

Environmental Health Assessment and Improvement Plan - 2009

Hudson County, New Jersey



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Hudson Regional Health Commission
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Overview of the Agency

The Hudson Regional Health Commission (“the Commission”) has its roots as the Hudson Municipal Air Pollution Control Commission was formed in 1971 in accordance with the Clean Air Act of 1970 (CAA) which authorized the formation of local air pollution control programs in areas of need to supplement the air pollution control efforts of federal and state governments.

The Air Pollution Control Commission was restructured as a regional health commission pursuant to NJSA 26:3 – 85 et seq. to accommodate the additional responsibilities imposed by the County Environmental Health Act (NJSA 26:3A2-21 et seq.), commonly known as CEHA, . The New Jersey Department of Environmental Protection (NJDEP) designated the Commission as the “certified local health agency” to implement and conduct delegated programs and activities. These currently include regulatory and/or response activities in the areas of: Air Pollution Control, Hazardous Materials, Noise, Solid Waste, Underground Storage Tanks, Pesticides and Water Pollution Control.

The Commission is governed by a Board of Commissioners representing each of the twelve municipalities comprising Hudson County.¹ The Commission is somewhat unique among local health agencies as it was formed by joint resolution of the municipalities of the county specifically for the purpose of implementing environmental control programs while municipal health departments continue to provide public health services.

CEHA program activities are conducted and coordinated by a professional staff with the majority having greater than 10 years experience in the field. In addition to extensive formal training, personnel have strong academic background in the sciences including baccalaureate and/or masters degrees in areas such as biology, chemical engineering, environmental engineering, environmental management, geology and mechanical engineering.

In addition to the Commission’s staff which is limited in size, other local agencies conduct specified activities pursuant to interlocal service agreements as authorized by CEHA and approved by the NJDEP. These agencies include the Hudson County Improvement Authority who conducts a comprehensive regulatory program focused on solid waste transportation and disposal and the hazardous materials teams of three fire departments (Bayonne, Hoboken, and Jersey City) who coordinate with the Commission when their activities relate to CEHA.

In addition to environmental control programs, the Commission is more recently responsible for conducting the county-wide Mosquito Control Program and coordinating Public Health Emergency Preparedness activities. Additional information regarding all activities may be found on the Commission’s website, www.hudsonregionalhealth.org.

¹ Bayonne , East Newark, Guttenberg, Harrison, Hoboken, Jersey City, Kearny, North Bergen, Secaucus, Union City, Weehawken, and west New York

The Community

Hudson County is a peninsula bounded by Newark Bay and the Passaic and Hackensack Rivers on the west, by the Hudson River and New York City on the east, by the Kill Van Kull on the south (separating the City of Bayonne and Staten Island, New York) and by Bergen County on the north. The Hackensack River bisects the County and is surrounded by a 19,000 acre tidal wetlands marsh known as the Hackensack Meadowlands. Hudson County has 46.6 square miles of land area and is the smallest of the State’s 21 counties. The County contains 7.2% of the state’s population but only 0.6% of its land mass. With a resident population of 608,975 and an average density of 13,068 persons per square mile in 2000, Hudson is the most densely populated County in New Jersey and the sixth most densely populated County in the nation.

Originally settled by the Lenape, Hudson County has been the destination of immigrants since it was first visited by the Dutch in 1609. Hudson County was the “Gateway to America” for those entering the country through Ellis Island as the island is predominantly in the county, and most arrived on the mainland in Jersey City. The percentage of foreign-born persons in Hudson County (40%) significantly exceeds that statewide (20%) and nationally (12%) and reflects the continued influx of immigrants. The composition of the community has changed over time but remains ethnically and racially diverse population (Hispanic/Latino 41%, Asian 11.3%, Black 14%). 12.8% of families have income below the poverty threshold which exceeds statewide (6.4%) and national averages (9.8%).

The housing stock of the County is primarily older multifamily residential buildings. 84% of the County’s housing units are located in multifamily buildings with the majority of these in structures with three or greater units. Approximately ninety percent of all housing units were constructed prior to 1978 with 1941 being the median year of construction. The County is currently experiencing a boom in new residential and commercial construction, particularly along its easternmost border. Historically, Hudson County had been a center of manufacturing industries but as these have decreased, service-producing industries have increased substantially. The County remains a center of industrial, commercial, transportation and maritime activities.

