



## Department of Health

**ANDREW M. CUOMO**  
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Commissioner

**SALLY DRESLIN, M.S., R.N.**  
Executive Deputy Commissioner

May 27, 2015

David S. Warne  
Assistant Commissioner  
NYC Department of Environmental Protection  
Bureau of Water Supply  
465 Columbus Avenue  
Valhalla, NY 10595

Dear Mr. Warne:

NYSDOH and USEPA have reviewed the 2014 Filtration Avoidance Annual Report, which was submitted March 30, 2015. Our comments are attached. We would appreciate if you could provide a reply to these comments by June 26, 2015. Please feel free to contact me if you have any questions.

Sincerely,

Pamela L. Young, Ph.D.  
Chief, NYC Watershed Section  
Bureau of Water Supply Protection

Att.

Cc (electronic):

R. Sokol  
T. Boepple-Swider  
P. Sweeney – USEPA  
K. Kosinski – NYSDEC

***NYSDOH/USEPA Comments on  
FAD Deliverables due March 31, 2015  
2014 FAD Annual Report***

**FAD Section 11. Reporting**

The Filtration Avoidance Annual Report for the period January 1 through December 31, 2014, was submitted as required by Section 11 of the Revised 2007 FAD. The report summarizes the activities and achievements of NYC's FAD programs for the reporting period, and, in general, demonstrates NYCDEP's compliance with FAD requirements. Compliance with specific one-time FAD requirements may be reported separately. NYSDOH/USEPA comments are provided for individual FAD program areas below. (Note: section numbers refer to numbers in the Annual Report, not to FAD sections/programs. To assist the reader, NYSDOH suggests for future reports that report section numbers correspond to, or cross reference, FAD section/program numbers.)

**2. SWTR Filtration Avoidance Criteria Requirements**

Monitoring and reporting have been completed as required for the reporting period. All Surface Water Treatment Rule (SWTR) filtration avoidance water quality requirements were met. Raw water fecal coliform concentrations were well below the criterion for filtration avoidance; the six-month running percentages of samples that had equal to or less than 20 fecal coliform in 100 milliliters never fell below 99.5% (SWTR limit is 90%). In addition, raw water turbidity was well below the 5 NTU limit, measuring 2.4 NTU or less in samples collected every 4 hours. The highest monthly percentage of positive total coliform samples collected in NYC's distribution system was 2%, which is within the 5% limit.

**2.1.2 Raw Water Turbidity.** Figure 2.2 depicts Delaware Aqueduct turbidity for 2014. The x-axis does not appear to be scaled correctly, as it overlooks March, June, August, and November. However, the data points appear accurate, including the peak entry point turbidity of 2.4 NTU measured in the 12:00PM sample on June 9, 2014.

**3.1 Septic Programs**

**3.1.1 Septic Rehabilitation and Replacement Program.** It is noted that in 2014, the program funded the repair or replacement of 236 septic systems in the West of Hudson Watershed. While this number is similar to what was accomplished in 2011 (227 systems), it is down 15-20% from the past two years. Does DEP anticipate that the November 2014 expansion by CWC of the Priority Area Program to include systems up to 700 feet from a watercourse will increase program participation? Also, does DEP have an estimate of the number of failing or likely-to-fail septic systems located between 300-700 feet of a watercourse?

**3.1.2 Septic Maintenance Program.** NYSDOH/USEPA note the continuing increase in participation in this program, with the number of subsidized septic pump-outs having increased by 17% from 2013 to 2014.

**3.2 Community Wastewater Management Program.** NYSDOH/USEPA note the final completion of the Trout Creek project, which was a deliverable in the Revised 2007 FAD. Is this treatment system operational?

Progress was made on the Lexington and South Kortright projects. The milestone date for completing construction of the South Kortright project was December 31, 2014. This date was missed due to unanticipated delays encountered in negotiating several project-related agreements. What is the anticipated date for completing construction at South Kortright?

## **4.2 Land Acquisition**

Please provide a brief update on the Watershed Agricultural Council's forest conservation easement program.

