

11/26/83

DOCKET NO. D-77-20 CP (REVISED)

DELAWARE RIVER BASIN COMMISSION

MODIFICATION TO THE RELEASE SCHEDULES FROM
CANNONVILLE, PEPACTION, AND NEVERSINK RESERVOIRS
DELAWARE AND SULLIVAN COUNTIES, NEW YORK

Proceedings

The New York State Department of Environmental Conservation (NYDEC) adopted regulations in 1977 to modify the schedule of conservation releases from Cannonsville, Pepacton, and Neversink Reservoirs. The regulations provided for the new schedule of releases to be tried on a limited experimental basis.

The Delaware River Basin Commission (DRBC) approved the experimental release program on May 25, 1977, by Docket decision D-77-20 and extended that approval through December 31, 1983, by Resolution 83-19. Docket decision D-77-20 also directed the parties to the 1954 Decree to develop criteria defining the onset and stages of drought emergencies.

NYDEC proposes to amend the experimental regulations by removing the automatic termination date, deleting the relationship to the "excess quantity" as established by the U. S. Supreme Court Decree (347 U.S. 995 (1954)) and limiting releases according to a reservoir storage curve in time of drought warning and drought.

Research findings and comments from fishermen and recreationists indicate that the program has had a beneficial effect. The DRBC held hearings on May 28, 1980; and May 25, June 2, June 3, and November 30, 1983, on the amended release regulations and a proposal that the Commission's approval of the schedule of augmented releases be made permanent.

Reservoir Release Program

A. New Conservation Releases

In place of the previous New York City schedule of conservation releases, a new conservation release schedule on a year-round basis has been tried as an experimental program and is proposed to be continued on a permanent basis. Under this schedule, the minimum releases from Cannonsville, Pepacton, and Neversink Reservoirs will be as follows:

	<u>April 1 - June 14</u> <u>Aug. 16 - Oct. 31</u>	<u>June 15 -</u> <u>Aug. 15</u>	<u>Nov. 1 -</u> <u>March 31</u>
Neversink	45 cfs*	45 cfs	25 cfs
Pepacton	70	70	50
Cannonsville	45	325	33
	<u>160 cfs</u>	<u>440 cfs</u>	<u>108 CFS</u>

*cubic feet per second

These total conservation releases break down as follows:

TABLE 1

<u>Reservoir and Operative Dates</u>	<u>Column 1 Basic Conservation Release</u>	+	<u>Column 2 Proposed Augmented Conservation Release</u>	=	<u>Column 3 Total New Conservation Release</u>
Neversink					
4/1 - 4/7	5 cfs		40 cfs		45 cfs
4/8 - 10/31	15		30		45
11/1 - 3/31	5		20		25
Pepacton					
4/1 - 4/7	6		64		70
4/8 - 10/31	19		51		70
11/1 - 3/31	6		44		50
Cannonsville					
4/1 - 4/15	8		37		45
4/16 - 6/14	23		22		45
6/15 - 8/15	23		302		325
8/16 - 10/31	23		22		45
11/1 - 11/30	23		10		33
12/1 - 3/31	8		25		33

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 1750 cfs at the Montague gaging station, or the excess release rate during the seasonal period, as already required by the 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 volume of such releases shall not exceed 6,000 cfs-days from all reservoirs. Thermal releases, with a one-day lead time, would be made whenever the maximum water temperature in designated downstream areas as determined from measurements at Callicoon, Harvard, Woodbourne, or Hale Eddy is projected to exceed a maximum of 75°F, or a 72°F daily average. If the 6,000 cfs-days reserve is not used by October 31 of any year it will not be used thereafter. 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 NYDEC.

D. Drought Warning and Drought Conditions

The augmented conservation release will be reduced to the basic conservation release (shown in Table 1) during drought warning and drought periods as defined by the attached reservoir storage curves entitled "Operation Curves for Cannonsville, Pepacton, and Neversink Reservoirs" (Figure 1) except that when the Delaware River Master directs releases according to the provisions in the 1954 U. S. Supreme Court Decree, 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 "A" above 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 three reservoirs, the releases from each reservoir will be determined at the discretion of NYDEC and New York City -- Department of Environment Protection (NYC - DEP).

Conservation releases shall be returned to normal augmented levels following a drought. Return to normal augmented levels 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

The NYDEC's Amended Part 671 Regulations entitled, Reservoir Release Regulations: Cannonsville, Pepacton, and Neversink Reservoirs adopted May 2, 1980, are consistent with this proposed action.

The Monitoring and Evaluation Program during the experimental reservoir release period has been reported in three performance reports by NYDEC. One for the year July 1, 1977 through June 30, 1978, a second for the July 1, 1978 through December 31, 1979 period, and a summary report dated September, 1983. The NYDEC evaluations indicate that the conservation release program has been very effective and beneficial and should be continued. The summary report prepared by NYDEC concludes that (1) the experimental-augmented conservation releases program has improved and extended the trout fisheries downstream from the three New York City reservoirs. (2) The program is apparently improving the black bass, walleye and American shad fisheries as well as the invertebrate communities throughout the Upper Delaware Basin. (3) Other water-related recreational activities, particularly boating, have also shown increases since the initiation of the experimental program in 1977. (4) All of these recreational activities are currently having a multi-million dollar economic impact annually on the local and regional economies.

