

MONMOUTH COUNTY HEALTH DEPARTMENT

COUNTY ENVIRONMENTAL HEALTH ASSESSMENT AND IMPROVEMENT PLAN

2009 CEHA GRANT AND ANNUAL REPORT

Rev. 9/25/08

PLAN

P.L. 1991, Chapter 99, declares that the State of New Jersey shall provide for the administration of environmental health services by county departments of health under the direction of a licensed Health Officer. These services must be consistent with performance standards promulgated by the NJ Department of Environmental Protection at N.J.A.C. 7:1H. The Monmouth County Health Department (MCHD) was created in 1978 by Freeholder Resolution to reduce disease and to protect lifestyle and property with programs pursuant to NJSA 26:3-85 et seq. Since 1985, this is performed in accordance with the County Environmental Health Act (CEHA), Chapter 433, Public Laws of 1977 (NJSA 26:3A-28 et seq.), including the provisions of the annual CEHA grant. The MCHD is the Local Health Authority in MC certified by the NJDEP to perform investigation, enforcement, and regulation of air pollution, solid waste disposal, recycling enforcement, emergency and terrorism response, hazardous waste storage and disposal, underground storage tanks, surface and ground water pollution, laboratory services, and noise; as well as Right to Know services through a grant from the NJ Department of Health and Senior Services. In addition to directly providing these services, the MCHD coordinates interlocal agreements with one regional health department and 6 local fire/hazmat units. Since 9/11, the Environmental Health Program (EHP) also serves as logistical support for the MCHD Public Health Program during acts of terrorism and other disasters. The program incorporates innovative research and technology to deliver environmental health services that are pragmatic and cost-effective. The goal is to commit our efforts where the most good can be achieved within the constraints of the budget and the scale of our post-9/11 duties.

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HAZLET
ABERDEEN

County counsel and the MCHD established an enforcement protocol (Offers of Settlement) delegated by the NJ Department of Environmental Protection (NJDEP) in 1996. NJDEP regulations and policy determine the amount of the penalty and the percent it may be reduced in the Solid Waste, Water Pollution, Air Pollution, and Underground Storage Tank programs. Receipts from all fees and penalties collected by the MCHD pursuant to the authority delegated by CEHA shall be deposited into the Environmental Quality and Enforcement Fund (EQEF) established and maintained by the MCHD. These monies shall be dedicated to the use of the MCHD in carrying

out its delegated responsibilities under CEHA as required by N.J.S.A. 26:3A2-35. Information of monies deposited into and expended from the EQEF shall be made available to the NJDEP upon request.

There are now 30 environmental professionals and clerks dedicated to MCHD's environmental programs in offices in Freehold and Tinton Falls.

Subcontractors

Since the original 3 Interlocal Agreements were first signed in 1996, the Red Bank and Matawan Regional Health Departments have since been absorbed by MCHD and the Monmouth County Regional Health Commission # 1. The MCRHC continues to follow-up on CEHA related complaints and perform limited enforcement in municipalities where they serve as the Local Health Authority; the IA was renewed in 2005. An expanded report about health departments in MC can be accessed at <http://co.monmouth.nj.us/documents/121/boh-history.pdf> .

<p>Monmouth Cty Reg Health Commission No. 1 1540 West Park Avenue Suite 1 Ocean Twp, NJ 07712</p> <p>Phone: 732-493-9520 Fax: 732-493-9521 http://www.mcrhc.org/</p> <p>Sandy Van Sant Health Officer</p>	<p>ALLENHURST BRIELLE DEAL EATONTOWN FAIR HAVEN HIGHLANDS HOLMDEL INTERLAKEN KEANSBURG KEYPORT LITTLE SILVER LOCH ARBOR VILLAGE MONMOUTH BEACH OCEAN TWP RED BANK RUMSON SEA BRIGHT SEA GIRT BORO SHREWSBURY SPRING LAKE BORO SPRING LAKE HEIGHTS SREWSBURY TWP TINTON FALLS WALL WEST LONG BRANCH</p>
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MCHD coordinates with the Monmouth County Office of Emergency Management (MCOEM) and local hazmat/CBRNE response units to develop and maintain an integrated emergency preparedness system throughout the county. Since 2003, we have Memorandums of Understanding with the following hazmat units to provide mutual aid and equipment when requested. Fort Monmouth has the largest team; the Fort is to be decommissioned by 2011; as of the fall of 2008, their hazmat team is periodically stopping mutual aid outside of the fort due to shift shortages caused by members' resignations in anticipation of the base closure.

- Earle Naval Weapons Station Fire Dept. Hazmat Unit
- Fort Monmouth Fire Dept. Hazmat Unit
- Howell OEM Hazmat Unit
- Middletown Fire Dept. Special Services Unit
- Neptune OEM Hazmat Unit
- Southard Fire Dept. Hazmat Unit

COMMUNITY

Monmouth County has a land area of 471.74 square miles (1222.48) km²) and is located within the Inner and Outer Coastal Plain in central New Jersey. The county is comprised of 53 municipalities: two cities, Long Branch and Asbury Park, fifteen townships, thirty-five boroughs and one village. An expanded report on Monmouth County can be accessed at <http://co.monmouth.nj.us/documents/121/NaturalFeaturesAndHistory.pdf> .