Clean Air

Air pollution in Hudson County, is at times the County’s most salient and sometimes visible environmental issue. The National Ambient Air Quality Standards (NAAQS) set specific standards for six pollutants called criteria pollutants. These pollutants are measured continually by nationwide monitoring network. As shown in Figure 1, common terms ranging from “Good to “Very Unhealthy” are used to describe air quality.

Figure 1

Air Quality Index	Meaning
Good	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	Health alert: everyone may experience more serious health effects.

Air quality is considered “Good” when the measured level of each criteria pollutant is less than half of the applicable standard (NAAQS) and is considered “Unhealthy” for the general population when the level of a criteria pollutant is 150% the standard. The standards are intended to protect sensitive groups of persons such as those with asthma or heart disease. Thus, when pollutant levels exceed the standard by less than 50% air quality is considered “Unhealthy for Sensitive Groups”.

Air quality was typically “unhealthy” for fifty or more days each year in the 1970’s and 80’s but has improved significantly. In Hudson County, there have been only ten days in which air quality was considered “unhealthy in the past 8 years as shown in Table 1. Despite these improvements, ground-level ozone and fine particulate matter have been more difficult to control and pollutant levels that might affect sensitive individuals are more common. Since 2000, levels of these pollutants in Hudson County have resulted in air quality that is unhealthy for sensitive groups for 12 days per year on average. Since the formation of ground-level ozone requires warm temperature and sunlight most of these occurrences are in the summer.

Table 1. Hudson County Days with Unhealthy Air Quality

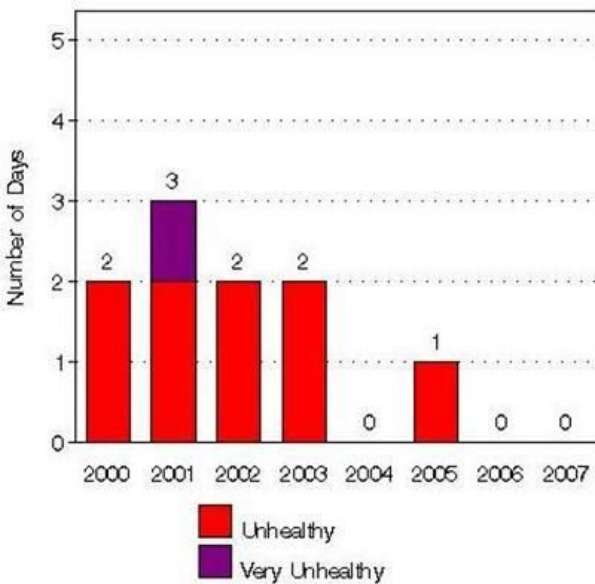
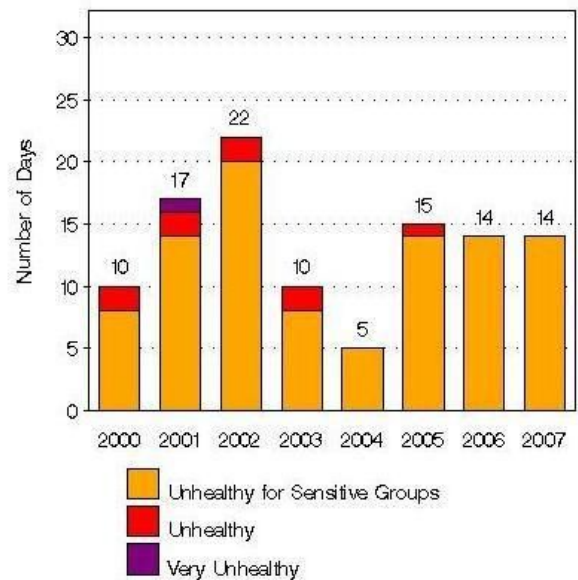


