

**MINUTES OF THE MEETING OF THE
NEW YORK CITY WATER BOARD
JUNE 13, 2014**

A meeting of the New York City Water Board (the “Board”) was held on June 13, 2014 starting at approximately 8:35 a.m. at 22 Reade Street, New York, New York 10007. A roll call of the Board’s members was conducted, and the following members of the Board were present at the start of the meeting:

Alan Moss,

Alfonso Carney,

Adam Freed,

Jonathan Goldin, and

Arlene Shaw

constituting a quorum. Mr. Moss chaired the meeting, and Albert Rodriguez served as Secretary of the meeting.

Approval of the Minutes

The first item on the agenda was approval of the minutes of the Board’s previous meeting held on May 23, 2014. There being no discussion, upon motion duly made and seconded, the minutes of the meeting held on May 23, 2014 were unanimously adopted.

Adoption of the FY 2015 Water Rates for Upstate Customers

The next item on the agenda was adoption of the Fiscal Year 2015 (“FY 2015”) water rates for the provision of water to Upstate customers. Prior to adoption of the rates, Steve Lawitts, Executive Director of the Board, noted the proposed rates were 5% higher than the current rates and that a public hearing on the proposed rates was held in Valhalla, New York on June 2, 2014; five people attended the hearing; one person testified at the hearing; and a

transcript of the hearing and written testimony had been provided to the Board prior to the meeting.

In response to questions from Chairman Moss, Mr. Lawitts stated that the proposed rates for entitlement water for Upstate customers would be approximately 68% less than the rates charged to City customers.

There being no more discussion, upon motion duly made and seconded, the following resolution was unanimously adopted by the Board.

RESOLUTION

WHEREAS, the Board is authorized pursuant to Section 1045-j of the New York City Municipal Water Finance Authority Act to establish rates and charges for services furnished by the Water System of the City of New York (the “City”); and

WHEREAS, the Board has received a report dated May 1, 2014 from the Amawalk Consulting Group LLC, Rate Advisor to the Board, on the cost of supplying water to upstate customers for the Fiscal Year 2015 rate year, and such report indicates that the anticipated unit cost of water supply service for municipalities and water districts north of the City in Fiscal Year 2015, after accounting for the reconciliation of FY 2013 actual costs, will be \$1,573.61 per million gallons; and

WHEREAS, upon appropriate notice, a public hearing was held on June 2, 2014 in Valhalla, New York, concerning the proposed increases in the rates for water supply from the City system sold to users north of the City pursuant to the Water Supply Act of 1905; and

WHEREAS, the Board has received a copy of the hearing transcript, and staff has recommended the proposed increases based on the cost of service evaluation in the report noted above; it is therefore

RESOLVED, that effective July 1, 2014, the regulated rate for water sold to users north of the City from either the Croton or Catskill/Delaware Systems that is within the allowance quantities of water set forth in Section 24-360 of the Administrative Code of the City of New York shall be \$1,573.61 per million gallons; and the rate and charge for water provided to users north of the City that exceeds the allowance quantities of water set forth in Section 24-360 of the Administrative Code of the City of New York shall be continued at a level equal to the retail metered rate effective within the City of New York, which as of July 1, 2014 shall be equal to \$4,946.52 per million gallons.

Approval of Independent Auditor and Related Engagement Letter

The next item on the agenda was approval of the selection of an independent auditor for the New York City Water System (the “System”) and authorization to execute an engagement letter with the auditor for fiscal years 2014 and 2015. Prior to the Board vote, Mr. Lawitts said the Joint Audit Committee of the Water Board and Municipal Water Finance Authority met on May 23, 2014 and voted to recommend that Deloitte and Touche, LLP serve as independent auditor. Member Freed, a member of the Joint Audit Committee, noted that while Deloitte and Touche had been the auditor for the System for the last four years, the current partners working on the account would be replaced by different partners of the firm in conformance with municipal GAAP procedures.

Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board.