**4.2.4 Technical Program Improvements.** For the Pilot Riparian Buffer Acquisition Program, please confirm that the contract to manage the program has been awarded to the Catskill Center for Conservation and Development.

**4.2.5 Water Supply Permit.** The text states that the Water Supply Permit "authorizes a land acquisition program through 2015." The Water Supply Permit expires 15 years from its effective date of December 24, 2010 (i.e., through 2025).

## **4.3 Land Management**

**4.3.1 Management of Water Supply Lands and Conservation Easements.** NYSDOH/USEPA appreciate DEP's initiative on the draft CE amendment policy, which will include more uniform deed terms for easement landowners, simplify administration and enforcement, and provide some programmatic flexibility. Please provide the anticipated completion date.

The report states that WAC and DEP continue to develop several stewardship policies "for the activation of reserved rights, including those related to future acceptable development areas." Please provide additional information and/or criteria used in determination of the "acceptable development areas."

**4.3.2 Beneficial Use.** NYSDOH/USEPA commend DEP for its "management priority to allow and enhance those recreational activities that are compatible with water quality." Enhancements of note in 2014 included opening 4,800 new acres of land for public use, and the expansion of the recreational boating program season, which now runs from May 1 to November 30.

Periodically, certain activities need to be restricted if there are potential threats to water quality. For example, seasonal tags for trolling motors on the Cannonsville Reservoir were discontinued when it was determined that some users of those motors were not following the program rules, and may have introduced motors that had not been steam cleaned into the reservoir.

Under "Agricultural Use" the text states: "In 2014, DEP approved 6 new projects covering 150 acres for a total of 96 projects in 26 different towns covering 2,332 acres." Please describe the nature of the six new projects.

**4.3.3 Forest Management.** The Revised 2007 FAD requires DEP to continue to conduct forest inventories on City-owned lands, including long-term continuous forest inventory (CFI) plots. Provide a brief description of the status of this FAD activity.

**4.3.4 Invasive Species Management.** NYSDOH/EPA appreciates the diversified partnership and non-traditional approach to outreach and training provided through the Catskill Regional Invasive Species Partnership.

The development of a monitoring program for the spiny water flea in West of Hudson reservoirs is noted. These can be transported into reservoirs by boats, purchased bait, and waterfowl. Once established, they can act as food-web bottle neck that could have a negative impact on fish populations and trophic cascades that may impact algae levels.

#### **4.4 Watershed Agricultural Program**

The report for the Watershed Agricultural Program does not include any information about Precision Feed Management (PFM). In accordance with the Revised 2007 FAD, NYCDEP is required to report on the number of eligible farms on which PFM has been implemented. Please provide this missing information along with a short update on the expected program activity over the next year.

**4.4.2 BMP Implementation.** The text does not include the types of new BMPs implemented, as required by the Revised 2007 FAD.

#### **4.5 Watershed Forestry**

NYSDOH/EPA commend DEP for development of an interactive website for landowners to develop their own forest management plan, which will launch in 2015. In general, the Watershed Forestry program has a very prolific education and outreach component, which enhances the promotion of forestry as a desirable land use in the watershed.

**4.5.2 BMP Implementation.** Six projects were completed in 2014 for the Croton Trees for Tribes Program. This exceeds the FAD goal of completing at least 5 projects/year. The text states that these six projects involved 42 volunteers and planted 99 linear feet of East of Hudson Watershed streams. In 2013, there were six projects that planted 438 feet of streams. Prior to 2013, projects covered an average of 230 feet each (28 projects covering 6,448 feet). Please verify the linear feet for 2014, and if it is correct, explain what might account for the diminishing length of stream footage that is addressed by this program.

#### **4.6 Stream Management Program**

NYSDOH/USEPA acknowledge the commencement of the hiring process for two new coordinator positions (Flood Hazard Mitigation and Stream Planning), and note the completion of program rules for implementing the Local Flood Analysis (LFA) and funding flood hazard mitigation projects. Significant advancement has been made on the LFA process for numerous municipalities.