LOCAL ENVIRONMENTAL ISSUES AND GOALS

Goals and Activities

The most recent annual reports are posted at <http://co.monmouth.nj.us/data.asp?appid=37&agencyid=121> .

Safe and Healthy Communities

Hazmat/Homeland Security Program. Since the 1985 CEHA agreement, the hazardous materials unit responds to hazardous materials (Hazmat) and CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive) incidents, in coordination with the NJDEP, the NJDHSS, and the NJ State Police (NJSP) Special Operations Section. All emergency response activities are conducted in accordance with the Monmouth County Emergency Operations Plan, the NJDEP Technical Requirements for Site Remediation, applicable PEOSHA requirements, and the NJSP Hazmat Emergency Response Team Standards for Operations and Training. The Hazmat Program now has 5 full-time employees. By using trained personnel from other MCHD programs, we have two 6-member teams trained to the Hazmat Technician level for 24/7 response to incidents; 3 senior members are Certified Hazardous Materials Managers (CHMM). Ongoing cross training improves staff's response time and ability to handle complex situations, including responses related to counter terrorism. Members attend free Weapons of Mass Destruction (WMD) response courses offered by the Department of Justice at national facilities. The Hazmat Team passed its first ever PEOSHA inspection in 2003. Members are trained and medically monitored in compliance with CFR 1910.120, 1910.134 and the MCHD Respiratory Protection Plan. Specialized hazmat and CBRNE field monitoring equipment are maintained to meet NJSP standards. This includes 2 specialized emergency response trucks, one purchased in early 2002 with County funding, and a replacement truck partially funded by CEHA in 2006; as well as a box truck for transporting supplies, partially funded in 2006 by CEHA, and various trailers loaded with supplies. The 2002 response truck has a small command center, an air system for filling Self Contained Breathing Apparatus (SCBA) air cylinders and operating pneumatic tools, a generator for providing electricity and scene lighting, and ample storage for equipment. In 2006, a 3-bay garage was built by the County, and a CEHA-funded breathing air system for recharging SCBAs. The Hazmat Unit assists and trains local health, fire, and police (attendance at local and regional exercises has increased since 9/11). Staff routinely identifies unknown chemicals before they are brought to the MCHD Household Hazardous Waste facility. It serves as On-Scene Coordinator for the NJDEP, assists the MC Prosecutors Office with environmental crime investigations, and assists the MC Fire Academy (MCFA) with fit-testing. MCHD staff and equipment are considered a state asset, and can be called to respond regionally. Ex: 1 decontamination trailer purchased with a NJDHSS grant is primarily dedicated to all 5 hospitals in MC but can be directed to other regions by the NJDHSS.

MOUs & OEM

CEHA mandates that MCHD Hazmat coordinate emergency preparedness with the MC Office of Emergency Management (MCOEM) and local hazmat/CBRNE response units. In 2004 this was memorialized in an updated hazmat/terrorism annex of the MCOEM Local Emergency Planning Committee (LEPC). The Hazmat Program Coordinator maintains a seat on the MCOEM Grant Working Group, the LEPC, and other planning meetings with MCOEM and the MC Fire Marshall. Memorandums of Understanding (MOUs) have been signed with 6 local hazmat teams, including 2 military teams. In conjunction with the MCFA and the MCOEM, more than 20 fire departments have been trained in mass decontamination and assigned to ferries, train stations and hospitals. MCHD Hazmat sponsors meetings throughout the year for senior members of the hazmat teams and MCOEM and the County Fire Marshall to discuss available grant funding, response and equipment standardization, reporting requirements, and joint training opportunities. In 2006, the Howell OEM Hazmat Team participated in a bioterrorism drill by driving their All Terrain Vehicles during simulated gridlock to test alternative routes for transporting supplies and services during a disaster. An ordinance is being drafted during 2008 that will enable recovering the costs of supplies, equipment and manpower during hazmat events from the responsible party.

Logistics

On 9/11/01, the MCHD Hazmat Team responded to Atlantic Highlands to decontaminate approximately 700 people who were evacuated by ferry from New York. During the next 2 months the Hazmat Team responded to over 300 calls about suspicious letters and packages following the anthrax attacks in October. The technical proficiency of the Hazmat and the Public Health response to disasters depends upon a wide range of logistical services and supplies. Utilizing multiple resources in MC is the key to successful homeland security planning, including the private sector as well as all the County departments on the LEPC. MCOEM, MCHD, and water supply and wastewater treatment utilities developed a countywide mutual aid plan for the utilities so they can maintain essential operations (and the utilities have numerous resources for the County to support a long term event). The 09/12/05 CEHA revision for Hazmat requires that Emergency Response be integrated with Public Health response; the MCHD Public Health Emergency Response Team includes members from the Environmental Health Program. Additionally, all EHP staff are learning to manage supplies, medicine, and other essentials for potentially hundreds of thousands of people, during both response and recovery, in coordination with the MCOEM. A significant amount of staff time is now dedicated towards this goal, in addition to routine environmental work. A MCHD resources database has been developed; as was a database of school buses to improve deployment during off hours; and the MC Purchasing Dept. developed a database for emergency purchases from vendors with a proven track record. MOUs have been developed (by MCHD, County Counsel, Finance, Purchasing, and MCOEM) with the private sector for food, supplies, transportation, and other services (MOUs with 2 party boats were obtained in 2007). The EHP coordinated logistical support for 4 disaster drills: an NJDHSS drill at Monmouth Park Raceway in 2004, the federal Topoff3 drill at Brookdale CC in 2005; and the 2 Pathfinder Drills as part of a state-wide exercise in 2006. Operation Pathfinder simulated the gridlock conditions in New Orleans during Hurricane Katrina. During Pathfinder, supplies were delivered using utility and railroad right-of-ways, bike paths, and one pallet of pills was shipped by the Coast Guard from Belford to Avon. In 2007, Tactical Decision Games were developed (1-hour tabletops for raising awareness about specific sub-tasks); one for locating supplies after a Mall explosion resulted in improvements in inventory-tracking. Work continued in 2008 with local OEM Coordinators who will operate regional warehouses and supply dumps.