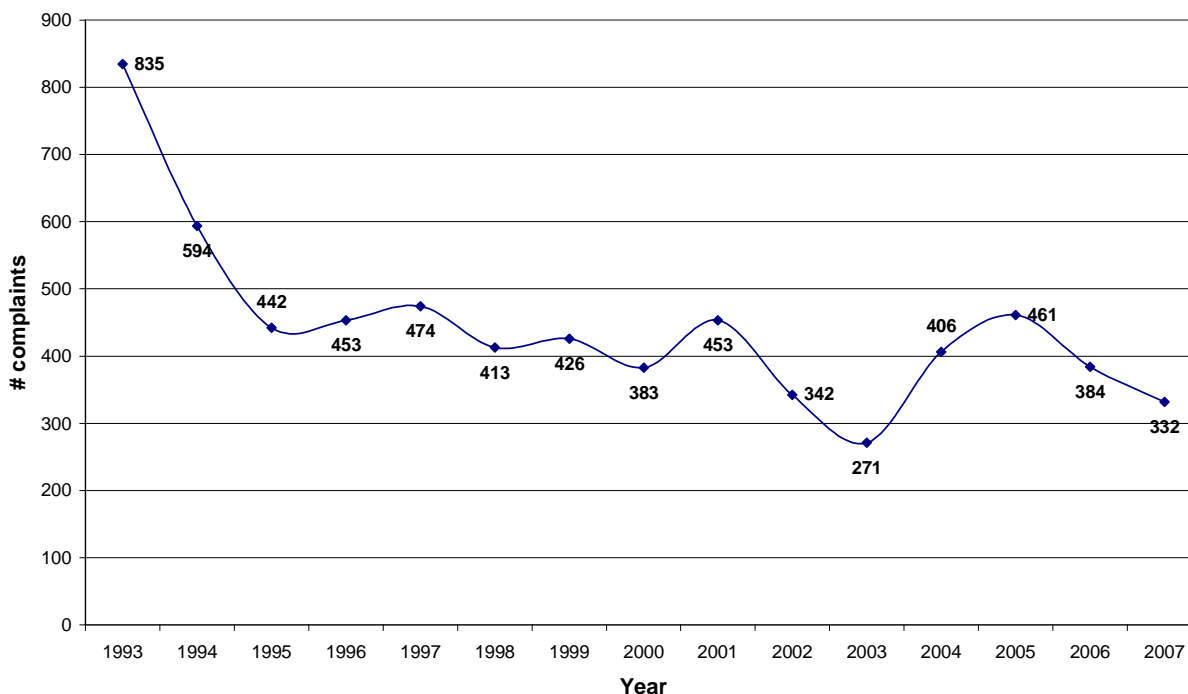
Table 2. Hudson County Days with Air Quality Unhealthy for Sensitive Groups



Ambient air quality is impacted by the combined emissions of motor vehicles, residential and commercial buildings as well as larger industrial facilities. However, Hudson County has a high population density and small geographic footprint which places commercial and industrial operations may be in proximity to residential areas leading to citizen complaints of air pollution due to odorous or other emissions. The Commission places response to and resolution of citizen complaints as a high priority. and has responded to 246 in 2008 to date. The numbers of complaints received by the Commission have decreased significantly since the late 1990’s as shown in Table 3. This is due both diligent enforcement activities and changes in the nature of industry within the County.

Table 3

**Hudson Regional Health Commission
Air Pollution Complaints by Year**



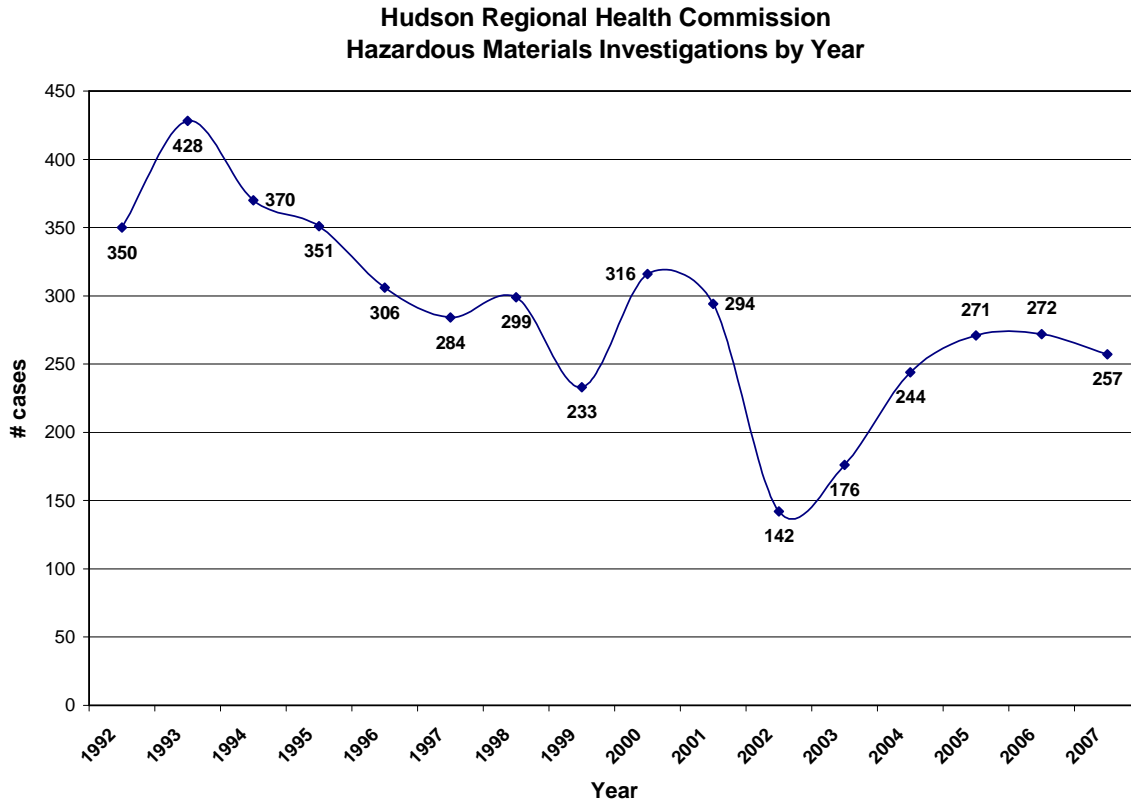
In 2009, the Commission will continue to conduct compliance inspections mandated by NJDEP including those that address air pollution sources that contribute to ambient ozone and particulate matter concentrations. Additionally, both the USEPA and NJDEP have recognized that tetrachloroethylene emitted by dry cleaners is a concern in the outdoor air and more significantly in the indoor air of buildings in which they are housed. A new regulatory strategy has been established to address this concern and the Commission will continue to place activities to enhance compliance with these regulations as a priority.

