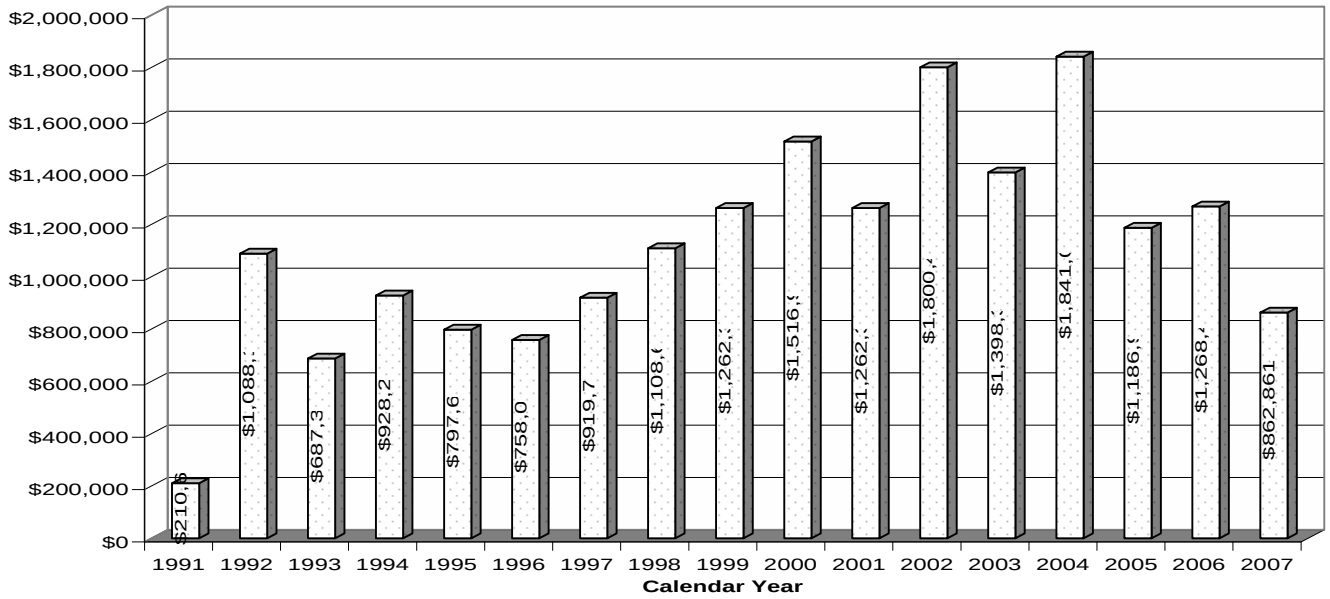


**TABLE IV-3**
**LIST OF IUs THAT MET THE SNC CRITERIA**

| IU NAME | IU LOCATION | POTW |
|---|---|---|
| Actavis | Elizabeth, NJ | Joint Meeting of Essex and Union Counties |
| AGC Chemicals Americas, Inc. | Bayonne, NJ | Passaic Valley Sewerage Commissioners |
| All Chemical Transport Corp. | Lakewood, NJ | The Ocean County Utilities Authority |
| Barry Callebaut USA Inc. | Pennsauken, NJ | Camden County Municipal Utilities Authority |
| C&C Metal Products Corp. | Englewood, NJ | Bergen County Utilities Authority |
| Clean Haven/Allstate Power Vac | Rahway, NJ | Rahway Valley Sewerage Authority |
| Deb El Foods | Elizabeth, NJ | Joint Meeting of Essex and Union Counties |
| DPT Lakewood, Inc. | Lakewood, NJ | The Ocean County Utilities Authority |
| Ferro Corporation, Buildings A-C | South Plainfield, NJ | Middlesex County Utilities Authority |
| G&K Services Co. | Belleville, NJ | Passaic Valley Sewerage Commissioners |
| Harry Berkowitz Industries | Newark, NJ | Passaic Valley Sewerage Commissioners |
| Hercules, Incorporated | Parlin, NJ | Middlesex County Utilities Authority |
| Hexacon Electric Company | Roselle Park, NJ | Joint Meeting of Essex and Union Counties |
| Kinder Morgan Liquids Terminals, LLC | Carteret, NJ | Middlesex County Utilities Authority |
| L'OREAL USA Products, Inc. | Piscataway, NJ | Middlesex County Utilities Authority |
| L'OREAL USA Products, Inc.-Franklin Mfg. | Somerset, NJ | Middlesex County Utilities Authority |
| Lioni Latticini | Union, NJ | Joint Meeting of Essex and Union Counties |
| Lipari Landfill Superfund Site | Mantua Township, NJ | Gloucester County Utilities Authority |
| Mannington Mills | Salem, NJ | Passaic Valley Sewerage Commissioners |
| Maplewood Beverage Packers | Maplewood, NJ | Joint Meeting of Essex and Union Counties |
| Medico Labs, Inc. | Hamilton, NJ | Hamilton Twp. Dept. of Water Pollution Control |
| Menu Foods | Pennsauken, NJ | Camden County Municipal Utilities Authority |
| Michael Foods North Avenue | Elizabeth, NJ | Joint Meeting of Essex and Union Counties |
| Michael Foods Papetti Plaza | Elizabeth, NJ | Joint Meeting of Essex and Union Counties |
| Pennsauken Landfill | Pennsauken, NJ | Camden County Municipal Utilities Authority |
| Pepsi Cola and National Brand Beverages, Ltd | Pennsauken, NJ | Camden County Municipal Utilities Authority |
| Prince Donut | Linden, NJ | Joint Meeting of Essex and Union Counties |
| Recycle Incorporated East | South Plainfield, NJ | Middlesex County Utilities Authority |
| Rockaway Townsquare Mall | Rockaway, NJ | Rockaway Valley Regional Sewerage |

| | | |
|---|---|---|
| | | Authority |
| Silgan Containers Corporation | Edison, NJ | Middlesex County Utilities Authority |
| SS Studios | Union, NJ | Joint Meeting of Essex and Union Counties |
| Stepan Company | Fieldsboro, NJ | Passaic Valley Sewerage Commissioners |
| Stepan Company | Maywood, NJ | Bergen County Utilities Authority |
| Suffern Plating Corp. | Lodi, NJ | Passaic Valley Sewerage Commissioners |
| Supreme Oil Company | Englewood, NJ | Bergen County Utilities Authority |
| Union Beverage Packers | Hillside, NJ | Joint Meeting of Essex and Union Counties |

