Scope for the Supplemental Environmental Impact Statement

for the CATALUM SPDES Permit Modification

January 10, 2022

In accordance with the New York State Department of Environmental Conservation's (DEC) State Environmental Quality Review Act implementing regulations, a lead agency may require a supplemental environmental impact statement (EIS) be prepared that is "limited to the specific significant adverse environmental impacts not addressed or inadequately addressed in the EIS that arise from: (a) changes proposed for the project; (b) newly discovered information; or (c) a change in circumstances related to the project." 6 NYCRR 617.9(7)(i).

In December 2020, a storm event resulted in a long-term turbid releases from the Ashokan Reservoir, while operating in accordance with the existing Interim release protocol (IRP), to the Lower Esopus Creek until May 2021 (2020 Storm). This event constitutes newly discovered information because it was the first time that releases in accordance with the IRP from a relatively modest rain on snow event (approximate 10-year return interval) resulted in long-term turbid releases. Information about the 2020 Storm was not available at the time of preparation and subsequent public notice of the draft EIS (DEIS), for the Modification of the CATALUM SPDES Permit, and is related to potential significant adverse environmental impacts relevant to the environmental analysis prepared initially in the DEIS.

"The decision to require preparation of a supplemental EIS, in the case of newly discovered information, must be based upon the following criteria: (a) the importance and relevance of the information; and (b) the present state of the information in the EIS." 6 NYCRR 617.9(7)(ii). After receiving public comment on the DEIS, and in consideration of new information received after the DEIS was prepared, DEC, as the lead agency for the modification of the CATALUM SPDES permit, will require the project sponsor, New York City Department of Environmental Protection (NYCDEP), to prepare a Supplemental Draft EIS (SDEIS) that is limited to the specific adverse environmental impacts not addressed or inadequately addressed in the DEIS.

The SEIS must address the following:

A. Comments indicated that the DEIS did not adequately represent the duration of turbidity events. The DEIS predicts fewer than one (1) day per year where turbidity levels from the release channel would exceed 50 NTU, regardless of spills and/or releases (Page 14-39 of DEIS, Figures 14-3.10 and 14-3.11). During the time period following the 2020 storm event through May 2021, there were 60 days with releases over 50 NTU, and 32 Days over 100 NTU, as measured at the USGS Lomontville gage. Based on the 2020 storm event, and the subsequent releases in accordance with the Interim Release Protocol (IRP), comments indicated that the DEIS analysis underrepresented the potential impacts of the Revised Operating

Protocol (Proposed Action) on the Lower Esopus Creek, since the DEIS analysis was based on lower/infrequent turbidity events.

As the DEIS assumptions were significantly exceeded, the SDEIS should re-evaluate both the duration and level of turbidity in light of the 2020 storm event. This may involve reviewing and revising the modeling used to support the analysis within the DEIS. Additionally, the SDEIS will need to re-evaluate the effects of sediment from the releases and subsequent impacts to fisheries, water quality, recreational, aesthetics, flooding, agriculture, and ecology. The full extent of the re-analysis is unknown at this time and, as such, DEC will coordinate with NYCDEP. NYCDEP should develop a scope of work for conducting such an analysis, for DEC approval.

B. Comments claimed the turbid releases, as a result of the 2020 storm event, directly impacted the drinking water supply system of seven Hudson River communities (collectively referred to as "Hudson 7")[1] located downstream of the confluence with the Lower Esopus Creek. As such, comments indicated that the DEIS lacked adequate discussion of the impacts of the Proposed Action on these communities. Subsequent to receipt of those comments, DEC reviewed data from the Hudson River Environmental Conditions Observing System (HRECOS)[2] unit from approximately the last 10 years, including the time of the 2020 storm event. The HRECOS data shows that during that 10-year period, turbidity levels were significantly higher during two events - the 2020 storm event and Hurricane Irene/Lee in 2011 than compared to spring runoff and other turbidity events from various storms.

The SDEIS should evaluate if turbidity from the Proposed Action could have a significant effect on the drinking water intakes of the Hudson 7 communities. NYCDEP should develop a scope of work for conducting such an analysis for DEC approval.

C. A number of comments received discussed the way Alternatives to the Proposed Action were presented and analyzed in the DEIS.

1. Comments received indicated that the Alternatives Analysis in the DEIS is insufficient because the alternatives presented were eliminated from further consideration without sufficient justification or explanation in the DEIS. For example,

1 The Hudson 7 communities include the City and Town of Poughkeepsie, the Village and Town of Rhinebeck, and the Towns of Esopus, Hyde Park, and Lloyd; comment letter dated March 3, 2021.
2 The Hudson River Environmental Conditions Observing System (HRECOS) is a robust environmental monitoring network operated and managed by a consortium of governmental, academic, and private institutions with shared interest in high-frequency monitoring in the Hudson River watershed. HRECOS monitoring stations are geographically distributed along the Hudson and Mohawk Rivers, and are equipped with sensors that continuously record a suite of water quality and weather parameters every 15 minutes, with most stations operating year-round. Remote telemetry at each station transmits real-time data for the public to freely view and download using an easily-accessible interface at hrecos.org. (from https://www.hrecos.org/index.php?option=com_content&view=section&id=13&Itemid=56)

comments indicated that the analysis for the Proposed Action included detailed tables and figures while the analysis for the alternatives, only included a narrative discussion and generalized conclusion such as “turbidity levels of releases would also be similar to those that occur in accordance with the IRP.”

2. Comments noted that alternatives were considered independent from each other, but the DEIS should have considered combinations of alternatives as potential means to meet drinking water supply needs without sacrificing the health of the Lower Esopus Creek. Additionally, a number of technical comments on the alternatives analysis were received, including those from the Ashokan Reservoir Working Group technical committee and the New York State Office of the Attorney General Watershed Inspector General (WIG).

The SDEIS should revise the tables and figures for the Proposed Action, as appropriate, based on the updated analysis, noted in comment C.1. above. The SDEIS should also include more detail (such as the tables and figures included for the Proposed Action) on the other alternatives so that direct comparisons can be made between all the alternatives, including the Proposed Action. Additional table(s) should include turbidity and duration, along with their occurrence and magnitude for the various types of releases. The SDEIS should also consider, and analyze, combinations of alternatives as potential means to meet drinking water supply needs without impacting safe yield, with evaluation of each alternative considering potential impacts on the health of the Lower Esopus Creek. The scope of the additional alternative analysis to be presented in the SDEIS must be approved by DEC.

D. Many comments stated that the DEIS inadequately addressed how climate change would impact the future operations of the Ashokan Reservoir and understated the potential effects of turbid releases in the Lower Esopus Creek, Hudson River, and the communities that live along those waterbodies. The comments included some specific recommendations (e.g., from the WIG) on how a supplemental climate change analysis should be performed. Comments further stated that studies NYCDEP relied on in the DEIS indicate “extreme levels of turbidities could increase by more than 50 percent and such high turbidity events could be more frequent in the future. In addition, climate change may result in a 23 percent increase in alum days per year in the future.”

The DEIS includes a discussion related to climate change, but further communication with NYCDEP is necessary to understand the approach in the DEIS and to determine what supplemental information, if any, should be provided to address the potential for climate change to affect turbid releases as well as the safe yield of the water supply.