Hazardous Materials / Emergency Response

Hudson County, with its century old industrial base, has been the site of significant industrial contamination prior to the advent of modern pollution control practices and regulation. Fortunately, in recent decades, the most egregious examples of this contamination have been addressed. Likewise many of the sites of less severe chemical contamination have also been addressed. However, this industrial legacy of chemical contamination remains present at many sites and must be addressed. Despite current pollution control practices and regulation, discharges of hazardous substances due to accidents or mechanical failures still occur, and yet still, there are individuals who choose to ignore or remain ignorant of accepted hazardous substance handling and disposal practices. Thus, the control and prevention of current discharges and the remediation of historic discharges of hazardous substances remain a

prominent environmental issue within the County. As shown in Table 4, despite the decreasing trend in the number of incidents since the early 1990's the Commission still investigates greater than 200 hazardous materials incidents per year.

Table 4



Prior to the formation of “HazMat Teams” in 1986, the Commission served as the primary hazardous materials response entity within the County due its technical expertise. With the evolution of three fire department based HazMat teams, the Commission continues to serve as a key technical support liaison for incidents in which those entities are involved and provides key support for various monitoring and risk assessment functions. Since 2003, the fire department based Hazmat teams; Bayonne, Hoboken, and Jersey City have maintained interlocal agreements with the Commission and conduct their operations under the auspices of the County Environmental Health Act. Through cooperative projects with the Hudson County Office of Emergency Management and NJ Office of Homeland Security and Protection the Commission and fire department HazMat Teams have obtained substantial equipment suitable for the identification and characterization of biological, chemical and radiological materials that might be discharged accidentally from industrial mishaps or intentionally in a domestic terrorist attack.