The report states that negotiations for contracts with DEP's five primary SMP partners were completed and work commenced on two of the five contracts. NYSDOH/USEPA note that DEP has previously reported that funding within existing contracts and related contract time-extensions have

provided for continuity of program activities until all contracts are registered. It would be helpful to the reader if language used to report contract status was consistent with language used in the Revised 2007 FAD. For example, does “commence work on” mean the same as “execute”?

Please provide the status for reporting on stream assessments conducted on the Birch Creek, the Bush Kill, and the Bushnellville Creek (performed in 2012, 2012, and 2013, respectively). No report is available for Warner Creek on the Ashokan Streams website (<http://ashokanstreams.org/exploring-the-watershed/warner-creek/>). The assessment was completed in 2010, according to the 2014-2016 Ashokan Watershed Action Plan.

The Revised 2007 FAD specifies that the Annual Report for the Stream Management Program should include information on the number of miles of roadside ditches that have been maintained and funding committed to roadside ditch maintenance. The report does not appear to contain this information.

**4.6.2 Flood Recovery and Hazard Mitigation.** Designed to relieve imminent hazards to life and property associated with extreme storm events, implementation of this program under the auspices of the Stream Management Program should serve to enhance overall water quality protection, contribute to economic stability of the region, and develop productive collaboration with watershed communities.

DEP and its Stream Management Program partners have effectively leveraged federal Emergency Watershed Protection (EWP) funding to help pay for numerous streamside projects in the Watershed. In addition, NYSDOH/USEPA note that, in order to enhance overall project success, DEP took on the full cost of design and stabilization work for some areas that were adjacent to EWP projects, but were not eligible for EWP funding.

#### **4.9 East of Hudson Non-Point Source Pollution Control Program**

**4.9.2 Stormwater-Related Nonpoint Source Pollution Management Programs.** NYSDOH/EPA note that the Drewville Road stormwater retrofit project has not gone out to bid yet as DEP continues to work with the Town of Carmel to finalize the design. The Maple Avenue project is ready to go to bid, but is on hold so that it and the Drewville Road project can be bid together.

#### **4.11 Catskill Turbidity Control**

**4.11.1 Implementation of Catskill Turbidity Control Alternatives.** The Operations Support Tool (OST) is an important component of DEP’s watershed protection program. Not only does OST help optimize planning for and operation of the NYC water supply, but it also provides DEP with the opportunity to collaborate with the National Weather Service, through its Hydrologic Ensemble Forecast Service (HEFS). Mutually beneficial partnerships like this are critical for making informed operating decisions. The example provided in the report shows how the use of probabilistic information helped prevent detrimental impact of large snowpack melt in the West Basin of the Ashokan Reservoir. Please provide an update on the status of the Expert Panel that will be reviewing DEP’s use of OST.

## **5.1 Watershed Monitoring Program**

**5.1.3 Water Quality Reports.** On page 93, line 3 of this section should be modified to include NYSDOH as well as USEPA.

## **5.4 Geographic Information Systems**

**5.4.1 GIS Technical Support.** The report discusses the bathymetric survey work performed by USGS on the Ashokan and Rondout Reservoirs. Will this work potentially result in revised storage volume information for these two reservoirs, especially with the 0.01-foot increment stage-area-volume table being developed? Does DEP expect to integrate this information into OST and the Drought Management Plan?

## **8.2 Cross Connection Control Program**

NYSDOH/USEPA commend DEP for implementation of a new digital process for issuing Notices of Violation (NOV) for cross connection control violations. This has enhanced DEP's ability to issue NOVs to property owners who have not submitted annual backflow prevention device test reports. DEP has also increased staff in order to handle the increased number of enforcement hearings. These two program enhancements complement DEP's active cross connection control program, and should help prevent the occurrence of backflow events in NYC's distribution system.

## **10.1 Water Conservation/Demand Management**

NYC's water conservation efforts are truly impressive. With drought conditions threatening in other parts of the United States, our awareness is heightened that high quality water is a finite resource. DEP's programs continue to demonstrate their dedication to preserving, as well as protecting, NYC's precious water supply.