UST and Site Remediation. The ballot question for funding USTs for 17 years was approved in 11/04; NJDEP will provide \$62,821 of grant funding every year towards the salary of a key employee until 2021. In 2005, the Health Department entered into a Cooperative Agreement (formalized in 01/06) with the NJDEP to conduct inspections of regulated underground storage tanks (USTs) and to initiate appropriate enforcement. This includes issuing Notices of Violations (NOVs), coordinating delivery bans and cease use actions with the DEP, and negotiating settlement agreements in consultation with the NJDEP. In addition, we provide compliance assistance and distribute materials provided by NJDEP to owners and operators of UST facilities. In accordance with the agreement, MCHD identified one key employee who is responsible to fulfill the obligations in the CA. In 2006, the NJDEP chose MCHD to pilot their online NJEMS program to directly enter inspection data and to retrieve real-time information from NJDEP's Site Remediation Program. The MCHD Hazmat Program investigates other types of contaminated sites and provides advice on risk and compliance assistance. Since 1988, the hazmat unit has responded to residences with leaking heating oil tanks, spills or delivery overfills, and above ground tank failures. We provide homeowners with assistance regarding the NJDEP voluntary cleanup program, which oversees the cleanup of soil and/or ground water contamination at residential properties to ensure they are in accordance with NJDEP Technical Rules for Site Remediation. In 2008, UST and Air Pollution arranged for a NJDEP presentation to local and County DPWs, schools and the private sector to help them improve their record of compliance.

Solid Waste/Household Hazardous Waste Program. The efforts of the MCHD within the County to manage wastes in a safe and environmentally sound manner will contribute significantly to goal of attaining recycling rates of 65 percent of the total solid waste stream and 50 percent of the municipal waste stream.

Solid Waste Enforcement Team

Since 1987, this program has been supported by an alliance of 3 departments: the MC Reclamation Center (funding, facility and logistics), the MCPB (policy and grant), and the MCHD (operations). Medical monitoring for the MCHD Solid Waste Enforcement Team is funded by MCHD, and CEHA partially funds pilot programs. SWET provides routine onsite supervision of the Material Processing and Recycling Facility at the MCRC to safeguard against prohibited or hazardous waste, such as mandated recyclable materials, banned or hazardous materials, and regulated medical waste. SWET conducts recycling inspections and waste audits at commercial, institutional, office and industrial locations, emphasizing education, and enforcement when needed, to achieve state-mandated recycling rate goals, and to prolong the life of the landfill. SWET investigates all SW complaints, monitors haulers, enforces the regulation of intrastate movement of SW, and conducts compliance inspections at various recycling centers and SW facilities such as convenience centers, mulch sites, and scrap tire sites. SWET conducts compliance assistance audits, and interviews prospective registrants for transporting SW as "A-901 Exempt Self Generator Solid Waste Transporters". Recycling and other SW enforcement is conducted pursuant to the CEHA Interagency Agreement; N.J.S.A. 13:1E and the Solid Waste Management Act (NJSA 7:26 et. seq.); the MC Solid Waste Management Plan; and as of 2008, Ordinance #10 (NJDEP model ordinance for a penalty schedule). SWET and HHW staff are members of the MCHD HAZMAT team. Since 2003, SWET, supported by MCRC, has been developing the logistical strategy for warehousing and distributing medications during disasters.

Household Hazardous Waste

The Household Hazardous Waste Facility operates at the MCRC through the MCRC-MCPB-MCHD alliance since 1997. In addition, single day collections have been held annually at MCDPW yards since 1985, but at up to 5 times the disposal costs as the HHWF. As staff has been added to the HHWF, it has been reduced at SWET. The HHWF serves almost 7000 residents, schools, and DPW's a year, preventing about 1 million pounds of hazardous waste from being disposed at the MCRC annually. HHW collection protects the groundwater at the MCRC and encourages residents to reduce their exposure to paint and solvent vapors in the home. In 1998, after 1 full year of operation, an independent survey found that the average cost for the MCHHWF was less than half the cost of the other 2 county facilities in NJ. It now ships waste at approximately half its original disposal costs. In order to divert paint from costly single day events, the facility holds bi-monthly DPW/Non Profit/Governmental collections; the savings in paint disposal was more that \$32,500.00 in 2007. The household battery program sorts rechargeable batteries from disposables and ships them free of recycling and transportation charges; and earns \$0.05/pound for small lead acid batteries when they were packaged with lead acid car batteries. Combustible paints are packaged in special order boxes that conform to a DOT packaging exemption; this alone has saved \$74,259 since 8/98. Cumberland County paid the HHWF to decommission 105 compressed gas cylinders, which also produced scrap income and provided gas for heating the facility. Collected propane cylinders are used to heat the office and warehouse every winter and to power the donated back-up electric generator; this provides free fuel and saves the disposal cost of \$1.25 per pound for partially full cylinders - a total cost savings of about \$52,900 in 2007. The free generator is valued at \$35,000. While other counties pay to dispose used oil filters, the HHWF drains and crushes them into income-generating scrap metal; MCHD assisted the MC Motor Pool and the MCRC vehicle maintenance to setup their own filter-crushing. The HHW Supervisor designed his own HHW database at no cost to MC and to a great degree on his own time. HHWF staff are members of the MCHD HAZMAT Team, providing expertise for emergencies at the MCRC. There is ongoing discussion about charging Conditionally Exempt Small Quantity Generators for waste disposal; and for facilitating "paint only" collection days at municipal yards, since a dedicated paint collection could cost 1/3 the disposal fee of a traditional single day event.

