

MERCER COUNTY



ENVIRONMENTAL HEALTH ASSESSMENT

AND IMPROVEMENT PLAN

2009

Brian M. Hughes, County Executive
Deena Holland, CEHA Program Coordinator
Sharon McNellis-Kissel, Health Officer, Division of Public Health
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Introduction

The Mercer County Environmental Health Assessment and Improvement Plan has been developed by the Mercer County Division of Public Health (MCDPH) to identify the most salient environmental issues within Mercer County and to propose a plan to address these issues for calendar year 2009. The MCDPH is a county environmental health program that derives authority pursuant to New Jersey Statutes Annotated NJSA 26:3A2-21 *et seq.* and is the certified county agency for the provision of environmental health services within Mercer County under the auspices of the County Environmental Health Act (CEHA).

Mercer County has a land area of 226 square miles and is located midway between New York City and Philadelphia. Mercer County encompasses the City of Trenton, Townships of East Windsor, Ewing, Hamilton, Hopewell, Lawrence, Princeton, Washington, and West Windsor and the Boroughs of Hightstown, Hopewell, Pennington, and Princeton.

According to the 2007 US Census Mercer County has a population of 365,449 residents. Between 2000 and 2007, the population grew by 14,688 persons, or 4.0%. One-tenth of the US population resides within a 75 miles radius of Trenton, the capital city of New Jersey. Census Data from the year 2000 indicates there are 1,552 residents per square mile, which is higher than the state average of 1,134 per square mile.

Hazardous air pollutants (HAPs) are chemicals, which can cause adverse effects to human health and the environment. Almost 200 of these chemicals have been identified, including chemicals that can cause cancer or birth defects. To help identify air quality problems, the U.S. Environmental Protection Agency estimated the concentration of HAPs in every locality in the U.S. (over 60,000 census tracts).

From 1988 to 2002, Mercer County ranked fifth in New Jersey among counties reporting the release of Toxics Release Inventory (TRI) chemicals into the environment with 6,000 tons. The three main TRI chemicals reported were hydrochloric acid, hydrofluoric acid, and sulfuric acid.

MCDPH works in cooperation with New Jersey Department of Environmental Protection (NJDEP), New Jersey Department of Health and Senior Services (NJDHSS), local health departments, three county HAZMAT Teams, and four county agencies (Planning, Office of Emergency Management (OEM), Mercer County Improvement Authority (MCIA) and the Department of Transportation and Infrastructure).

Strategic Environmental Goals

1. Goal: Clean Air

The air throughout Mercer County will be healthful to breathe, and air pollutants will not damage our forests, land and water bodies.

Milestones: In 2009, air throughout Mercer County, in accordance with the State, will meet national Clean Air standards for ozone and other pollutants.

Activities: MCDPH will continue to investigate all air pollution complaints received from citizens and NJDEP. These investigations will include, but are not limited to, open burning, odors, particulates, idling diesel vehicles, permits, and certificates.

MCDPH will continue to administer an Air Pollution Control Program pursuant to authority delegated by the Commissioner of NJDEP under the County Environmental Health Act (CEHA).

MCDPH will continue to perform regular inspections of delegated minor and B source facilities, for compliance with the New Jersey Air Pollution Control Code, and to enforce state laws and/or regulations.

MCDPH will continue to focus on the completion of annual routine compliance monitoring inspections as delegated by NJDEP.

2. Goal: HAZMAT/Emergency Response

Mercer County will be free from unacceptable human health and ecological risks due to direct exposure from hazardous substances and other potentially harmful agents. Natural resources will be managed to protect the public from floods, fires and storms.

Milestones: Progressively reduce the number and impact of serious hazardous material incidents occurring within Mercer County by improving the response capabilities, training, knowledge and cooperation with industry.

Activities: MCDPH (via the three local HAZMAT teams) will continue to respond to all hazardous material emergencies referred by citizens, local authorities and NJDEP.

