

NYS CONFERENCE OF ENVIRONMENTAL HEALTH DIRECTORS

December 30, 2009

Mr. Jack Dahl, Director
Bureau of Oil and Gas Regulation
NYSDEC Division of Mineral Resources
625 Broadway, Third Floor
Albany, NY 12233-6500

COMMENTS ON THE DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT (dSGEIS) ON GAS DRILLING IN THE MARCELLUS SHALE

Dear Mr. Dahl:

The Conference of Environmental Health Directors (CEHD) has reviewed the dSGEIS on Gas Drilling in the Marcellus Shale and finds that issues related to protecting public health and water resources from the potential impacts of gas drilling are inadequately addressed. We support and urge your thoughtful consideration of the following concerns presented on behalf of the CEHD.

OVERSIGHT AND REGULATORY COORDINATION

- 1. Financial and Human Resources Needed for Implementation.** We are very concerned with the ability of the NYSDEC to accomplish its mandates related to gas drilling with its limited staff and resources. Without effective management, oversight, and enforcement, gas drilling procedures and technologies could fail to perform as designed, and efforts to protect the public health, the environmental health, and the quality of life within the community will be compromised. Effective management of all gas-drilling operations is critical to ensuring that a responsible and consistent level of public and environmental health protection for any community is achieved.
- 2. Unfunded Local Health Department Mandate.** The dSGEIS requires the local Health Departments to respond to water quality complaints from drinking water wells. Although we agree that local Health Departments are the appropriate agencies to respond to local complaints, this is an unfunded mandate. Fees collected for the permitting of these gas wells must be sufficient to provide for funding of local health department response, including staff time, and related expenses (vehicles, fuel, equipment, phone, etc.). Additional comments related to this issue are included later in this document.
- 3. NYSDEC Oversight.** With aquifer protection in mind, the dSGEIS indicates no minimum or required inspections or oversight of the gas well drilling, hydrofracturing process, or gas well site activities. There are no explicit provisions for the NYSDEC to ensure protective casings are correctly installed, and that the hydrofracturing process and associated on-site hydrofracturing wastewater, including impoundments, do not impact groundwater or surface water. Surface water impacts must also be addressed; some groundwater sources are especially susceptible to contamination from surface water pollution.

4. **Site-Specific SEQR Review.** (Section 8.1.1.1) In order to ensure individual site constraints are adequately addressed, the NYSDEC should permit aspects of the drilling operation related to water resources on a site-specific basis. Topography, site access, nearby (within 1000 feet) public and/or private water supply locations, surface water, wetlands, and environmentally sensitive areas should be addressed through individual permits. Because of the variability of these resources and their sensitivity to the impacts of gas drilling activities, a Generic Environmental Impact Statement will not adequately protect the public.
5. **Permit Reconsideration.** (Section 8.3.1 and Appendix 10) Every three years, the NYSDEC should revise permit conditions to reflect technological advances that may be available to limit the environmental impacts of natural gas drilling rather than relying on the technology proposed at this time. Data are not currently available in many areas that the dSGEIS addresses (flowback composition, flowback changes over time and from well to well, source water withdrawals, naturally occurring radioactive materials (NORM), treatment/disposal options and impact). A three-year review also allows new information to be reviewed and permit conditions to be changed as needed to address new technologies and to mitigate the cumulative effect of horizontally drilled gas wells on the environmental health, public health, and community quality of life in New York State. Public input should be part of the permit revision process.
6. **Regulatory Involvement.** (Section 8.1.1.3) The permitting agency (NYSDEC) should include each municipality and county as an INVOLVED AGENCY on each individual permit application wherever gas drilling permits are issued. NYSDEC intends to rely on "GIS databases" to determine if there are local impacts from specific wells. Such databases can never replace the wealth of knowledge contained in local health departments. It is better to be aware of a potential problem up front, rather than try to fix things after a well has gone in. To take one example, what if drilling is proposed over an old dumpsite? In close proximity to a new public water supply well? Over a VOC plume from an old circuit board manufacturer?
7. **Local Health Department Notification.** Local health departments should be notified directly of drilling-related surface spills or infrastructure or equipment failures that result in unanticipated subsurface releases. Such information exchange is crucial to allow timely assessment of potential impacts to public or private water supplies. Informal and ad-hoc notification arrangements between NYSDEC spill engineers and LHDs cannot be relied upon to relay this important information. We cannot afford to become aware of a spill only after a well is impacted! Communication from the NYSDEC Mineral Resources Division to local health departments regarding such issues should be formalized and mandated.
8. **Eliminate Vague language.** The dSGEIS uses vague language – terms such as "diligent effort," "to the extent practical," "strongly encourages," and "may require" - throughout the document. The dSGEIS should be revised to clarify requirements and minimize dependence on the good will or intentions of the permit applicant.
9. **Remediation Funds.** The legislature should consider amending the Navigation Law so that the NYS Environmental Protection & Spill Compensation Fund (Oil Spill Fund) can be applied to natural gas spills. An alternative is to create a Natural Gas Remediation Fund, also to be administered by the State Comptroller and financed by a license fee for every 100 cf of gas extracted. Local Health Departments should be eligible for reimbursement from the fund for spill-related activities. Similar to the Oil Spill Fund, gas