Pilot Programs

In 2004, MCHD won an award for 'Innovation in Promoting Environmental Quality' from the NJDEP for developing the first school laboratory inspection program in NJ (and one of the first nationwide). By helping schools better manage their laboratory chemicals since 1986, this program reduces health risks to children and staff (ex: the NJSP Bomb Squad has occasionally assisted). It saves taxpayer money as schools eliminate the common practice of bulk-ordering hazardous chemicals that are never used. In 2006, MCHD helped the NJDEP train 8 counties to initiate their own programs that included compliance with the NJ School Integrated Pest Management

Act and the Universal Waste Regulations (for recyclables). By 2007, when all school labs in MC had been inspected, the NJDEP discontinued funding to MC (alone), but SWET will continue inspecting at a reduced rate. In 2008, the MCHD developed programs for inspecting scrapyards, and for improving the regulation of mixing recyclables and waste by using BPU regulations.

Noise Control Program. Noise can unnecessarily degrade the quality of life. Certified members of the MCHD Air Pollution program investigate noise complaints in accordance with the NJ Noise Regulations and CEHA. The state code regulates certain commercial to residential noise sources, and has included air conditioners, rodeos, garbage pickup, etc. The NJDEP delegated all noise enforcement to county health departments and municipalities with approved (model) ordinances in 1995.

Clean and Plentiful Water

Potable Water. The efforts of the MCHD within the County will contribute significantly to the State meeting the goal of 95 percent of the public non-community water systems providing water that meets chemical and microbiological drinking water standards.

The MCHD WP inspects about 250 non-transient (large) public wells every 2 years, and smaller transient systems every 4 years. The WP periodically reviews and updates the NJDEP public water database; and enforces the NJDEP Zero Tolerance Policy. The MCHD will continue to inspect migrant farms as needed.

Most domestic wells in MC exist west of the Garden State Parkway. The wells most vulnerable to contamination are old, shallow wells installed in the water table. Deep wells (>50') are installed in clay-confined aquifers, except in the Kirkwood Cohansey outcrop, south of a line extending from Millstone to the Shark River. Wells in this popular but vulnerable water-table aquifer can be as deep as 120'. The Board of Health adopted a Potable Water Ordinance in 1982 setting potability standards for new wells; and existing wells when real estate transactions are regulated by municipal ordinance. It has been revised several times, most recently to adopt the mandates of the NJ Private Well Testing Act of 2002. This is an unfunded state mandate that requires well water testing when property is sold or rented; and that the results be sent to the buyer, seller, landlord, tenant, and county and local HDs. Gross alpha (radionucleotide) testing that began in March 2004 increased survey and notification work for old shallow wells; however there has been an overall drop in PWTA work due to the real estate slump.

Surface Water. The efforts of the MCHD within the County will contribute significantly to the State meeting the goal of 50% of assessed non-tidal river miles supporting healthy, sustainable biological communities. The efforts of the MCHD within the County will contribute significantly to the State meeting the goal of having all New Jersey's bathing beaches safe for bathing, by performing recreational beach monitoring and pollution source investigations.

Environmental Laboratory

Since 1982, the NJDEP-certified MCHD EL has met the mandates of NJSA 26:3A-21 and the "Regulations Governing the Certification of Laboratories and Environmental Measurements" (N JAC 7:18) by providing analysis of fresh and saline water, potable water, MCP pools, sediments, algae and macroinvertebrates (Rapid Bioassessment/RBA). The lab will be outsourced to the private sector in 2009 due to budget cuts.

Ambient Sampling, Rapid Bioassessment, and Surveys

The MCHD samples about 60 surface water stations quarterly to monitor water quality and land use trends; and collects an additional 5 samples over a 30-day period at NJDEP-selected sites. As part of the MCPB's watershed efforts since 2000, the MCHD has identified how bacteria and phosphorus adsorb to eroded glauconitic fines and degrade surface water quality following sediment resuspension. By comparing the Total Suspended Solids method with turbidity, the MCHD has found that TSS underestimates the effects of erosion caused by urban sprawl, and

determined that turbidity, not TSS, is the more appropriate analysis for coastal plain streams since they are so vulnerable to erosion (and subsequent sediment-driven bacterial exceedences). In 2007 the parameters of the ambient program were adjusted to improve determining compliance with the Surface Water Quality Standards which is so vital now to land use planning; TKN, Nitrate-N, and distilled ammonia nitrogen were also added for 8 lakes.