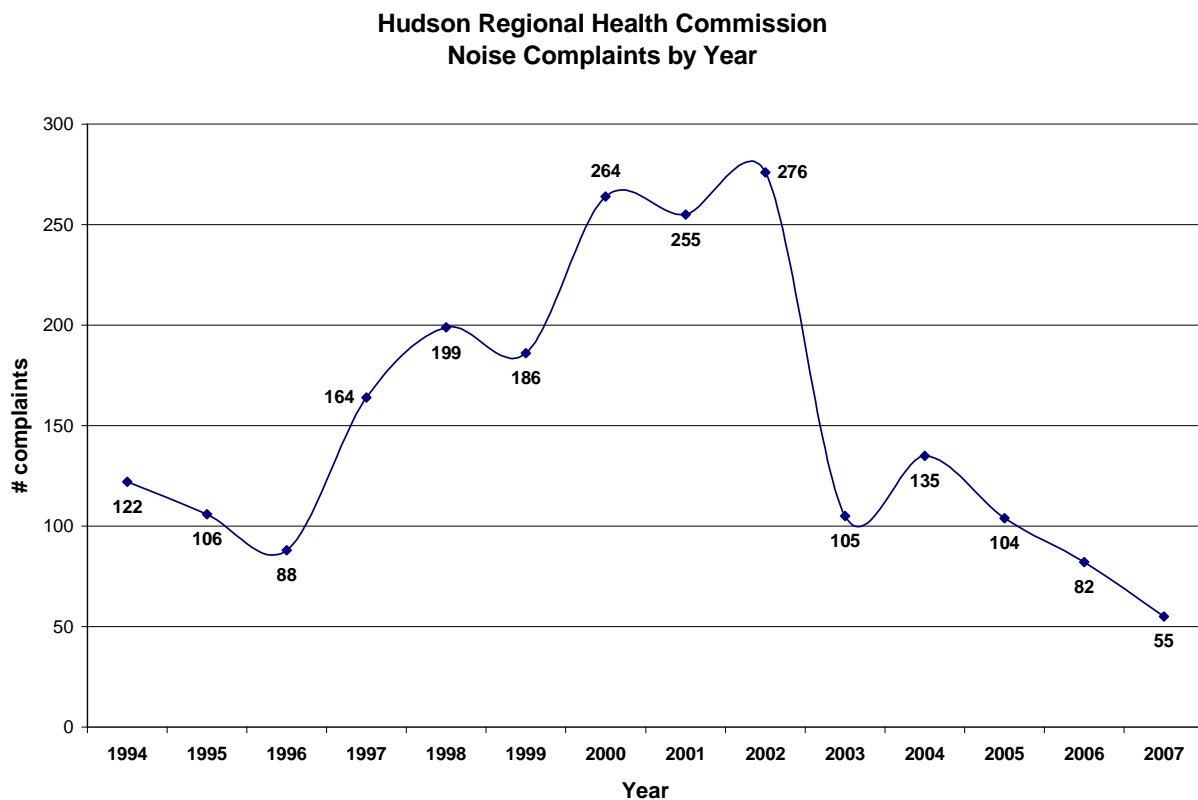
In 2009, the Commission will continue to maintain a well trained hazardous materials response staff. This staff will continue to work cooperatively with emergency management and fire department personnel as well Hazardous Materials Units from both the NJ Department of

Environmental Protection and State Police. Additionally, the Commission coordinated a number of interagency exercises and drills in 2008 and will continue to do so in 2009.

Excessive Noise

Excessive noise is, perhaps, one of the most vexing environmental stressors an individual may experience. As is the case with air pollution, the close interface of residential, commercial, and industrial operations may lead to an increase in citizen complaints related to excessive noise. In Table 5, the surge in complaints corresponds with a period of substantial residential development along the waterfront, some of which was adjacent to major industrial facilities. As these matters were resolved, the number of complaints per year has steadily decreased over the past several years.

Table 5



The prevention of excessive noise and its resolution of issues where they exist will remain an ongoing environmental issue in the urban environment that needs to be addressed with vigilance. The Commission will continue to work closely with local government officials and building owners to address noise issues both proactively and in response to citizen complaints.

Clean Water

The Commission will continue to conduct those delegated regulatory compliance activities that are intended to limit the discharge of pollutants to area water bodies. Additionally, in recent years there has been resurgence in the recreational uses of the rivers and harbors within the County. Much of the recreation is non-contact such as the use of larger power and sailboats.

However, one can now find kayak and canoe rental facilities along the area waterways, and jet skiers “buzzing” the Statue of Liberty are not rare.

A water-quality monitoring program, to gather baseline data in these areas was conducted in 2001 and 2002 through supplementary funds provided by NJDEP. The project provided useful information regarding water quality in the area and determined that the bacteriological quality of the area waterways is generally good with the exception of periods for 1 to 2 days after rainstorms. The Commission anticipated reinstating this program in 2008 but doing so was deferred due to a lack of support. The waterways of the county are tidally influenced and do not meet the criteria for inclusion in Coastal Monitoring or Stream Monitoring programs that are funded through CEHA.

The Commission will continue its regulatory compliance activities intended to prevent, detect and eliminate unpermitted discharges to waterways. Additionally, spills of hazardous materials that might impact a waterway are promptly addressed in the Hazardous Substance Control program.