**TABLE IV-4**
**SUMMARY OF DLA RESPONSES IN CWEA ANNUAL REPORTS**

| # | QUESTION | CSM | OR | TOTAL |
|---|---|---|---|---|
| 1 | Permitted industries in DLA service areas | 528 | 319 | 847 |
| 2 | Unpermitted discharges in DLA service areas | 2 | 0 | 2 |
| 3 | New indirect user permits issued | 13 | 17 | 30 |
| 4 | Renewed indirect user permits issued | 85 | 73 | 158 |
| 5 | Indirect user permit modifications | 86 | 52 | 138 |
| 6 | Permits contested by interested parties | 1 | 0 | 1 |
| 7 | Compliance schedules issued that relax local limits | 2 | 1 | 3 |
| 8 | Facilities inspected and sampled at least once | 492 | 303 | 795 |
| 9 | Pass-throughs of pollutants | 1 | 0 | 1 |
| 10a | Reporting violations | 125 | 91 | 216 |
| 10b | Effluent violations for hazardous pollutants | 181 | 80 | 261 |
| 10c | Effluent violations for non-hazardous pollutants | 207 | 73 | 280 |
| 11 | Effluent violations constituting serious violations | 174 | 56 | 230 |
| 12 | Affirmative defenses granted | 19 | 6 | 25 |
| 13 | Indirect users qualifying as significant non-compliers | 30 | 6 | 36 |
| 14 | Violations of AOs/ACOs | 2 | 0 | 2 |
| 15 | Violations of compliance schedule milestones by 90 days or more | 1 | 0 | 1 |
| 16a | As of 12/07, number if indirect users from question 13 no longer in SNC status | 14 | 3 | 17 |
| 16b | 2006 SNC indirect users which achieved compliance in 2007 | 30 | 10 | 40 |
| 17 | Enforcement actions resulting from DLA inspection/sampling | 123 | 78 | 201 |
| 18 | Violations for which penalties have been assessed | 315 | 89 | 404 |
| 19 | Amount of all assessed penalties | $601,861 | $261,000 | $862,861 |
| 20 | Amount of penalties collected | $463,305 | $162,364 | $625,669 |
| 21 | Enforcement costs recovered, from violations, in an enforcement action | $0 | $0 | $0 |
| 22 | Criminal actions filed by the Attorney General or County Prosecutors | 2 | 0 | 2 |

## F. LIST OF DLAs

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

| DELEGATED LOCAL AGENCY | FACILITY MAILING ADDRESS |
|---|---|
| Bayshore Regional S.A. | 100 Oak Street , Union Beach, NJ 07735 |
| Bergen County U.A. | PO Box 9, Little Ferry, NJ 07643 |
| Camden County M.U.A | 1645 Ferry Avenue, 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. | Paradise Road, West Deptford, NJ 08066 |
| Hamilton Township Dept. of Water Pollution Control (*see Note 1*) | 300 Hobson Avenue, Hamilton, NJ 08610 |
| Hanover S.A | PO Box 320, 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 Avenue, PO Box 7603<br>Convent Station, NJ 07961 |
| Mount Holly M.U.A. | PO Box 486, 37 Washington Street<br>Mount Holly, NJ 08060 |
| North Bergen M.U.A. | 6200 Tonnelle Avenue, 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 Avenue, 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 (*see Note 1*) | 1502 Lamberton Road, Trenton, NJ 08611 |
| Wayne Township | 475 Valley Road, Municipal Bldg. Wayne, NJ 07470 |

*Note 1: The Hamilton Twp IPP was revoked effective 10/1/07, and the City of Trenton IPP was revoked effective 10/1/07. These programs were revoked due to the small number of regulated users discharging to these treatment plants.*

## V. CRIMINAL ACTIONS

## CLEAN WATER ENFORCEMENT REPORT - 2007

In 2007, the Attorney General, through the Division of Criminal Justice and county prosecutors' offices, 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).

For over twenty (20) years, the Division of Criminal Justice has prosecuted 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 2007, the Division of Criminal Justice conducted a total of eighteen (18) WPCA investigations. The Division also reviewed over two hundred (200) WPCA Department actions (NOVs, Orders, Penalty Assessments, etc.) for potential criminality. Division State Investigators responded to twenty-three (20) water pollution emergency response incidents, out of a total of forty-one (41) emergency response incidents. The Division filed four (4) criminal actions (indictments, accusations or complaints) for violations of the requirements of the WPCA. Three (3) of the criminal actions constituted a third degree charge involving a purposeful, knowing or reckless violation of the WPCA. One involved a fourth degree charge for a negligent violation of the WPCA. Three have been resolved through guilty pleas.

In addition to these prosecutions, the Division also obtained two significant settlements in criminal investigations. In 2007, through the successful prosecution of cases involving water pollution, the Division obtained over $1 million 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 2007, the Ocean County Prosecutor's Office obtained an indictment against a individual for third degree unlawful ocean dumping, contrary to N.J.S.A. 58:10A-49 for discharging wastewater into a storm drain leading to Barnegat Bay. Discussed below are the WPCA criminal actions and dispositions secured.

In summary, the Attorney General, through the Division of Criminal Justice and county prosecutors, filed five (5) WPCA criminal actions in 2007, involving four (4) third degree charges and one (1) fourth degree charge, and secured three (3) final dispositions for criminal violations of the WPCA. Two of these actions were not resolved in 2007.