Algae and macroinvertebrate sampling will be outsourced in 2009. Measuring stormwater impacts with a simple analysis of benthic community structure is a cost effective and expedient alternative to the prohibitive overtime costs associated with sampling chemical and biological parameters during and after a rainfall. RBA was initiated by the Health Officer and the Lab Supervisor in 1997. In 2002 digital microscope was funded by CEHA that allows emailing of data and images. In 2002, MCHD became the first county HD to have their ambient and RBA data accepted for the NJ Integrated Water Quality List. This is used by the NJDEP to designate Category 1 watersheds, which receive the highest level of protection from land use impairments. No other NJ county has nearly the number of stream sites profiled with RBA. In 2003, the MCHD won an award for 'Innovation in Promoting Environmental Quality' from the DEP in part for using Rapid Bioassessment to profile the effects of urban sprawl on MC streams. MC was unique among the counties in having their EL provide rapid, in-house identification of potential Harmful Algal Blooms/Red tides, most of which originate in Raritan Bay from urban and suburban runoff. This will continue to be performed to a limited degree by staff, but mostly outsourced in 2009.

Municipalities are required to troubleshoot their infrastructure and test for failures when necessary; this is supposed to happen proactively, but efforts remain inconsistent. When infrastructure fails, MCHD assists municipalities to reduce health and economic impacts. In 2006 MCHD was the only HD studying the efficacy of Optical Brighteners for aiding municipalities to routinely locate their illicit sewer connections without having to wait 24 hours for bacterial results. In 2005 and 2006 MCHD assisted Neptune to eliminate sewage discharges to the Shark River. From 2004 on, MCHD has assisted Red Bank in eliminating sewage and non point discharges to the Navesink. In 2008 MCHD assisted Sea Girt and Spring Lake look for sewer discharges to Wreck Pond alleged by the NJDEP. From 2006 on, sampling increased significantly at Monmouth Park Racetrack when advisory signs were posted along Branchport Creek after the NJ Sports Authority consistently failed to meet its CAFO discharge permit. Bacteria analyses at MPR is expensive and time consuming because it requires 3 dilutions to enumerate the extremely elevated bacterial levels in the creek (9 samples tested for both fecal coliform and enterococci at 3 dilutions takes 54 tests). MCHD has requested the NJDEP to require the NJSA to conduct their own testing, with MCHD opting to test or split samples as needed, as is done elsewhere.

CCMP

Since 1986, the MCHD Water Pollution (WP) program samples about 61 sites from mid May through mid September; and since 1988, MC is the only County to sample during the winter (17 sites monthly). Sanitary surveys include non-point sources of pollution such as drainage basins and watersheds. MCHD provides timely bacteria sampling for the beaches, Monmouth Park, and storm drains, and algae identification. Since 2006, the WP uses optical brighteners (OB) to locate sewage discharges; the NJDEP mandated OB meters for the other coastal counties in 2008. In 2003, the MCHD won an award for 'Innovation in Promoting Environmental Quality' from the DEP in part for developing the first (and as of 2008 only) provisional closure policy since 2002 for ocean beaches in the state, based on a trend analysis of several years of bacteria and meteorological data. In 2006 MCHD began tracking bacterial and hydrodynamic trends at beaches using Rutgers, Stevens, USGS, and NOAA webpages. In 2007, Rutgers received a \$10,000 grant to work with the MCHD and explore associations between ocean currents and other variables with floatable and bacterial water quality data at MC beaches. In 2008, MCHD analyzed bacterial, rain and hydrodynamic trends since 2004 (when the indicator organism was switched to enterococcus), as per the NJDEP's recommendations in April. After reviewing the data, it was determined that substantial rainfall following 1.5-2 weeks of dry weather increased the amount of exceedences. The MCHD sampled all ocean bathing beaches for the first time following a rain event during these conditions in July 2008. Since In 2007, the MCHD and the Ocean CHD have been working with the NJDEP and USEPA to establish a method for q-PCR testing, which takes only 4 hours (currently 24 hours) to establish bathing water quality.

The DEP should consider taking a leadership role and funding a university project that would create a web-based database modeled after the real-time “syndromic surveillance” databases that are now being developed for tracking bioterrorism. It would be designed to link historic and current enterococcus results to other databases containing rain, wind direction and speed, water temperature, etc., in order to cost-effectively accelerate the current methods of identifying closure trends at bathing sites. It would also incorporate the current and temperature data that is generated by Rutgers LATTE project and Stevens University. The effects of rain intensity and the length of time in between rain events on enterococcus needs to be investigated.

Pumpout Boat

During the summer, the Air Program cost-effectively shares one staff with the water program to captain the County’s only sewage pumpout boat. While a pumpout boat may not significantly lower the total amount of bacteria in an estuary as compared to managing storm drain runoff, it does remove the highest risk bacteria (all human derived). MC was the first in NJ to have its estuaries declared “No Discharge Zones” for vessel sewage in 1995. But while numerous dockside sewage pumping stations are available, there is virtually no enforcement by the NJ Marine Police to force boaters to use them. And so the MCHD pumpout boat (POB) the “Royal Flush” has operated since 2001 on the Navesink and Shrewsbury rivers and the eastern portion of Sandy Hook Bay. In 2004, the first year using the full time position, the Royal Flush was able to pump 47,295 gallons, at that time the most waste since its inception. In 2007, 52670 gallons of waste were pumped because high gasoline prices had boaters ‘staycationing’ dockside. While the POB provides very popular outreach to boaters, it is our least cost effective effort. An average of 48,000 gallons of sewage pumped from boats each summer is about the yearly volume of 5-11 illicit discharges from homes with 3 residents. This is County funded, with most of the equipment funded by the Clean Vessel Act, and some residual funding by the EQEF.

