



October 2, 2014

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Dear Dr. Young and Mr. Sweeney:

Enclosed is the DEP Response to the DOH/EPA Comments on the Catskill Turbidity Control Expert Panel Scope of Work deliverable submitted July 31, 2014.

As always, if you have any questions about these comments or other aspects of the City's watershed protection efforts, please do not hesitate to contact me.

Sincerely,

David S. Warne
Assistant Commissioner

**DEP Response to DOH/EPA Comments on the Catskill Turbidity Control Expert Panel
Scope of Work**

Submitted July 31, 2014

DOH/EPA Comments Dated September 11, 2014

DEP Response Dated October 2, 2014

Introduction

NYSDOH/USEPA and NYSDEC have reviewed the Catskill Turbidity Control Expert Panel Scope of Work, which was submitted by NYCDEP in accordance with section 4.11 of the Revised 2007 FAD. We offer the following comments:

Comment 1:

The Revised 2007 FAD states that the scope of work (SOW) for the Expert Panel will “detail the goals and questions to be answered by the panel...” While the proposed SOW lists the goals of the Expert Panel, including a list of questions for the panel to consider would help provide more specific direction to the panel.

DEP Response:

DEP appreciates the level of detail included in these comments and have shared this comment letter with the National Research Council (NRC). They will subsequently provide it to the Expert Panel members once the project is underway. It is important that they understand your concerns and interests as they review materials, hear from members of the public, and craft the final report.

It is essential to keep in mind, however, unlike a typical contract where DEP would provide detailed specifications, direct the work, and review/approve all work products, the activities in this contract will be directed by NRC. Specifically, this contract provides funding to the National Academy of Sciences/National Research Council for them to independently conduct an Expert Panel review of the City’s use of the Operation Support Tool (OST). DEP will provide all materials needed for this review but will not be managing the process or the Expert Panel and will not be approving the final work product. As such, the scope of work is not as detailed if DEP was administering the contract. We believe the contract is consistent with the FAD and provides NRC the level of independence required.

Comment 1a:

Are the assumptions underlying the Operations Support Tool (OST) modeling appropriate to achieve the most effective use of OST (e.g., the 57-year meteorological data set used to forecast future flows and water quality, reservoir storage goals, streamflow-turbidity relationship, sediment settling characteristics, etc.)?

DEP Response:

The FAD limits the scope of this expert review to how OST is used to evaluate Catskill Turbidity issues but not OST itself. The Expert Panel members will have information on the data and models used in OST and will make their own conclusions regarding their applicability. If DEP’s actual or intended use of the

OST is incompatible with the underlying data or assumptions, DEP would expect that would be reflected in the Expert Panel's analysis.

Comment 1b:

Are the performance measures/criteria used by NYCDEP to assess the efficacy of OST effective and sufficient? If not, how might performance measures be improved?

DEP Response:

The scope of work requires the Expert Panel to “evaluate the performance measures and criteria the City uses to assess the efficacy of the Catskill Turbidity Control Program and recommend additional performance measures, if necessary”. DEP expects the Expert Panel to make recommendations for appropriate performance measures/criteria, in keeping with the way DEP is using OST.

Comment 1c:

Is OST capable of accurately predicting the impacts of extreme weather events? If not, what modifications can be made to OST to improve this function? Alternatively, can the panel suggest other approaches to help identify and understand the water system operational issues created under extreme weather conditions?

DEP Response:

As with Comment 1a, Comment 1c seems to be addressing the merits and capacity of OST rather than its use. DEP full expects the Panel to evaluate use of OST to confirm that the tool is being used in a way that is consistent with its underlying data or assumptions.

Comment 1d, 1e, 1f:

Is DEP staffing adequate for operation and continuing maintenance and development of OST?

Is DEP's instrumentation adequate for reliable operation of OST (e.g., is there sufficient redundancy)?

Is DEP's quality assurance/quality control for the data used to run OST adequate?