1. In State v. Seymour Berkowitz and Berkowitz Fat Co., Inc. (Indictment No. 07-07-00097S), the State Grand Jury returned a four count indictment against Berkowitz Fat Co., Inc., a meat processing/rendering facility in Newark and its president Seymour Berkowitz charging them with a third degree violation of the Water Pollution Control Act, contrary to N.J.S.A. 58:10A-10f, (count one) and three (3) third degree violations of the Air Pollution Control Act, contrary to N.J.S.A. 26:2C-19f (counts two, three and four). The defendants are charged with violating DEP Air Pollution and Passaic Valley Sewerage Commission water pollution permits and releasing odors into the environment that adversely affected people in the surrounding community.

2. In State v. AMIDI, Inc. (Accusation No. 07-06-1408), defendant pled guilty to an Accusation charging it with a fourth degree violation of the Water Pollution Control Act, N.J.S.A. 58:10A-10f, for discharging restaurant wastewater into a storm sewer that leads to the Manalapan Creek. The Court imposed a $1,000 fine payable to the Monmouth County Health Department.

3. In State v. Baez, the State filed a complaint against defendant (Summons/Complaint # S134811) in Hudson County Superior Court for third degree violation of the Water Pollution Control Act, N.J.S.A. 58:10A-6a and N.J.S.A. 58:10A-10f(2) for discharging oily water from a fuel oil tank into a storm drain in Hudson County.

4. In State v. Esposito, the State filed a summons complaint against defendant (S102852) for Criminal Mischief, contrary to N.J.S.A. 2C:17-3 for causing a discharge of oil from an oil tank containment area to reach the Passaic River in February 2006. Esposito's company, Tilcon entered into a Stipulation of Settlement under which Tilcon will make $75,000 in payments to State, County and local officials relating to this oil spill incident.

5. In the Matter of Chevron, the State entered into a stipulation of settlement with Chevron to resolve its criminal investigation relating to the February 13, 2006 leak of oil into the Arthur Kill from a Chevron Perth Amboy facility pipeline. Under the agreement, Chevron will pay $1 Million to the NY/NJ Baykeeper for programs in NY/NJ harbor.

6. In State v. Charles Evans (Accusation No. B06-12-0099A), the Court sentenced defendant to probation and a $15,000 fine for violating the Clean Water Enforcement Act by submitting monthly Discharge Monitoring Reports in 2003 and 2004 to the DEP that falsely stated that discharge levels were in compliance with a Ferro facility DEP water pollution permit limit for Biochemical Oxygen Demand when that was not the case.

## VI. FISCAL
## A. CWEA FUND SCHEDULE AND COST STATEMENT

The CWEA establishes the Clean Water Enforcement Fund 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 deposited into the CWEF and the Program Cost Statement (Table VI-2) . Accordingly, the CWEA Fund Schedule (Table VI-1) presents the monies deposited into the Fund and the Program Cost Statement (Table VI-2) presents the specific purposes for which the monies in the CWEF were expended in 2007, based upon cost accounting data.

**TABLE VI – 1**
**CLEAN WATER ENFORCEMENT FUND SCHEDULE**
**For the period from January 1, 2007 through December 31, 2007**

| | January – June 2007 | July – December 2007 |
|---|---|---|
| Total Penalties Recorded | $1,220,640.88 | $1,608,197.37 |
| | | |

*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.

**TABLE VI-2**
**CLEAN WATER ENFORCEMENT COST STATEMENT**
**For the period from January 1, 2007 through December 31, 2007**

| | FY2007 January - June | FY2008 July – December |
|---|---|---|
| Division of Law (Dept. of Law & Public Safety) | $159,000.00 | $157,823.00 |
| Office of Administrative Law | $71,575.00 | -0- |
| Office of Information Technology | -0- | -0- |
| Department of Environmental Protection | | |
| - Salaries | $356,126.15 | $354,089.29 |
| - Materials and Supplies | $11,473.36 | $12,292.28 |
| - Services Other than Personal | $44,401.30 | $36,090.05 |
| - Maintenance and Fixed Charges | -0- | $117.00 |
| - Equipment | -0- | -0- |
| DEP Subtotal | $412,000.81 | $402,588.62 |
| Total Disbursements | $642,575.81 | $560,411.62 |

# VII. WATER QUALITY ASSESSMENT

## A. Introduction

This Water Quality Assessment section of the CWEA Report provides an overview of the quality of New Jersey's surface waters. Direct evaluation of the effects of point source compliance on water quality is challenging because of the difficulty in measuring the direct effects of permit violations on ambient water quality. Because permit compliance rates remain high and permit violations are often of very short duration, instream 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 or below permitted levels combined with nonpoint sources and groundwater inputs.

## B. 2006 Integrated Report

The Department assesses the status of rivers, streams, lakes, and coastal waters through extensive water quality monitoring networks. These results are then assessed and compiled biennially into a formal *Integrated Report* (combined 305(b) report and 303(d) List), which is submitted to USEPA. The most recent final Integrated Report is the 2006 Integrated Report, which forms the basis for the water quality information presented here. Assessments in the 2006 Report are based upon a wide range of high quality data generated by this Department as well as outside groups such as the New Jersey Pinelands Commission, USGS, Delaware River Basin Commission, Monmouth County Health Department and others. Assessment methods are explained in the Department's Methods Document. The surface water quality data assessed for the 2006 Integrated Report was collected between 1999 and 2004. The 2008 Integrated Report is under development and should be completed by Summer 2008. The surface water quality data currently being assessed for the 2008 Integrated Report was collected between 2001 and 2006.