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.

OPERATION CURVES FOR
CANNONVILLE, PEPACTION AND NEVERSINK RESERVOIRS

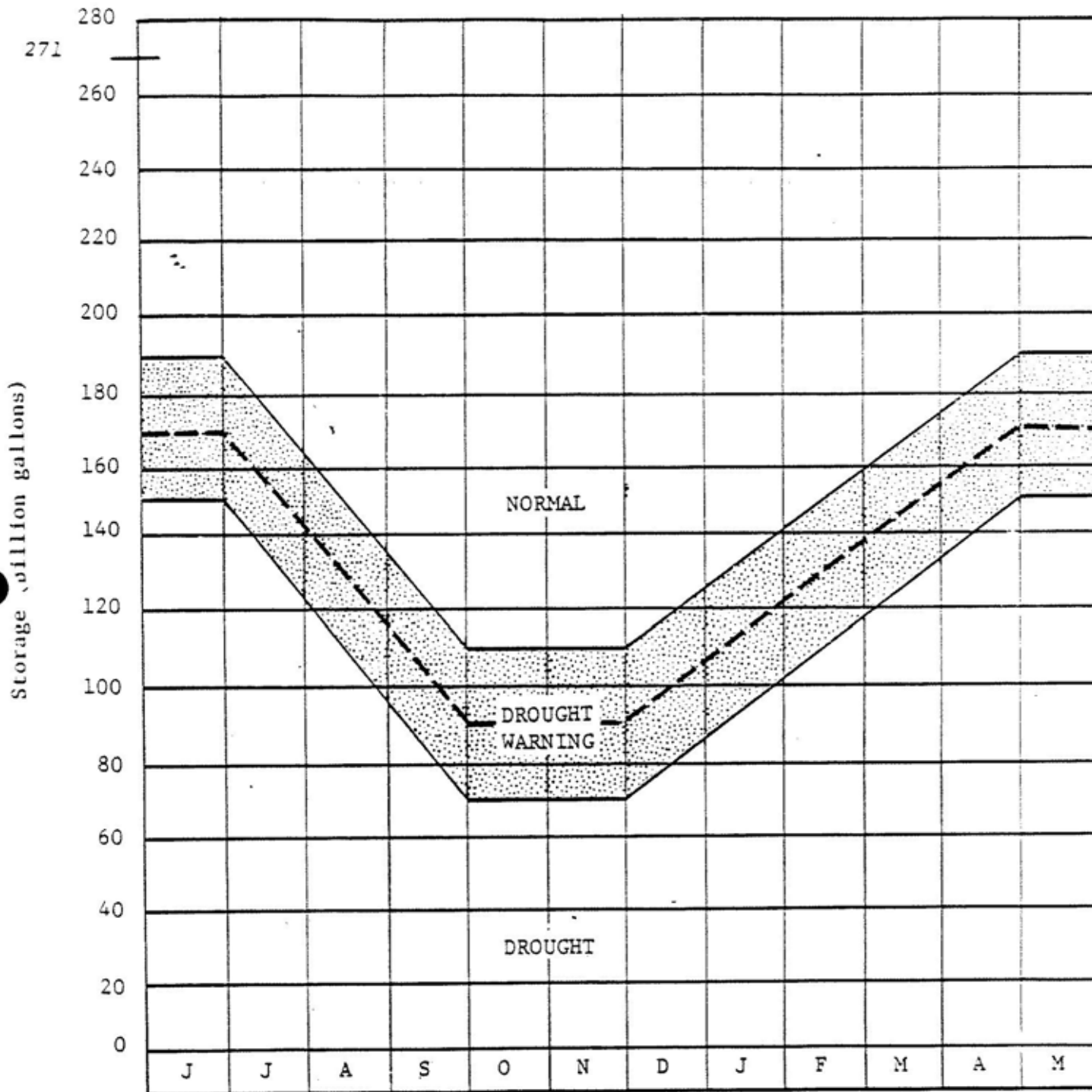


FIGURE 1.

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. Approval is subject to all conditions imposed by NYDEC.
- b. Monthly summaries of reservoir operations submitted by NYC-DEP to NYDEC shall also be submitted to the DRBC.
- c. Detailed operational records of each reservoir, maintained by both the City and State Reservoir Release Managers, shall be available to the DRBC upon request.
- d. The provisions of the reservoir release program approved herein shall not be applicable to any action taken by NYC-DEP or NYDEC 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.
- e. 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.
- f. 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.

BY THE COMMISSION

DATED: November 30, 1983