SPDES Compliance and Enforcement Annual Report: April 1, 2008 – March 31, 2009

New York State
Department of Environmental Conservation

Bureau of Water Compliance

Division of Water

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Executive Summary

This report summarizes the compliance and enforcement activities of staff who administer provisions of the state Environmental Conservation Law and the discharge of wastewater in New York State. These laws provide the state Department of Environmental Conservation (DEC) with the authority to manage and protect water resources through the State Pollutant Discharge Elimination System (SPDES)[1] permitting program.

A SPDES permit establishes stringent performance standards and operating conditions that are designed to protect the state's waters. These permits incorporate current water quality standards, effective implementation of best management practices by permitted facilities, and timely sampling, analysis, and reporting to DEC on the quality of wastewater discharged under the SPDES permit. In addition to issuing permits, DEC staff perform site inspections and continually review facility discharge data to ensure compliance.

From the inception of the Clean Water Act (CWA) in 1972 until the mid-1990s, DEC efforts focused on the control of point sources of pollution from municipal and industrial wastewater treatment plants. Since the late 1990s, DEC has issued permits for activities such as stormwater runoff from construction, industrial, and municipal areas, and for waste management activities associated with animal feeding operations. As a result, the number of SPDES-permitted facilities has nearly doubled since 1998.

This additional oversight of stormwater and animal agriculture runoff has led to an improvement in water quality, notably in areas previously impacted by these discharges. Other, more disparate, challenges to water quality remain, including pollutants resulting from atmospheric deposition and from pharmaceuticals and personal care products that are routinely flushed down the drain in many households.

One significant and indirect challenge to the state's water resources is for DEC to maintain a sufficient level of staffing which supports the long-term gains in water quality improvements that have been achieved since passage of the Clean Water Act. Given the near doubling of SPDES-permitted facilities over the past 10 years, the resources necessary to issue permits, inspect facilities, and enforce permit standards and conditions have not kept pace.

As such, DEC continually prioritizes its efforts and resources to address sources of pollution having potential for negative impacts on the health of the state's residents, recreational water uses, and commerce that relies on high quality water.

This past year was notable for the following accomplishments to protect the state's waters:

- DEC and its partner organizations conducted more than 3,300 compliance inspections.
- DEC executed more than 240 enforcement actions, resulting in the assessment of nearly $8 million in penalties and the funding of more than $5 million in environmental benefit projects.

[1] http://www.dec.ny.gov/permits/6054.html

- DEC provided direct technical assistance to 10 municipal and industrial wastewater treatment facilities and certified 856 wastewater operating professionals.

Additionally, the following initiatives began during this period, with each having potential to benefit water quality in future years:

- Initiation of a program to notify SPDES permittees for each failure to provide DEC with a report detailing the quality of water discharged from their facilities. Within one year, this has resulted in a 50% decrease in late reports from SPDES permittees. This decrease benefits DEC by reducing the need to involve legal staff in such matters, allowing them to focus on higher priority issues impacting water quality. Timely reporting allows DEC to address any violations and ensure continuing water resource protection.

- A complete review and revision of the SPDES compliance and enforcement guidelines. These guidelines detail the response necessary to address any violation of a SPDES permit. While intended for use by DEC staff, this publicly available guidance outlines how DEC will respond to any non-compliance event of the SPDES discharge permit. After a public comment period earlier in 2010, the final document became effective in May 2010.

We hope this annual report increases the public's understanding on how compliance and enforcement of SPDES permits protects water quality.

Overview

DEC actively protects New York State's water resources through various regulations, policies, and partnerships. Responsibility for much of this oversight lies within the Division of Water (DOW) Bureau of Water Compliance (BWC). BWC manages the compliance and enforcement elements of the SPDES permit program and enforcement against those discharging to the waters of the state without a permit.

The United States Environmental Protection Agency (EPA) authorizes the SPDES program to regulate all wastewater discharges to water in New York State. New York is one of 46 states having regulatory authority to administer wastewater discharge activities falling under the Clean Water Act (CWA)[2], which EPA administers. New York's SPDES program extends beyond the CWA by also regulating discharges to groundwater.

An essential component of EPA's authorization of the SPDES program is the 1987 Enforcement Agreement between EPA and DEC. This agreement outlines the elements necessary for ensuring compliance by major facilities regulated by DEC. Some of these important elements are:

- Monitoring permit compliance
- Maintaining and sharing compliance information with EPA
- Applying criteria to identify facilities in significant non-compliance (SNC)
- Listing facilities that require action to restore compliance
- Timely and appropriate enforcement of SNC violations

The SPDES program is administered through the issuance of wastewater discharge permits, including both individual permits and general permits.

An individual SPDES permit applies to a single facility, in one location, while possessing unique discharge characteristics. In contrast, a general SPDES permit applies to a class of dischargers, which involve similar operations or pollutants. A general permit also requires similar effluent limits, operating conditions, or the same or similar monitoring.

Once issued, a permit requires the owner or responsible party to abide by specific conditions found in the permit. For larger and more complex facilities these requirements typically include limits on physical, chemical, or biological characteristics of the discharge. For smaller facilities, including those discharging to groundwater, the permit may simply require maintaining data and information for review by DEC staff during an inspection.

One unique feature of the SPDES program is the self-monitoring requirement for each permittee. Because of this DEC receives, each month, a vast amount of data indicative of the quality of wastewater discharged throughout the state from SPDES-permitted facilities. A SPDES permit requires the owner to use a laboratory approved by the Environmental Laboratory Approval Program (ELAP)[3], a New York State Department of Health (DOH) program, for the analysis of samples required by the SPDES permit.

[2] http://www.epa.gov/compliance/civil/cwa/index.html
[3] http://www.wadsworth.org/labcert/elap/elap.html

To further ensure compliance with SPDES permits DEC maintains an active field presence through nine regional offices, with additional support from staff in the Albany headquarters. These staff issue permits, perform inspections, collect samples, certify facility operation staff, provide technical assistance, review discharge data, and respond to citizen complaints involving water quality.

When non-compliance and/or violations occur, DEC has a variety of enforcement measures to encourage or compel the facility to return to compliance. For less serious violations DEC may take informal enforcement action requiring follow-up action by making a phone call or site visit, or by sending a letter. For more serious violations DEC may commence formal enforcement action involving legal staff.

Water Quality Management

To address current challenges and ongoing needs, DOW implements its policy and priorities on a continuous basis through the water management cycle (see Figure 1). This cycle consists of five basic steps, each interdependent upon one another. These steps are:

- Monitoring
- Assessment
- Planning and Management
- Implementation and Permitting
- Compliance and Enforcement

Monitoring

DEC gathers information on the health of the state's waters by monitoring important characteristics such as flow, dissolved oxygen, temperature, or various chemical and biological components in key locations throughout the state. This data is supplemented by collecting samples of aquatic organisms, as the type and number of these organisms assist in determining the health of the waterbody.

Figure 1

Assessment
Waters of the state are assigned a best use, such as a drinking water, swimming, or fishing resource. Water quality standards establish criteria which define a maximum level of pollutants which can be present in a waterbody in order for it to meet its best use designation. The monitoring information is used by DEC to assess waters to determine if these support their designated best uses. DEC then establishes a Priority Waterbody List[4] (PWL) of the waters that do not meet standards or are unable to support their designated best uses.