The 2006 Integrated Report contains an Integrated List consisting of five sublists. All assessed waterbodies are placed on one of these sublists based upon the degree of support of designated uses, how much is known about the waterway's water quality status, and the type of impairment preventing use support. Sublist 1 identifies waterbodies where the designated use is assessed and attained and all other designated uses in the assessment unit are assessed and attained (except for fish consumption). Sublist 2 identifies waterbodies where the designated use is assessed and attained but one or more other designated uses are not attained and/or there is insufficient information to make a determination. Sublist 3 identifies waterbodies for which there is insufficient data available to determine if the designated use is attained. Sublist 4 identifies waterbodies where the designated use is not attained but a TMDL has been completed or other enforceable pollution control requirements are reasonably expected to achieve use attainment. Sublist 5 identifies waterbodies where the designated use is not attained or is threatened by a pollutant(s) and a TMDL is required. Sublist 5 is used to develop the List of Water Quality Impaired Waters (Integrated List or 303(d) List). The assessment units and sublist categories for the 2008 Integrated Report will be the same as those used for the 2006 Integrated Report, except that lakes will be assessed as part of an entire HUC 14 subwatershed rather than separately, as was done in past Reports. For the 2006 Integrated Report, the Integrated List was based on HUC 14 subwatersheds and lakes. The total number of assessment units identified statewide in the 2006 Integrated Report is 970 (see Table VII-1, below).

## Table VII-1: Assessment Units Per Designated Use

| Designated Use | Total Number of Assessment Units, Excluding Lakes (2006 Integrated Report) |
|---|---|
| Aquatic Life | 970 |
| Recreation | 970 (30 for secondary contact recreation only) |
| Drinking Water Supply | 733 |
| Industrial Water Supply | 733 |
| Agricultural Water Supply | 567 |
| Fish Consumption | 970 |
| Shellfish Harvest | 170 |

**Key Findings from the 2006 Final Integrated Report**

- In approximately 25% of the State's HUC 14 subwatersheds, the Department had sufficient data to fully assess all applicable designated uses, except fish consumption. Nine percent (9%) were fully assessed including fish consumption.

- Ninety percent (90%) of the State's stream miles (16,410 of 18,126 stream miles) were assessed for at least one designated use; 99.8% of the total acres of estuaries, bays, and ocean waters (166,384 of 166,133 acres) were assessed for at least one designated use.

- Ten percent (10%) of the State's assessed subwatersheds attained all applicable designated uses (i.e., full attainment).

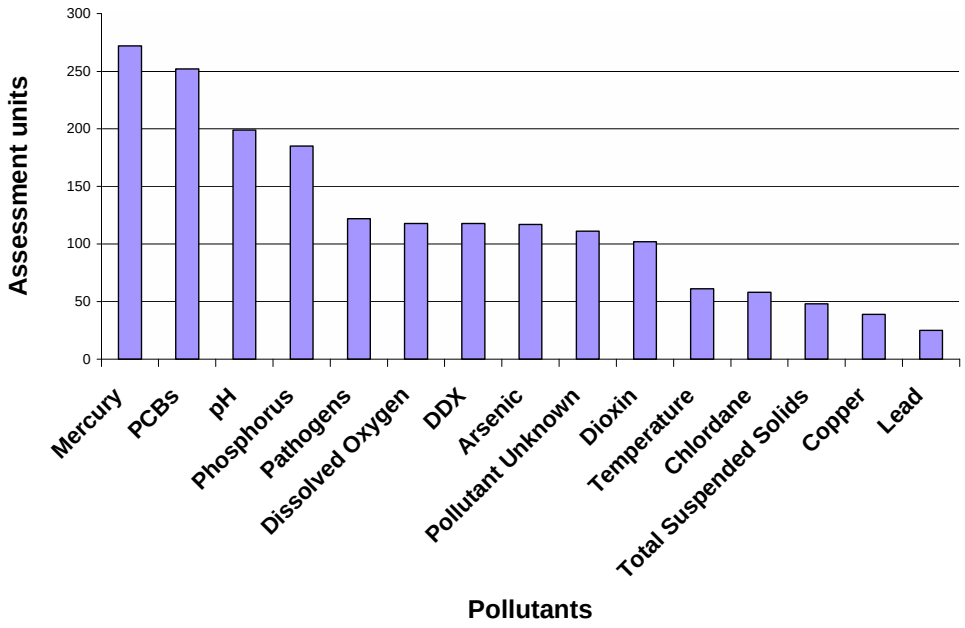
- Almost 100% of ocean beaches are fully swimmable.

- All freshwaters of the State are designated for drinking water supply use. Over 70% of assessed subwatersheds attained the drinking water supply use.

- Less than 20% of the State's waters attain the general aquatic life use; less than 20% of rivers and streams classified for trout production/trout maintenance attain this aquatic life use.

The Department identified 688 (71%) HUC 14 subwatersheds and 161 (34%) lakes as impaired for one or more designated uses. These waterbodies appear on Sublist 5 for one or more pollutants. The Department identified the pollutants causing the impairment for each assessment unit/designated use combination identified on Sublist 5 and developed the 2006 303(d) List of Impaired Waters. There are a total of 33 pollutants identified on the 2006 303(d) List in one or more assessment units, resulting in 2012 pollutant/waterbody combinations. The top five pollutants (mercury, PCBs, pH, phosphorus, and pathogens) are responsible for over 50% of the listings. The top 15 pollutants are responsible for over 90% of the listings, as shown in Chart VII-1 below.

**Chart VII-1: Pollutants Responsible For Over 90% of Impairments**




Source: 2006 New Jersey Integrated Statewide Water Quality Monitoring and Assessment Report (NJDEP, 2006)

**Mercury and PCBs (polychlorinated biphenols)** caused the highest number of impairments in New Jersey's waters, with 267 and 252 impaired assessment units, respectively. These impairments were generally associated with fish consumption advisories and fish tissue analysis, but some were associated with water column data. All locations sampled to date for fish tissue have resulted in the issuance of fish consumption advisories due to excessive levels of one of these persistent, ubiquitous contaminants. Sources of these pollutants include air deposition, sediments, municipal and industrial point source discharges, and contaminated sites.