well spill investigation and mitigation expenses such as relocation of people affected by spills, emergency water supplies and restoration of damaged infrastructure (well pumps, water mains, utility lines, etc.), would be paid for by the fund until a responsible party is identified and the Comptroller initiates cost recovery.

10. **Section 8.2.1 - Permit Conditions.** The permitting program should encourage alternative processes to be evaluated. Permit conditions should be reviewed periodically to incorporate new technical processes and other developments that minimize impacts.
11. **Drinking Water Aquifer Protection.** The dSGEIS provides too few safeguards for the protection of drinking water aquifers. Drilling should at a minimum occur outside of sole-source aquifers, NYSDEC designated Primary and Principal Aquifers and aquifers designated with the PBS code (such as Cortland County's aquifers).
12. **Applicability of Other Regulations.**
 - a. The NYSDEC in coordination with the NYSDOH -BPWSP and NYSDOH Office of Council should review the applicability for Watershed Rules and Regulations or other aquifer protection strategies to see if the provisions are preempted by ECL Article 23.
 - b. Existing NYSDEC regulations such as Parts 212 (air pollution), 450 (noise) 595 (releases of hazards substances), and 608 (use and protection of water) can be applied to gas drilling sites and vigorous enforcement of these regulations by the NYSDEC could significantly mitigate gas well-related problems.

GROUNDWATER MONITORING

We are concerned with the substantial health risks that hydrofracking in the watershed could cause by potentially contaminating groundwater and surface water supplies. Additionally, the elevated radiological results from the drilling flowback water and tailings pose potential public health risks. The CEHD concurs that groundwater monitoring should be conducted near Marcellus Shale gas wells; however, the program proposed by the NYSDEC is inadequate to detect and remediate contamination of drinking water aquifers.

13. The program proposed by the NYSDEC in Section 7.1.4 needs to be changed to address aquifer protection. Areas that need to be addressed include:
 - a. A well survey to identify water wells within 1 mile of the well pad or other means for adequate water well identification
 - b. Monitoring in addition to drinking water wells or when water wells are not available
 - c. Surface water monitoring
 - d. A consistent set of testing parameters
 - e. Centralized data management
 - f. Notification to the local health department at key stages (gas well application, permit issuance, drilling, hydrofracking, well testing, etc.)
 - g. A standardized summary report [similar to NYSDEC Discharge Monitoring Reports (DMRs)]
 - h. Baseline test results should be available before drilling begins
 - i. Protocols for addressing contamination and authority for follow-up testing. A written procedure needs to be developed by the NYSDEC and the NYSDOH in coordination with local health departments that outlines how water well problems will be resolved and who will be responsible.
 - j. A mechanism for addressing secondary impact complaints

- k. Enforcement and mitigation procedures for non-compliance need to be established before permits are issued.

14. Monitoring Wells. (Section 7.1.4.) Water quality monitoring programs should focus on monitoring the groundwater resource, not just existing drinking water wells. Water-supply wells should not be the sole means of determining if groundwater contamination has occurred near a Marcellus Shale gas well due to the unknown or varying construction, operation, and availability of these wells, and the possibility that there may be no private wells or springs within 2,000 feet of the proposed well pad. The permit should require the applicant to install and monitor groundwater wells to detect groundwater contamination before it reaches individual or public supply wells. Installation and testing of monitoring wells located 150 feet up- and down-gradient of gas wells should be required. Monitoring locations need to be approved and sited with local health department input.