RESOLUTION

WHEREAS, pursuant to Section 1045-g(8) of the New York City Municipal Water Finance Authority Act, the New York City Water Board (the “Board”) is authorized to enter into contracts and to retain private consultants on a contract basis for the purpose of obtaining professional or technical services to assist the Board in carrying out its responsibilities; and

WHEREAS, the New York City Municipal Water Finance Authority (the “Authority”), in conjunction with the City of New York (the “City”), issued a competitive Request for Proposals for independent auditor services; and

WHEREAS, Deloitte & Touche, LLP, who currently serves as the independent auditor for both the City and the New York City Water and Sewer System (the “System”), a component unit of the City, was selected based on their proven record of quality of service, as well as compatibility in the coordination of the audit of the System with the City’s audit; and

WHEREAS, pursuant to the Audit Committee Charter, the Joint Audit Committee of the Authority and the Board has evaluated the recommended selection of Deloitte & Touche, LLP as independent auditor; and

WHEREAS, the Audit Committee has found the selection of Deloitte & Touche, LLP to be satisfactory and has recommended to the Board that Deloitte & Touche, LLP be appointed and retained as independent auditors for the System; it is therefore

RESOLVED, that the Board authorizes the Executive Director to enter into a contract and sign annual engagement letters with Deloitte & Touche, LLP as the independent auditors for the System's financial statements for the fiscal years ending June 30, 2014, and June 30, 2015, as well as any other documents necessary to effectuate the retention of the independent auditors.

Presentation on Spill Prevention and Response in the New York City Watershed

The final agenda item was a presentation by Paul Rush, Deputy Commissioner of the NYC Department of Environmental Protection ("DEP"), on spill prevention and response in the New York City Watershed, a copy of which is attached hereto.

In response to questions posed by Member Goldin, Mr. Rush said (i) DEP had a program that assists property owners in moving environmentally hazardous materials out of flood plains within the watershed to protect against the release of hazardous materials during a flood and (ii) DEP would soon be adding blue gill fish monitoring at the Croton reservoir to detect water contaminants. Mr. Rush said he was confident the System is adequately protected against the kind of water contamination that recently occurred in West Virginia from a hazardous waste spill.

Adjournment

There being no further business to come before the Board, upon motion duly made and seconded, the meeting was duly adjourned.