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HAZMAT responded to over 280 calls for service in 13 municipalities with calls ranging from fluid spills on the roadway suspected biological agents.

HAZMAT currently has just over 100 responders trained by the New Jersey State Police to the Technician level. The Trenton team is made up of full time firefighters on duty 24 hours a day 7 days a week at any given time, 10 to 15 HAZMAT technicians are on duty. The West Windsor and Hamilton teams are made up of police and fire personnel some of which are on duty staffing levels fluctuate daily others are on call back status. Although the teams have primary first response areas in the county, all three teams cross boundaries and support each other routinely.

HAZMAT response teams will continue to assess environmental health threats and provide sampling of the environment at the site of a hazardous materials incident/emergency during the period of the emergency only.

HAZMAT response teams, in the event of a BT/HAZMAT incident, will respond to the threat, which might eventually lead to violations of Air, Water, Solid Waste, and/or Noise program. The Lead Agency, in coordination with the appropriate NJDEP office, after the incident shall be responsible for the prevention, mitigation and remediation of the exposed area.

HAZMAT response teams have upgraded their equipment inventory through NJDEP grant funds. Meters, and WMD detection equipment purchased with the 00-01 Domestic Preparedness Grant will continue to be maintained with required calibration and software upgrades.

HAZMAT response teams will continue to participate with OEM, local health departments, and the MCDPH in tabletop exercises for natural disasters, BT incidents, and health outbreaks.

HAZMAT response teams will continue to maintain a core of trained and equipped personnel who are capable of responding to hazardous materials incidents.

HAZMAT and MCDPH CEHA Inspectors will continue inspections for the School Chemical Management Compliance Program. Assistance will be rendered to ten (10), Mercer County High Schools, to achieve satisfactory compliance with storage,

handling, and disposal of hazardous chemicals and hazardous materials.

3. Goal: Solid Waste Program

To achieve and maintain the safe management of wastes in an environmentally sound manner.

Milestones: Exposure to environmental risks will be controlled and minimized.

Activities:

Investigate all solid waste complaints received from citizens, local health departments, commercial businesses and the NJDEP.

Conduct routine compliance monitoring inspections of Solid Waste Facilities (Class A, Transfer Stations, and Compost) as deemed necessary by the NJDEP, continue to update the list of these sites and provide them to the NJDEP Solid Waste Program.

Continue to monitor and investigate Solid Waste Haulers and enforce all applicable solid waste programs to the fullest extent permitted by law while utilizing the enhanced enforcement authority, capabilities, and penalties provided by the County Health Office, CEHA work plan, and CEHA statutory authority.

Consistency with the NJDEP Solid Waste Standard Operating Procedure (SOP) will be a priority for Mercer County's Solid Waste Program. Attaining uniform enforcement between the State and County, between Counties and between solid waste programs will be a goal of our CEHA solid waste initiatives. The MCIA has been selected to continue to manage the County Solid Waste Program, with the guidance and assistance of MCDPH staff.

Responding to citizen complaints will become a core component of the CEHA objective. To achieve this, the MCIA will conduct any and all necessary and appropriate training for all applicable staff, employees, and agents of MCIA regarding CEHA solid waste enforcement requirements, methods, and plans.

MCIA manages a countywide curbside recycling program for all county residents and will continue to do so. To further promote recycling, the MCIA will initiate inspections and conduct thorough surveys of all relevant Mercer County businesses and schools pursuant to the CEHA work plan, which will ensure compliance by these entities with all applicable state and to federal laws. Furthermore, this will ensure a decrease and discouragement of illegal dumping, and promote reusing, recycling, and reduction of solid waste materials in Mercer County.

MCIA is also responsible for implementing a countywide Household Chemical Waste Program. In the past there were two events per year. Due to the high demand, the MCIA conducted five

events in 2008 and will continue to conduct five events in 2009. In conjunction with the School Chemical Compliance Management Program, an alternative drop off day has been added for the participating High School on the Friday before each scheduled Household Chemical Waste Day.

