NO. 2002-21

DOCKET NO. D-77-20 CP (Revision 5) (Amended)

DELAWARE RIVER BASIN COMMISSION

A RESOLUTION to extend Docket No. D-77-20 CP (Revision 4) for one year to continue the experimental augmented conservation release program for the New York City Delaware Basin Reservoirs, and to amend Docket No. D-77-20 CP (Revision 4) to establish a temporary habitat bank for support of experimental flow targets for fisheries protection on the West Branch of the Delaware River at Hale Eddy, and to temporarily modify the conservation releases from Cannonsville Reservoir.

WHEREAS, Docket No. D-77-20 CP (Revision 4) specified the current augmented experimental release program and instituted a drought watch and a revised drought warning level for the three New York City Delaware Basin Reservoirs beginning in May 1999 and ending on April 30, 2001; and

WHEREAS, Resolution No. 2001-5 extended Docket No. 77-20 CP (Revision 4) for one calendar year ending on April 30, 2002, and

WHEREAS, Docket No. D-77-20 CP (Revision 4) condition h. provides for an extension of the provisions of this Docket upon agreement of all parties to the 1954 Supreme Court Decree; and

WHEREAS, the parties to the 1954 Supreme Court Decree are in the process of negotiating a permanent fisheries release program more responsive to the water conditions downstream of New York City Delaware Basin Reservoirs; and

WHEREAS, agreement on the permanent fisheries release program is not expected prior to April 30, 2002, the date at which the current program will automatically terminate; and

WHEREAS, the State of New York has proposed a revision and extension to Docket No. D-77-20 CP (Revision 4) for one calendar year ending April 30, 2003; and

WHEREAS, the requested revision and extension has been agreed to by all parties to the 1954 Supreme Court Decree; now therefore,

BE IT RESOLVED by the undersigned Commissioners and Parties to the Decree:

- 1. The Parties to the 1954 Supreme Court Decree agree that development of a viable permanent fisheries release program requires consideration of other related issues, including interbasin transfer policy, Good Faith operations, the DRBC Comprehensive Plan currently being developed, New York City participation, and procedures for computing the Excess Release Quantity.
- Docket No. D-77-20 CP (Revision 4) is hereby extended for one year to April 30, 2003, with the following modifications.
 - A. A "Habitat Bank" is established, which shall consist of 5,700 cfs-days that shall be contributed for one year only from the Excess Release Quantity (ERQ) as the ERQ is currently computed and such quantity of water as may be transferred from the Thermal Release (TRB) from time to time as may be necessary. The 5,700 cfs-days from the ERQ shall be credited on June 15, 2002, and any water remaining from that quantity shall expire on March 15, 2003. The 9,200 cfs-days TRB shall be credited on May 1, 2002 and expires on April 30, 2003.
 - B. Upon entry into "Drought Watch," the remaining Thermal Release Bank shall be reduced by 15 percent.
 - C. Upon entry into "Drought Warning," the remaining Thermal Release Bank shall be suspended until storage in the New York City Delaware River Basin Reservoirs is 25 billions gallons (bg) above the drought watch line for 15 consecutive days.
 - D. The Habitat Bank may be used to meet the following targets in the West Branch Delaware River at Hale Eddy:

During Normal Conditions - 225 cfs During Watch Conditions - 190 cfs During Warning Conditions - 150 cfs

In addition, the Habitat Bank may be used for augmenting flows in the West Branch Delaware River at Hale Eddy, and, contingent on the prior approval of New York City, the East Branch Delaware River at Harvard and the Neversink River at Bridgeville, during normal, drought watch and drought warning conditions. Also, the Habitat Bank may be used as needed for augmenting flows during drought warning conditions to maintain summer baseline releases as stipulated in Docket No. D-77-20 CP (Revision 4).

E. Upon entry into Drought Emergency, the Habitat Bank shall be suspended until storage in the New York City Delaware River Basin Reservoirs is 25 bg above the drought watch line for 15 consecutive days. F. Conservation releases from Cannonsville Reservoir shall be:

During Normal Conditions - 45 cfs
During Drought Watch Conditions - 35 cfs
During Drought Warning Conditions - 23 cfs
During Drought Emergency Conditions - 8 - 23 cfs

However, all thermal release charges shall be calculated using the augmented releases rates stipulated in Docket No. D-77-20 CP (Revision 4).

