

5/25/77

DOCKET NO. D-77-20

DELAWARE RIVER BASIN COMMISSION

Experimental Modification to the
Current Release Schedules from
Cannonsville, Pepacton and Neversink Reservoirs

Delaware and Sullivan Counties, New York

PROCEEDINGS

The New York State Department of Environmental Conservation proposed regulations to modify the existing schedule of conservation releases from Cannonsville, Pepacton and Neversink Reservoirs. Title 8, Article 15 of the New York State Environmental Conservation Law requires the promulgation of rules and regulations for these and other reservoir releases.

The Delaware River Basin Commission held a hearing on February 23, 1977, on the proposed rules to regulate releases from Cannonsville, Pepacton, and Neversink Reservoirs. The hearing included testimony on the proposed regulations by the New York State Department of Environmental Conservation and modified proposals by New York City, Delaware River Basin Commission and the Pennsylvania Department of Environmental Resources. Considering the testimony presented, the Delaware River Basin Commission proposes the following experimental program be approved under Section 3.8 of the Compact.

EXPERIMENTAL PROGRAM

It is proposed to conduct an experimental modification of existing reservoir schedules from June 1, 1977 to May 31, 1979, to test potential benefits and impacts of revised conservation and excess release schemes. The experiment will be subject to annual review by the Delaware River Basin Commission and the City of New York and may be extended for one additional year if desirable and upon agreement of all parties to the United States Supreme Court Decree entered in New Jersey v. New York, 347 U. S. 995 (1954). The experimental program contains the following basic elements:

A. Excess Release Bank

For the experimental period, an excess release bank would be established, based on the amount calculated under Art. III, paragraph B, 1, (c), of the 1954 Decree for excess releases, "equal to 83 percent of the amount by which the estimated consumption for each calendar year is less than the City's estimate of the continuous safe yield during such year of all its sources obtainable without pumping." The estimated amount available in the bank for 1977-78 totals approximately 31 billion gallons.

B. Conservation Release Program

In place of the existing New York City schedule of conservation releases and the excess release schedule provided under Art. III, paragraph B, 1, (d) of the 1954 Decree, a new conservation release schedule on a year-round basis will be established. Under this schedule, the minimum releases from the 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	<u>45</u>	<u>325</u>	<u>33</u>
	160 cfs	440 cfs	108 cfs

* cubic feet per second

These total conservation releases break down as follows:

TABLE I

<u>Reservoir and</u> <u>Operative Dates</u>	<u>Column 1</u> <u>Existing</u> <u>Conservation</u> <u>Release</u>	+	<u>Column 2</u> <u>Proposed</u> <u>Augmented</u> <u>Conservation</u> <u>Release</u>	=	<u>Column 3</u> <u>Total New</u> <u>Conservation</u> <u>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

C. 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, as already required by the Decree.

D. 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 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 May 31 of any year.

E. Withdrawals from Excess Release Bank - Daily Accounting

The augmented conservation releases provided under Part B and the special thermal stress releases provided under Part D, shall not exceed the total quantity in the excess release bank during any water year, commencing on June 1. Releases required to maintain the minimum basic flow of 1750 cfs at Montague or required under existing conservation release schedules when releases are not directed for a minimum basic rate at Montague of 1750 cfs, would not be counted against the excess release bank.

The daily accounting procedure for calculating daily credits and deficits to the excess release bank during the water year commencing June 1 shall be developed by the River Master with unanimous approval by the parties to the Decree.

FINDINGS

In the long-term, as New York City consumption increases, the amount of excess release capacity in the Delaware Reservoir System will diminish. Thus, any long-range release program must be based on arrangements which will not rely on reallocation of excess releases calculated under Art. III, paragraph B, 1, (c) of the 1954 Decree. Moreover, the basin states face the continuing problem regarding the inability of the Decree to function as originally designed during extreme drought emergencies. A long-term plan to define drought emergency conditions and to prescribe the conservation measures necessary to protect all interested parties during such conditions is required to address this problem.

Therefore, as a condition upon approval of the modified conservation releases, the Commission will undertake during the experimental period (June 1, 1977 to May 31, 1979) the following tasks to develop a long-range program for reservoir operations in the upper basin.