MCIA will continue inspections and investigations of Solid Waste Disposal Facilities, Recycling Facilities, Compost Sites, Resource Recovery Facilities, Landfills, Farmland Mulch Sites, and Inter-modal Facilities pursuant to the CEHA work plan to ensure compliance by these entities with all applicable state and federal laws.

MCIA will continue to conduct Solid Waste Flow inspections and investigations of all appropriate entities to ensure compliance and enforcement.

MCIA will continue to apply state and federal laws with the assistance of CEHA statutory authority to enforce NJDEP regulations for solid waste control.

MCIA will continue to enforcement actions against Solid Waste Haulers in a court of competent jurisdiction, including but not limited to, any of the municipal courts within Mercer County. The purpose of the enforcement action is to maintain compliance with all applicable state and federal laws, the MCIA solid waste franchise and the Mercer County District Solid Waste Management Plan. It will obtain all appropriate penalties against said haulers while utilizing the enhanced enforcement authority, capabilities, and penalties provided by the Mercer County Office of Environmental Health, CEHA work plan, and CEHA statutory authority.

MCIA will continue to deter, decrease, and cease Solid Waste Haulers from diverting waste from the Mercer County Solid Waste Flow System by entering into aggressive settlement agreements with said haulers whereby all applicable penalties are paid and future compliance with all applicable laws, the MCIA solid waste franchise, and the Mercer County District Solid Waste Management Plan is obtained.

MCIA will continue to conduct interviews of solid waste transporters referred by NJDEP or other counties and share needed information with said entities.

4. Goal: Clean and Plentiful Drinking Water

Surface and ground water will be clean sources of potable water. Every person in Mercer County will have safe drinking water. Adequate quantities of surface and ground water will be available for all uses.

Milestones: 95 percent of the public, non-community water systems will provide water that meets and microbiological drinking standards.

Activities: MCDPH will perform regular inspections of delegated non-transient and transient PNC Water Systems in compliance with the Safe Drinking Water Act, N.J.S.A. 58:12A-1 et seq., and the rules and regulations adopted pursuant thereto, N.J.A.C 7:10-1 et seq.

MCDPH will continue to investigate all water pollution, water supply and potable water complaints from citizens and the NJDEP. These investigations will include, but are not limited to; potable water, water contamination, unpermitted discharges to surface water or ground water, improperly constructed wells, abandoned well, and septic system malfunctions.

MCDPH will continue to investigate all complaints that have an impact on the public health of Mercer County residents.

MCDPH will continue to education on water regulations and pollution prevention, as required for PNC Water Systems and citizen complaints, to achieve regulatory compliance.

5. Goal: Noise Control

MCOEH will work with NJDEP and local authorities to enforce codes, rules and regulations relating to the control and abatement of noise, to improve the quality of life for Mercer County residents.

Milestones: Control noise that unnecessarily degrades the quality of life and/or affects the health and safety of people of Mercer County.

Activities: MCDPH will continue to investigate noise complaints received from citizens and the NJDEP that are under the jurisdictions of the Noise Control Regulations, and if applicable, educate, and enforce these regulations to achieve compliance.

MCDPH will continue to provide education on noise regulations and noise prevention and abatement.

6. Goal: Open and Effective Government

MCOEH will fulfill its vision and mission and achieve its goals through the involvement of citizens and stakeholders as critical partners and through the commitment to quality principles and methods as a means to continuous improvement of its operations.

Milestones: MCDPH will improve the coordination of environmental health services vital to the health of all residents of Mercer County.

Activities: MCDPH will continue to encourage and develop strategic partnerships with the following organizations: local, state, and federal agencies, nonprofit organizations, environmental commissions, the public, and the business community, to address environmental issues and concerns.

MCDPH will continue to provide education and outreach as well as environmental data to community groups and interested stakeholders.