Concentrations of PCBs have decreased markedly compared to evaluations made a decade ago. The observed decreases could be due to environmental cleanups, pollution prevention programs, or changes in the bioavailability of contaminants. PCBs are very stable in the environment; hence, reductions are largely due to input reductions and the gradual outflow of sediments to estuaries and ocean and/or burial by successive generations of non-contaminated sediment. Although environmental levels of some contaminants, such as PCBs, are dropping, increased listings are expected in the future due to two converging factors. The first is New Jersey's adoption of more protective, more restrictive fish advisory triggers. The second factor is the planned assessment of new and as yet un-monitored waters for fish tissue contaminants. The Department has adopted amendments to the NJPDES rules at N.J.A.C. 7:14A to address point source discharges of PCBs and mercury. The Department has also made considerable progress implementing a broad effort to reduce environmental mercury, particularly from air deposition, based upon recommendations from New Jersey's Mercury Task Force.

An additional 270 impairments are identified on the 303(d) List for other fish-tissue based contaminants including DDT, DDD, DDE, dioxin, and chlordane. Many of these listings overlap geographically with PCB and/or mercury impairments.

**pH** caused the second highest number of impairments**,** affecting 193 assessment units. Many of the streams listed as impaired for pH flow into and out of the Pinelands but are classified as FW2 waters; only streams within the geographic boundary of the Pinelands region are classified as Pinelands (PL) waters, with a lower surface water quality criterion for pH. The Department is proposing new pH criteria for South Jersey waters to reflect naturally-occurring acidic conditions. The new pH criteria should address a majority of the pH impairments identified on the 2006 Integrated List; other impairments may be due to excessive algal productivity.

**Phosphorus** caused the third most frequent number of impairments on the 2006 Integrated List, with only 40% of phosphorus-impaired waters receiving inputs from municipal point source discharges. For the 2006 Integrated Report, waters were considered impaired for total phosphorus (TP) if ambient concentrations exceeded the numerical criterion of 0.1 mg/L. The Surface Water Quality Standards also include narrative criteria stating that the numeric criteria apply unless TP is not limiting and does not render the waters unsuitable for the designated uses. The Department has not assessed whether the levels of TP render the waters unsuitable for their respective uses. The Department is developing a revised assessment method for TP in freshwaters that will consider dissolved oxygen (DO) and biological data. Under the revised method, these data will be used to determine if aquatic life uses are attained or if they are not attained due to nutrient impairment. Each parameter will have a corresponding threshold that is directly related to response indicators of nutrient impacts, i.e., abnormal diurnal fluctuations in DO, taking into account percent saturation, or biological impacts evidenced by changes to the composition of aquatic ecosystems that render the waters unsuitable for aquatic life uses. In the meantime, the NJPDES program provides permitted discharge facilities with an opportunity to determine that the TP levels present in their receiving waters do not render the waters unsuitable. A waterbody may be delisted for TP if it can be demonstrated that TP levels above the numeric criterion do not render the waters unsuitable.

**Pathogens** caused the impairment of 135 assessment units. The presence of bacteria associated with human waste or animal waste (i.e., fecal matter) that may contain pathogens is generally used to determine if waters are unsafe to swim. Thus, attainment of the recreational use was assessed using a suite of bacterial indicators. Pathogens are generally associated with Combined Sewer Overflows, failing septic systems, and illicit discharges and stormwater runoff containing fecal matter deposited by pets, wildlife, and waterfowl. The Department has prioritized TMDL development for fecal coliform impairments identified on the 1998 303(d) List and has adopted 360 pathogen TMDLs to date.

**Dissolved oxygen (DO)** caused the impairment of 115 assessment units, including 38 in ocean waters; however only a small percentage of assessed freshwater waterbodies exceeded aquatic life criteria for DO. DO is necessary for almost all aquatic life; consequently the concentration of DO in the water column provides a good indicator of the health of an aquatic ecosystem. Under low DO conditions, fish are more susceptible to the effects of other pollutants, such as metals and toxics, and at very low DO levels, trace metals from sediments are released into the water column.

As stated above**,** DO impairments were observed in 38 ocean assessment units**.** Low DO in the ocean is due to an extensive anoxic cell that forms off the coast during the summer months and breaks up in the fall. The biological impacts of this low DO cell are currently unknown, but are of increasing concern regarding potential impacts to marine biology. The reason for this benthic low DO cell is not known, although summer algal bloom die-off has been implicated. The impacts on benthic marine biota are unclear as well. It is important to note that surface DO levels have historically been acceptable. The Department is working with Rutgers, USEPA Region 2, USEPA Office of Research and Development, and NOAA to develop an indicator of ecosystem health for the benthic

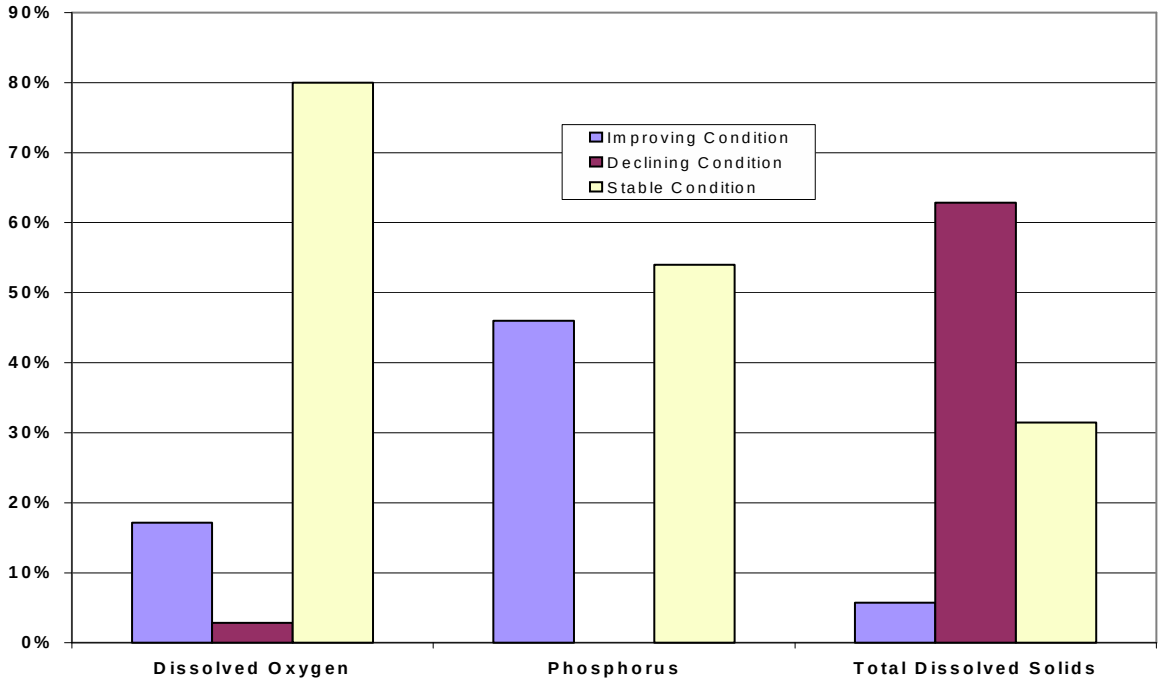
community in the estuarine and nearshore ocean waters of New Jersey by 2010. Existing data on benthic communities in the nearshore ocean waters and estuaries of New Jersey has been compiled and additional data was collected in 2007 to fill gaps in the existing data. The remaining step is to assess these data and establish a valid benthic index for these waters. In addition, the Department is also evaluating the USEPA-recommended marine DO criteria.