Planning and Management
Water resources found on the PWL have problems which are attributable to different pollution sources such as malfunctioning sewage treatment plants, street runoff during storm events, or contaminated runoff due to industrial, farming, or construction activities. DEC uses the PWL to manage water resources and plan staff assignments. For example, water quality management plans currently underway include upgrades to municipal wastewater systems discharging to Onondaga Lake or Long Island Sound. Upgrades to those facilities will enhance the removal of phosphorus and nitrogen. An abundance of these nutrients in the wastewater discharge supports undesirable plant growth and reduces oxygen available to aquatic life.

Implementation and Permitting
Monitoring, assessment, and management planning help DEC develop SPDES permits for all discharges to waters of the state. SPDES permits may contain performance standards that protect

[4] http://www.dec.ny.gov/chemical/23846.html

water quality. SPDES permits may also include schedules of compliance that require the permittee to upgrade or install new treatment technology by a specific date. DEC also works cooperatively with local governments and organizations to encourage control of nonpoint sources of pollution, such as polluted runoff from stormwater and agriculture operations.

Compliance and Enforcement
Compliance assurance and enforcement involve the evaluation of data that dischargers submit as a condition of the SPDES permit. These reports detail the water quality discharged from the permitted facility. This data, inspections by DEC staff, and other information collectively determine whether a permittee is in compliance with the requirements of the SPDES permit. When DEC encounters violations of a SPDES permit, it usually initiates action by calling the facility or sending a Notice of Violation (NOV) to encourage the permittee to correct minor violations or deficiencies. DEC considers this an informal enforcement action. Major violations require the discharger to correct deficiencies through a formal enforcement action. Formal enforcement actions include an Order on Consent, Notice of Enforcement Hearing and Complaint, Cease and Desist directive, Commissioner's Order, or ticketing by a law enforcement official, such as an Environmental Conservation Officer (ECO).

SPDES Permits

The purpose of a SPDES permit is to regulate the discharge of wastewater and protect the receiving water's quality. In 1998, there were approximately 11,000 active SPDES permits issued. At that time, SPDES permits were issued to cover the following facility types:

- **Municipal Wastewater Treatment Facility**
  This class of facility includes all Publicly Owned Treatment Works (POTW) (as defined by Section 201 of the CWA[5]), which are owned by either the state or a municipality. Privately owned treatment works, federally owned treatment works, and other treatment plants not owned by municipalities are not considered POTWs. Currently, there are approximately 635 POTWs in New York State.

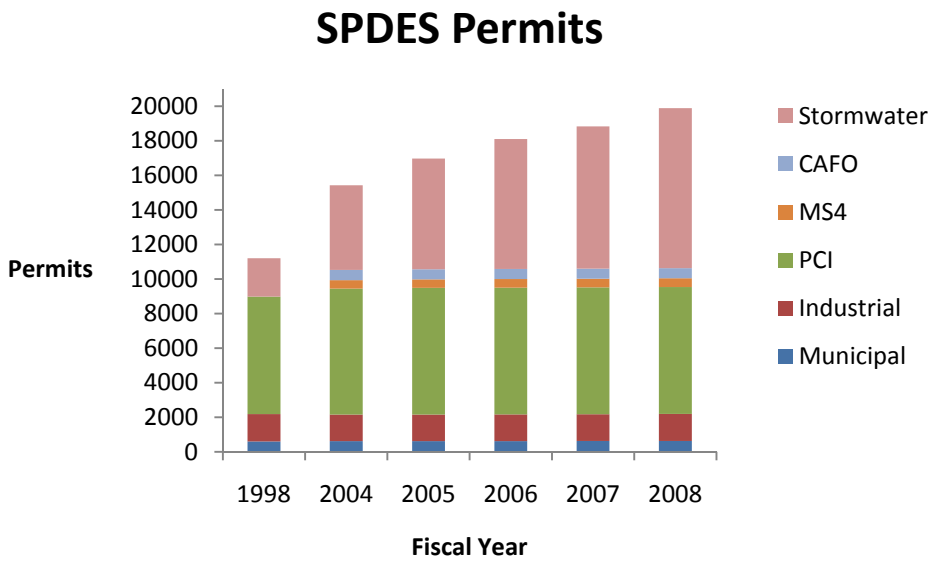
- **Private, Commercial, and Institutional (PCI)**
  This permit class applies to private, commercial, and institutional-type facilities. Examples include laundromats, car washes, privately owned residential wastewater treatment systems, and campgrounds. Currently there are approximately 7300 PCI facilities and 270 significant class PCI facilities in New York State.

- **Industrial**
  These include facilities that are non-municipal, non-PCI, and discharge to surface or ground waters. The type of wastewater generated at this type of facility depends on the specific activities undertaken at a particular site and may include manufacturing or process wastewater, cooling water, sanitary wastewater, and stormwater runoff. Currently there are approximately 1566 industrial class facilities.

[5] http://epw.senate.gov/water.pdf

In 2008, approximately 20 000 SPDES permits were in effect, an increase of over 80% from the 1998 level. Figure 2 shows the recent trend for SPDES permits, including the baseline total in 1998.

Figure 2



Nearly all of this growth is attributable to the addition of four new classifications of General SPDES Permits, covering the following types of facilities:

- **Concentrated Animal Feeding Operation (CAFO)**
  This class of permit regulates the discharge from feeding operations where animals are kept and raised in confined situations, and which meet threshold population criteria (variable depending upon breed/age of the animal). Currently, there are approximately 590 permitted CAFO sites in the state.

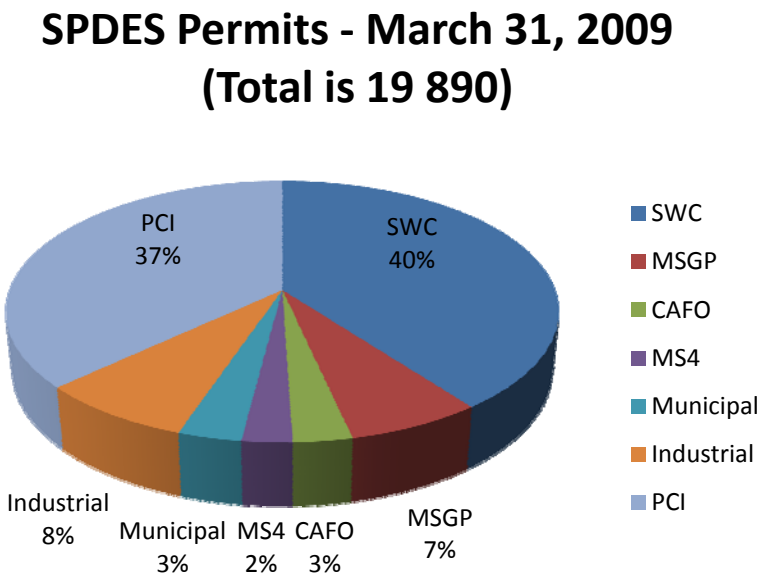
- **Municipal Separate Storm Sewer System (MS4)**
  This class of permit regulates those sewer systems carrying stormwater and runoff from municipally or publicly owned entities (city, town, or village) that are not part of a combined sewage systems or treatment plants and which discharge to waters of the state. Currently, there are approximately 500 permitted MS4 sites in the state.

- **Multi-Sector General Permit (MSGP)**
  This permit class applies to non-construction-related stormwater discharges. Examples include site runoff at an industrial or manufacturing site, school bus garage, or airport. Currently, there are approximately 1360 permitted MSGP sites in the state.

- **Stormwater – Construction (SWC)**
  This permit class applies to runoff resulting from construction activities which impact areas greater than one acre. Currently, there are approximately 7900 permitted SWC sites in the state.

Figure 3 details the distribution of discharge permits of the entire SPDES permit universe.

