

# **AGREEMENT**

## **Temporary Supplemental Releases Program For Tentative 2010 Rondout West Branch Tunnel Shutdown**

In order to perform necessary work on a dewatering shaft, the Rondout to West Branch Tunnel (RWBT) is tentatively scheduled to be shut down in the fall of 2010. A final decision has not yet been made on when this work will take place. Once the decision is made to perform the work, the RWBT will be shut down for the minimum period of time required to perform this critical work. In accordance with Section 17 of the Flexible Flow Management Program (FFMP), the New York City Department of Environmental Protection is herein authorized to implement a temporary supplemental releases program for the period ending May 31, 2011.

Shutdown supplemental releases will be made in accordance with Table 1 below and FFMP Table 3 with 35 mgd available and FFMP Figures 1 and 2.

Using a National Weather Service product, the Advanced Hydrologic Prediction Service (AHPS) long-term probabilistic reservoir inflow forecasts, NYCDEP will identify the hydrologic regime expected in the coming months. The conditional (not historical) simulation will be used to better simulate current and expected future hydrometeorological conditions. Based on best professional judgment and to adequately protect water supply, while not being overly cautious, the probability level 0.7 or "70%" forecast will be used. The AHPS forecast will be compared to DEP's historical inflow data and categorized into very dry (only 10% of historical flows are this low or lower), dry (25%), normal (50%), and wet (75%). NYCDEP will select the category of historical inflow data that conservatively matches the forecast and evaluate operational requirements. Based upon that selection and evaluation, NYCDEP will determine the water supply condition for each reservoir. Acting in cooperation with the NYSDEC, NYCDEP will determine a shutdown supplementary release quantity from Table 1 below for the Cannonsville, Pepacton and Neversink reservoirs. Shutdown supplemental release quantities from each reservoir will be determined individually, based upon each reservoir's water supply condition. This will be the amount of supplemental water that can be released each day, over and above any other programmed releases (e.g. as specified in the FFMP). The shutdown supplementary release quantity will be added to any L1-b, L1-c, or L2 release amounts which may be in effect at the time, in Table 3 of the FFMP. The shutdown supplementary release quantity will not be added to any L1-a, L3, L4 or L5 releases which may be in effect.

The City of New York is currently developing an Operational Support Tool (OST), a state-of-the-art decision support system for the NYC water supply system. OST will integrate current system data with inflow forecast data and system operating rules to project the likely range of reservoir levels and water quality over the coming weeks and months. As OST components become available the NYCDEP will transition from the manual procedure above to OST.

Table 1  
Shutdown Supplementary Release Quantity (cfs)

Reservoir Water Supply Condition	Cannonsville	Pepacton	Neversink
C1	90	40	20
C2	50	20	10
C3	40	*	*
C4	*	*	*

\* No shutdown supplementary release.

Under this program the cumulative supplementary water released, beyond that which would have ordinarily been released under the FFMP and other potential temporary programs will range between 0 and 35 billion gallons depending upon the water supply condition of the reservoirs over the term of the program. Release levels will be reevaluated, generally on a weekly basis, in conjunction with the issuance of updated AHPS probabilistic forecasts.

Authorization under this temporary supplemental releases program shall become effective June 1, 2010 and shall continue until May 31, 2011 unless by unanimous agreement prior to that date the Parties approve a modification, suspension or earlier termination, as conditions may dictate. In the event the RWBT shutdown does not occur, termination of this program by the NYCDEP would not require approval of the other Parties.

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City of New York                      Date

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State of New York                      Date

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State of Delaware                      Date

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State of Delaware                      Date

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Commonwealth of Pennsylvania      Date

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State of New Jersey                      Date