**Heavy Metals:** The 1998 303(d) List identified impairments from metals based on a review of effluent data since ambient water quality data for metals was unavailable or unreliable. Since then, more sophisticated monitoring and analytical methods (i.e., Clean Methods) have been developed specifically for heavy metals and the Department has employed a Metals Monitoring program targeted at verifying the metals impairments identified on the 1998 List. This has resulted in delisting many waterbodies previously thought to be impaired for heavy metals.

Due to the high cost of metals analysis, the percentage of waters assessed for metals is currently low; however, the number of waterbodies sampled grows with time. However, the Department continues to research the source and cause of metals exceedances and will reevaluate the criteria based on new information about their presence in, and impact on, the aquatic ecosystem. Currently, the Department is evaluating natural and background concentrations of arsenic in New Jersey's waters and will revise the Surface Water Quality Standards as appropriate.

**Total Dissolved Solids (TDS):** Over 95% of assessed freshwater assessment units achieved the Surface Water Quality Standards for TDS. Unlike DO and TP conditions, which have improved statewide, TDS showed declining conditions in over 60% of the stations (see Chart VII-2). TDS is comprised of minerals and other substances dissolved in water. Changes in TDS can affect organisms by altering the flow of water through cell membranes, which can retard growth or even cause death. These changes can make water unfit for many uses. TDS exceedances have been associated with runoff from urban and agricultural areas, especially runoff containing salt used to control ice on roadways. Wastewater treatment discharges and discharges associated with septic systems can also contribute to increased TDS loads. Increased TDS is often a result of phosphorus reduction measures taken by domestic wastewater treatment facilities to meet the numeric surface water quality criteria for TP.

**Chart VII-2: Water Quality Trends**




Source: 2006 New Jersey Integrated Statewide Water Quality Monitoring and Assessment Report (NJDEP, 2006)

**Ammonia:** Prior to upgrades and regionalization of sewage treatment plants, ammonia exceedances were common in streams receiving effluent. Since then, the improvement of un-ionized ammonia concentrations in waters statewide has been dramatic.

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

As stated earlier, it is difficult to correlate ambient water quality data to the impact of point source discharges on surface water quality. However, to the extent that a particular pollutant is believed to cause impairment of a particular waterbody, the establishment of a Total Maximum Daily Load (TMDL) should provide a process whereby all sources of the pollutant in question are evaluated along with their relative contribution to the impairment. The TMDL will include load and wasteload allocations for those sources, based on their relative contribution, which will result in a reduction in the amount of pollutant discharged into the receiving waterbody so that Surface Water Quality Standards will be achieved and the designated uses attained over time. Implementation of the TMDL and continued water quality monitoring and assessment to track progress in attaining the designated uses should confirm the relationship between specific point source discharges of the pollutants believed to cause impairment and the actual impairment itself.

While DO and TP are identified as the pollutants causing non-attainment for a significant number of impairments using 2004 data, a trend analysis of water quality from 1985 to 2004 indicates that nutrient concentrations, including DO, are improving or remaining stable throughout the State. These results are consistent with the improvements to water quality expected from upgrades to wastewater treatment plants occurring since the 1980's. Nutrient loads, especially ammonia, have been reduced significantly through more extensive wastewater treatment.

As indicated in Section B. above, TP is a pollutant of concern in many of the State's waters. While the average TP concentration has declined or remained stable, 35% of assessed streams show levels above the numeric surface water quality criterion of 0.1 mg/L. TP is often contributed by both point and nonpoint sources. The amount of TP contributed by point source discharges remains a concern. The preliminary TMDL report for the Passaic River shows under summer low flow conditions, treated wastewater comprises over 50% of the overall stream flow.

TP is a required nutrient for plants and algae but is considered a pollutant when it stimulates excessive primary production. The symptoms of excessive primary productivity include oxygen supersaturation during the day, oxygen depletion during the night, and a high sedimentation rate. Algae are the catalysts for these processes. Excessive oxygen depletion can result in fish kills. Secondary biological impacts can include loss of biodiversity and structural changes to communities. Excessive primary production may occur in depositional areas such as impoundments and under summer low flow conditions. Excessive primary production may be manifested as blooms of floating algae (seston), attached algae (periphyton), or dense aquatic vegetation, which in turn affects diurnal oxygen dynamics.