SECRETARY

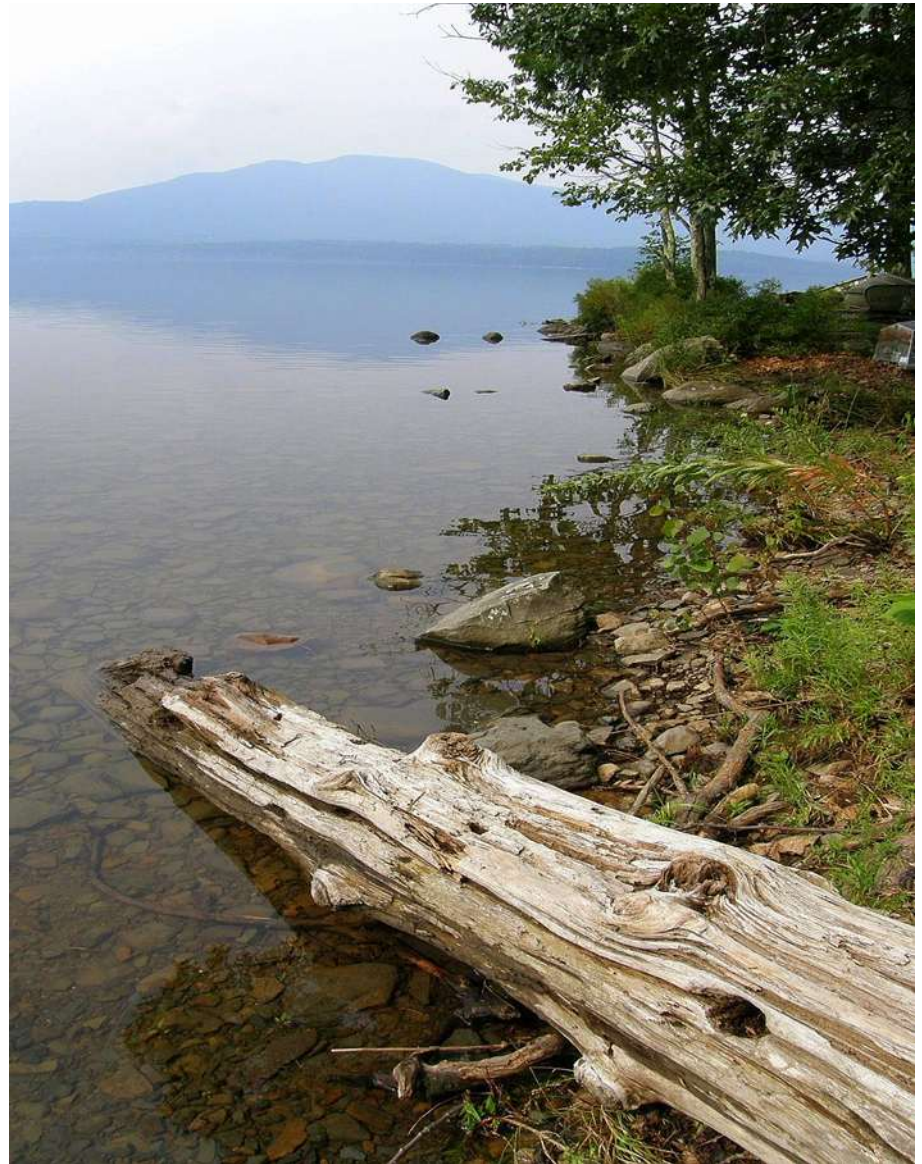


Spill Prevention and Response in the New York City Watershed

Paul V. Rush, P.E.
Deputy Commissioner, Bureau of Water Supply

June 13, 2014

- Water Supply Overview
- West Virginia Incident Background
- Current BWS Systems
- Notification Procedures



Water Supply System Overview



- Primarily a surface water supply
- 19 reservoirs & 3 controlled lakes
- System Capacity: 580 billion gallons
- Serves 9 million people (1/2 of population of New York State)
- Delivers approx. 1.1 billion gallons per day
- Source of water is a 2,000 square mile watershed in parts of 8 upstate counties
- Operated and maintained by DEP

Catskill/Delaware Supplies



- 1 million acres
- Rural, mountainous watershed
- 78% forested, low population, significant agricultural uses
- Shallow soils and porous rock produce high quality water
- Unfiltered. Water quality protection benefits NYC consumers and downstream communities/users



West Virginia Incident Background

- The January 9 incident at a Freedom Industries facility leaked 7,500 gallons of 4-methylcyclohexanemethanol
- The leak went into the Elk River, roughly 1 mile upstream of the water supply intake for 300,000 people in the Charleston metro area
- Federal and state regulators had not inspected the storage tanks since 1991
- A “do-not-use” order was issued to the nine-county region until it was gradually lifted on January 13
- Roughly 700 people sought medical attention for symptoms such as nausea, vomiting and rashes