Clean Air

The air throughout the state must be improved to reduce risks from asthma and other chronic diseases, and so that air pollutants do not damage our forests, land and water bodies. The efforts of the MCHD within the County will contribute significantly to the State meeting the national Clean Air Act standards for ozone and other air pollutants.

Air Pollution Program The APP enforces the Air Pollution Control Act, NJSA 26:2C-1 et seq. and NJAC 7:27-1 and 27A et seq. MCHD is committed to reducing fine-particles that can aggravate asthma and other chronic disease. The MCHD investigates complaints including odor, open burning, and engine idling; 2007 had the most odor complaints in over a decade (from a wood recycling facility and several municipal sewer systems). The MCHD inspects minor source facilities such as gas stations, boilers, generators, body shops, and dry cleaners. In 2007, the AP conducted a seminar for the Korean Dry Cleaning Association (with an interpreter) to help them improve their record of compliance; in 2008, UST and the AP arranged for a NJDEP presentation to local and County DPWs, schools and the private sector. The AP assists NJDHSS public health assessments of indoor air; according to the NJDEP, an indoor air problem at a dry cleaner in Manalapan in 2005 significantly influenced their decision to phase out perchloroethylene in NJ by 2020. In 2004, the Air Pollution program took the lead on developing the logistical strategy for the public health response to disasters. For a drill in 2006, the coordinator came up with the idea of delivering supplies during gridlock by using utility right of ways and bike paths; this drill reinvigorated MCHD’s partnership with the County’s OEM community.

Open and Effective Government

Hazmat

Citizens, private business, and other stakeholders need to be involved as critical partners with government in order to introduce fresh ideas. MCHD is a member of the Monmouth County Critical Incident Committee; updates the annex to the LEPC, and initiated the development of an OEM annex establishing mutual aid among water and sewer companies. Additionally, the Hazmat Program sponsors a regular schedule of meetings for senior members

of the local and military hazmat teams, along with representatives from the County OEM and County Fire Marshall's office. Since 1994, MCHD has maintained a database for hazardous material cleanups, including leaking underground storage tanks, document the responsible parties and cleanup and enforcement status, and respond to OPRA requests. The numerous requests for environmental assessments or property resales (more than 30 a month) are conducted department wide, but are coordinated and produced by the Hazmat Program. An ordinance to recover costs for commercial searches was prepared by County Counsel and a resolution approving it was passed by the MCBOH; but was rejected by the Government Records Council in 2006.

SW Outreach

Since 2003 the MCHD has promoted Low Impact Development to planning boards and watershed groups as a way to mute the effects of urban sprawl on potable and recreational water in coastal plain watersheds. LID's message is that infiltration decreases the volume of stormwater that is released as runoff. Stormwater volume blankets the benthic habitat and degrades water quality when eroded fines persist in the water column as colloids carrying biological or chemical contaminants. In 2006, MCHD posted a number of documents for teachers that relate history, habitats and pollution in MC <http://co.monmouth.nj.us/data.asp?appid=37&agencyid=121>. Since 2005, MCHD reviews municipal plans as part of the MC Stormwater Technical Advisory Committee. Staff regularly attends meetings about Wreck Pond, the Navesink-Swimming Rivers, the Shrewsbury River, and Monmouth Park; as well as the Governors Forum on the Ocean, Watershed Management Area 12, MC's Microbial Source Tracking group, etc. In 2006, the MCHD re-posted signs on Branchport Creek due to polluted runoff from Monmouth Park. These are the first long-term advisory signage on an estuary in NJ that is not a lifeguarded swimming beach.

GIS & Webpage

MCHD created the first MC Geographic Information Systems map over the 1991 Thanksgiving weekend of pollution sources in the Manasquan River. MCHD's initiative with GIS further benefited County government in 1996, when the MCHD GIS Specialist transferred to MC Information Services to establish the countywide GIS. Data has been posted on our webpage since 1999. GIS data is submitted in a manner and format consistent with the NJ publication entitled "Geographic Information System, Mapping and Digital Data Standards". Hardware (plotters, GPS equipment) and software are maintained, and he assists in hardware and software troubleshooting several times a day. Data is collected, managed, and quality-controlled. Training and troubleshooting are provided to the dept. about 1-10 times a day. Besides routinely updating existing data, about 4-6 new maps are produced each month for EH and Homeland Security; PH averages 2-3 per month.. Attends about 2 state and regional GIS meetings a month. Works routinely with MCOEM, MCPB, MC Parks, NJDEP, etc. GPS data is collected in the field several times a month. Maintaining the MCHD website takes about 1-5 hours per week, including responses to emails from the public. Prepares posters, PPTs, signs, etc., several times each month. The GIS Specialist position in the WP is essential for incorporating GIS into every program. Algae and coastal lakes websites were created in 2008.

EMERGING ISSUES

The following are issues that Monmouth County is seeking DEP support for additional funding.