The Surface Water Quality Standards include both numeric and narrative water quality criteria for TP in FW2 lakes and streams. The Department's numeric criteria are based on a single "causative" indicator, namely TP. The narrative criteria for streams allows for an evaluation based upon "response" indicators to determine whether uses are being rendered unsuitable because of the concentration of TP in the specific stream, resulting in excessive algae caused by nutrients. In 2002, the Department began to fully implement the numeric water quality criteria for TP in NJPDES permits to ensure that the surface water quality standards would be achieved. A water quality based effluent limit (WQBEL) of 0.1 mg/L was imposed in the NJPDES permits of facilities discharging to waterbodies listed as impaired for TP on the State's 2002 List of Impaired Waterbodies. In March 2003, the Department provided each permittee an opportunity to demonstrate compliance with the narrative nutrient criteria and policy where the numeric criteria are exceeded, and published the *Technical Manual for Phosphorus Evaluation for NJPDES DSW Permits* which outlines the steps necessary to demonstrate that the current level of phosphorus does not render the waterbody unsuitable for its designated uses. If the permittee successfully demonstrated that the levels of TP did not render the waters unsuitable, the permittee could request a modification of the NJPDES permit to remove the current TP limit. Otherwise, as required by the NJPDES permit, actions must be initiated to achieve compliance with the WQBEL.

The Department completed phosphorus TMDLs for 16 subwatersheds listed as impaired on the 2004 Integrated List. TMDLs are underway to address phosphorus-related impairments in the Passaic River Watershed and the Raritan-Millstone River Watershed. These two TMDL initiatives, alone, are expected to address 63 subwatersheds. Both of these TMDLs are designed to ensure that the narrative phosphorus criteria are met. In the Passaic River TMDL, the Department developed the TMDL based on chlorophyll a levels in Wanaque Reservoir and at Dundee Dam.

The Department is developing revised assessment methods that will consider dissolved oxygen (DO) and biological data as response indicators for nutrient impairment. This methodology will enable the Department to establish a better correlation between nutrient concentrations and response indicators indicative of use impairment.

## 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 Water Monitoring and Standards Program is responsible for conducting ambient water quality monitoring in New Jersey. The *NJ Water Quality Monitoring Networks 2006 Report*, which describes each of the Department's monitoring programs, is available on the Department's Web site at: http://www.state.nj.us/dep/wms/brochure/networks.html and it expected to be updated in Spring 2008.

These monitoring efforts do not specify, target, or identify impacts from regulated NJPDES facilities. However, monitoring data generated by these networks, along with other readily available data that meets the Department's quality control requirements and can be publicly disseminated, serves as the basis for the identification of impaired waters required under Section 303(d) of the federal Clean Water Act (the 303(d) List), as well as the water quality assessment and trends analysis compiled in the Integrated Water Quality Monitoring and Assessment Report.

## 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 Program Web site at: http://www.state.nj.us/dep/wms

# APPENDIX III- A

## NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION
## SIGNIFICANT NONCOMPLIERS

**Per N.J.S.A. 58:10A-14.2b(1)**

| FACILITY NAME | PERMIT # | ADDRESS | DATE OF VIOLATIONS | DESCRIPTION OF VIOLATIONS | FOLLOW-UP and ACTION | TOTAL # OF VIOLATIONS |
|---|---|---|---|---|---|---|
| ALBERT C WAGNER YOUTH CORRECTIONAL FACILITY | NJPDES No. NJ0026719 | Chesterfield Twp, Burlington County | 7/06-8/06 | Effluent violations for Fecal Coliform. | Settlement Agreement executed on 4/19/07 for $6000 | 2 |
| ANDOVER NURSING HOME | NJPDES No. NJ0090069 | Andover, Sussex County | See Description | Andover Nursing Home Inc. incurred violations of their NJPDES permit limit for Flow during the months: January, February, March, April, May, June, July, August, September, October, November and December of 2005; January, February, March, April, May, June, July, August, September, October, November and December of 2006; January, February, March, April, May and June of 2007. Andover STP triggered significant noncompliance (SNC) with the April 2005 Flow violation. | An AONOCAPA was issued on 10/22/07 for $140,250. A hearing has been requested. | 30 |
| FORMER LASER DIODE FACILITY (Tyco) | NJPDES No. NJ0137758 | New Bruswick City, Middlesex County | 3/06-8/06 | Tyco reported a whole effluent toxicity violation and failed to report Chlorine Produced Oxidants and volatile organics. | An AONOCAPA was issued on 5/30/07 to Tyco for the whole effluent toxicity violations and the failure to submit Chlorine Produced Oxidants and volatile organics. In addition a penalty for economic benefit was also assessed. The total penalty was $54,273 and a hearing has been requested. | 10 |
| GARELICK FARMS LLC | NJPDES No. NJ0062081 | Florence Twp. Burlington County | 6/06-11/06 | Garelick Farms, LLC's reported Biochemical Oxygen Demand and Oil & Grease effluent violations | On 5/21/07 a Settlement Agreement was executed for $16,750. This agreement settles Garelick Farms, LLC's penalty liability for Biochemical Oxygen Demand and Oil & Grease violations and grants affirmative defense for violations during the period from 12/06 through 2/07 while new treatment equipment was installed and started-up. | 11 |
| HELEN A FORT MIDDLE SCHOOL | NJPDES No. NJ0022438 | Pemberton Twp. Burlington Twp. | 2/07 - 3/07 | Helen Fort reported violations of the New Jersey Pollutant Discharge Elimination System Permit effluent limitations for Ammonia Nitrogen. | A Settlement Agreement was executed on 11/29/07 for $6,000 for violations of the New Jersey Pollutant Discharge Elimination System Permit effluent limitations for Ammonia Nitrogen.. | 2 |
| HOLMDEL WASTEWATER TREATMENT FACILITY | NJPDES No. NJ0035718 | Holmdel Monmouth County | 2/05-4/06 | Mack-Cali submitted DMRs and supporting analytical data that show effluent violations occurred for the parameters of Ammonia, N, TSS, Phosphorus, and Fecal Coliform. | On 5/30/07 a settlement agreement was executed for $42,000 to settle the violations. | 22 |