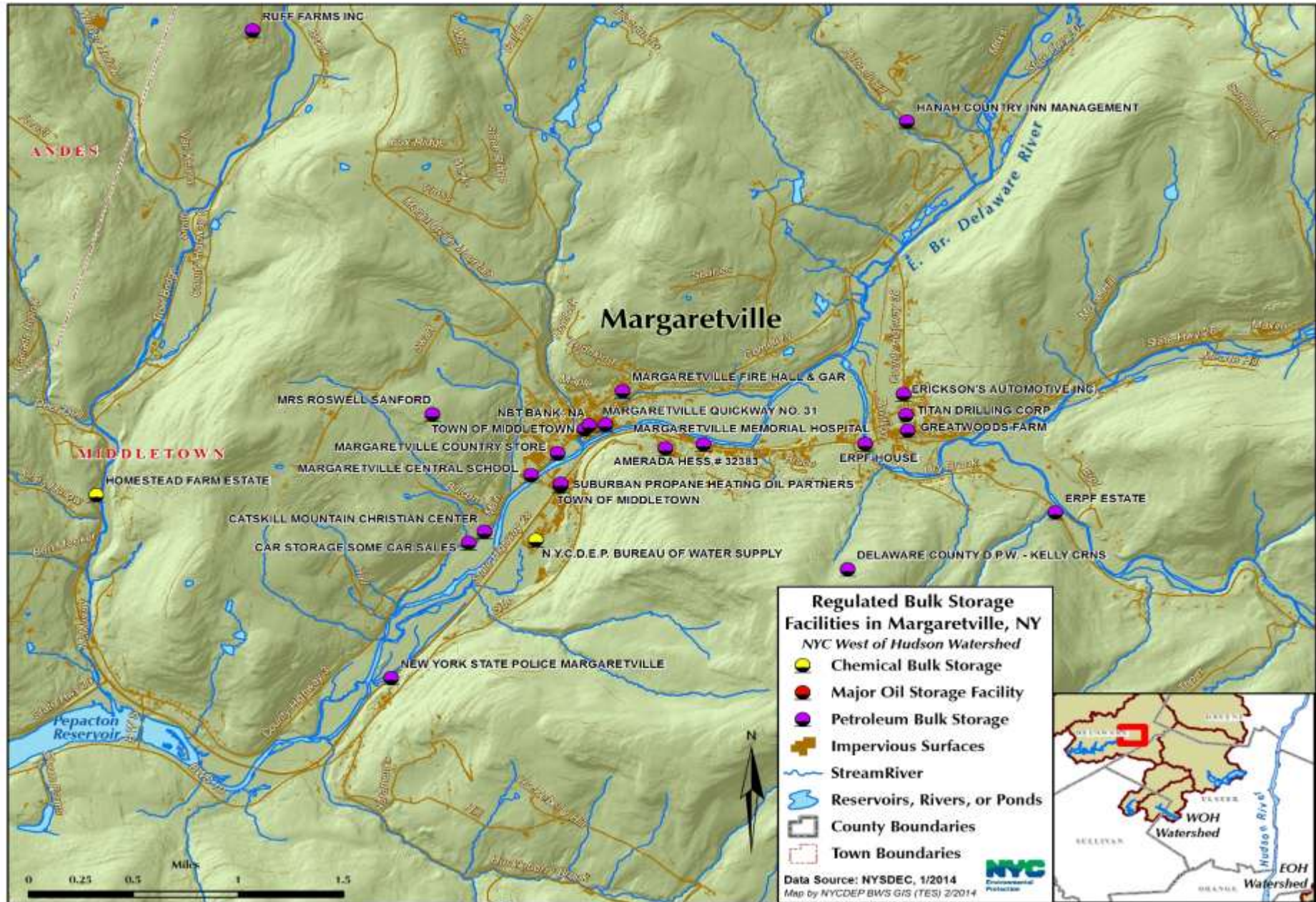


Above: Site of the MCHM leak in West Virginia

- Bottled water provided by FEMA and West Virginia National Guard
- Several ongoing investigations by OSHA, U.S. Attorney's Office, West Virginia DEP
- After the leak, West Virginia passed a law to require:
 - Registration of all above-ground tanks capable of storing more than 1,320 gallons
 - An early-warning system in the Elk River
 - All water utilities in West Virginia to file source-water protection plans
- A federal bill (S.1961) to further regulate bulk storage facilities and protect water supplies has stalled in Congress

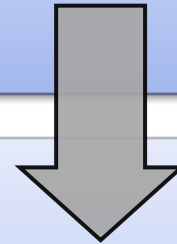
- Storage of quantities of petroleum and listed chemicals requires permits from NYSDEC
- Permits required for above-ground storage of 185 gallons or more, and all below-ground tanks
- New York requires the following inspections:
 - Below-ground tanks: monthly inspection, annual testing of lines and leak detectors
 - Above-ground tanks: daily visual inspection, annual inspection by qualified technician, more detailed inspections at 5- and 10-year intervals
- NYSDEC maintains an on-line database of permitted facilities
- DEP downloaded NYSDEC database into our GIS

Example Map



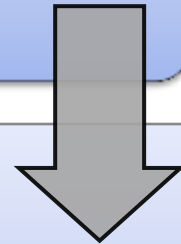
Discovery

- Discovery and notification to BWS may be from DEC, members of the public, local governments, or BWS employees
- DEP Police notifies BWS Spill Coordinator who then coordinates the spill response



Evaluation

- Initial review of information provided (estimate quantity and potential impact to Water Supply)
- Site visit if warranted by HazMat staff and/or Water Quality staff

