

**DOCKET NO. D-77-20 CP (Revision No. 3)**

**DELAWARE RIVER BASIN COMMISSION**

**Modifications to the Schedule of Release Rates from  
Cannonsville, Pepacton and Neversink Reservoirs  
Delaware and Sullivan Counties, New York**

**PROCEEDINGS**

This is an application submitted by the New York State Department of Environmental Conservation (NYSDEC) for approval of a revised schedule of augmented conservation releases from Cannonsville Reservoir, and extension of the revised experimental release schedules for all the project reservoirs (Cannonsville, Pepacton and Neversink), to May, 2000.

The current schedule of experimental revised augmented conservation release rates from Pepacton and Neversink Reservoirs was added to the Comprehensive Plan and approved by the Delaware River Basin Commission (DRBC) pursuant to Section 3.8 of the Compact on June 23, 1993 by Docket No. D-77-20 CP (Revision No. 2). At that time, the release schedule proposed for Cannonsville Reservoir could not be implemented since its release valves did not have the necessary flexibility. New valves have been installed and a new experimental release schedule is now proposed. The existing augmented conservation release rates were established on an experimental basis first and later made permanent. "Proceedings" leading to such actions are described in Docket No. D-77-20 CP (Revised). This application (including the Proposed Augmented Conservation Release rates for Cannonsville Reservoir) was reviewed for inclusion of the project in the Comprehensive Plan and approval under Section 3.8 of the Delaware River Basin Compact. A public hearing on this project was held by the DRBC on February 26, 1997.

**RESERVOIR RELEASE PROGRAMS**

**A. Proposed Conservation Releases.**

In order to further protect and enhance the recreational use of waters affected by releases from the Cannonsville, Pepacton and Neversink Reservoirs, and based on the experience gained since the augmented reservoir release regulations were implemented, the following revisions to the current approved release rates are proposed. The release rates for Pepacton and Neversink Reservoirs are the same as those previously approved (Docket No. D-77-20 CP (Revision No. 2)) for an initial experimental period of three years and are herein to be extended for another period of three years; all experimental releases are therefore scheduled to continue to May, 2000.

TABLE 1

<u>Reservoir and Operative Dates</u>	Column 1  Basic Conservation <u>Release</u>	Column 2  Current Augmented Conservation <u>Release</u>	Column 3  Augmented Experimental Conservation <u>Release</u>
<u>Pepacton</u>			
1/1 - 3/31	6 cfs	50 cfs	45 cfs*
4/1 - 4/7	6	70	45 *
4/8 - 4/30	19	70	45 *
5/1 - 5/31	19	70	70 *
6/1 - 8/31	19	70	95 *
9/1 - 9/30	19	70	70 *
10/1 - 10/31	19	70	45 *
11/1 - 12/31	6	50	45 *
<u>Neversink</u>			
1/1 - 3/31	5 cfs	25 cfs	25 cfs*
4/1 - 4/7	5	45	25 *
4/8 - 4/30	15	45	25 *
5/1 - 9/30	15	45	53 *
10/1 - 10/31	15	45	25 *
11/1 - 12/31	5	25	25 *
<u>Cannonsville</u>			<u>Proposed</u>
4/1 - 4/15	8 cfs	45 cfs	4/1 - 5/31: 45 cfs**
4/16 - 6/14	23	45	
6/15 - 8/15	23	325	6/1 - 9/15: 160 cfs**
8/16 - 10/31	23	45	
11/1 - 11/30	23	33	
12/1 - 3/31	8	33	9/16 - 3/31: 45 cfs**

\* Extended to May, 2000 (previously approved via Docket No. D-77-20 CP (Revision No. 2))

\*\* Proposed herein

**B. Basic Montague Release.**

At all times, New York City would be required to make such releases as directed by the River Master designed to maintain a minimum basic flow of 1,750 cfs at the Montague gaging station, or the excess release rate during the seasonal period, as required by the 1954 U.S. Supreme Court Decree.

**C. Special Thermal Stress Releases.**

Special releases may be made from one or more of the reservoirs in order to relieve thermal stress conditions which pose a threat to fisheries. The total combined volume of thermal stress storage will increase from 6,000 cfs-days (as set forth in Docket No. D-77-20 CP (Revision)) to 9,200 cfs-days. Releases would be made whenever the maximum water temperature in designated downstream areas is projected to exceed a maximum temperature of 75° F, or a daily average of 72° F. Releases from the thermal stress bank can be used until October 31 of any year. No releases for relieving thermal stress would be required from November 1 to April 30 of any year. Releases for purposes of relieving thermal stress shall be at the direction of NYSDEC.

**D. Drought Warning and Drought Conditions.**

The augmented conservation release will be reduced to the basic conservation release (shown in Table 1, Column 1) during drought warning and drought periods as defined by the attached reservoir storage curves entitled "Operation Curves for Cannonsville, Pepacton, and Neversink Reservoirs" except that when the Delaware River Master directs releases according to the provisions in the basinwide drought plan as adopted in DRBC Resolution No. 83-13, New York City shall make such releases from Cannonsville, Pepacton, and Neversink Reservoirs as are necessary and sufficient to maintain the constant minimum flows (specified in Table 1, Column 3) on the West Branch Delaware River, East Branch Delaware River, and the Neversink River, and provided that the total amount of water released from the three reservoirs does not exceed the amount directed by the Delaware River Master. If the amount of directed releases by the River Master is not sufficient to maintain the augmented releases from all reservoirs, the releases from each reservoir will be determined at the discretion of NYSDEC and New York City Department of Environment Protection (NYCDEP).

