

NEW YORK
state department of
HEALTH

Howard A. Zucker, M.D., J.D.
Acting Commissioner of Health

Sue Kelly
Executive Deputy Commissioner

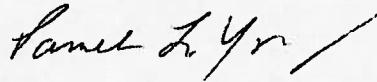
June 4, 2014

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 Filtration Avoidance Annual Report for the period January 1 through December 31, 2013 and provide the attached comments. We would appreciate if you could provide a reply to these comments by July 7, 2014. Please feel free to contact me if you have any questions.

Sincerely,



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

Att.

Cc: R. Sokol
T. Boepple
A. Thompkins – USEPA
P. Sweeney – USEPA
K. Kosinski – NYSDEC

DOH/EPA Comments on
FAD Deliverables due March 31, 2014
2013 FAD Annual Report

11. Reporting

The Filtration Avoidance Annual Report for the period January 1 through December 31, 2013 was submitted as required by the 2007 FAD, Section 11 - Reporting. 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. Notably, raw water fecal coliform concentrations were well below the criterion for filtration avoidance; the six-month running percentage 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 2.2 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 0.94%, well within the 5% limit.

3.1 Septic Programs

3.1.1. Septic Rehabilitation and Replacement Program

The report describes the implementation of this program as required, including that there was no activity in the Cluster Septic System Program in 2013. The text states that CWC funded the repair or replacement of 273 septic systems, and that the total since inception is 4,359. However, this total is an increase of 278 systems over what was given in the 2012 FAD Annual report. Please verify the reported numbers.

3.1.2 Septic Maintenance Program.

The report describes the implementation of this program as required. This important program continues to see rising use, with a 16% increase in the number of septic tank pump-outs from 2012 to 2013.

3.3 Sewer Extension Program

NYSDOH acknowledges progress on the projects in the towns of Shandaken (Pine Hill Sewer System) and Hunter (Tannersville Sewer System). NYSDOH also notes the extra steps taken by NYCDEP to achieve a successful resolution for the Hard Hack Drive sewer main project. Working with the Town of Middletown, NYCDEP obtained cooperation from property owners so that the necessary easement was obtained and residences along the road could be included in the project.

3.4 Stormwater Programs

The report describes activity on Future Stormwater Controls projects, stormwater retrofit projects, and planning and assessment projects as required. NYSDOH notes that no change in status has occurred with the Hunter Foundation project in the Village of Tannersville. NYSDOH commends NYCDEP for promoting the coordination of stormwater retrofit installation and community wastewater projects by waiving the “local share” requirement when funding such projects.

4.2 Land Acquisition

As required, the report describes the status and activities of the Land Acquisition Program, including efforts to involve land trusts in the protection of watershed lands. In accordance with the draft Revised 2007 FAD, NYCDEP worked to develop a Pilot Riparian Buffer Acquisition Program and an Enhanced Land Trust Program; partnered with watershed communities to acquire flood-damaged properties under FEMA’s flood buy-out program; and executed a contract with WAC to provide \$23 million to support acquisition of farm conservation easements (CE) and \$6 million for a pilot Forest Easement Program. The report notes that funding for the farm CE program was budgeted in 2008 and negotiations on the pilot Forest Easement Program began in 2007. The report should include some background on why a contract for these programs was not executed until 2013.

4.3 Land Management

As required, the report describes the activities of the Land Management Program. NYSDOH notes the continued increase in watershed acres that have been opened to the public for recreational uses. While management of these lands for recreational purposes requires additional effort on the part of NYCDEP, these efforts are rewarded by increasing the involvement of the public with the watershed. We commend NYCDEP for working to achieve the balance between providing public access City lands and maintaining watershed protection.

Under “Agricultural Use” on page 31, the report states that: “In 2013, DEP approved 18 new projects covering 313 acres for a total of 92 projects in 25 different towns covering 2,216 acres.” Please provide some clarification regarding the nature of these “new projects”.

Please provide clarification on what “FITT” refers to on page 32. NYCDEP may consider providing a list of acronyms used for future reports.

4.4 Watershed Agricultural Program

Activities and achievements of the Watershed Agricultural Program have been reported in accordance with the draft Revised 2007 FAD. In addition, specific FAD metrics for this program have been met or exceeded: >90% of active large farms participate in the program (92%); Whole Farm Plans (WFPs) continue to be developed on watershed farms; annual status reviews were conducted on >90% of active WFPs; current nutrient management plans were maintained on >90% of participating farms (99%); the Nutrient Management Credit Program was made available to watershed farmers; new BMPs were implemented and existing BMPs were repaired and replaced; farmers were enrolled and re-enrolled in CREP; and the Farmer Education and Farm-to-Market programs were very active. The program continues to demonstrate excellent farmer participation in the multiple watershed and water quality protection initiatives that the program promotes.