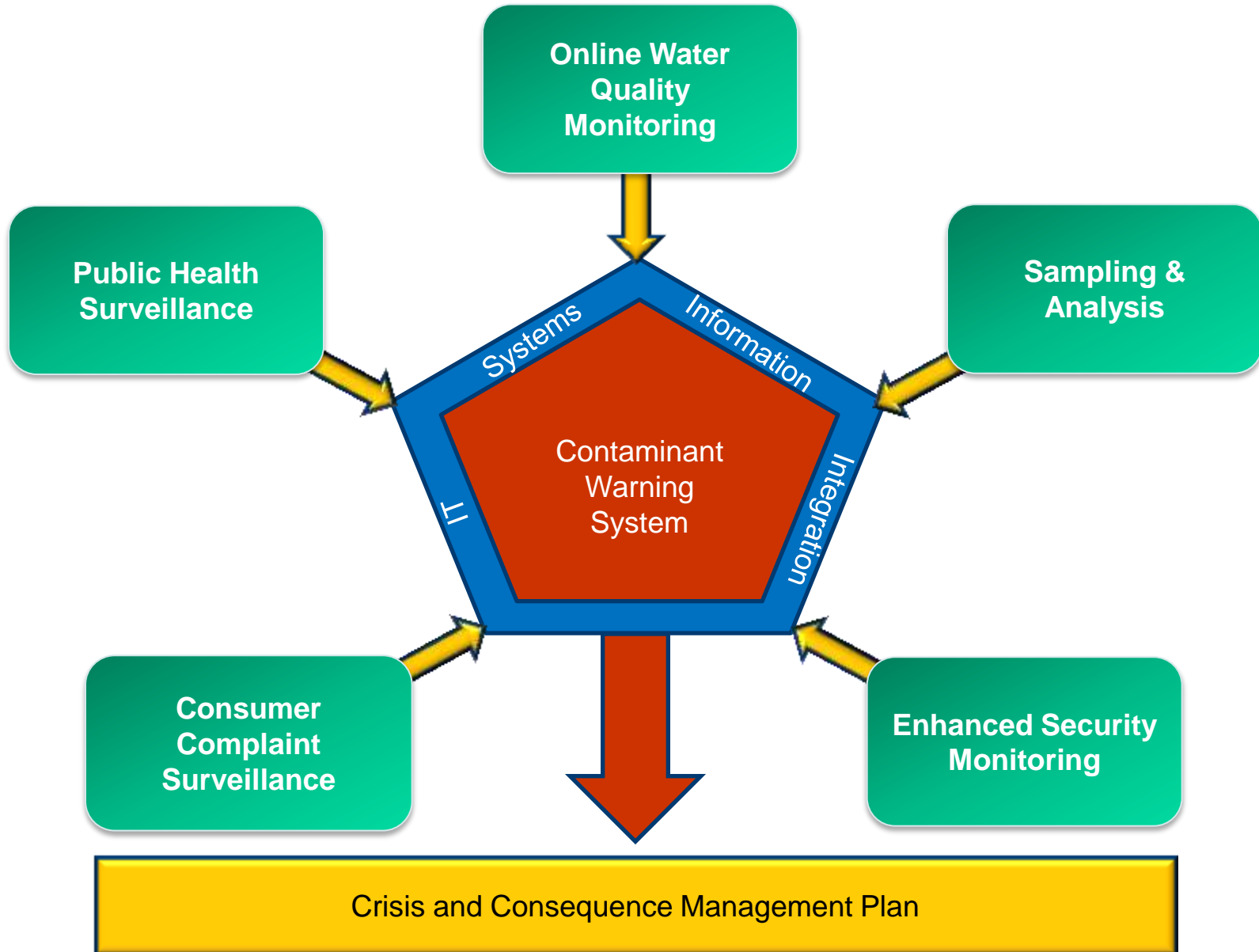


Actions

- Actions are dependent on severity of the spill
- Internal notifications to BWS Senior Staff
- Agency notifications if necessary (DEC, DOH, EPA)
- May involve water quality sampling or ongoing special investigation if cause is undetermined or risk is ongoing

- DEP efforts to provide an early warning system to detect, monitor and respond to potential chemical threats to water supply enhanced by Contamination Warning System Demonstration Pilot Project
- Three year cooperative agreement with U.S. EPA
- \$12,000,000 in Federal funding
- Project completed in 2013 and was on time and budget

Program Elements



- Extensive upstate network of 40 OWQM stations feeding data into centralized dashboard and database
- 11 additional OWQM stations installed in distribution system as part of the CWS
- CWS relies upon measuring changes in water quality, chiefly: pH, T, sp. cond., turbidity, FCR (at many sites)
- Real-time data via DEP network, MetroE, NYCWin
- Event detection software (EDS) and alarm notification messaging