Following a drought, a return to the experimental augmented conservation release rates shown in Column 3 of Table 1 shall not be made unless and until combined storage in the three reservoirs reaches 25 billion gallons above the drought warning level, as shown in Figure 1, and remains at or above that level for 15 consecutive days.

### FINDINGS

Installation of new release valves for the Cannonsville Reservoir is complete and should provide the needed flexibility in making releases to enhance fisheries management.

During the experimental period, conservation releases from Cannonsville Reservoir, which are considered inadequate by NYSDEC, would be modified to:

- 1) Increase the winter releases from 33 cfs to 45 cfs during November through March, beginning March 1, 1997.
- 2) Revise the duration and quantity of summer releases from 325 cfs during June 15 through August 15 to 160 cfs during June 1 through September 15,
- 3) Add the remaining 3,200 cfs days of the current annual quantity of releases to the thermal bank of 6,000 cfs days to meet thermal targets of 75° F (maximum) and 72° F (average) at Hale Eddy and Hankins.

On June 23, 1993, Docket No. D-77-20 CP (Revision No. 2) was approved with the current experimental release schedule for Pepacton and Neversink Reservoirs and included CONDITION Decision "f." which requires the applicant to submit a progress report describing the results of the experimental program. The last report was submitted along with the application for the addition of the Cannonsville Reservoir experimental release schedule, herein. The report is titled *Evaluation of Experimental Reservoir Releases from Pepacton Reservoir and Neversink Reservoir: 1994-1995*. The report concludes that there were modest improvements to trout habitat while the need for thermal releases was reduced in 1994 and 1995. Thermal regimes suitable for trout habitat occurred over longer reaches of the East Branch Delaware River. Beneficial results were also indicated for the Neversink River due to the experimental release schedule. Overall, the experimental releases also contributed to reduced usage of the thermal stress bank in 1994 and 1995, and the program was judged to be generally helpful in managing the tailwater portion of the East Branch Delaware and Neversink Rivers. Due to the difficulty in detecting and evaluating subtle changes in ecological conditions, along with the natural variability in these systems, adequate time for achieving measurable results needs to be provided. The extension of the experimental release program for Pepacton and Neversink Reservoirs, along with the new experimental release program for Cannonsville Reservoir, should help provide measurable results.

The project does not conflict with or adversely affect the Comprehensive Plan. It provides beneficial use of the water resources and does not adversely influence the present or future use and development of the water resources of the Basin.

DECISION

I. The project, as described above, with modifications specified hereinafter, is hereby added to the Comprehensive Plan.

II. The project is approved pursuant to Section 3.8 of the Compact, subject to the following conditions:

a. Monthly summaries of reservoir operations submitted by NYCDEP to NYSDEC shall also be submitted to the DRBC.

b. Detailed operational records of each reservoir, maintained by both the City and State Reservoir Release Managers, shall be available to the DRBC upon request.

c. The provisions of the reservoir release program approved herein shall not be applicable to any action taken by NYCDEP or NYSDEC with regard to the operation of the Cannonsville, Pepacton, or Neversink Reservoirs in any emergency situation where there is a threat to the continued existence or safe operation of the dams or tunnels or to any appurtenant structures or to the public health or safety. Any emergency action shall continue only for such time as is necessary to avert the threat and is subject to the approval of the Executive Director of the DRBC.

d. Increases in the augmented conservation release levels may not be made except in accordance with the allowances provided for in the Stipulation of Discontinuance in The City of New York vs. The State of New York Department of Environmental Conservation, Index No. 5840-80, and shall be subject to approval by the DRBC.

e. Releases under emergency conditions. The Commission retains its power under Section 3.3(a) and Article 10 of the Compact to declare a drought emergency after consultation with the River Master, in order to conserve the waters in the Delaware River and its tributaries and in the reservoirs of the Upper Delaware River Basin, in order to protect water supply, health, and safety of the residents of the Delaware River Basin and its service area. The River Master retains all of his powers under the Decree including the powers under Article VII, B.1 of the 1954 Decree to conserve the waters in the river, its tributaries, and in reservoirs owned by the City of New York, or in reservoirs developed by other parties to the Decree after 1954.

f. Prior to application for an extension or modification of the experimental release program, a report describing the results of the project shall be submitted.

**BY THE COMMISSION**

**DATED: February 26, 1997**

Consent to Action by

Delaware River Basin Commission

Consent of the parties to the U.S. Supreme Court Decree in New Jersey vs. New York, 347 U.S. 995 (1954) to the action of the Delaware River Basin Commission in adopting Docket No. D-77-20 CP (Revision No. 3) amending the Comprehensive Plan with respect to experimental modifications to the schedule of release rates from Cannonsville, Pepacton and Neversink Reservoirs.

Steven Neumann 2/26/97 Walter J. Lavoy 2/26/97  
State of New Jersey Date State of New York Date

David P. Caputo 2/26/97 Jane D. Brooks 2/26/97  
State of Delaware Date Commonwealth of Pennsylvania Date

William H. Strick 2-19-97  
City of New York Date