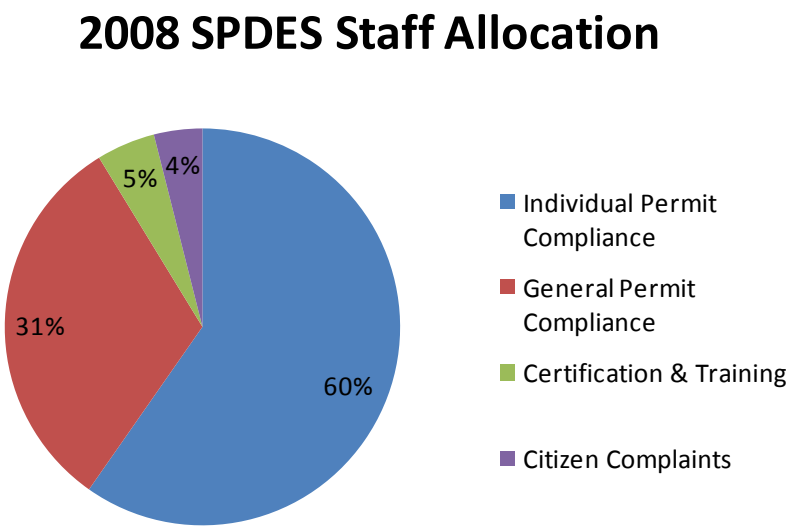
Figure 3



SPDES Work Plan and Staffing

A significant activity of Division of Water staff is to ensure compliance with SPDES permits. Activities relating to compliance assurance include inspection of SPDES-permitted facilities, review of discharge data, sampling and water quality analysis, certifying wastewater treatment facility personnel, investigating citizen complaints, and supporting staff at DEC's nine regional offices. Figure 4 details staff time expenditures for 2008 during which there were 70 full-time employees focusing on SPDES compliance and enforcement activities.

Figure 4



Although the number of permits has risen nearly 100% over the past 10 years, staff overseeing the activities of these permittees has been nearly constant.

Goals for DEC's compliance assurance activities are defined in the annual work planning process. This work plan identifies such components as the number of facility inspections to conduct, the specific permit classes to target for enforcement action, and the response to those discharges causing impairment within a specific water basin. The work plan also sets priorities to meet the compliance goals set by DEC and EPA. This plan is an integral part of DEC's water activity commitments in the annual Performance Partnership Grant from EPA. This grant funds a substantial portion of DEC's water quality programs relating to the water management cycle.

SPDES Permit Monitoring and Compliance

During state fiscal year 2008/09, DEC received discharge monitoring data from nearly 1600 permitted facilities, commonly on a monthly or quarterly basis. These data detail various biological, chemical, and physical characteristics of the water being discharged by these facilities. Factors contributing to the compliance status of a SPDES permitted facility include this self-reported data, DEC staff inspections, and other regulatory oversight activities. Input from citizens and civic groups provide an additional level of oversight at the community level.

A distinctive feature of the SPDES program is the requirement of the permitted facility to monitor discharge water quality and report these findings to DEC. Once DEC receives these data from the facility owner or permit holder it is entered into a nationwide information management system operated by EPA. Through this system DEC staff can assess the compliance status of a facility, determine if any permit limits have been violated, or remain alert to upcoming schedule or construction completion deadlines. With this self-certification approach to reporting, falsification of any Discharge Monitoring Report (DMR) data or supporting information is

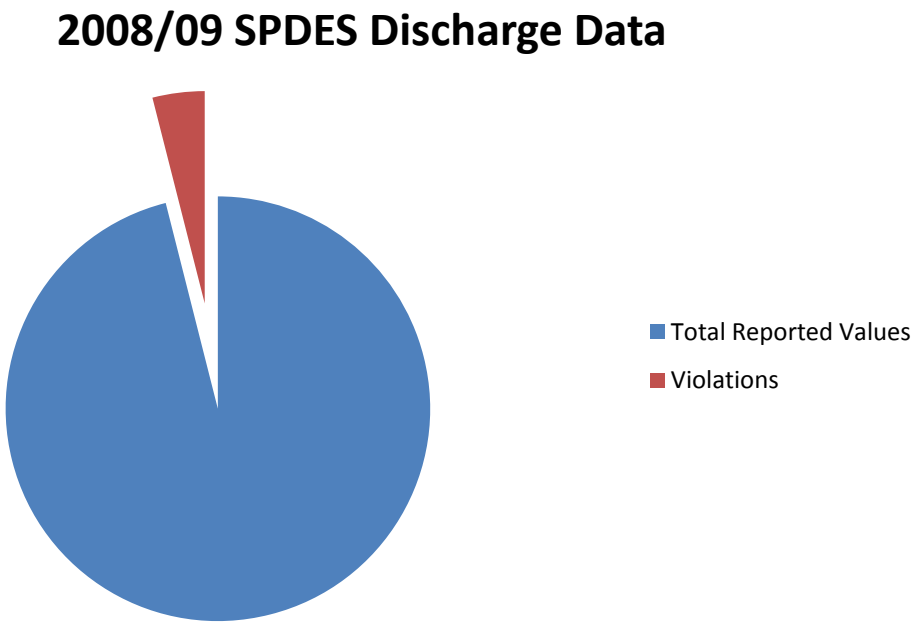
among the most serious of violations and could lead to significant penalties and/or criminal prosecution.

Regardless of the size and discharge capacity of the facility, all SPDES permitted facilities are required to use an ELAP accredited laboratory to analyze a representative sample being discharged. Generally, smaller facilities or those discharging to groundwater must maintain these data results for DEC review during an inspection, while larger facilities and those discharging to surface waters must report directly to DEC the results of these laboratory tests.

Using EPA's data system, each violation is further scrutinized by DEC (and EPA) staff to determine the severity of the violation. DEC is responsible for initial response to any violation, although EPA can take action through the federal CWA and its agreement with DEC.

The vast majority of discharge data that DEC receives are within the limits detailed in the SPDES permit. For example, in state fiscal year 2008/09, DEC received over 228 000 values indicative of the quality of water being discharged. Of these reported values, approximately 9400 were violations of a SPDES permit (approximately 4% of the total). Refer to Figure 5 which illustrates the rate of SPDES permit limit compliance in New York State.

Figure 5



Since the 1980's DEC and EPA address any SPDES violation in a consistent manner to ensure significant violations receive appropriate enforcement action. This unified approach defines threshold criteria that, once exceeded, require enforcement action to return the facility back into compliance (see "SPDES Enforcement" below).

To learn more about the compliance history of a SPDES permitted facility, visit the EPA Enforcement and Compliance History Online (ECHO)[6] website.

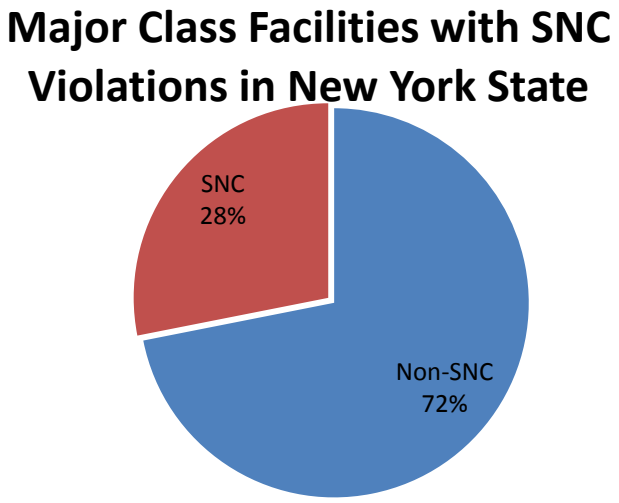
Given that nearly one quarter of a million data values are submitted to DEC each year, EPA and DEC evaluate violations and focus on major facilities deemed to be in SNC. SNC consists of more severe violations, including:

- Discharge monitoring values exceeding an EPA-accepted threshold
- The facility not providing a specific document or report required as a condition in a legally binding Order on Consent or other enforcement action
- A discharge which threatens public health or the environment.