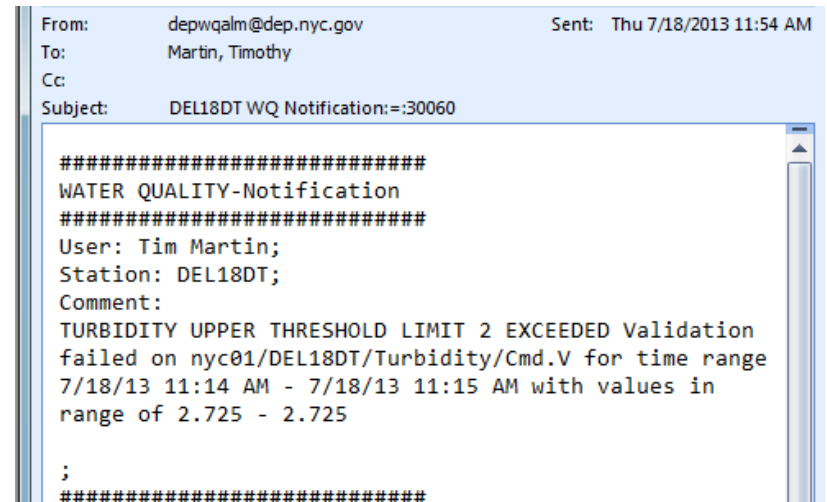


- Water quality data from OWQM stations is transmitted in near real-time to the CWS



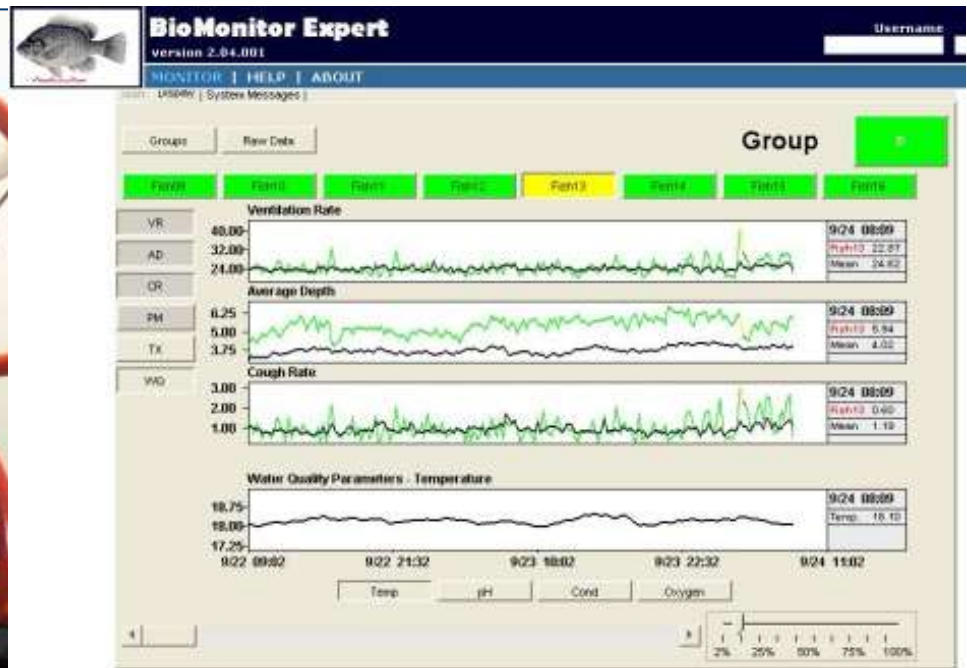
dashboard for a snap-shot view of current water quality conditions

- An automated email notification is sent out if an OWQM alarm is triggered due to an event detection system alarm, or water quality parameter threshold exceedance