| | | | | | | |
|---|---|---|---|---|---|---|
| INVERSAND CO | NJPDES No. NJ0004146 | Mantua Gloucester County | See description | Inversand has discharged pollutants in excess of the discharge limitations contained in the Permit at outfall 001A during the monitoring periods of May 2002 through November 2006. Inversand did not submit DMRs for outfall 001A for the months of May 2004 and May 2006. | On 4/20/07an ACO was executed that required Inversand to pay a penalty of $320,390 and construct the necessary treatment works to achieve compliance with the Permit | 60 |
| LANXESS SYBRON CHEMICALS INC | NJPDES No. NJ0005509 | Pemberton Twp. Burlington Twp. | See description | Sybron submitted DMRs to the Department as required the Permit for the monitoring periods of November 1, 2006 through December 31, 2007. The DMRs demonstrate that Sybron violated the discharge limits of the Permit at outfall 002A for Fecal Coliform, BOD5, Total Dissolved Solids, Total Suspended Solids, Petroleum Hydrocarbons, Total Zinc and 1,2-Dichloropropane. | On 3/7/08 an AONOCAPA was issued to Sybron for $119,000 for the effluent violations. A hearing has been requested. | 20 |
| RALPH CLAYTON & SONS/FREEHOLD | NJPDES No. NJ0117765 | Freehold Twp. Monmouth County | See description | Clayton failed to monitor for pH, Total Suspended Solids (TSS), Oil & Grease, and Chemical Oxygen Demand (COD) for the months of May, June, July, August, September, and October 2006. Clayton submitted DMRs which revealed that Clayton, had discharged pollutants in excess of the discharge limitations in their Permit during the November 2006and December 2006 monitoring period. Clayton exceeded its effluent limitations for the parameters Total Suspended Solids ("TSS") and Chemical Oxygen Demand ("COD"). | An AONOCAPA was issued on 4/3/07 to Clayton to address these violations. In addition a penalty for economic benefit was also assessed. The total penalty was $109,632 and a hearing has been requested. | 38 |
| RED ROCK MATERIALS LLC | NJPDES No. NJ0001031 | Lyndhurst Twp Bergen County | See description | Red Rock Materials failed to sample and report to the Department Chemical Oxygen Demand and Petroleum Hydrocarbons for the June 2006 – September 2006 quarterly monitoring period, | On 10/31/07 a settlement agreement was executed to settle these violations for $6,075. | 2 |
| ROUND VALLEY MIDDLE SCHOOL | NJPDES No. NJ0023175 | Clinton Twp Hunterdon County | See description | Clinton Township Board of Education failed to conduct four quarterly Toxicity tests during the June through August monitoring period of calendar year 2005. They also discharged Ammonia Nitrogen in excess of the discharge limitations contained in the NJPDES Permit during the May 2004, May 2005, June 2005, July 2005, August 2005 and September 2005 monitoring periods. | On 1/8/07 a settlement agreement was executed to settle these violations for $30,000. | 11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| SKYLANDS PARK | NJPDES No. NJ0103748 | Frankford Tpw. Sussex County | See description | Skylands STP incurred violations of their NJPDES permit limit for Flow during the months of July August and September of 2004 and July, August and October of 2005. | On 4/2/07 an AONOCAPA was issued for $20,000 for these violations. | 6 |
| HAMILTON FARM GOLF CLUB | NJPDES No. NJ0087343 | Peapack-Gladstone Boro Somerset County | See description | Hamilton Farm Golf Club and Equestrian Center incurred violations of their NJPDES permit limit for Flow during the months of May, June, July, September and October of 2006. | On 4/4/07 an AONOCAPA was issued for $10,000 for these violations. | 5 |
| KINGWOOD TWP BOARD OF EDUCATION | NJPDES No. NJ0023311 | Kingwood Twp Hunterdon County | See description | Kingwood Twp Board of Education incurred violations of their NJPDES permit limit for Ammonia Nitrogen during the months of May, June, September and November 2005 and for Phosphorus during the months of March, April, May and September of 2005 and January, February, March, July, October and November of 2006. | On 2/27/07 an Administrative Consent Order with a compliance schedule and penalty of $63,000 was executed for these violations. | 15 |
| ASBURY GRAPHITE MILLS INC | NJPDES No. NJ0031208 | Bethlehem Twp Hunterdon County | See description | Asbury Graphite Mills Inc. failed to conduct NJPDES permit required monitoring in May 2006 and in June 2006 at outfalls 001A and 002A for Intake Temperature, Effluent Temperature and the Temperature Difference between the Intake and Discharge, Chemical Oxygen Demand, Total Suspended Solids and Petroleum Hydrocarbons. The facility also failed to conduct the required pH monitoring at both outfalls during April to June 2006 as well as Intake Temperature at 001A, Effluent Temperature at 002A, and the Temperature Difference at both outfalls during July 2006. | On 10/5/07 a Settlement Agreement with a penalty of $75,910 was executed for these violations. | 30 |
| WA RESIDENTIAL URBAN RENEWAL,LLC | NJPDES No. NJ0145734 | Hoboken City, Hudson County | See description | WA Residential Urban Renewal, LLC violateded its NJPDES Permit effluent limit for Chronic Toxicity for the March 2007 and August 2007 monitoring periods. | On 11/28/07, a Settlement Agreement with a penalty of $6,000 was executed for these violations. | 2 |
| NORTH BERGEN MUA - CENTRAL SEWAGE TREATMENT PLANT | NJPDES No. NJ0034339 | North Bergen Twp, Hudson County | See description | The North Bergen MUA - Central Sewage Treatment Plant violated its NJPDES Permit effluent limits for Acute Toxicity, Chronic Toxicity, Carbonaceous Biochemical Oxygen Demand, and Copper from October 1996 through February 2007. | On 3/28/07, an Administrative Consent Order was executed memorializing a compliance schedule for the closing of the Central Sewage Treatment Plant and for the construction of a conveyance system to send all sewage flow to the Passaic Valley Sewage Commissioner's Treatment Plant. The ACO also required the payment of a penalty settlement in the amount of $271,200. | 57 |

D