4.5 Watershed Forestry Program

The report includes the status and accomplishments of this program, as defined by the draft Revised 2007 FAD. It is apparent from the report that the Watershed Forestry Program is very active in protecting forest resources as a beneficial land use in the watershed. The program provides numerous training opportunities, which are well attended by loggers and foresters. Surveys of landowners who have WAC forest management plans indicate satisfaction with the program and demonstrate substantial use of beneficial management practices. At the same time, the forestry program has sought ways to be more effective and cost-efficient.

NYSDOH notes that no activities were conducted at the Lennox Model Forest pending renewal of a partnership agreement between WAC and Cornell Cooperative Extension of Delaware County. We encourage NYCDEP to facilitate, to the extent possible, a resolution to this agreement so that the Lennox Model Forest may also contribute to the education/outreach benefits provided by the other model forest facilities in the watershed.

4.6 Stream Management Program

As required by the 2007 FAD, the report describes the progress made by the program in implementing stream management plans (SMPs) and the status of stream projects. In accordance with the FAD: the Rondout and Neversink SMPs have been adopted, and implementation has been initiated; numerous training and educational activities were conducted; and preliminary Flood Insurance Rate Maps (FIRM) were substantially completed. Data collected for the FIRM project will be a valuable tool for flood hazard mitigation planning. NYSDOH acknowledges the substantial increase in output for the Stream Management Program, with more projects (47) partially or fully funded in the last two years than during the previous 14-year period combined (37 projects). The stream project descriptions and accompanying pre- and post-construction photographs very clearly portray the scope, complexity, and erosion control benefits of these projects. NYSDOH would be interested in receiving updates in future reports on the resiliency of these projects.

4.6.2 Flood Recovery and Hazard Mitigation.

NYSDOH commends NYCDEP for assuming the costs associated with design and stabilization work of hill slope failures, which was deemed ineligible for cost-sharing by Natural Resources Conservation Service (NRCS) under the Emergency Watershed Protection (EWP) Program. This likely contributed to a more robust long-term solution for chronic suspended sediment sources at these locations. At the same time, NYCDEP and its partners are working with NRCS so that the EWP program might benefit from the comprehensive approach to stream projects used by the Stream Management Program.

4.6.3 Stream Projects

NYSDOH notes the first use of toe wood as part of a stream bank stabilization project in Delhi. This innovative Rosgen technique, which is not currently used in the Watershed, may provide the same stabilization benefits as a rock, while providing a more natural bank appearance in a more cost-effective structure.

NYCDEP and its Stream Management Program partners are commended for working with the Watershed Agricultural Program to stabilize stream banks in two sites so that these riparian areas would be eligible for enrollment in the Conservation Reserve Enhancement Program

(CREP). This collaboration of programs protects water quality from streambank erosion and potential agricultural inputs while helping to leverage federal funds.

NYSDOH notes the completion of the demonstration stream restoration project on the Neversink River, which was a specific requirement of the 2007 FAD. The project was originally due by February 28, 2012. The project was delayed due to site damage during Tropical Storm Irene in August 2011, and the expected completion was pushed back to October 2012. Substantial completion of the project was achieved in August 2012. However, the project was again delayed due to site damage from a 50-year storm in September 2012, which occurred prior to vegetation planting of the bankfull stage bench. This project demonstrated the benefit of the use of a "Stinger" tool to interplant rip-rap with live willow stakes.

Also notable was the response of the Rondout/Neversink Stream Program staff following storm damage to a road that had been repaired after a previous storm. Program staff reached out to county engineers to offer a design for a more sustainable channel restoration and support for an application for FEMA funds. This effort has yielded multiple benefits: extending the expertise of the program to county staff, and leveraging federal funds to produce a more resilient stream channel that should better protect both water quality and public infrastructure.

4.7 Riparian Buffer Protection Program – CSBI evaluation

Activities of the Riparian Buffer Protection Program, including activities of the Catskill Streams Buffer Initiative (CSBI), have been reported as required. NYSDOH notes that 11 Riparian Corridor Management Plans were prepared and 34 riparian buffer restoration projects were installed in 2013. The report states that 27 new CSBI vegetation monitoring sites were added in 2013, bringing the total number of active monitoring sites to 37. In the 2012 FAD Annual Report, it was stated that 10 new sites were added, bringing the total to 27. Please clarify the number of active CSBI monitoring sites, and indicate the years in which evaluation began for each site.

In addition, please provide more information on the evaluation process for the sites, including the survival rates, the effectiveness of installation techniques, and the factors that determine a successful project.

4.8 Wetlands Protection Program

Program activities are reported as required, including information on permit reviews, wetlands protected through land acquisition, wetlands mapping and monitoring, and wetlands protection conducted in conjunction with other program activities.