15. Impact of mud pits on groundwater quality: In some counties there are well-documented studies that identify reclaimed mud and cutting pits as a source of groundwater contamination. This further warrants installation and testing of monitoring wells.

16. Potential Contamination from Spills. Any impacts from gas drilling are more likely to occur from surface activities related to preparation and drilling rather than impacts in relatively shallow water wells (150-400') from deep hydro-fracking. Therefore, ambient potable water aquifer monitoring should be designed to detect impacts from surface contamination as part of a spill protection and countermeasure plan.

17. Testing Frequency. Section 7.1.4.1, Page 7-38 states that "If no contamination is detected a year after the last hydraulic fracturing event on the pad, then further routine monitoring should not be necessary." To detect longer-term cumulative impacts to the groundwater resources such as a gradual regional increase of chlorides and methane in the groundwater, the permit should require that sampling continue at a minimum number of selected wells at least annually until the gas well is decommissioned.

18. Section 7.1.4. The water quality monitoring program should **not** be complaint-based. NYSDEC should establish a groundwater monitoring and reporting procedure that requires the applicant to submit the analytical results to the NYSDEC and local health department within a specified time period and requires the applicant to determine if there have been any significant increases in chemical or physical concentrations.

19. Health Department Resources. (Section 7.1.4). Review of the water-well testing results by local health departments as proposed in the draft SGEIS cannot be accomplished without additional resources. NYSDEC should conduct comprehensive needs-based assessments and/or surveys of the local health departments in order to determine adequacy of local resources and funding. Required testing at gas wells will directly contribute to increased work loads at local health departments. The increased work loads will come in the form of responding to complaints, investigating existing water quality issues that are identified through baseline testing, and determining the source of contamination. In addition, local health departments will be responding to nuisance complaints related to gas drilling (noise, odors, etc.) Funding sources need to be identified for the local health units covering both water quality and nuisance complaints. Funds for implementing this program need to be provided to local health departments through gas well permitting fees and need to be distributed annually. Fees cannot be

raised directly by the local health departments since the NYSDEC has sole regulatory authority over gas wells.

20. **Communication.** (Section 8.1.1.3). Local health departments and municipalities should be notified when a permit application is filed, when a permit is approved, when water well samples will be collected, two weeks prior to drilling, one week prior to hydrofracking due to potential inquiries from the public, and when drilling/site activity has ended. We suggest that as part of the permit application, the applicant should certify that these entities have been notified. P. 6-35 notes that turbidity may occur in local wells with any aquifer penetration. Residents and public water supplies using water wells in the area should also be notified two weeks prior to drilling.
21. **Data Management.** NYSDOH in cooperation with NYSDEC and the local health departments should take the lead role in water quality data management and evaluation including plotting all results for each well tested on Piper diagrams. This information should be made available to all local health departments.
22. **MOU.** A statewide Memorandum of Understanding (MOU) should be developed between NYSDEC, NYSDOH, and the local health departments to address the issues associated with water well testing near natural gas wells. After establishing a minimum level of service, the level of local health department involvement should be determined on a county-specific basis. This new statewide MOU would replace the MOU currently in place for Chautauqua, Cattaraugus, and Allegheny Counties.
23. **Section 7,1.12.1, Pg 7-67.** The proposed EAF Addendum in Appendix 6 requires the applicant to provide “Evidence of diligent efforts by the well operator to determine the existence of public or private water wells and domestic-supply springs within half a mile of any proposed drilling location or centralized flowback water impoundment if proposed” - and - a “List of property owners and tenants contacted for water well information.” In order to determine the location of all private wells in the vicinity of a proposed gas well, a well survey must be performed for all parcels within 1 mile of the site. The records of private wells in the State are incomplete and DEC’s water well information search wizard only contains a small fraction of the private wells. Applicants should be required to identify properties within one mile by tax map number, owner, parcel/tenant address, and owner address. NYSDEC should ascertain that this information is correct and complete as part of the permit review process. The permit applicant should be required to share the results of the well survey with the NYSDEC, the local health department, and local municipalities. The permit applicant should be required to publicize the list and give local residents two weeks to come forward if they know of a well that is not on the list.
24. **Groundwater Monitoring for All Oil and Gas Drilling.** Groundwater monitoring well and private well testing requirements should apply to all types of oil and gas well drilling in the State, not just Marcellus Shale.

