



Appendix 9-B: Hudson River Public Water Supply Protection and Contingency Plan

CONTAINS REDACTED INFORMATION IN CASE 10-T-0139

2.2 Suspended Sediment / Water Quality Pre-installation Trial

Pursuant to CC 159, CHPE completed suspended sediment monitoring to assess the levels of sediment resuspension from the jet plow operations during the pre-installation trials in the Hudson River. The intent of the TSS sampling during the trials was to monitor sediment plumes from the jet plow operations for potential exceedance of total suspended solids (TSS) standards set forth in the Project's 401 Water Quality Certificate (WQC).

The pre-installation jet plow trial occurred along a 2,640-foot route⁴ in Hudson River on September 9, 2022. Laboratory analysis of TSS from water samples collected during the jet plow trial showed low to slightly elevated levels of TSS, but none approached exceedance of ambient concentrations by 200 mg/L as per the condition described in the WQC, and all but two samples showed increases in TSS less than 10 mg/L. An increase of 55 mg/L was the maximum observed value above background for TSS levels during the jet plow trial; however, TSS levels were generally within 10 mg/L of ambient levels. It appears likely that any sediments that are resuspended due to the plow operations would only be observed as TSS at the 500-foot distance from the barge within a small width of cross-sectional area (estimated from a few feet ["ft"] to 30-35 ft wide, depending on conditions, when observable) and primarily during the times surrounding peak tidal currents within the tidal cycle. A copy of the final report is provided in Appendix 7-C of this EM&CP.

2.3 Pump Test in the Hudson River

As described above, CHPE and the Hudson 7 agreed to a study whereby during the previously described suspended sediment study a pump be placed within proximity of the installation in order to simulate the operation of a PWS during the jet plow operation. After CHPE and the Hudson 7 agreed upon a study site location, a pump was placed on a barge located 160 feet from the pre-installation trial, which represented the closest distance at that time between an intake and the cable route. Subsequently, CHPE has shifted the transmission cables so that the closest distance is 220 feet and most are significantly further, as shown in Table 1. A summary of this study is provided in Appendix 2 of this document.

Sampling took place for approximately two (2) hours ahead of the trial start, then continued for two hours post-trial. Field testing for turbidity and pH was conducted every fifteen minutes at the pump, and water samples to be submitted for laboratory analysis were collected every 30 minutes. In addition, samples were collected from five locations within the river at intervals of approximately one-quarter mile, and these samples were also submitted for laboratory analysis. The suite of laboratory analyses employed was determined in consultation with the Hudson 7 and is fully described in Appendix 7-G of this EM&CP and in the Pump Study section of <https://chpexpress.com/water-testing/>.

⁴ The Certificate required that the TSS Trial be conducted over a distance of 1,000 feet but the Hudson 7 requested that the study encompass a half-mile distance.