A formal agreement exists between DEC and EPA requiring quarterly compliance meetings of the two agencies to ensure consistent and timely enforcement action to restore compliance at those major facilities with SNC violations.

During state fiscal year 2008, the SNC rate for major facilities was 28%. This is comparable to the national average of 24%, as reported in the EPA Clean Water Act Enforcement Action Plan[7]. Figure 6 illustrates the percentage of the 345 major SPDES-permitted facilities in New York State that were in SNC for at least one quarter during state fiscal year 2008/09.

Figure 6



Given this rate of SNC, it is notable that the majority of facilities comply with the requirements of their SPDES permit. The SNC rate presented here provides a summary of facilities which met the SNC criteria at least once during the entire year. At each quarterly meeting, EPA typically presents DEC with a list of approximately 25 facilities meeting the SNC criteria. The facilities on

[6] http://www.epa-echo.gov/echo/
[7] http://www.epa.gov/oecaerth/civil/cwa/cwaenfplan.html

this list will change from quarter to quarter as some return to compliance while other facilities are newly placed on the list.

A facility can have a violation or meet the SNC criteria for a variety of reasons. These reasons may include operational issues, temporary process upsets caused by illegal dumping into the sewer system, or factors that remain unknown until thoroughly investigated. However, with properly trained personnel and good operational and maintenance programs, minor violations are usually corrected before they become SNC.

While the rate of SNC in New York is comparable to the national figure, New York is unique in the number of facilities it permits through the SPDES program and the age of these, primarily municipal wastewater treatment facilities. Having long been a leader in providing water quality protection through the collection and treatment of wastewater, many of these systems in New York are reaching the end of their effective lives. Presently, these collection and treatment facilities serve over 15 million New York residents.

Once a collection and treatment system reaches the end of its useful life, unexpected or even catastrophic failure may occur, potentially impacting public health and the environment. Recent efforts at the federal and state level have sought to identify these impacts and obtain the necessary public investment to ensure continuing the effective treatment and disposal of wastewater.

In 2008 DEC released the Wastewater Infrastructure Needs of New York State[8] report which details the history and outlook for municipal wastewater collection and treatment in the state. This report details that the projected 20-year needs of New York's municipal wastewater treatment facilities are in excess of $36 billion.

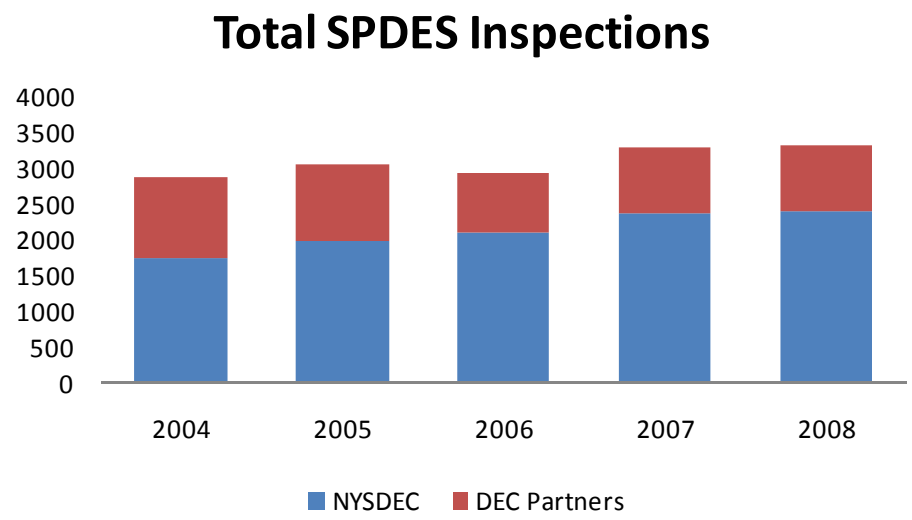
Inspections

Inspections are an essential component in DEC's approach to facility compliance. These visits allow for on-site review of self-monitoring data and relevant laboratory data, observation of the treatment process and discharge characteristics, and assessment of health and safety issues.

During 2008, DEC staff conducted over 2,400 inspections at facilities throughout New York. Inspections can be brief to observe only critical elements of the operation, more comprehensive and involving sampling of water discharged for comparison to DMR data, or they can occur in tandem with other regulatory organizations such as EPA. The DOW annual work plan commits staff to focus on facilities having a greater potential for impact to the receiving water. Figure 6 depicts SPDES inspection activity over the past five years by DEC and partner organizations, including EPA and county health departments.

[8] http://www.dec.ny.gov/docs/water_pdf/infrastructurerpt.pdf

Figure 7



Citizen Complaints

Inquiries and complaints by citizens and observations of possible violations assist DEC's SPDES program compliance and enforcement efforts. DEC investigates these complaints to determine any impact upon the environment or public health. When violations are found, staff seeks corrective action to minimize impacts and, if necessary, pursue enforcement through DEC's legal office.

Certification and Training

Competent and credentialed operators serve as frontline defenders of public health in their own communities. Since 1937 New York State requires certification of municipal wastewater treatment plant operators. Part 650[9] of Title 6 of New York Codes, Rules and Regulations details the requirements of the wastewater operator certification program. Prior to receiving this certificate an individual must complete DEC-approved training, possess hands-on operational experience at a treatment facility, and pass a certification exam. Additionally, every five years an operator must re-certify by completing a specific amount of DEC-approved training. Over 3100 individuals currently possess DEC-issued certificates.

Every five years DEC conducts a training needs survey using input from DEC staff and wastewater treatment facility personnel from across the state. The response to this survey determines training that DEC and partnering organizations will deliver in the ensuing five-year period. In addition to providing training which meets DEC's recertification requirements these

[9] http://www.dec.ny.gov/regs/4624.html

events allow for an operator to remain knowledgeable with changes in the management and operation of a treatment facility. Of significance is DOW's effort to provide training to municipal elected officials, including mayors, supervisors, and board members. This training recognizes the community-wide commitment necessary to effectively provide sewage collection and treatment to over 15 million state residents. Due to resource constraints, DEC is reducing the training it provides to treatment plant operators. DEC is collaborating with the New York Water Environment Association to provide additional training opportunities for treatment plant operators.

During 2008/09, a total of 27 seminars and workshops were delivered by DEC across the state focusing on various topics, including:

- operations and maintenance
- process control
- nutrient removal
- sample collection and laboratory analysis
- wet weather operational strategies
- energy consumption efficiency
- troubleshooting and problem solving

Several of these events specifically targeted elected local officials, covering strategies to efficiently finance and operate their communities' wastewater infrastructure while maintaining compliance with their SPDES permits. Overall, these outreach events were attended by approximately 1000 operational, administrative, and managerial local officials.

SPDES Enforcement

When violations of a SPDES permit are detected, staff respond by using the appropriate and available tools, including formal enforcement actions, to expedite a return to compliance. Generally staff will initiate an informal enforcement action, such as sending a warning letter, holding a compliance conference with the permittee, or issuing an NOV, to promote voluntary compliance with the regulations and permit requirements.