NORM

25. **Section 7.8.2, Pg 7-102. - Naturally Occurring Radioactive Material.** NORM is not adequately addressed. The elevated radiological results from the drilling flowback water and tailings present the potential for significant public health risk. Their potential impact needs to be fully understood and acceptable methods of disposal carefully evaluated.

26. The third paragraph on pg. 7-102 states: "Analytical results from initial sampling of production brine from vertical gas production wells in the Marcellus formation have been reviewed and suggest that the potential for NORM scale buildup and other NORM waste may require licensing. The results also indicate that the production water may be subject to discharge limitations established in Part 380." In order to mitigate the potential impacts of NORM in both cuttings and flowback water, all cuttings and flowback water must be analyzed for NORM in order to determine appropriate disposal alternatives.
27. **Section 7.1.9, Pg. 7-61.** The idea that NORM is not a problem with drill cuttings is based on two samples. This is clearly not sufficient. Since the major disposal option is burial in local landfills, NORM sampling should be done for each batch of drill cuttings prior to transport and disposal, at least until a large-scale sampling program establishes the safety of such materials. Under no circumstances should drill cuttings be disposed outside of licensed landfills without testing to show they are not a threat to human health or the environment.

PITS AND CENTRALIZED SURFACE IMPOUNDMENTS

28. **Section 7.1.7 - Centralized flowback water surface impoundments.** The dSGEIS states: "Many of the above practices address impacts that would be most effectively mitigated by use of covered tanks instead of open surface impoundments for centralized flowback water facilities." Given this statement and considering that the flowback water from hydraulic fracturing of Marcellus Shale wells has been shown to contain elevated dissolved solids, chlorides, barium and other heavy metals, and radioisotopes, covered tanks rather than surface impoundments should be **required** in order to most effectively mitigate impacts.
29. The storage of flowback waters, drilling muds and drill cuttings in pits and lagoons should be expressly prohibited anywhere within 100-year flood plains. Streams in the Southern Tier are prone to flooding with little warning (see 2006). Provisions must be made to secure all tanks, drums and totes containing hazardous/toxic materials from flood waters if these storage vessels are located within a 100-year flood plain.
30. Reserve pits and fluid storage lagoons may exist for years. Pits or lagoons that will contain drill cuttings, drilling muds and flowback waters should be provided with leak detection devices such as monitoring wells. Provision should be made to prevent overflow of pits and lagoons during heavy rains (i.e., pits and lagoons must be maintained with excess capacity so that they will not overflow during a 100-year storm event). Pits and lagoons should be fenced and signed to prevent accidental human exposures to contained fluids. An overflow from a pit or lagoon should be treated as a reportable spill. Such requirements are especially important for centralized fluid storage lagoons if they are permitted.

FLOWBACK

31. **Section 7.1.8.1 - Municipal Publicly Owned Treatment Works (POTWs).** POTWs are not designed to treat constituents in flowback water and should not be used for treatment or disposal. Flowback waters are an industrial waste, and separate industrial wastewater treatment facilities should be constructed to specifically treat them. Even with pretreatment, many of the constituents of flowback and formation water, including NORM, will flow through POTWs to the receiving waters or be entrained in the solids for

disposal. While dilution of flowback/formation water constituents will greatly reduce their concentrations per unit disposal, this does not mitigate the increased loading of these constituents to receiving waters or the land surface of New York State.