MCDPH will continue to provide assistance and information to individuals, citizen groups, and the community at large.

MCDPH will continue to respond promptly and efficiently to complaints, and provide environmental health information requests from the public.

MCDPH will continue to upgrade the current Mercer County Geographic Information System (GIS) to provide data support to local and State officials to assist in the identification of environmental priorities for NJDEP projects. Digital data shall be submitted in a format consistent with the department's GIS, GPS, and metadata standards.

MCDPH will work with GIS staff in other Mercer County Divisions (e.g., Planning, Office of Emergency Management) to identify health-relevant data to include in internet-accessible GIS applications that will be upgraded in the coming year, and will develop data to assist with non-compliance detection and field inspections. Where appropriate, data will be shared with local and State officials to assist in the identification of environmental priorities for NJDEP projects. Digital data shall be submitted in a format consistent with the Department's GIS, PGS, and metadata standards.

GIS Activity Scope of Work:

Background:

Mercer County has developed its GIS capacity over the last decade or more, and has hosted an NJOIT/NJGIN GIS node server (making local GIS data available to the public) since 2000. GIS data are currently being developed and used in the Planning Division, the Office of Emergency Management, and Mosquito Control. Recent activity to expand GIS capacity and services include 1) assembling commonly used data into an Enterprise Geodatabase, 2) creating base maps for use with free GIS data viewers, 3) upgrading hardware and software to deliver interactive base maps over both intranet and internet, and 4) initiating a procurement process for a management information system for roadway assets and work order management. These activities involve capital outlays in the hundreds of thousands of dollars in the near term, as well as a commitment to ongoing annual maintenance in the tens of thousands of dollars and three or more staff FTEs. A fifth recent activity, specifically benefiting CEHA, is increased coordination to continue development and integration of GIS data from Local Health Departments (LHD) to serve the GIS data needs of Mercer County municipalities.

Scope of Work:

Funds for GIS development in the 2009 CEHA grant will be used to continue meeting 2008 CEHA deliverables by maintaining newly developed GIS-enabled portions of the master list of facilities subject to health or safety inspections that is being used: to access digital images of inspection reports and manage critical information from them, and (b) to facilitate timely responses to OPRA and 'Right to Know' requests from citizens, with support of Mercer County Division of Public Health, Planning Division, and Office of Emergency Management.

In addition will expand GIS development to enhance CEHA inspector's annual Safe Drinking Water Program requirements and integrate the Health Officials municipal private drinking water periodic water monitoring requirements. Currently, wellheads are associated with property addresses, which can be geo-referenced and mapped. A more accurate spatial attribution of actual wellheads is desirable, along with the creation of a GIS data layer that will allow the spatial selection of registered wells proximate to a well testing contaminated. The 2009 Mercer CEHA GIS program will put in place the ability to refine wellhead attributes over time. Three main tasks are proposed:

GIS Database:

Request current and historic data on registered wells from NJDEP (information on lapsed well registrations may allow verification of testing program compliance).

Geocode addresses or parcel IDs of registered wells, generating a generalized latitude/longitude point for each well.

If well attributes are sufficiently detailed, analyze patterns in well testing program compliance in relation to extensions of freshwater supply infrastructure.

Inspection support interface:

Extend the data attributes on wellheads beyond those supplied by NJDEP to support inspection scheduling and records management.

Develop database forms for use by field inspectors to maintain critical information from inspection reports (e.g., inspection date, key results, and digital image of submitted report form).

Explore the feasibility of developing an online interface to the database for use by local health officers.

Improve spatial accuracy of wellhead locations.

Purchase Trimble Juno ST handheld GPS units for field inspectors, both for County health officials and local health officials. (Total 12 units with 3-year maintenance contract for Pathfinder Standard software, 9 units for municipal offices, 2 for county, 1 backup.)

Coordinate with local health officials to adopt use of GPS units, receive training, and provide data updates of spatial attributes for private wellhead locations.