A. Drought Emergency Criteria and Conservation Measures

1. A task group including all the parties to the 1954 Decree should develop and prepare for Commission approval criteria defining the onset and stages of drought or water shortage emergencies. Such criteria may include consideration of reservoir storage levels, stream flow and groundwater conditions, meteorologic predictions, and other relevant data indicative of drought existence and actual or predicted severity.

2. The task group should also prepare an emergency diversion, water allocation and release plan specifying actions which the Commission would intend to take at various stages of a future emergency. The plan should include consideration of conservation measures which may be taken by various users, and the results of the salinity and estuary pollution assimilation model studies now in progress.

3. The task group should explore the operation of the total New York City system to assure under emergency conditions the maximum possible conservation of waters stored in the Delaware System reservoirs and balanced use of supplies available throughout the City system.

B. Long-Term Reservoir Operations Scheme

1. The program for reservoir operations must give priority to meeting the release requirements at the Montague gauge and the water supply requirements of New York City and the municipalities dependent upon the Delaware reservoirs. Along with an emergency plan, a long-term program for reservoir operations and stream flow maintenance should be developed through the cooperative efforts of the concerned parties. This program should include alternatives for sustaining conservation flows as excess release capacity diminishes in the City system.

2. As part of the long-term plan, consideration should be given to means of achieving more coordinated releases from all upper basin reservoirs, including private power facilities, in order to reduce adverse fluctuations in flows experienced by various basin streams. The total upper basin should be approached as a system, to be studied in a cooperative fashion by all concerned public and private interests.

3. The long-term reservoir operations scheme must be closely coordinated with the Level B, salinity and estuary studies to assure maximum benefits for the basin as a whole.

Staff of the Delaware River Basin Commission prepared an environmental assessment of the proposed experimental program. The assessment states in the final conclusion;

"Therefore, in view of the significance of known beneficial effects of the proposal, its temporary duration, the unlikelihood of significant adverse impacts and the probability that they are reversible should they occur, it is concluded that an environmental impact statement is not warranted for action on the proposal, and that, pursuant to Sec. 2-4.5 of the Delaware River Basin Commission's Rules of Practice and Procedure, the Executive Director, issue a negative declaration."

A negative declaration was issued on April 27, 1977 by the Executive Director.

The proposed project does not conflict with nor adversely affect the Comprehensive Plan.

There are no properties listed in the National Register of Historic Places at the project site or directly adjacent that will be affected by the action of the Delaware River Basin Commission.

The New York State Department of Environmental Conservation's Part 671 Regulations entitled Reservoir Releases Regulations - Cannonsville, Pepacton and Neversink Reservoirs dated May 16, 1977, are consistent with this proposed docket decision.

DECISION

The project, as described above, is approved pursuant to Section 3.8 of the Compact, subject to the following conditions:

A. All signatory parties to the Delaware River Basin Compact agree to abide by the conditions and requirements as stated in the above described experimental program and long-range program.

B. 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.

C. Monitoring

1. The purpose of this experimental program is to assess the possible benefits and adverse impacts of a modified release schedule. During this period, the New York State Department of Environmental Conservation, Commission and agencies of the other signatory parties shall monitor the impacts on fisheries, recreational uses, water shortage and yields of the New York City reservoirs, and estuary regimes (particularly salinity). Plans for a detailed monitoring program shall be submitted to and be approved by the Commission as a condition upon the release program.

2. A monthly status report of reservoir operations, storage levels, and releases implemented under the program shall be reviewed by the Commission. The report should include a comparison of releases and Montague flows under the experimental program with releases and Montague flows which would have otherwise been experienced under the existing Decree/conservation release scheme. The running total of the excess conservation release bank withdrawals will be continuously monitored by the Commission.

D. This approval is contingent upon the unanimous consent of the parties to the United States Supreme Court Decree entered in *New Jersey v. New York*, 347 U. S. 995 (1954) as set forth in a Memorandum of Agreement together with the approval of the Delaware River Master.

E. This approval shall expire May 31, 1979, unless it shall be extended for an additional one year upon agreement of all parties.

BY THE COMMISSION

DATED: May 25, 1977