HOMELAND SECURITY - SUSTAINING THE HAZMAT INFRASTRUCTURE NOW AND IN THE FUTURE

It is the mission of the Monmouth County Health Department's Hazardous Materials Team to respond to and provide response for incidents in the Monmouth County area to in order to effectively address responder safety issues, incident management, and public health consequences of WMD/NBC incidents that result from accidental or deliberate acts. This support and assistance includes providing planning and training by the County Haz-Mat team or the Fire Academy to first responders within the county prior to an WMD/NBC incident, identification of the hazardous substances through available technology, and response to the scene or secondary site to assist with

incident management and first responder care during a WMD/NBC incident. These activities will be conducted in collaboration with and supported by local, county, state and federal authorities. These include responding within the Incident Command structure to WMD/NBC events within the local jurisdiction; providing technical assistance in the identification of WMD/NBC agents; supporting coordination with designated regional, state and federal WMD/NBC incident response assets; and providing training to response personnel. Hazmat resources will be entered into the NJ Resource Directory Database (RDDDB) and maintain this data so it accurately reflects its available resources. Any new equipment that is purchased shall be entered into the RDDDB within 60 days of receipt.

REGULATED STORAGE TANK INSPECTIONS

MCHD will renew the application to perform commercial underground storage tank inspections and enforcement with one liaison to the DEP because it is fully funded by the DEP.

COMPLIANCE ASSISTANCE SITE INSPECTIONS AT JUNKYARDS AND/OR AUTO SALVAGE YARDS

MCHD is proposing to have the Solid Waste Program conduct on-site multi-media compliance assistance audits at junkyards and/or auto salvage yards. There would be site visits at 10 junkyards and/or auto salvage yards in 2008. All 10 inspections will be conducted at active junkyards and/or auto salvage yards. Conduct site inspections pursuant to the inspection checklist and guidelines issued by the NJDEP. Emphasis will be on all appropriate regulations that apply to best management practices that minimize contact between source materials and stormwater, solid and hazardous waste management, air pollution, auto reclamation, discarded appliances, and above and underground storage tanks. Other MCHD programs will co-inspect or assist as needed.

UTILITY REGULATIONS

MCHD is proposing to conduct a pilot program in 2008 developed by the DEP to enforce utility regulations regarding the illegal transportation of solid waste that is commingled with recyclables. The pilot program would be a strategy to address the many ongoing complaints about transporters and generators openly violating these rules.

AIR POLLUTION - OUTREACH

Conduct an education and outreach program to fire and police departments, DPWs, and parks departments on the regulations governing idling, emergency generators, boilers and any other applicable equipment. Identify the entities to which outreach will be provided and provide this list to the MSCIP Program by March 1, 2009. Develop and conduct education and outreach programs to the entities identified and provide a list of the programs conducted and the principals in attendance to MSCIP by December 31, 2009.

The time to conduct inspections and followup for minor sources such as dry cleaners and B sources has increased significantly in the last 2 years; the number of required inspections need to be reduced to offset the increase in inspection detail.

GIS-LAN-VPN

The Monmouth County Health Department has developed a VPN to establish secure communications during hazmat and WMD/NBC incidents. The VPN will permit secure, encrypted connections between the Incident Command Center (ICC) and multiple remote locations. During large-scale incidents with extended operations, the VPN will allow the ICC to obtain real time information from a multitude of remote locations. It will also allow the remote locations to communicate with each other. Resources can be deployed, tracked, and replenished in the most efficient manner possible. Because the VPN is an internet-based system it does not tie up other forms of communication (i.e. two-way radio, cellular telephone, pager) typically utilized by other emergency responders. In addition, MCHD has a well established GIS and LAN. GPS units, either dedicated or as part of laptops or cell

phones, have also become necessary for efficient planning for disasters and terrorism. Funding is needed to provide computers and ancillary equipment including GPS capabilities to support/expand existing computer systems. Request: \$40000.

WATERSHED ISSUES - OUTREACH

Since 2003 the MCHD has promoted Low Impact Development to planning boards and watershed groups as a way to mute the effects of urban sprawl on potable and recreational water in coastal plain watersheds. LID's message is that infiltration decreases the volume of stormwater that is released as runoff. Stormwater volume blankets the benthic habitat and degrades water quality when eroded fines persist in the water column as colloids carrying biological or chemical contaminants. In 2006, MCHD posted a number of documents for teachers that relate history, habitats and pollution in MC <http://co.monmouth.nj.us/data.asp?appid=37&agencyid=121>. Since 2005, MCHD reviews municipal plans as part of the MC Stormwater Technical Advisory Committee. Staff regularly attends meetings about Wreck Pond, the Navesink-Swimming Rivers, the Shrewsbury River, and Monmouth Park; as well as the Governors Forum on the Ocean, Watershed Management Area 12, MC's Microbial Source Tracking group, etc. In 2006, the MCHD re-posted signs on Branchport Creek due to polluted runoff from Monmouth Park. These are the first long-term advisory signage on an estuary in NJ that is not a lifeguarded swimming beach.

The DEP should consider taking a leadership role and funding a university project that would create a web-based database modeled after the real-time "syndromic surveillance" databases that are now being developed for tracking bioterrorism. It would be designed to link historic and current enterococcus results to other databases containing rain, wind direction and speed, water temperature, etc., in order to cost-effectively accelerate the current methods of identifying closure trends at bathing sites. It would also incorporate the current and temperature data that is generated by Rutgers LATTE project and Stevens University. The effects of rain intensity and the length of time in between rain events on enterococcus needs to be investigated.