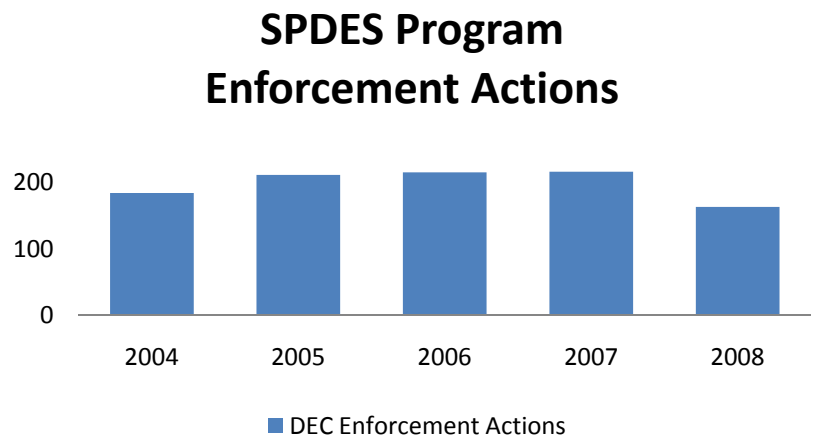
Formal enforcement becomes necessary when compliance is not achieved through informal enforcement or the discharge results in a negative impact to the environment or public health. Many formal enforcement tools are at DEC's disposal. The most commonly used are tickets issued by an ECO and the Order on Consent. An ECO-issued ticket for a discharge violation requires payment of a penalty by the respondent. An Order on Consent is a legally binding document issued by DEC and agreed to by the respondent (i.e. SPDES permittee).

An Order on Consent commonly includes some or all of the following:

- payable penalty
- suspended and/or stipulated penalties
- interim SPDES permit effluent limits
- compliance schedule for corrective action

When violations cannot be settled through an Order on Consent, DEC may initiate an Administrative Hearing Process. This may result in the issuance of a Commissioner's Order to compel compliance. Also, DEC staff can revoke permit coverage for the permittee based on current SNC status, past enforcement history, or the level of impact to the environment and public health caused by the violations. Refer to Figure 7 for a summary of SPDES enforcement actions over the past five years (consisting of ECO tickets and Orders on Consent).

Figure 8



How Enforcement Improves Water Quality

SPDES permits are issued with stringent discharge limits designed to protect public health and water quality. Periodically it is necessary to issue a SPDES permit with more stringent limits than were previously in place. When this happens DEC typically will also establish a schedule of compliance which allows the permitted facility to meet these new discharge limits by a future date and not immediately.

This schedule of compliance may include specific deadlines for the facility to design and install equipment or features necessary to comply with these new limits. In the event the facility fails to meet elements of the schedule of compliance, DEC may initiate an enforcement action through an Order on Consent. The Order on Consent may impose a financial penalty, extend the date of future compliance, or adjust the discharge limits that the facility must adhere to under the revised SPDES permit.

For example, Long Island Sound has widespread problems due to low levels of dissolved oxygen, especially at lower depths during warmer months. Extensive research through a cooperative effort by staff from the Connecticut Department of Environmental Protection (CTDEP), DEC, and the EPA indicate that low levels of dissolved oxygen are largely attributable to the excessive discharge of nitrogen into the Sound.

In 2000, both CTDEP and DEC issued Total Maximum Daily Loads (TMDLs) requiring a 58.5% reduction in point source discharges of nitrogen over a 15-year period starting on August 1, 1999

and ending August 1, 2014. DEC subsequently issued SPDES permit modifications to 23 municipal wastewater treatment plants that discharge into the Sound.

While most permitted facilities were able to meet these new discharge limits, several were not. As a result DEC and the state Attorney General's office initiated enforcement actions against those non-complying facilities. This resulted in the issuance of either an administrative Order on Consent or a judicial Consent Decree to develop revised enforceable schedules and allow the completion of the upgrades.

When complete, compliance with this combination of permits, orders and judgments will result in 21 advanced wastewater treatment plant upgrades at an estimated cost of approximately $2 billion. It is estimated that these upgrades will remove 17079 tons per year of nitrogen from the Long Island Sound ecosystem, enhance dissolved oxygen levels, and lessen the negative impact upon aquatic life.

Enforcement Highlights

Below are examples of recent enforcement actions undertaken by DEC.

SPDES Category: Municipal Wastewater Treatment Facility (POTW)

NYCDEP – Newtown Creek WWTP

Final clarifier at Newtown Creek WWTP

On August 3, 2009 a Consent Judgment between DEC and New York City Department of Environmental Protection (DEP) was entered in state court to audit compliance at all 14 of the city's wastewater treatment plants (WWTPs) and to ensure timely completion of specific upgrades at the city's Newtown Creek WWTP. The upgrades to the Newtown Creek WWTP, the largest wastewater treatment plant in the state, will continue under a strict set of construction completion milestones. This action by DEC was taken to address project delays beyond the compliance dates required under the original state court judgment. Regarding the August 2009 action, the city must:

- Hire an independent auditor to conduct a comprehensive environmental regulatory audit to ensure compliance with environmental laws at its 14 wastewater treatment plants and four combined sewer overflow (CSO) retention facilities, and to identify and correct any violations discovered during this audit. This is the first time such a protocol has been established between the city and the state for these wastewater treatment facilities.
- Comply with a schedule to complete the construction upgrade promptly. To ensure this compliance, the city has put into escrow proceeds from a $27.4 million judgment against the city for violations at the Newtown Creek WWTP. The penalty will be returned if the city meets certain construction milestones for the plant upgrade.
- Submit various construction management standard operating procedures, guidelines, and policies to the state for review and comment under the Capital Program Management Improvement Program (CPMIP). The city could face an additional $16 million in penalties as outlined in the judgment if these submittals are not made in accordance with the compliance schedule.
- Provide $10 million in local environmental benefit projects to be administered by New York State Energy Research and Development Authority, New York City Parks Foundation and the Hudson River Foundation. This is the largest Environmental Benefit Project (EBP) in the state's history.

SPDES Category: Municipal Wastewater Collection System

NYCDEP –Combined Sewer Overflow Abatement

In April 2008 New York City agreed to pay a $1 million penalty and fund $4 million worth of EBPs to settle violations for missing construction milestone dates required by a 2005 Order on Consent between the city and the state to abate CSOs.

Under the 2008 settlement, the city agreed to a new timeline for completing certain construction projects that are already underway.

CSO on the Hutchinson River

This settlement will significantly improve the quality of New York City's waters and marine environment. Additionally, the EBPs contained in the settlement pave the way for the city to make progress in reducing the impacts of stormwater runoff on local water resources. By

utilizing ‘green’ infrastructure techniques the city will reduce CSO events and enhance the quality of life for many of its citizens.

SPDES Category: CAFO Facility

Questionable manure management practices and a failure to implement a Comprehensive Nutrient Management Plan (CNMP) led DEC to take enforcement action against Boxler Dairy Farm, a large Concentrated Animal Feeding Operation in Wyoming County. Investigations and sampling by DEC, state and local departments of health, and the state Department of Agriculture and Markets revealed questionable manure spreading activities at a satellite manure land-spreading site in Genesee County. The site is in the vicinity of several homes served by private water supply wells. Additionally, site investigators discovered a direct discharge of process wastewater to a Class A tributary of Tonawanda Creek in the vicinity of the farmstead in Wyoming County.