32. Capacity to adequately treat flowback is clearly inadequate. There is a proposal for a treatment plant to be built in Owego but there are no existing facilities in New York State designed to treat flowback, and there are only 2 sites in Pennsylvania that provide specialized treatment. Each permit applicant needs to provide a plan for each well site prior to the start of drilling that shows where flowback and produced waters will be disposed. No viable disposal option, NO drilling.
33. **Sec. 7.1.7, Pg. 7-51.** NYSDEC requires a fluid disposal plan if “probability exists that brine, salt water or other polluting fluids will be produced or obtained during drilling operations in sufficient quantities to be deleterious to the surrounding environment.” Additionally, “Department approval of headworks analysis, and the modification of the POTW’s SPDES permit, if necessary, must be received prior to the acceptance of flowback water or produced brine from wells pursuant to this Supplement.” (pg. 7-58) Procedures should be established for confirming that the proposed treatment is acceptable. Disposal plans should be re-evaluated and approved by the NYSDEC when site-specific data on flowback water are available. These plans and documents should be readily available to the public.
34. Fluids to be disposed at any type of treatment works should be tested for VOCs, radioactivity, heavy metals, semi-volatile organics – basically the same list of substances that potable water wells will be tested for during baseline sampling. Analytical results should be sent to the local health department where the treatment plant is located and to NYSDEC.
35. **Appendix 22 – NYSDEC – Division of Water Hydrofracturing Chemicals (HFC) Evaluation Requirements for POTWs** allows “For proposed discharges, testing results from similar wells drilled in the same formation using the same HFCs are acceptable for purposes of analysis.” Using testing results from similar wells will not provide the data needed to evaluate pre-treatment requirements. Verification testing of each individual well should be required using flowback waters generated from the permitted gas well. Page 6-18, Section 6.1.3.3. - Flowback Water states “The quality and composition of flowback from a single well can also change within a few days after the well is fractured,” and Section 5.11.3.1-Temporal Trends in Flowback Water Composition states “Limited time-series field data from Marcellus Shale flowback water taken at different times indicate that: the concentrations of total dissolved solids, chloride and barium increase, the levels of radioactivity increase...”. Therefore, testing should also be required at specified intervals during hydrofracking to assess the adequacy of treatment and SPDES permit requirements with the variation in flowback characteristics over time.
36. Page 5-122 says that it is ok to spread “well-related fluids” on local roads. This should not be allowed unless direct sampling demonstrates that these fluids will not harm public health or the environment. This is a potentially huge public health exposure risk. We must not assume that these fluids are safe. Of particular concern are NORMs and heavy metals. Samples should be collected from each batch of fluids because of the large variability in composition of flowback and produced fluids.

SETBACKS

37. **Section 7.1.12, Pg. 7-64 - Setbacks based on analogies.** The proposed setbacks from wells pads and surface impoundments are inadequate to protect surface water resources from accidental spills and releases and need to be increased. The analogies used in the dSGEIS are inappropriate with respect to scale. For example, mixing of fertilizers and pesticides is typically a small-scale operation carried out by an individual farmer in or near a farm building. A gas well pad covers several acres, contains hundreds of vehicles and equipment items as well as dozens of workers. The workers mix millions of gallons of fracking fluid and inject it into gas wells under high pressure.
38. **Section 7.1.12.2, Pg. 7-69 - Setbacks from surface water resources.** Proposed setbacks for well pads are 300 feet from a reservoir and 150 feet from a watercourse, lake or pond, and for centralized flowback surface water impoundments they are 500 feet from a watercourse lake or pond and 1,000 feet from a reservoir. These setbacks are inadequate to protect surface water resources from accidental spills and leaks. The 2009 NYS Open Space Conservation Plan addresses stream buffers and states, "One hundred feet should be considered an absolute minimum width for streams regardless of site-specific characteristics. Whenever possible buffers greater than 100 ft, and preferably 300 ft or more, should be used for the protection of stream function, as well as fish and wildlife resources." In order to be consistent with the State's Open Space Plan, the setback distances from a well pad to a watercourse, lake or pond downstream of the well pad should be 300 feet. The set back distance from a well pad to a reservoir should be 300 feet if the reservoir is upstream of the well pad or 1,000 feet if the reservoir is downstream of the well pad, as this is a public water supply and the setback distance should be the same as for a water supply well.
39. Given the large volume of contaminated water in a centralized surface impoundment, the setback distance to watercourse, lake or pond that is downstream of a surface water impoundment should be at least twice the length of the side of the impoundment. For a 5-acre impoundment with sides that are 466 feet by 466 feet, the setback to watercourses, ponds and lakes should be 1,000 feet. The setback distance between a surface water impoundment and a watercourse, lake or pond upstream of the impoundment should be 500 feet.
40. **Section 7.1.12.1. Pg. 7-67 - Setback for water-supply wells.** The 1,000 feet setback from gas well pads for municipal public water supply wells should also apply to community and non-community water supply systems, and individual private wells without exception.