AMBIENTS

In 2002, the 62 site ambient surface water-monitoring program that MCHD performs became the first County Health Department to have their ambient (and RBA) sampling protocols accepted by the DEP for listing new impaired sites on the Integrated List. We wish to continue having our data continue to identify key issues that are crucial to urban sprawl, and to support the DEP's work successful work with Category 1 and other watershed protection efforts in Monmouth County. For example, the total suspended solids parameter, which is used to regulate new construction runoff by the NRCS, underestimates the actual suspended sediments and was determined to be inappropriate for surface water sampling by the USGS a couple of years ago. For more information:

www.shore.co.monmouth.nj.us/health/environmental/303DTMDL/tss.htm .

APPENDIX A

GEOGRAPHIC INFORMATION SYSTEM PROGRAM - PRIORITY ACTIVITIES 2009

There continues to be an essential need for the full time Geographic Information Systems (GIS) specialist position in the Monmouth County Health Department (MCHD). Responsibilities of this position include GIS system administration and database design; the continual transfer of data to and from the New Jersey Department of Environmental Protection (NJDEP), and other County and Municipal agencies; maintaining and updating data on the MCHD networked system; identifying data needs and continuing to incorporate GIS into every section of the Health Department, thus improving efficiency and keeping abreast of the latest technological advances.

Field data collection by the MCHD will be achieved from use of two Trimble GeoXH Global Positioning System (GPS) units. These units will collect data at sub-meter accuracy, within NJDEP standards. ArcPad 7x, an ESRI hand-held GIS application that allows field crews to collect and edit data while still in the field will be utilized on the Trimble units. ESRI Application Builder may be utilized to streamline data collection for field staff for certain

programs. These projects will be coordinated with NJDEP to reduce data redundancy. GPS will remain an essential and accurate means of collecting field data in MCHD work.

The MCHD GIS staff will offer support for public health projects and decision making, whenever applicable. GIS staff will work in conjunction with other County departments, and offer support on projects with inter-agency issues such as emergency management. GIS work produced will continue to be formatted so that it can be made available to the public on the Monmouth County website. Mapping will be presented in Adobe pdf format. Other methods of providing data to the public will be explored and implemented where deemed feasible by the Department.

MCHD GIS data will be stored in a Personal Geodatabase format. Select data will also be housed on the County's SDE-Geodatabase. The MCHD Personal Geodatabase will provide a centralized location of data for MCHD GIS users.

GIS staff will also investigate recent advancements in data interoperability. This will greatly increase the GIS Specialist's ability to pull from real-time data sources. A potential application for this technology will be to assist in coastal water quality studies.

The GIS Specialist and other departmental GIS users will assist the staff in identifying usefulness of GIS and possible areas for best implementation. Areas of data weaknesses will be identified and solutions will be implemented in order to resolve them. Resolution of any potential technical problems will be addressed. Database management issues, such as limiting redundancy, as it pertains to multiple working copies of project data, will be a focus of GIS users. A methodology of in-house data distribution will be implemented to assign correct levels of protection for files and directories.

Geographically based data shall be submitted in a manner and format consistent with the publication entitled "Geographic Information System, Mapping and Digital Data Standards". Digital data will be submitted to NJDEP as developed through County projects and metadata will be created and updated for these projects following DEP standards.

GIS staff will attend meetings with NJDEP to provide a County status report, prioritize GIS applications, and assess County GIS data. These meetings, as deemed necessary, shall be arranged by NJDEP. In addition to these meetings, GIS staff will be active in the New Jersey Geospatial Forum (NJGF,) and the Mid Atlantic Chapter of Urban and Regional Information Systems Association (MAC-URISA.) These groups have emerged as the prominent meeting grounds for GIS Specialists for the region.

Key GIS objectives include providing environmental data to local planning officials, linking environmental data to public health concerns, and developing to identify one or more environmental factors that cause or may cause or aggravate health problems, and developing GIS data relevant for CBRNE emergency preparedness purposes. Ambient water monitoring, Coastal monitoring, and Rapid Bioassessment (RBA) surface water sampling results will be studied in a GIS framework in an effort to identify water quality trends and relationships to other environmental and man-made features. Extensive GIS mapping will be utilized to generate "Just in Time" training packets to MCHD staff in the event that additional samplers are required. GIS will continue to assist in the production of RBA, watershed, coastal sampling, and TMDL related surveys. It will also be used as a means to spatially display data in contaminated site investigations.

In addition GPS/GIS will be used to keep our Public Non-Community (PNC) coverage up to date. New PNCs will be GPSed and added to the pre-existing database. It will also be an important tool under the Private Well Testing Act. If a survey is conducted, wells with a confirmed Maximum Contaminate Level (MCL) exceedance and wells sampled to delineate the contamination area will be GPSed. In addition, well depth will be added to the spatial coverage to aid in developing three-dimensional maps and to determine the aquifer where the contamination is located.

GIS will continue to be utilized as a tool to improve our all hazards planning and homeland security initiatives. Coverages and databases, both in digital and hardcopy formats, will be created to support hazmat and public health responses to local and/or regional events. Work will be created in both formats to enable responders to access it via a PC, a resource binder, or MCHD's flat file.