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STATE OF NEW YORK  
OFFICE OF THE STATE COMPTROLLER

April 25, 2006

Ms. Emily Lloyd  
Commissioner  
New York City Department of Environmental Protection  
59-17 Junction Boulevard  
Flushing, New York 11373

Re: Security Over New York City's  
Water System  
Report 2004-N-9

Dear Ms. Lloyd:

Pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution; Article II, Section 8 of the State Finance Law; and Article III of the General Municipal Law, we audited the actions taken by the New York City Department of Environmental Protection in identifying and addressing security-related vulnerabilities in New York City's water system, and in developing an emergency response plan that addresses security-related incidents. Our audit covered the period January 1, 2001 through October 31, 2005.

**A. Background**

New York City's water system provides drinking water to more than 8 million City residents and about one million people living outside the City. About 99 percent of the water is supplied from a network of reservoirs and controlled lakes in a 1,972 square-mile watershed that extends 125 miles north and west of the City. The New York City Department of Environmental Protection (DEP) protects the water supply system by restricting access to water supplies and supply system components (such as tunnels and aqueducts), and monitoring and patrolling restricted areas. To help restrict access to sensitive areas, DEP actively seeks to acquire the property surrounding those areas. DEP has a 190-member police force and contracts for security guard services.

DEP and other public water system operators in the United States were required by the Public Health and Bioterrorism Preparedness Act of 2002 to assess their vulnerability to terrorist attacks and other hostile actions and develop an emergency response plan describing how they would respond to such actions. In accordance with the Bioterrorism Act and a 2002 amendment to the New York State Public Health Law, DEP was to submit this vulnerability assessment and emergency response plan to the New York City Department of Health and New York State Department of Health in 2003. The vulnerability assessment was also to be submitted to the U.S. Environmental Protection Agency in 2003.

DEP initiated a security-related vulnerability assessment prior to the new State and federal

requirements for such assessments. In order to perform a complete vulnerability and risk assessment of the water supply system, DEP requested the assistance of the United States Army Corps of Engineers (USACE). The assessment was initiated in December 2001 and completed in March 2005. At the end of the process, the consultant provided DEP with a report which summarized the results of the assessment and recommended various actions that could or should be taken to address the vulnerabilities that had been identified. The consultant also provided DEP with interim reports throughout the vulnerability assessment process, and DEP was able to begin addressing many of the vulnerabilities before the entire process was completed. DEP also submitted an interim report to the New York City Department of Health, the New York State Department of Health, and the U.S. Environmental Protection Agency in 2003.

**B. Audit Scope, Objectives and Methodology**

We audited the actions taken by DEP in identifying and addressing security-related vulnerabilities in New York City's water system. We also audited the actions taken by DEP in developing an emergency response plan that addresses the findings of the vulnerability assessment. Our audit covered the period January 1, 2001 through October 31, 2005. The objectives of our performance audit were to (1) determine whether DEP prepared and submitted a vulnerability assessment as required by State and federal legislation, (2) assess the progress made by DEP in addressing security-related vulnerabilities, and (3) determine whether DEP prepared an updated emergency response plan that incorporates the findings of the vulnerability assessment.

To accomplish our objectives, we interviewed DEP officials and reviewed records maintained by DEP. In particular, we reviewed the final vulnerability assessment report prepared by the consultant and meeting minutes for work performed by the consultant. We also reviewed the emergency response plan that was developed by DEP. To evaluate the progress that had been made by DEP in addressing vulnerabilities, we selected certain recommendations from the final Overall System Report and assessed the actions taken by DEP in implementing these recommendations. We also visited 33 of the more than 700 individual sites that were surveyed during the vulnerability assessment.

We conducted our audit in accordance with generally accepted government auditing standards. Such standards require that we plan and do our audit to adequately assess those procedures and operations of DEP that are included in our audit scope. These standards also require that we understand DEP's internal control systems and compliance with those laws, rules and regulations that are relevant to DEP's procedures and operations included in our audit scope. An audit includes examining, on a test basis, evidence supporting transactions recorded in the accounting and operating records and applying other auditing procedures that we consider necessary under the circumstances. An audit also includes assessing the estimates, judgments and decisions made by management. We believe our audit provides a reasonable basis for our findings, conclusions and recommendations.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State, several of which are performed by the Division of State Services. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions and public

authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these management functions do not affect our ability to conduct independent audits of program performance.