DEP Response:

DEP reviewed these questions with NRC and they stated that staffing, instrumentation and data management are outside of a typical Expert Panel review.

Comment 1g:

Regarding the proposed use of OST to evaluate Catskill turbidity control alternatives for the environmental review of the proposed modifications to the Catalum SPDES permit:

- i. does OST and/or its proposed use for this purpose adequately account for extreme, as well as moderate, storm events?
- ii. recognizing the various interests in the Catskill water supply, are appropriate inputs/endpoints being selected to inform an effective cost/benefit analysis of turbidity control alternatives (e.g., the number of alum days, criteria for alum use,

turbidity of the water released to the lower Esopus Creek, quantity and duration of flow released to the lower Esopus)?

DEP Response:

The Expert Panel will be examining the treatment of storm events and the model inputs as part of their review of the City's use of OST for the CATALUM EIS. However, a cost-benefit analysis is not part of the scope of this review.

Comment 2:

To enhance the effectiveness of the workshop for the Expert Panel, key documents/information should be provided to the panel members several weeks prior to the workshop. For example, at a minimum, the following documents/information should be provided:

- a. Catskill Turbidity Control Studies Phase III Implementation Plan;
- b. Value Engineering Study – Catskill Turbidity Phase III (January 2008);
- c. Letter from NYSDOH approving the Phase III Implementation Plan (November 2010);
- d. Information on the structure, validation, and use of OST;
- e. Findings of the previous expert panel review of OST;
- f. DEC/DEP Interim Release Protocol for the Ashokan Reservoir;
- g. Catskill Turbidity Control Alternatives Summary Report (July 2014);
- h. Draft Scope of Work for the Environmental Impact Statement being prepared for the proposed modification to the Catalum SPDES permit;
- i. Historical turbidity data for upper and lower Esopus Creek and Ashokan Reservoir, in particular under various operational configurations of the Catskill water supply system and following storm events of varying severity;
- j. DEP reports (e.g., FAD deliverables) and published papers related to DEP research on climate change.

DEP Response:

We appreciate the list of resources and have, or will be, providing the listed information to NRC. We defer to NRC on the timing of their transmission of this information to the Expert Panel.

NRC did ask us to hold off on sending actual monitoring data until requested; when they request such data, we will provide it.

Comment 3:

It is not clear from the description of the Expert Panel meetings whether NYSDOH, USEPA, NYSDEC, and the WIG will be invited to attend all five meetings or just the “public” portion of the first four meetings. Specific time should be allotted, preferably during the first meeting, for the regulators to interact with the panel. This will allow an opportunity for the regulators to

present their perspective on the Expert Panel's review and for the panel to question the regulators.

DEP Response:

The first four meetings of the Expert Panel will have a public part and a closed part. The meetings will be publicly noticed by NRC on their website and everyone is welcome. During the public part of the meeting there is an "open-mic" section where stakeholders can give brief statements to the Panel and submit written comments if they wish. The closed part is for NRC and the Expert Panel members only – no one else (including DEP) is invited.

We have asked NRC to set aside an hour during the open session for the regulators to address the Expert Panel prior to the public "open-mic" session. If you would prefer more time please let us know.

Comment 4:

The description of the public sessions with the Expert Panel indicates that the panel will take comments from the public. Will the panel be obligated to address the public's comments, either at the time of the meeting or at a later time?

DEP Response:

The Expert Panel members will listen to comments from the public and will accept written comments but they do not provide a direct response to comments during the open sessions or at a later date.

Comment 5:

NYSDOH/USEPA and NYSDEC should also receive a copy of the prepublication version of the final report for fact-checking purposes.

DEP Response:

We are happy to provide this prepublication version to our regulators when we receive it. This prepublication draft, however, is not a draft report for review. NRC provides a prepublication version to the "client" a week in advance of the public release on the NRC website as a courtesy so the client has time to formulate a response. It is an official NRC report at that point and the public release a week later is not held pending review or comments by the client. Publication of the final report can take a few months so there is a window of opportunity to correct misspellings or actual errors.