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HEALTH

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

Sue Kelly
Executive Deputy Commissioner

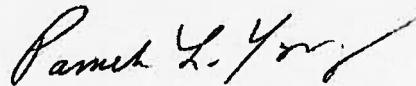
May 9, 2014

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 2007 Filtration Avoidance Determination deliverables that were due through April 2014. Attached are our comments on the plan for the Flood Buyout Program, and the annual reports for the Waterborne Disease Risk Assessment Program and the Water Quality Modeling Program. Comments on the FAD Annual Report will be sent under separate cover. We would appreciate if you could provide a reply to these comments/questions by June 13, 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

5.2 Water Quality Modeling Program

The annual report for the Water Quality Monitoring Program was submitted as required by the 2007 FAD. The report is very comprehensive, thorough, and well-written, and demonstrates the usefulness of DEP's modeling work for helping DEP better understand the processes that can impact water quality in the NYC Watershed. The report illustrates how DEP is applying this understanding to inform operational decisions and to help manage the Watershed to protect both current and future water quality.

In Section 3.3, the sensitivity analysis indicated that stratification is most influenced by air temperatures, and under the A2 emission scenario (almost the worst case), stratification will begin 19 days earlier and stay 4 days later, while surface and bottom water temperatures will increase by 1.8°C. Thermal stratification will also be more intense, leading to a more stable water column. NYSDOH would like to see a discussion on how these changes might impact metalimnetic cyanobacteria blooms and intake depth.

In Section 3.4, why was the A1B emission scenario used to model the potential effect of climate change on streamflow, instead of the A2 emission scenario? The A2 scenario appears to be the scenario used for most of the other work in the report.

In Section 4.2, on page 55, the second paragraph should be clear in stating that there were no exceedances of the MCL for TTHMs in 2011. It is true that some individual samples exceeded 80 ug/L, but this did not constitute a violation of the MCL, which, in 2011, was calculated as a system-wide running annual average. The text does make this clarifying statement, but then continues to refer to MCL exceedances. Related to this, the title of Table 4.2 includes the text "10 sites where TTHM levels exceeded the regulatory limit in 2011." This would be more accurately written as "10 sites where TTHM levels exceeded 80 ug/L in 2011."

Section 4.6 describes a simple winter ice model applied to Ashokan and Rondout Reservoirs for prediction of onset, loss, and duration of ice cover. NYSDOH notes that DEP did not deploy an under-ice profile buoy this past winter season. DEP has suggested previously that an under-ice turbidity plume in Kensico Reservoir during January 2011 may have led to the need to treat water from the Catskill influent with alum. NYSDOH would like to see more turbidity research done for under-ice conditions.

Also in Section 4.6, Figure 4.26 displays "Kensico Reservoir" over a drawing of Rondout Reservoir. Please note the correction.

In Section 5.3 (*Precipitation and Snowfall Trends in NYC Watersheds and Northeastern US*, page 126), the text states: "In this study, we analyze winter climate trends in snowfall, temperature, and snow cover data over the period 1965-2005." However, the remainder of this section discusses the period 1940-2010. Also, on page 126, the text states that data were used

from “65 USHCN stations”, but the in the *Time Series Analysis* section on page 128, the text discusses “55 USHCN sites.” Please explain these discrepancies.

8.1 Waterborne Disease Risk Assessment Program

The annual report for the Waterborne Disease Risk Assessment Program was submitted as required by the 2007 FAD.

On page 3 (top two lines), the narrative refers to four cases of giardiasis which were due to secondary transmission. Possible means of transmission were noted as day care, food service, etc. Since the four cases were investigated, is there any indication of the setting for the secondary transmission?

On page 4, the wording in the first paragraph is identical to the 2012 report. It may be good to mention that the current range of case rates for poverty (7.9 to 10.4 cases) is similar to 2012 (8.6 to 11.2 cases). Both can be contrasted with the narrower distribution seen in 2011.

On page 9 (Anti-Diarrheal Medication Monitoring), NYSDOH acknowledges, and appreciates the effort in, the continuation of the ADM system into 2013, which provides a smooth transition to the combined OTC-ADM system.

On page 11, in the second full paragraph under “Findings: Summary of Syndromic Surveillance Signals,” ED signals for vomiting and diarrhea in January/February and November/December 2013 were attributed to norovirus and rotavirus. Can any supposition be made regarding the August 18-19 diarrheal signal (Figure 8)?

Regarding Figures 9 and 10, NYSDOH finds these figures to be very helpful and they explain a lot of monitoring in a single glance. With very few coincident signals, the yellow blocks almost disappear on the page. Would it be possible to change that color or give the yellow blocks a thin black outline?

DOH/EPA Comments on FAD Deliverables due April 30, 2014

4.2 Land Acquisition Program

A plan for the New York City Flood Buyout Program was submitted in accordance with the requirements of the Draft Revision of the 2007 FAD, issued for public comment in August 2013. The requirement to develop a plan for this program is also included in the Final Revised 2007 FAD, which was issued May 7, 2014. The plan is well written, and reflects the input received from multiple Watershed stakeholders during several meetings on this proposed program. This program should provide a useful complement to flood hazard mitigation programs and the Stream Management Program.