- G. Comparison of the difference between releases from the Habitat Bank and the conservation releases under D-77-20 CP (Revision 4) will be made and the difference debited or credited to the habitat bank. However, a negative balance in the Habitat Bank is not allowed.
- H. All other conditions shall continue as specified in Docket No. D-77-20 CP (Revision 4).
- This resolution takes effect immediately and will expire on April 30, 2003.
- J. No additional water beyond that specified in this resolution will be made available.

| /s/ Irene B. Brooks | |
|-----------------------------------------|--|
| Irene B. Brooks, Chairman pro tem | |
| /s/ Pamela M. Bush | |
| /S/ Pameia W. Bush | |
| Pamela M Bush Esq. Commission Secretary | |

APPROVED: July 17, 2002

Delaware River Basin Commission

Consent of the parties to the U.S. Supreme Court Decree in New Jersey v. New York, 347 U.S. 995 (1954) to the action of the Delaware River Basin Commission in approving Docket No. D-77-20 CP (Revision 5) (Amended), amending the Comprehensive Plan with respect to experimental modifications to the schedule of release rates from Cannonsville, Pepacton and Neversink Reservoirs.

| State of New Jersey | 7/17/02 Date | Waven J. Lavery 7/17/02 State of New York Date |
|-------------------------------------|------------------|---------------------------------------------------|
| State of Delaware | Date | Sene March 7/m/c. |
| State of Delaware (for the Commiss) | 7/17 /02 Daye | Michael Drineipe 7/17/02 City of New York Date |

Delaware River Basin Commission

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| State of New Jersey | Date | State of New York | Date |
|---------------------|------|------------------------------|------|
| State of Delawage | Date | Commonwealth of Pennsylvania | Date |
| State of Delaware | Date | City of New York | Date |

DOCKET NO. D-77-20 CP (Revision No. 4)

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 an amendment to the revised schedule of augmented conservation releases. The proposed amendment is designed to reserve additional water storage that can be subsequently released for improving fisheries during times when the augmented releases are presently curtailed.

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 operational flexibility necessary. Afterwards, however, new valves were installed and a new experimental release schedule was approved; the current schedule of experimental augmented conservation release rates from Cannonsville Reservoir was added to the Comprehensive Plan and approved pursuant to Section 3.8 of the Compact on February 27, 1997 by Docket No. D-77-20 CP (Revision No. 3).

This application provides for the automatic banking of 50 percent of the yearly excess release quantity and the extension of the current experimental releases to coincide with the expiration of the amended releases program on April 30, 2001. This application 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 April 28, 1999.

RESERVOIR RELEASE PROGRAMS

A. Current Augmented Conservation Releases.

Whenever the storage in the New York City Delaware River Basin Reservoirs is "Normal" as defined in DRBC Resolution No. 83-13, the experimental augmented conservation releases shall continue as described in DRBC Docket No. D-77-20 CP (Revision No. 3). (See Table 1A)

TABLE 1A

| | Column 1 | Column 2 | Column 3 |
|-------------------------------|----------------------------------|----------------------------------------|---------------------------------------------|
| Reservoir and Operative Dates | Basic Conservation Release | Current Augmented Conservation Release | Augmented Experimental Conservation Release |
| Pepacton | | | |
| 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 |
| Neversink | | | |
| 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 |
| Cannonsville | | | |
| 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 |
| | | | |

B. Proposed Excess Release Banking.

As a means to further increase the amount of water storage available for release for fisheries enhancement during this experimental augmented conservation release program, 50 percent of the annual excess release quantity shall be automatically held and placed into a "fisheries protection bank". This fisheries protection bank shall be available to augment releases during drought warnings (see "D" below). The remainder of the excess release quantity shall be utilized to provide a proportionally-reduced increase in the Montague flow objective according to the current procedures, or may be banked in accordance with the procedures outlined in the Lower Basin Drought Management Plan.

C. Proposed Drought Watch.

The seasonally segmented line (shown as dashes) splitting the current "Drought Warning" in Figure 1 of DRBC Resolution No. 83-13 and DRBC Docket No. D-77-20 CP (Revised) is temporarily raised by four (4) billion gallons during the entire year. In addition, the upper half of the drought warning, previously referred to as DWI, is temporarily renamed Drought Watch. Operations during the renamed Drought Watch shall continue to limit the diversion by New York City to 680 million gallons per day (mgd) and reduce the Montague and Trenton flow targets to 1,655 cubic feet per second (cfs) and 2,700 cfs, respectively. Conservation releases will decrease to 85 percent of the augmented experimental level, the remaining thermal stress bank will be reduced by 15 percent, and the New Jersey diversion will remain at 100 mgd.

D. Drought Warning.

The lower half of the drought warning (DW2), based upon the rule curves included in DRBC Resolution No. 83-13 and as temporarily modified by "C" above, is designated Drought Warning, with diversions and flow targets conforming to DRBC Resolution No. 83-13 for the former DW2. The fisheries protection bank shall be used to provide conservation releases at the current summer baseline levels and additional emergency releases, as needed.

E. Drought Emergency.

The Drought Emergency provision shall remain at the levels designated in DRBC Resolution No. 83-13.

F. Balancing Adjustment.

In order to conserve water, the Delaware River Master is requested to utilize a balancing adjustment when calculating the releases to be directed to meet the Montague target. Additionally, during drought warning, the amount of the conservation releases from the New York City Delaware River Basin Reservoirs that is above the basic conservation release rates shall be considered as directed releases for the purpose of calculating the balancing adjustment.