Improper manure spreading leading to well contamination

Boxler Dairy Farm and DEC entered into an Order on Consent, requiring the farm to pay a penalty of $40,000, fully implement the site CNMP, correct deficiencies noted during agency inspections, and cease manure application on the fields where the water well problems occurred. Prior to entering into this agreement with DEC, Boxler Dairy Farm provided bottled water, and then water treatment systems, to address the immediate needs of several residents who had contaminated water wells.

Follow-up inspections revealed that Boxler Dairy Farm was in compliance with the Order on Consent, had eliminated the cited deficiencies, and had fully implemented their CNMP. The residents with contaminated water wells are now served by a public water supply.

SPDES Category: Industrial Facility

Mirant, Inc. agreed to a $300,000 settlement to resolve alleged air and water violations at its Bowline and Lovett properties located in Rockland County. The settlement calls for the company to pay a $50,000 penalty and fund a $250,000 EBP to promote research on fish and aquatic life in the Hudson River. In addition, it requires Mirant Bowline to make immediate repairs, hire an outside consultant to audit the plant, and make any changes recommended by the consultant.

Mirant Bowline viewed from above

This settlement addresses various monitoring equipment failures occurring between June 1999 and November 2007 that negatively impacted receiving water quality.

SPDES Category: Private Wastewater Treatment Facility

Carteret Group, Inc. (Rushmore Wastewater Treatment Plant / Brigadoon Estates)

On September 14, 2009, DEC issued a Summary Abatement Order mandating that the owners of the Rushmore Wastewater Treatment Plant (Orange County) immediately comply with the state Environmental Conservation Law. This action was in response to a history of SPDES permit violations and discharge of insufficiently treated sewage into the Woodbury Creek watershed.

Discharge from Rushmore/Brigadoon Estates WWTP

The Summary Abatement Order demands immediate corrective actions, including replacement and repair of failed treatment system components and greatly improves system oversight.

Planned Program Improvements

Information Management System Assessment

The current data management infrastructure used by DEC staff hinders the SPDES program in many ways, requiring duplication of data entry and making common access to data cumbersome. In 2009, DEC conducted an assessment of the existing data management systems and business processes used to support the SPDES program. The objective of the assessment was to develop a plan for future information management investments that will streamline the SPDES data management process, meet the future business needs of the program, and complement the ongoing use of EPA's national system.

During this assessment DEC first developed a comprehensive outline of the SPDES program business workflow and the limitations in the existing information management system. Given consideration next were alternative actions that could be undertaken to streamline the data management process and effectively respond to future business needs. Finally, DEC defined a vision for future information management and developed a specific implementation plan consisting of a series of phased actions designed to achieve that vision. This plan focuses on an integrated program repository, centralized data capture, automated data collection and support tools, public access to information, and electronic document management. Currently DEC is seeking funding to begin the modernization of these information management systems.

Revisions to Compliance and Enforcement Guidance

In 2010, DEC issued the *Division of Water Technical and Operational Guidance Series* (TOGS) *(1.4.2):* *Compliance and Enforcement of SPDES Permits*[10]. This guidance provides for consistent statewide understanding and implementation of the SPDES compliance and enforcement program in order to protect public health and the environment.

Additionally, this document provides DEC staff with the enforcement options and guidance to implement the compliance component of the SPDES programs across New York. Significantly, this guidance addresses the needs of the newer General SPDES Permit programs, such as stormwater and CAFO that have been added since the previous version of this TOGS was released in 1988.

[10] *http://www.dec.ny.gov/chemical/62557.html*

Appendix A - Definition of Terms

CAFO Permit – This SPDES permit covers all applicable CAFOs statewide with generic requirements for wastewater discharges, including surface water and groundwater. Site-specific requirements for each CAFO are detailed in a CNMP which is required to be developed and implemented for all covered CAFOs and becomes an enforceable condition of the permit.

Comprehensive Nutrient Management Plan (CNMP) – This is a conservation plan, unique to animal feeding operations, designed to evaluate all aspects of farm production and offer conservation practices that help achieve production and natural resource conservation goals. The New York State Soil and Water Conservation Committee, with guidance from other partner agencies, established a comprehensive certification process to ensure that certified planners from both the public and private sectors are available and qualified to meet the high standards for CNMP development and implementation.

DMR – The self-monitoring report that permitted facilities submit to DEC, typically on a monthly basis, detailing facility effluent data.

Drainage Basin – The land area from which all precipitation runs off into streams, rivers, lakes, and reservoirs. The term "watershed" is often used in the same context.

ECO – Environmental Conservation Officer

Municipal Discharge Permit – This class of permit applies to publicly owned wastewater treatment plants. Generally, those with a design flow of 1.0 million gallons per day or greater are further classified as major class facilities. Those facilities with a design flow that is less than 1 million gallons per day are classified as being minor class facilities.

Industrial Discharge Permit – This class of permit applies to those facilities that conduct industrial activities and are not municipal or PCI class facilities. Industrial facilities with discharges that are relatively large in volume and/or have “toxicity potential,” as defined by EPA, are defined as major industrial facilities. The remaining industrial facilities with SPDES permits are defined as either minor class facilities or non- significant class facilities.

Municipal Separate Storm Sewer System (MS4) Permit – This class of permit authorizes operators of a small MS4 in New York State to discharge water within the conditions and requirements set forth in the general permit.

Multi-Sector General Permit (MSGP) - This class of permit provides SPDES permit coverage to facilities with stormwater discharges to waters of the state from a point source that conducts industrial activities within 40 CFR Part 122.26(b)(14)(I) through (ix) and (xi), as well as other miscellaneous industrial activities designated by DEC on a case-by-case basis.

Order on Consent – This is a legally binding agreement, typically between DEC and a SPDES permit owner, which addresses specific violations. Such an order may include provisions for a

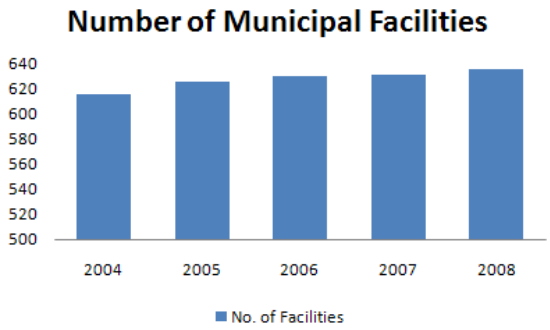
monetary penalty (collectible and/or suspended) and may incorporate a schedule of additional items that the permittee must comply with or risk additional legal action.

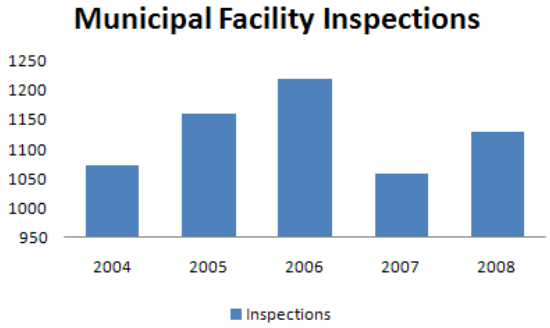
Private, Commercial, or Institutional (PCI) Permit – This class of SPDES permit regulates the discharge of wastewater from a facility which meets the criteria of a PCI facility.

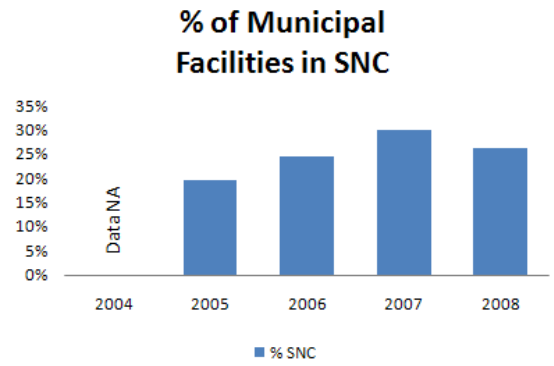
Stormwater Construction (SWC) Permit - This SPDES permit covers all applicable stormwater discharges relating to eligible construction activities.