Solid Waste Management

The Commission conducts a solid waste management program to ensure solid wastes are disposed in an environmentally sound manner. The Hudson County Improvement Authority acts as an authorized CEHA agent of the Commission for this program and conducts extensive field activities in addition to those conducted by the Commission. The HCIA closely monitors the collection and disposal of solid waste within the County.

Compliance inspections are conducted of facilities that process and dispose of solid waste, waste transporters and recycling facilities. The Commission primarily addresses solid waste facilities, while the HCIA addresses collection and transportation and disposal activities. HCIA’s activities are extensive and up to 1,000 violations per year have been cited. In late 2008, HRHC and HCIA received permission from DEP to institute a program intended to foster regulatory compliance rather than one that relied only on punitive measures. Both HRHC and HCIA will continue emphasize proper management of solid waste as the primary program objective for 2009.

Underground Storage Tanks

The Commission has elected to conduct compliance inspections at facilities such as gasoline service stations which have regulated underground storage tanks. In 2005, Hudson was one of 6 counties initially chosen by NJDEP to conduct this program. When the program started, significant regulatory violations were common and penalties were significant often exceeding \$10,000 per facility. Currently, possibly due to the enforcement program, violations are less common and less serious when they occur. However, where necessary, enforcement actions are coordinated with NJDEP and result in significant penalty assessments in cases with significant non-compliance. The Commission will complete at least 95 inspections in 2008 and anticipates a similar level of activity in 2009.

Pesticides

The improper use of pesticides particularly in densely populated areas has the potential for adverse impacts upon those exposed. With this in mind, the Commission intends to continue participation in the optional pesticide control project. The program is focuses on ensuring that

pesticides are applied by licensed applicators in accordance with regulations and safety procedures. Compliance inspections typically are focused on schools, restaurants, and multi-family buildings to ensure that persons who use or reside in those facilities are not exposed to pesticides due to improper application.

The Commission also inspects retail establishments to determine whether unregistered pesticides are being sold. The registration process for pesticides assures that the products are appropriate for their designated use and also provide clear instructions for safe use of the product. Unregistered products may contain pesticides that are banned or inappropriate for consumer use and most have little or no labeling regarding their ingredients, safety or instructions for use. The packaging of pesticides is also regulated and some unregistered products may be easily confused with other household items as illustrated below.

**Floor disinfectant
that looks like
mouthwash**



**Moth balls
that look like
candy**



The Commission has identified several dozen instances in which discount stores were selling unregistered pesticide products that were typically imported from Asia and South America. In these cases, the Commission works with NJDEP to attempt to identify the wholesale suppliers of these materials. The NJDEP and U.S. EPA have prosecuted chain retailers, wholesalers, and importers supplying unregistered pesticides.

Open and Effective Government

Intergovernmental collaboration and coordination of activities is a routine matter for the Commission. The Board of Commissioners, representing each municipality, provides direct input to and authorization of the Commission's activities as its governing body. The County of Hudson provides input regarding programs and provides direct support for the Commission's activities including its offices. All environmental programs conducted under the authority of CEHA are conducted with authority delegated by the NJDEP who also provides program oversight. The commission periodically coordinates with the USEPA on specific programmatic matters. The USEPA also maintains oversight of air pollution control activities funded pursuant to the Clean Air Act. Management and field personnel interact with municipal, county and state agencies and personnel on a daily basis. This collaboration and coordination forms the foundation enables the Commission to conduct its programs for the benefit of the public.

The Commission routinely addresses inquiries from individuals, citizen groups, and the regulated community regarding its programs or related subject matter. The Commission provides compliance assistance to the regulated community during inspections, when requested, and through periodic targeted initiatives.

Commission records are available to those that wish to view them and its Commission meetings are open to those that wish attend in accordance with applicable laws.

Resources and Partnerships

As discussed above, the Commission has many intergovernmental partnerships. Specific partnership agreements, in the form of interlocal services agreements, allow expanded programs and further assure coordinated efforts. These agreements are in place with the Hudson County Improvement Authority for solid waste enforcement activities and with three municipal HazMat teams. The Commission anticipates that the scope of operations in 2009 it will be consistent with that in 2007 and 2008.

Selected References

Demographic Information for Hudson County

The Hudson County Master Plan - www.hudsoncountynj.org/planning/masterplan.asp

U.S. Census Bureau, 2006 American Community Survey - <http://factfinder.census.gov>

Air Quality Information

AIRNOW - <http://airnow.gov/>

AIRDATA - www.epa.gov/air/data/

NJDEP Air Quality Monitoring – www.nj.gov/dep/airmon