

MERCER COUNTY



ENVIRONMENTAL HEALTH ASSESSMENT

AND IMPROVEMENT PLAN

2008

Brian M. Hughes, County Executive
Sharon McNellis-Kissel, Health Officer, Division of Public Health
Submitted to the New Jersey Department of Environmental Protection
November 1, 2007

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 2008. 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.

Mercer County has a population of 367,605 residents. Between 2000 and 2006, the population grew by 16,844 persons, or 4.8%. One-tenth of the US population resides within a 75 miles radius of Trenton, the capital city of New Jersey. According to 2000, Census Data in Mercer County there are 1,552 residents per square mile, which is higher than the state average of 1,134 per square mile. Based on Census data this number is trending upward. Even though the transportation infrastructure in Mercer County is very strong, the data suggest that an integrated approach to public health, environmental health, planning, and infrastructure has to be achieved.

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 fourth in New Jersey among counties reporting the release of Toxics Release Inventory (TRI) chemicals into the environment with 2,436,637 tons. The three main TRI chemicals reported were hydrochloric acid, hydrofluoric acid, and sulfuric acid.

Mercer County ranked in the top 90 percent of US counties in terms of the number of people living in areas where cancer risk from hazardous air pollutants exceeds 1 in 10,000. In Mercer County residents, face a cancer risk more than 100 times the goal set by the Clean Air Act:

- 92% of the air cancer risk is from mobile sources
- 4.1% of the air cancer risk is from area sources
- 3.6% of the air cancer risk is from point sources

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 2008, 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.

HAZMAT responded to over 280 calls for service in 23 municipalities calls ranged from fluid spills on the roadway to 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. The team recently received an infrared sensor (Sensor IR) to do field analysis of unknown chemical and biological agents. The Sensor IR greatly reduces the testing time at HAZMAT scenes. 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 are currently working with the Mercer County Office of Emergency Management to provide a comprehensive and effective response to emergency incidents. This has proved to be an improvement in coordination between local, county and state agencies.

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.

HAZMAT and MCDPH CEHA Inspectors will participate in Pesticide Pilot Program by monitoring pesticide compliance in accordance to NJDEP protocol.

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 three events in 2007 and will continue to conduct three events in 2008. In conjunction with the School Chemical Compliance Management Program, an alternative drop off day will be added for the participating High School on the Friday before each scheduled event.

MCIA will continue inspections and investigations of Solid Waste Disposal Facilities, Recycling Facilities, Compost Sites, Resource Recovery Facilities, Landfills, Farmland Mulch Sites, and Intermodal 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 upgrade the current Mercer County Geographic Information System (GIS) Department to provide data support to local and State officials to assist in the identification of environmental priorities for NJDEP projects. Digital data will 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 develop and integrate new GIS data from new departments within the county administration, including MCDPH, Weights & Measures, Elections, and the County Clerk. In 2008, outreach will begin in earnest to serve the GIS data needs of Mercer County municipalities.

Scope of Work:

Funds for GIS development in the 2008 CEHA grant will be used to hire a contractor under the State of New Jersey cooperative purchasing contract #T1841 for GIS Enterprise and Desktop Application Development services and for GIS Data Conversion services. The primary deliverable will be a GIS-enabled master list of facilities subject to health or safety inspections that may be used (a) 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 Department of Public Health, Planning Division, and Office of Emergency Management, contractor tasks potentially include:

1. Consult with MCDPH on data requirements (e.g., facility unique ID for database record management, facility information, inspection types, responsible agencies, & responsible agency record ID);
2. Compile existing, available, digital data on facilities subject to health or safety inspections from state, county, and municipal agencies;
3. Define consistent data structure, incorporate comments on structure from MCDPH, and merge lists into single master file;
4. Populate required data fields, perform queries for QA/QC, and delete temporary, non-required fields;
5. Address geocode facility locations to add spatial-reference fields, perform QA/QC against existing GIS parcel, tax, and road centerline data to bring address matches to not less than 98% successful;
6. Deliver master facility list to MCDPH for review, revise in response to comment, and deliver final facility list;
If funds are sufficient:
7. Design (relational) geodatabase to manage digital images of inspection reports and critical report data, review with MCPDH, refine and implement;
8. Create form in MS Access to locate facilities and enter digital image file location and data from inspection reports.

9. Document data entry procedure for MCDPH staff;
10. Deliver geodatabase, MS Access forms, and documentation.

Specific project tasks and deliverables are subject to available funding and negotiations with potential contractors.

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 these surveys and records available to the requesting public, as permitted under P.L. 2001, c. 404.

8. 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 maintain the RTK surveys and records in a centralized file that is made available to the LINCS staff. LINCS will use these files in the creation of a County and Regional All Hazards Plan that can be updated as needed.

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.

9. Goal: Mercer County and Mobilization for Action through Planning and Partnerships

MCDPH will work with the Practice Standards Coordinator to identify and prioritize health issues to create A Community Health improvement Plan (C.H.I.P.)

Milestone: MCDPH will work with Practice Standards Partnership Coordinator to plan, implement, and design the Community Health improvement plan (C.H.I.P.)

Activities:

MCDPH will attend monthly Mercer County Partnership for Community Health meetings and be a member of the Steering Committee.

MCDPH will participate in both the Local Public Health System Assessment and the Forces of Change Assessment of the MAPP process.

MCDPH will collaborate with other community partners to discuss strategies to improve the quality of life in Mercer County

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), five LINCIS staff members and one secretary. The Mercer County Division of Public Health (via Interlocal Service Agreements) has the support of the three County HAZMAT Teams, and eleven County Improvement Authority employees.