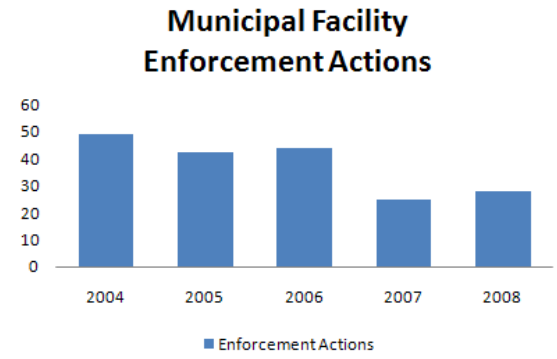
Appendix B – Municipal SPDES Facility Oversight Activity Summary

Statewide compliance, inspection and enforcement data applicable to this class of facility.



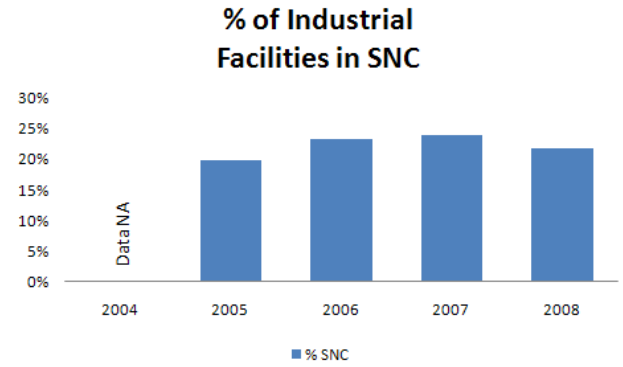






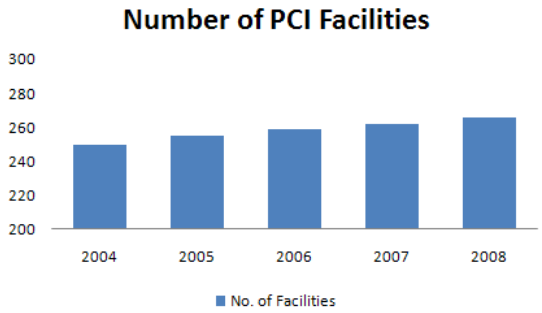
Appendix B – Industrial SPDES Facility Oversight Activity Summary

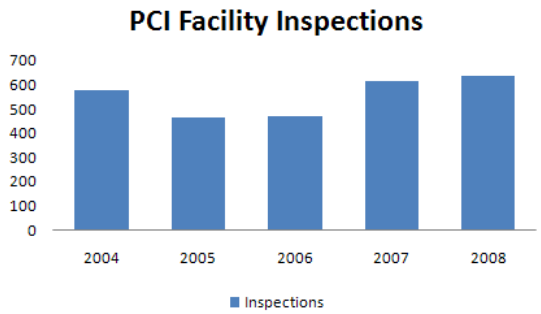
Statewide compliance, inspection and enforcement data applicable to this class of facility.

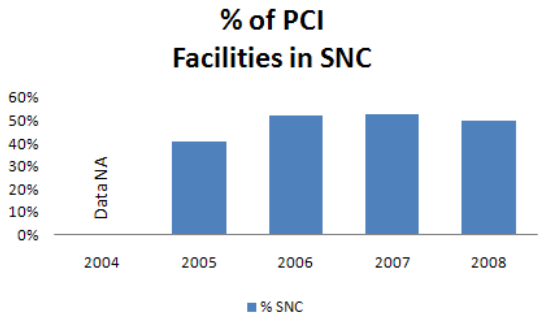


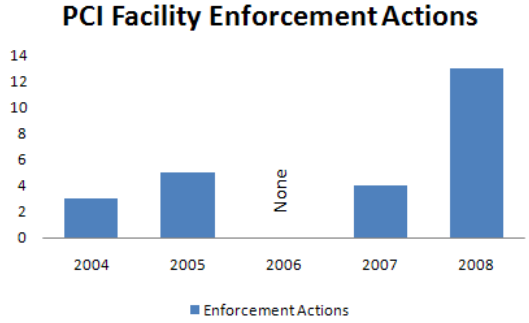
Appendix B – Significant Private/Commercial/Institutional (PCI) SPDES Facility Oversight Activity Summary

Statewide compliance, inspection and enforcement data applicable to this class of facility.



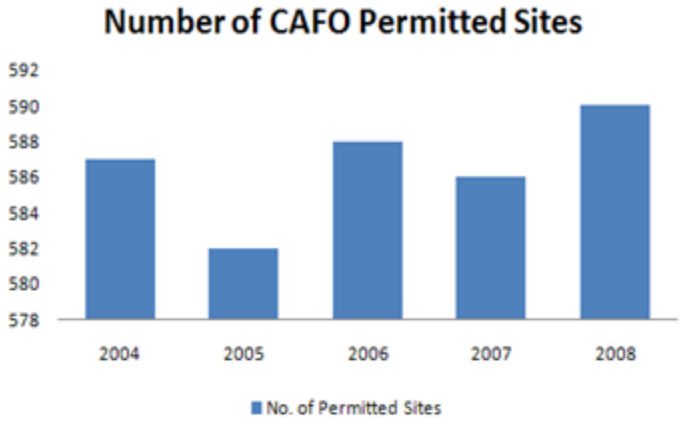


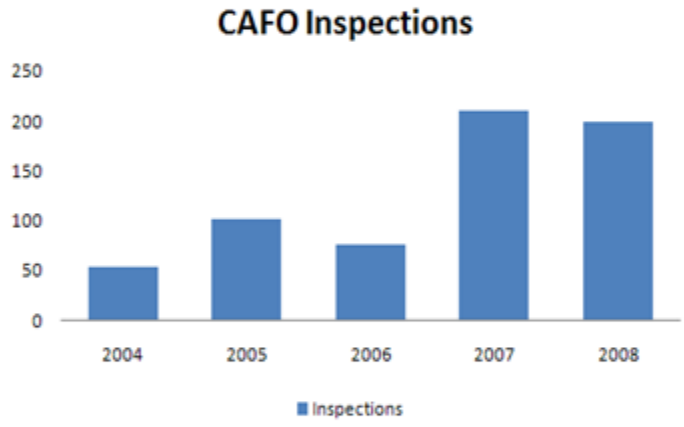


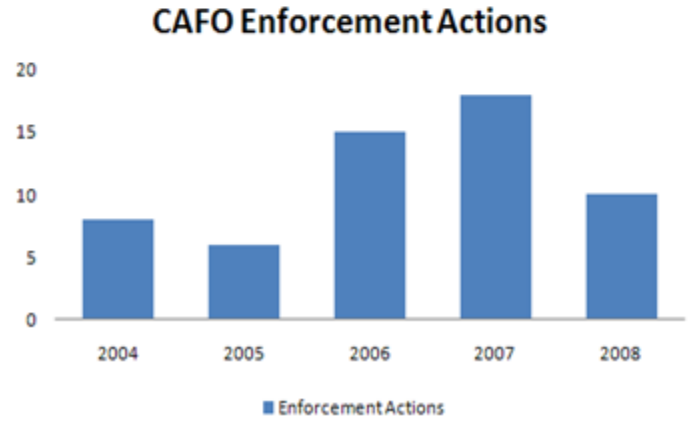


Appendix B – Concentrated Animal Feeding Operation (CAFO) Oversight Activity Summary

Statewide inspection and enforcement data applicable to this class of facility.