WATER WITHDRAWALS

41. **Section 7.1.** The dSGEIS should address the combined impacts and the cumulative impact on groundwater and surface water. Safeguards should be included to ensure that the millions of gallons required for the drilling operations will not leave local residents without adequate drinking water. It is suggested that these safeguards, at a minimum, be similar to the Susquehanna River Basin Commission/Delaware River Basin Commission's regulations, to permit, monitor, and regulate water withdrawals from flowing and standing water bodies as well as aquifers (large or small).

GAS WELL CONSTRUCTION AND RELATED REQUIREMENTS

42. The integrity of the cement grout around the upper casing is paramount to protect groundwater resources. A protocol needs to be created to ensure direct NYSDEC inspection during grout emplacement. No NYSDEC inspector present, no grouting permitted. It is not sufficient to rely on the word of the drilling company or its subcontractors that the job was done correctly (see methane problems in Dimmock, PA for an example of what might go wrong).
43. Secondary containment should be required for ALL on-site fuel, hazardous/toxic material storage and brine tanks at drilling sites, not just those with capacities of 10k gallons or more. Drums or totes containing toxic/hazardous fluids should be stored on impermeable surfaces like concrete pads with secondary containment provided. Blending of drilling fluids should take place over an impermeable surface with secondary containment. Each well site should have a written spill control and countermeasures plan that is provided to local health departments and NYSDEC spill engineers before drilling begins.
44. Section 7.1.9. Onsite burial of drill cuttings at shale-gas development sites, which is allowable under the dSGEIS if oil-based drilling mud is not used, should be re-considered. Pyrite may be abundant in the high-TOC basal intervals of the Marcellus Shale. Oxidation and leaching of pyritic shale produces an acidic, metals-rich discharge commonly referred to as AMD (Acid Mine Discharge). A multi-horizontal well site will generate 100 to 500 times the volume of AMD-producing pyritic shale cuttings than that generated at a single-vertical well site. If these pyritic-shale drill cuttings are left onsite, the potential for future surface-water and groundwater contamination is significant. All cuttings should be required to be removed from the site and disposed of at an approved landfill.

ASSOCIATED ENVIRONMENTAL IMPACTS AND OTHER CONCERNS

45. The NYSDEC needs a strategy to address impacts from drilling caused by hitting shallow gas or by driller error or equipment malfunction.
46. Emissions data for hydrogen sulfide is very sparse for gas wells. This could be a serious health issue for nearby residents, and needs to be addressed with more sampling.
47. Ambient VOC air testing should be done at each large compressor station to ensure that these installations are not a threat to human health. Preliminary testing near such compressors in Texas indicates high levels of benzene and other VOCs. Based on initial sampling results, a formal testing program may have to be implemented.
48. The dSGEIS does not address other environmental impacts associated with the gas drilling operations. These include:
 - a. Air – Local Health Departments expect to receive complaints for odor and air quality impairments. These impacts and complaint response needs to be addressed.
 - b. Noise – Section 7.10.4, Pg. 7-109. According to the dSGEIS, the hydraulic fracturing permit process will require the operator to develop a noise impact mitigation plan “that incorporates specific practices and, to the extent practicable, local land use policy documents.” The SGEIS should outline the specific required

components to include in noise impact mitigation plans, including setback requirements for roads and well pads, maximum dBA levels and restricted hours of operation for particular drilling activities. The SGEIS should further require the involvement of the local health department and municipalities in the mitigation planning process.

- c. Drill Site Offices and "Camps": The drill sites will have significant numbers of persons for at least day use, if not overnight. The provision of drinking water, on-site wastewater treatment, food, and temporary housing needs to be identified and addressed.
- d. Gas Distribution Construction: Once these wells produce natural gas, distribution piping networks will be needed to convey the gas to existing natural gas pipelines. Although this will likely be an unlisted action by entities other than the drilling companies, construction of this associated piping may have significant environmental impacts.

We appreciate the opportunity to provide comments to the NYSDEC on this important issue. If you have any comments or questions, please contact Elizabeth Cameron, P.E., NYS Conference of Environmental Health Directors, Chair, Gas Drilling Sub-Committee at (607) 274-6688. Thank you.

Respectfully submitted,

Susan G. King,
Chair
NYS Conference of Environmental Health Directors

cc: NYSDEC Commissioner Pete Grannis
NYSDOH CEH Howard A. Freed, M.D., Director
New York State Association of State County Health Officials (NYSACHO),
Environmental Health Committee
NYS Conference of Environmental Health Directors