**C. Results of Audit**

We found DEP complied with the requirement to file a vulnerability assessment with the appropriate City, State and Federal agencies. We also found DEP made progress in addressing the vulnerabilities that were identified in the vulnerability assessment. However, there are many opportunities for improvement in certain management, documentation and communication practices. Our detailed audit results were provided to DEP officials during our audit. Due to the sensitivity of the information, the detailed findings and recommendations are not included in this final report. A follow-up audit will be done on the detailed findings and recommendations. DEP officials' comments have been considered in preparing this final report. DEP officials agreed with some of our recommendations and indicated they intend to pursue their implementation. They did not agree with some of our recommendations because they represent one approach that DEP could have taken, but they are not consistent with the approach that DEP elected to follow. The response is included as Appendix A to this report.

**Recommendation**

*Implement the detailed recommendations provided to DEP officials during the audit.*

Within 90 days after final release of this report, we request that the Commissioner of the New York City Department of Environmental Protection report to the State Comptroller, advising what steps were taken to implement the recommendations contained in the report, and where recommendations were not implemented, and the reasons therefor.

Major contributors to this report were Gerald Tysiak, Santo Rendon, William Lichtenberg, James Pugliese, Peter Pagliaro and Daniel Raczynski.

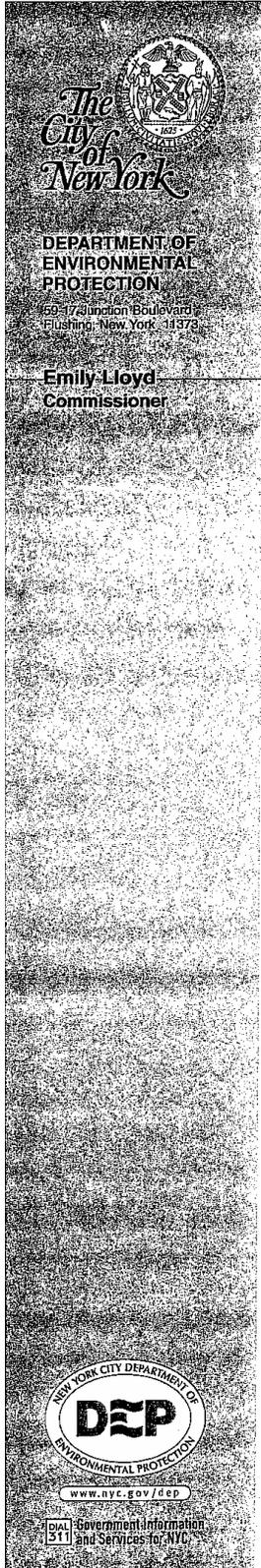
We wish to thank the management and staff of the Department of Environmental Protection for the courtesies and cooperation extended to the auditors during this audit.

Very truly yours,

Carmen Maldonado  
Audit Director

cc: Jeffrey Kay, Mayor's Office of Operation

March 16, 2006



Carmen Maldonado  
Audit Director  
Office of the State Comptroller  
Division of State Services  
123 William Street - 21<sup>st</sup> floor  
New York, New York 10038

Re: Audit 2004-N-9

Dear Ms. Maldonado:

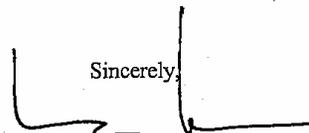
I am writing in response to your letter of February 16, 2006, which transmitted the final draft report issued pursuant to the Office of the State Comptroller's audit of the New York City Department of Environmental Protection's (DEP's) water supply security practices. Your letter requested that DEP provide a written response to the draft report.

First, I would like to thank you and the audit staff for the effort dedicated to this audit. As you have learned through your work, New York City's water supply is a vast and complex system. DEP's efforts to safeguard the water supply are multi-faceted, including increased water quality monitoring, physical security of key facilities, advanced electronic surveillance and coordination with other law enforcement officials. To focus your work, the audit team concentrated primarily on the City's preparation and implementation of vulnerability assessments for critical locations. During the audit, your team was provided with thousands of pages of documentation and conducted a series of interviews with DEP security staff.

I would also like to commend you for your commitment to keep the findings of the audit confidential for security reasons. Although the audit did not attempt to comment on specific security measures taken – focusing instead on the process by which DEP undertook its assessment and implementation – it does contain information that we deem sensitive. We appreciate the measures you have taken to ensure that this sensitive information remains confidential.

Your final audit report contains a number of recommendations for DEP's consideration. DEP has carefully evaluated the recommendations and a confidential response has been provided to your office

Again, I would like to thank you and your colleagues for your diligent efforts in undertaking this audit.

Sincerely,  
  
Emily Lloyd

cc: Michael A. Principe, Deputy Commissioner  
Edward Welch, Chief, DEP Police Division