Appendix B – Multi-Sector General Permit (MSGP) Oversight Activity Summary

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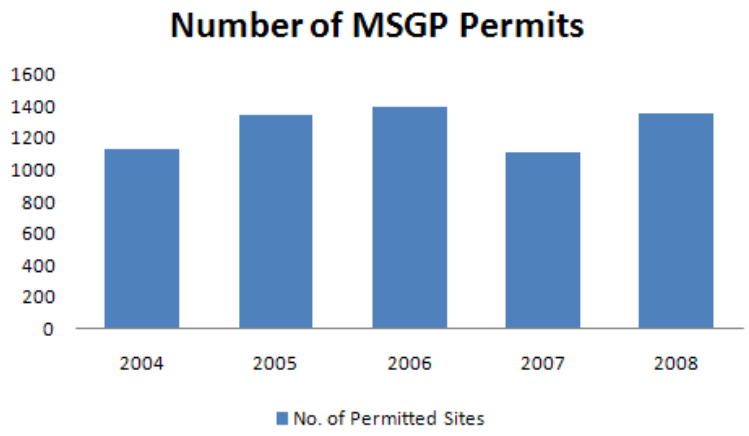
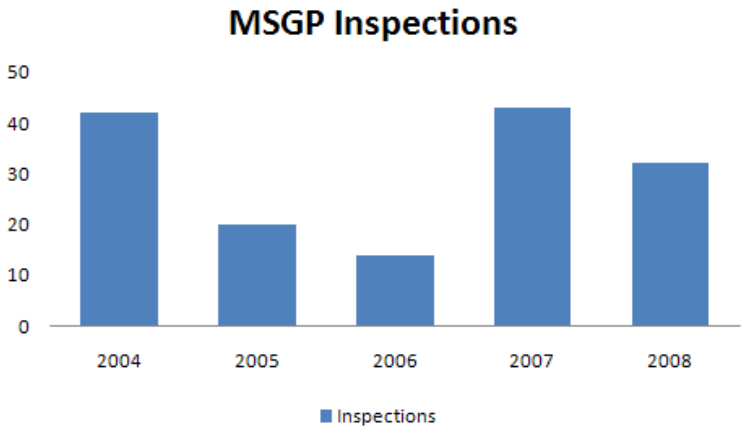
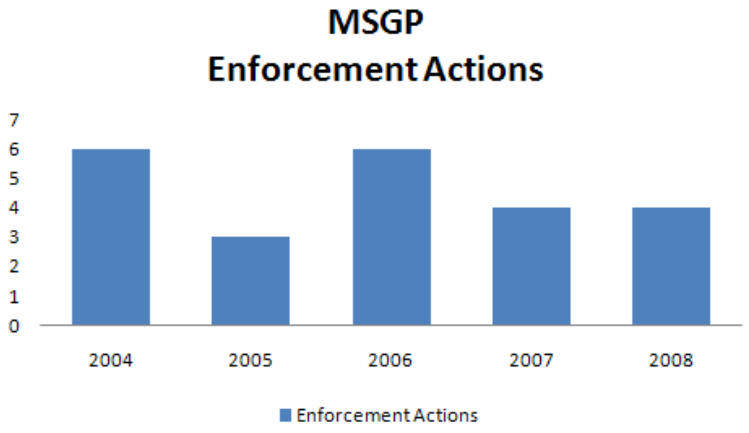
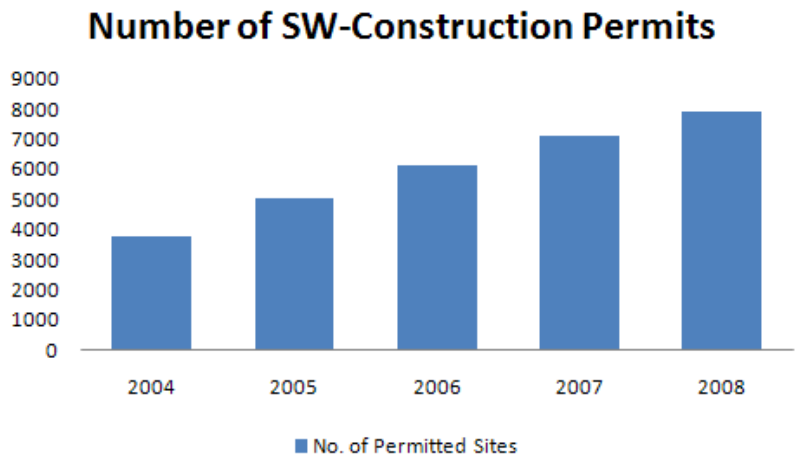


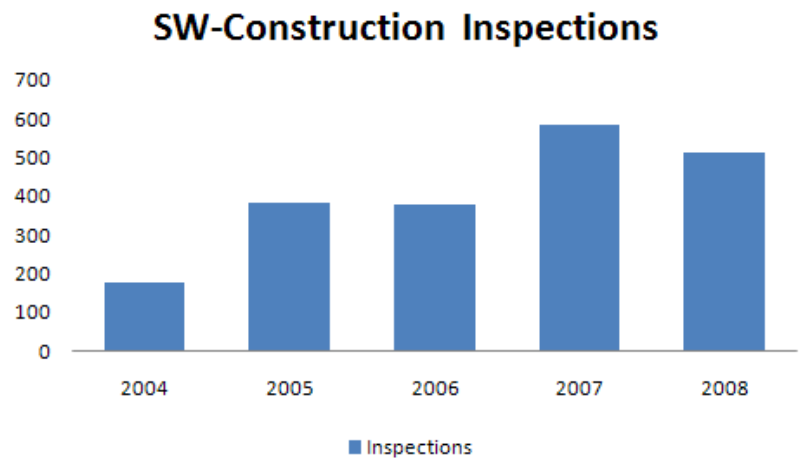


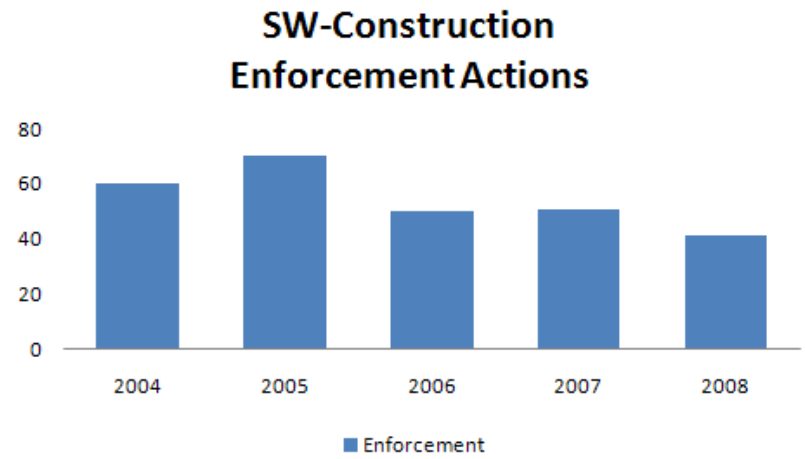


Appendix B – Stormwater – Construction Oversight Activity Summary

Statewide inspection and enforcement data applicable to this class of facility.







Appendix B – Municipal Separate Stormwater Sewer System (MS4) Oversight Activity Summary

Statewide inspection and enforcement data applicable to this class of facility