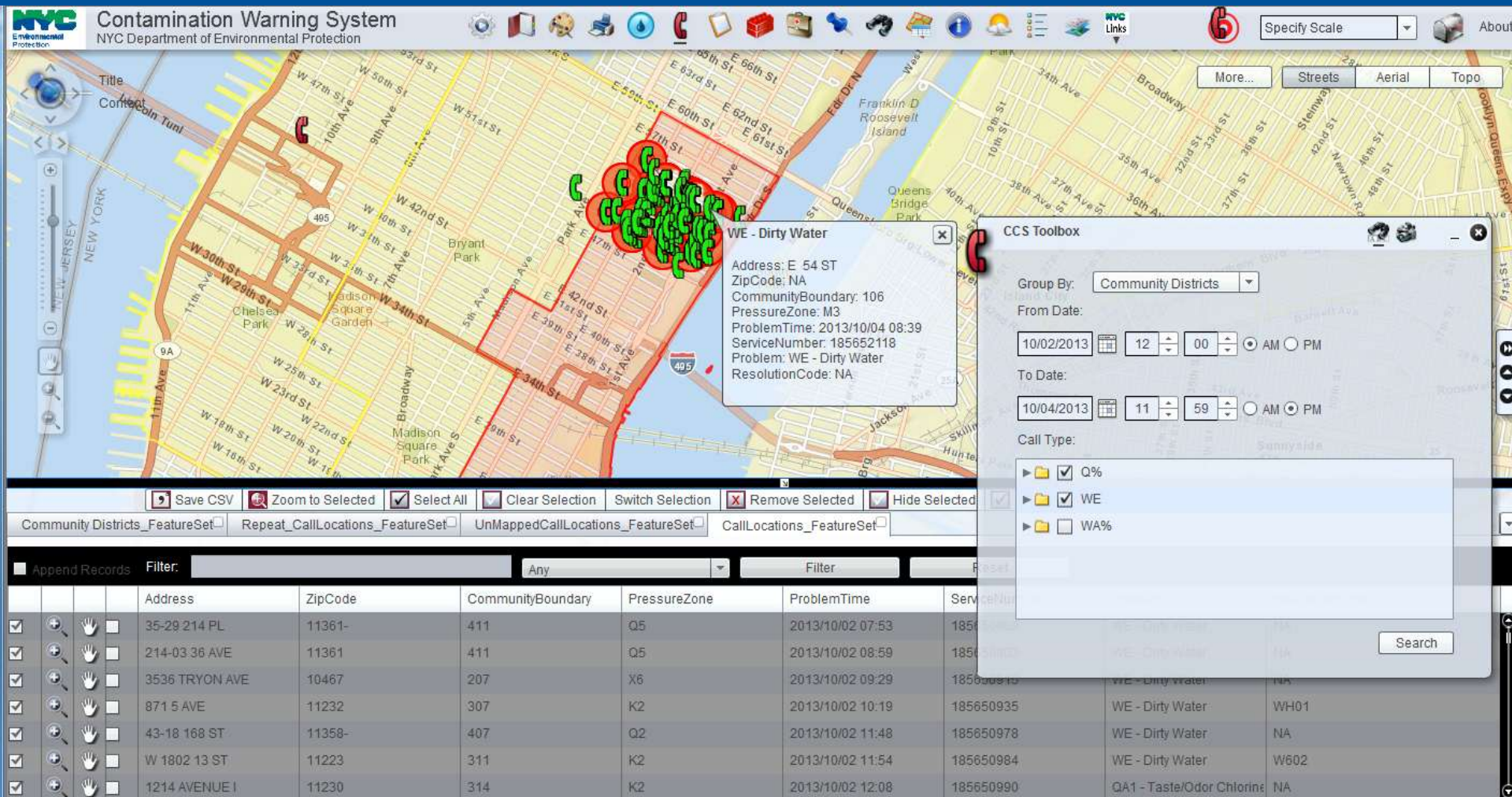
OWQM Fish Biomonitoring System

- DEP utilizes an BioMonitor Expert (BME) online fish biomonitoring system at Kensico Reservoir
- BME detects toxicity in real-time by measuring changes in breathing patterns and electrical signals from bluegills
- One additional BME to be installed at New Croton Reservoir
- DEP working with U.S. Army Center for Environmental Health Research on required software upgrades to BME



- Under the CWS, DEP developed a 311 consumer complaint surveillance (CCS) system for mapping and notification of water-related consumer complaints, and integration of the information on a geospatial “dashboard”
- Enhanced CCS system features:
 - Automatic threshold alarms and event notification using 10 years of historical data
 - Automated daily email notification
 - Automated mapping of complaints and call clusters

Consumer Complaint Surveillance (CCS)



- CCS toolbox provides the ability to map 311 water-related complaints in real-time in order to visualize call clusters and to provide notification for investigation and potential response

- New York City made wise investments decades ago when it created an upland water supply
- DEP is a worldwide leader in source water protection to significantly reduce potential hazards such as chemical leaks in the watersheds that feed our reservoirs
- The City's water supply includes biological and technological monitoring systems for potential contaminants
- New York State's chemical bulk storage regulations are more stringent than those recently passed in West Virginia



Questions