4.9 East of Hudson Non-Point Source Pollution Control Program

Implementation of the program was reported on as required. Notably, in accordance with specific 2007 FAD requirements, stormwater projects at Michael Brook, Sycamore Park, and the Nemarest Club were reported to be substantially completed in 2013. NYSDOH notes that, in accordance with the draft Revised 2007 FAD, NYCDEP has submitted a proposal for a Septic System Rehabilitation Reimbursement Program for West Branch and Boyd Corners Reservoir watersheds. Also in accordance with the 2007 FAD and the draft Revised FAD, NYCDEP made \$4.5 million and \$15.5 million available for East-of-Hudson communities to construct stormwater retrofits.

4.9.2 Stormwater-Related NPS Pollution Management Programs

The annual report does not address whether the stormwater pollution prevention plan (SWPPP) for the Drewville Road project was received by NYCDEP. The July 2013 semi-annual report for this program stated that NYCDEP was anticipating receipt of the SWPPP approval in the second half of 2013. Please provide the status of that document.

The annual report states that the Sycamore Park project achieved "substantial completion" in September 2013. The July 2013 semi-annual report for this program stated that NYCDEP anticipated "final closeout" in the second half of 2013. Please clarify the conclusion date for all project activities at this site.

The annual report states that the Nemarest Club project achieved "substantial completion" in September 2013. However, the July 2013 semi-annual report for this program stated that construction was completed. Please describe the project-related activities that occurred at the site in the second half of 2013, after the reported completion of the project.

4.10 Kensico Water Quality Control Program

As required by the FAD, the report describes implementation of the Kensico programs.

4.10.2 Kensico Action Plan

NYSDOH notes that the N7, N12, and Whippoorwill nonpoint source reduction projects, which were identified in the Kensico Action Plan, were completed or augmented in 2013. It appears that image C in Figure 4.31 and the image in Figure 4.32 are the same. Please confirm the correct caption for this image.

Significant blow down damage near the Whippoorwill site was noted in a site visit by regulators in November 2013. Please provide updates on the restoration of these areas.

4.10.5 Septic Repair Program

The legend for Figure 4.33 is illegible. Please provide a copy in which this information is legible. The report states that construction on 4 septic systems was completed in 2013. Information on how many systems have been rehabilitated under the program since its inception would enhance the report.

4.11 Catskill Turbidity Control

The report describes implementation of the program elements, as required. NYSDOH acknowledges progress on specific 2007 FAD and Revised 2007 FAD requirements in 2013: the 90% design for the Catskill Aqueduct stop shutter improvement project was finalized, construction commenced on the Shaft 4 Interconnection, and the final version of the Operation Support Tool (OST) was delivered to NYCDEP.

5.1 Watershed Monitoring Program

The report describes NYCDEP's routine monitoring, as well as special monitoring performed in response to unusual events in the watershed. NYSDOH commends NYCDEP for their multi-faceted storm event sampling efforts, which seek to enhance understanding of the source and transport of

storm event inputs in the water supply. For future annual reports, NYSDOH requests that NYCDEP provide a summary of any events that required submission of an "after action report" during the reporting period.

5.4 Geographic Information System

Program elements are reported on as required. NYSDOH notes the importance of this program in providing critical and accurate information to many of the other FAD programs, as well as to other agencies and stakeholders. A major data upgrade performed during the reporting period has provided greater resolution in mapping watershed features. This should enhance NYCDEP's ability to monitor watershed changes and trends in the future.

6. Regulatory Programs

The report provides a summary of these programs; however primary reporting on these programs and review of these program deliverables are done separately from the Annual Report.

7. Catskill/Delaware Filtration/UV Disinfection Facilities

Designs for the Catskill/Delaware Ozone/Direct Filtration facility were reviewed, and updated as necessary, as required by the 2007 FAD.

8.1 Waterborne Disease Risk Assessment Program

The report includes a brief summary of the program activities. Greater detail has been provided in a separate report. Comments on this report have been provided under separate cover.

8.2 Cross Connection Control Program

NYSDOH notes that the reporting for this program has been modified to better align with 2007 FAD milestones. As a result, the report table no longer includes the category "NOVs issued for failure to (install)" BFP. While this information is not required by the 2007 FAD, if the data are readily available, their inclusion would enhance the report.

9. Education and Outreach

Activities of the program are reported as required by the FAD. NYSDOH notes the success of this program, through collaboration and partnerships, to disseminate to a large audience the value of source water protection, local stewardship, and public health protection, while maintaining focus on the preservation of community uniqueness and sustainability.

10. Miscellaneous Reporting Provisions

As described in Section 11 of the FAD, the report includes information on actions planned and taken by the City regarding water conservation, implementation or revisions to the Drought Maintenance Plan, and elimination of leaks in the Delaware Aqueduct. Water conservation is an important part of the equation for maintaining a sustainable water supply for NYC. NYCDEP's role in continuing to reduce water demand while the population of water consumers continues to grow is commendable. NYCDEP's efforts in this regard have been proactive and innovative, working in collaboration with other agencies and creating partnerships to broaden its ability to reduce water waste in the City.