FINDINGS

The experimental augmented conservation release rates program has significantly improved NYSDEC's ability to control the minimum flow and the maximum temperatures downstream of the Cannonsville, Pepacton and Neversink Reservoirs. However, the current experimental augmented release rates program may not provide adequate flows to protect the fisheries during drought warning and drought emergency. The proposed revisions should significantly increase New York State's ability to manage trout habitat conditions during many drought conditions.

DECISION

- I. The "Modification to the Schedule of Release Rates from Cannonsville, Pepacton and Neversink Reservoirs", Docket No. D-77-20 CP (Revision No. 3), including the modifications herein, are hereby extended until April 30, 2001.
- II. The Comprehensive Plan is hereby amended to include the revisions described above with the modifications specified hereinafter.
- III. The amended project, as described above, 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.
- g. This experimental augmented conservation release rates plan may be revisited during any meeting of the parties to the 1954 Supreme Court Decree that is convened pursuant to DRBC Resolution No. 83-13 as a result of below-normal hydrologic conditions.
- h. This revised experimental augmented conservation release rates program will automatically terminate on April 30, 2001 unless extended by agreement of all parties to the Decree.
- i. The redesignation of the upper portion of drought warning (DWI) to drought watch will not change the compensation release requirements from Merrill Creek Reservoir. For the duration of this fisheries protection plan, the Delaware River Master, in cooperation with the DRBC, will track the operation of Merrill Creek Reservoir and compare the number of days of compensation releases and the volume of compensation releases from the Reservoir to those which would have occurred under the current plan as set forth in DRBC Resolutions Nos. 83-13 and 88-2 (Revised). If the difference in the number of days of compensation releases for any period June 15 to the following March 14 exceeds three days, the Commission shall determine the means by which the additional impact on Merrill Creek Reservoir shall be mitigated.

j. The operation of any project or facility previously approved by DRBC, with a reference to Drought Warning, is not altered or revised by the change in name from Drought Warning to Drought Watch.

BY THE COMMISSION

DATED: April 28, 1999

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. 4) amending the Comprehensive Plan with respect to experimental modifications to the schedule of release rates from Cannonsville, Pepacton and Neversink Reservoirs.

State of New Jersey Date

Warren J. Laway 4/28/99
State of New York Date

tate of Delaware Date

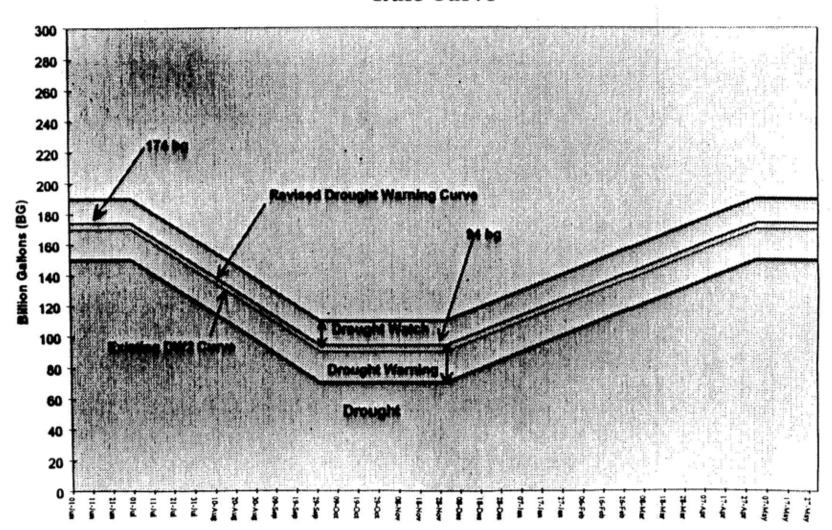
Commonwealth of Pennsylvania

Date

City of New York

Date

New York City Delaware Basin Reservoir Experimental Rule Curve



Delaware River Basin Commission

Consent of the parties to the U.S. Supreme Court Decree in New Jersey v. New York, 347 U.S. 995 (1954) to the action of the Delaware River Basin Commission approving and extending Docket No. D-77-20 CP (Revision 5) (Amended),* amending the Comprehensive Plan with respect to experimental modifications to the schedule of release rates from Cannonsville, Pepacton and Neversink Reservoirs.

| Emust P fluhn 3/19/03 State of New Jersey Date | Ganesi Javen 3/19/0. State of New York Date |
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| State of Delaware Date | Commonwealth of Penntylvania Date |
| Lem C Jamella 3/19/05 State of Delaware Bate | City of New York Date |

^{*}Although the resolution was originally titled "Extension of Docket No. D-77-20 CP (Revision 5) (Amended)," the Commission Secretary has re-named it "Docket No. D-77-20 CP (Revision 6)" for ease of reference.