

History of the New York City Watershed Filtration Avoidance Determination

Filtration Avoidance

For a drinking water system to qualify for filtration avoidance under the Surface Water Treatment Rule, the system cannot be the source of a waterborne disease outbreak, must meet source water quality limits for coliform and turbidity, and meet coliform and total trihalomethane maximum contaminant levels. Filtration avoidance also requires that disinfectant residual levels and redundant disinfection capability must also be maintained, and a watershed control program be implemented to minimize microbial contamination of the source water. The watershed control program must characterize the watershed's hydrology, physical features, land use, source water quality and operational capabilities. It must also identify, monitor and control manmade and naturally occurring activities that are detrimental to water quality.

Catskill/Delaware System

EPA concluded in January 1993, and again in December 1993, that New York City met the criteria for filtration avoidance. The December 1993 Filtration Avoidance Determination (FAD) included over 150 conditions that related to watershed protection, monitoring, and studies. The City met several roadblocks to implementing key components to the December 1993 determination. It was unable to obtain either a land acquisition permit or approval of revised watershed regulations from the State of New York. It was also unable to upgrade wastewater treatment plants located outside the New York City limits. Plant upgrades were necessary to ensure watershed protection from point discharges of contaminants and excess nutrients.

The 1993 avoidance determination was scheduled for reevaluation in December of 1996. Because critical watershed protection activities in the 1993 determination were not being adequately met, EPA Region 2 did not have assurance that the City could implement a strong watershed protection program consistent with the Surface Water Treatment Rule. Without this assurance, EPA could not issue a new filtration avoidance determination for the Catskill/Delaware systems. In order to reach resolution on the major issues, stakeholders were brought together by New York State. The negotiating parties included EPA, the City, New York State, watershed communities and representatives of environmental organizations.

On January 21, 1997, after many months of negotiations, the stakeholders entered into the NYC Watershed Memorandum of Agreement. This agreement lifted the roadblocks that kept the City from implementing a comprehensive watershed protection program. Specifically, it established land acquisition requirements, set more stringent New York City watershed rules and regulations, activated the City's Watershed Protection and Partnership Council and other partnership committees, required the City to upgrade all Wastewater Treatment Plants in the watershed to tertiary treatment, initiated watershed protection and partnership programs, and detailed other watershed protection provisions.

With the agreement in place, EPA issued a five-year Filtration Avoidance Determination on May 6, 1997. The determination required New York City to acquire environmentally-

sensitive land in the watershed, adopt strong watershed rules and regulations and institute and maintain a comprehensive watershed protection program. A revision to the 1997 FAD which includes changes to the Agricultural Program was made by EPA on April 20, 1998.

Based on the New York City Department of Environmental Protection's (DEP) December 2001 Long-Term Watershed Protection Program, EPA issued another five-year Filtration Avoidance Determination in November 2002 which included significant enhancements to the overall watershed protection program. In addition, the 2002 FAD highlighted two major themes in the City's program: a long-term commitment to watershed protection programs, and a reliance on watershed partners (such as the Catskill Watershed Corporation and the Watershed Agricultural Council) to enhance program acceptance and implementation.

Program enhancements in the 2002 FAD included expansion of the agricultural program to include small farms and east-of-Hudson farms; commitment to seven new wastewater projects for communities on the MOA prioritized list; an expanded stream management program; study of Catskill turbidity and evaluation of control alternatives; and commitment to construction of an ultraviolet light disinfection plant for the Catskill/Delaware water supply.

A modification to the 2002 FAD, which included an extension to the construction schedule for the City's ultraviolet disinfection facilities and provided for additional investments in wastewater programs to mitigate the delay, became effective on February 27, 2006. In accordance with the provisions of the 2002 FAD, the 2007 FAD development process was initiated by the City's submittal of a report titled "2006 Watershed Protection Program Summary and Assessment" in March 2006. This report briefly summarized the City's protection programs and included results of a status and trends analysis of water quality throughout the watershed. This report served as a reference for the FAD development activities which followed.

In the spring of 2006, EPA began substantive discussions with DEP and New York State about the 2007 FAD. In addition, EPA and the New York State Department of Health (DOH) reached out to watershed stakeholders and the public in an effort to gain input about various issues and programs. Discussions were held with watershed stakeholders, and four public meetings were conducted. In August 2006, EPA, with assistance from DOH, completed an evaluation titled, "Report on the City of New York's Progress in Implementing the Watershed Protection Program, and Complying with the Filtration Avoidance Determination." This report found that the City had successfully satisfied the obligations specified in the 2002 FAD. Highlighted strengths included the land acquisition and small farm programs, while certain delays were noted in the wastewater and stream management programs.

On December 14, 2006, DEP submitted to EPA its Long-Term Watershed Protection Program. In its 2006 program, the City committed to build substantially on the program set forth in the 2002 FAD. The City's 2006 Long-Term Watershed Protection Program

continues most of the existing program components, provides significant enhancements to many of them, and includes a number of new program initiatives. On April 12, 2007, EPA proposed to continue to allow the City to not filter drinking water from the Catskill/Delaware system and received public comments on the proposal.

On July 30, 2007, EPA, in consultation with the DOH, released its New York City FAD for the Catskill/Delaware Water Supply. EPA determined that New York City had an adequate long-term watershed protection program for its Catskill/Delaware water supply that meets the requirements of the Surface Water Treatment Rule and the Interim Enhanced Surface Water Treatment Rule for unfiltered water supply systems. The new FAD includes many provisions that are responsive to the numerous public comments received during the public comment period and during the public outreach sessions.

Croton System

Under the Surface Water Treatment Rule, New York City is required to filter water from the Croton system, which provides 10 to 15 percent of the City's water. The Croton Water Supply system is an important resource in the east-of-Hudson watershed. It contains 10 reservoirs and three controlled lakes which supply drinking water to New Yorkers as well as provide habitat for many fish species and other aquatic organisms. Although not included as part of EPA's filtration avoidance determination, it is very important to protect Croton water resources. In fact, many requirements in the agreement for watershed protection, including New York City's Watershed Rules and Regulations, apply to the Croton Watershed as well as the Catskill and Delaware Watersheds.

Primacy

The granting of primacy authority for the Surface Water Treatment Rule for the Catskill/Delaware system was initially addressed in a July 14, 1997 Federal Register Notice published by EPA Region 2. The notice indicated that primacy for the Surface Water Treatment Rule for the Catskill/Delaware system was being retained by the EPA in order to provide the appropriate oversight of New York City's implementation of the conditions of the FAD issued by EPA on May 6, 1997. The specified period of primacy retention contemplated by EPA per the notice and agreed to by the State was until May 15, 2007, when implementation of the anticipated 2002 FAD would be complete. This decision was consistent with the January 21, 1997 New York City Watershed agreement to which the State was a party. EPA also committed, in the 2002 FAD, to complete work on the 2007 FAD prior to primacy transfer.

As mentioned above, in July 2007, EPA issued a new FAD after extensive consultation with the City, the State, and other watershed stakeholders, and the commitments under this new FAD have been agreed to by the City and the State. The new FAD was written to accommodate direct oversight by the primacy agency—either EPA or DOH—in consultation with the cooperating regulatory agency.

On September 26, 2007 EPA transferred primacy authority to DOH for the Surface Water Treatment Rule for the Catskill/Delaware water supply system. EPA Region 2 continues to work with New York City and New York State on programs to protect the watershed

and to monitor the success of these programs, both from the water quality perspective and from a public health perspective.