County and participating municipal inspectors will GPS locations of inspected wellheads to improve accuracy of lat/long data point for each record (move GIS point from street centerline to GPS'd wellhead location).

New Deliverables:

Geocoded address locations of registered wells, with metadata.

GPS'd locations of public use wells and contaminated private wells inspected between 7/1/2009 and 12/31/2009, with metadata.

Copy of database design, forms, & reports, delivered on request to NJDEP, County, and Local Health Offices in New Jersey.

7. Goal: NJDEP Right To Know Program & NJDHSS Right To Know Program
MCDPH will work with NJDEP and NJDHSS to enforce codes, rules and regulations relating to the compliance among facilities required to file Right To Know Surveys.

Milestones: MCDPH, on behalf of NJDEP and NJDHSS, will investigate a minimum of 50 employers within the county to determine compliance with the New Jersey Worker & Community Right To Know Act.

Activities: MCDPH will continue to investigate employers who have not filed surveys for the current reporting year, and if applicable; enforce the regulations to achieve compliance, as requested by the NJDEP and the NJDHSS.

MCDPH will continue to provide Right To Know trainings, outreach visits, telephone interactions and distribute educational materials.

MCDPH will continue to maintain surveys and records in a central file as the County Lead Agency for NJDHSS. MCDPH will continue to make requested surveys and records available to the public, as permitted under P.L. 2001, c. 404.

8. Goal: NJDEP Pesticide Pilot Programs

Milestones: MCDPH will monitor and enforce the State's Pesticide Control regulations in accordance with NJDEP Pesticide Control Program, N.J.A.C 7:30-1 et seq. In addition, the New Jersey School Integrated Pest Management (IPM) Program will be implemented in accordance with NJDEP IPM rules via compliance assistance.

Activities: MCDPH will inspect stores, restaurants, apartments (multi-family housing), to determine whether the owner or operator has sold, applied or caused to be applied any pesticide in compliance with N.J.A.C. 7:30-1 et seq. Compliance Assistance for the IPM Program shall be achieved by completing 15 school visits (two/school district) to determine compliance with NJDEP IPM rules by using a one-page checklist developed by NJDEP 's Pesticide Program.

9. Goal: Local Information Network & Communication System (LINCS) and Community Health Alert & Information Network (CHAIN) Programs

MCDPH will work with LINCS to insure that the public is advised, updated and made aware of any risks, trainings or emergencies within Mercer County.

Milestones: MCDPH staff will continue to work with the LINCS staff in strengthening the links to the critical community health organizations and the public within Mercer County.

Activities:

MCDPH will continue to participate in education and training opportunities that are provided by LINCS. These learning opportunities may be by distance learning, via satellite and web-based technologies. Continuous upgrading of skills will allow staff to be better prepared for bio-terrorism and other public health threats.

MCDPH in cooperation with LINCS will use the CHAIN network to disseminate information in a timely and coordinated manner. Alerts may be issued to staff, community partners, and the

county's residents on a variety of topics such as public health alerts, emergency events, trainings and volunteer opportunities.

Staffing

The Mercer County Division of Public Health staff includes one Health Officer, one CEHA Coordinator/Senior Registered Environmental Health Specialist (REHS), one Registered Environmental Health Specialist (REHS), four LINC staff members, one full-time and one part-time secretary. The Mercer County Division of Public Health (via Interlocal Service Agreements) has the support of the three County HAZMAT Teams, and Mercer County Improvement Authority Solid Waste and Recycling employees. Additional support has been established through a collaborative professional network with the Local Health Departments (LHD) within Mercer County. The LHD Registered Environmental Health Specialists have an ongoing referral system in place to achieve compliance assistance for various environmental health related issues that impact the Mercer County community. Some of these issues include but are not limited to indoor/outdoor air quality, solid waste, IPM/ Pesticide Services, Water Quality, Noise, and Emergency Preparedness Services.