

**Agreement of the Parties to the  
1954 U.S. Supreme Court Decree  
Effective December 10, 2008**

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An Agreement, consented to by the Parties (the State of Delaware (DE), the State of New Jersey (NJ), the State of New York (NY), the Commonwealth of Pennsylvania (PA), and the City of New York (NYC or City); hereafter Decree Parties) to the Amended Decree of the U.S. Supreme Court in New Jersey v. New York, 347 U.S. 995 (1954), (hereafter Decree) and proposing to modify and supercede certain provisions of Delaware River Basin Commission (DRBC) Resolutions D-77-20 CP (Revised) (also referred to as Revision 1) and subsequent revisions, to establish a Flexible Flow Management Program (FFMP) for managing diversions and releases under the Decree. The Parties hereby agree to the following and support adoption of appropriate Delaware River Basin Water Code revisions by the DRBC.

1. FLEXIBLE FLOW MANAGEMENT PROGRAM

a. Program Established

A Flexible Flow Management Program, as described in Sections 2 through 17, herein, is hereby established, whereby the Decree Parties shall manage diversions and releases under the Decree. The FFMP is designed to provide safe and reliable supplies of water essential to serve the needs of over 17 million people who depend on water from the City's Cannonsville, Pepacton and Neversink Reservoirs (City Delaware Basin Reservoirs) and their tailwaters, and the Delaware River; to manage discharges from the City Delaware Basin Reservoirs; to provide flows to help control temperatures in the tailwaters to help sustain cold water fisheries; to assist in mitigating the impacts of flooding; and to provide flows in the main stem and the Delaware Bay to help protect ecological health, support withdrawal and non-withdrawal uses, and repel salinity. The FFMP incorporates the elements provided in Sections 2 through 17, recognizing that various elements may require further study and investigation either prior to or during implementation and that some elements may therefore be implemented prior to others. It is also recognized that other elements may be added in the future, upon unanimous agreement of the Decree Parties, when or if identified. Addition of, or modifications to, elements of the FFMP may require adjustments or modifications to other prior established elements.

b. Criteria For Flexible Flow Management Program Modification

In reviewing proposed modifications to address the purposes of the FFMP, as provided in Sections 15, 16 and 17 herein, the Decree Parties and the DRBC will consider criteria that may include, without any particular priority, but are not limited to, the following:

- i. Decree Party equity
- ii. Net benefits and costs to environmental and economic resources
- iii. Source and sustainability of water available to support modification and the environmental or economic resource(s)
- iv. Habitat types—with naturally-occurring habitats receiving consideration over man-made habitats
- v. Scientific basis for modification

- vi. Impacts to drought management, water supply and flood mitigation, including but not limited to: 1) frequency, duration and seasonal timing of the various levels of drought; and 2) frequency, duration, levels of storage, diversions, releases and flows
- vii. Extent to which the diversions and the Montague minimum basic rate of flow provided in the Decree are met
- viii. Potential impacts to water quality, existing National and State Pollution Discharge Elimination System permits and the assimilative capacity of the Delaware River
- ix. Ease and practicability of operation
- x. Consistency with adaptive management principles
- xi. Applicability and implementation of water conservation practices
- xii. Impacts to salinity

The Decree Parties agree to evaluate these parameters as well as potential additional parameters, and provide a report with recommendations.

## 2. DIVERSIONS

### a. New York City

In accordance with Sections III. A. 3-4 of the Decree, and subject to the limitations provided herein, at no time during any twelve-month period, commencing June 1, shall the aggregate total quantity of water diverted by the City, divided by the number of days elapsed since the preceding May 31, exceed 800 million gallons per day (mgd). The City shall be subject to the releases and flow objectives described herein.

### b. New Jersey

In accordance with Section V of the Decree, except with respect to limitations provided herein, the State of New Jersey may divert outside the Delaware River watershed, from the Delaware River or its tributaries in New Jersey, without compensating releases, the equivalent of 100 mgd under the supervision of the Delaware River Master (River Master) established by the Decree and shall be subject to the following conditions and obligations:

- i. Until the State of New Jersey builds and utilizes one or more reservoirs to store waters of the Delaware River or its tributaries for the purpose of diverting the same to another watershed, or purchases or leases reallocated water or new storage from an existing or new storage facility, the State of New Jersey may divert not to exceed 100 mgd as a monthly average, with the diversion on any day not to exceed 120 million gallons.
- ii. If and when the State of New Jersey has built and is utilizing one or more reservoirs to store waters of the Delaware River or its tributaries for the purpose of diversion to another watershed, it may withdraw water from the Delaware River or

its tributaries into such impounding reservoirs without limitation except during the months of July, August, September and October of any year, when not more than 100 mgd as a monthly average and not more than 120 million gallons in any day shall be withdrawn. This restriction may be modified upon unanimous consent of the Decree Parties should the State of New Jersey purchase or lease reallocated water or new storage from an existing or new facility.

iii. Regardless of whether the State of New Jersey builds and utilizes storage reservoirs for diversion, its total diversion for use outside of the Delaware River watershed without compensating releases shall not exceed an average of 100 mgd during any calendar year.

### 3. FLOW OBJECTIVES

#### a. Montague Flow Objective

In accordance with Section III. B. 1. (b) of the Decree, except with respect to limitations provided herein, releases from the City Delaware Basin Reservoirs shall be in quantities designed to maintain a minimum basic rate of flow during Normal conditions at the gaging station of the United States Geological Survey (U.S.G.S.) at Montague of 1,750 cubic feet per second (cfs) during the period from September 16 through June 14 and 1,850 cfs during the period June 15 through September 15 in accordance with Section 4.c., as directed by the River Master in accordance with Section VII of the Decree.

The Decree Parties agree to evaluate the desirability of and alternatives to the existing Montague flow objective, including consideration of the availability of increased storage, and provide a report with recommendations within three years after the effective date of this Agreement. If a recommendation for change is made, the impact on the Trenton flow objective (see Paragraph b. below) shall be assessed.

#### b. Trenton Flow Objective

Section 2.5.3 of DRBC's Delaware River Basin Water Code (Water Code) establishes a set of flow objectives at Trenton, NJ to control salinity intrusion in the Delaware Estuary.

Upon the request of one or more of the Decree Parties or the DRBC, the Decree Parties and the DRBC agree to evaluate the desirability of and alternatives to the existing Trenton flow objective, including consideration of the availability of increased storage and the Montague flow objective, and provide a report with recommendations within three years after such request.

### 4. RELEASES

#### a. Conservation Releases from the City Delaware Basin Reservoirs

Conservation releases designed for protection of the ecology in the tailwaters below the City

Delaware Basin Reservoirs, including water quality, recreation, and fishery habitat needs, shall be made in quantities described in the Tailwater Habitat Protection and Discharge Mitigation Program (THPDMP) in Section 6 below.

b. Excess Release Quantity

For an interim period ending May 31, 2011, the Decree Parties agree to use the Excess Release Quantity, as defined in the Decree, in support of an Interim Excess Release Quantity as defined in Paragraph c. below.

c. Interim Excess Release Quantity

For an interim period ending May 31, 2011, an Interim Excess Release Quantity (IERQ) shall be provided in conjunction with the NJ increased diversions and elimination of the Drought Emergency salt-front vernier as provided herein, and an increased Montague objective of 1,850 cfs during basinwide Normal conditions. The IERQ is computed as 83 percent of the difference between the highest year's consumption of the NYC water supply system during the past five years of 1,257 mgd and NYC's current estimate of continuous safe yield of the NYC water supply system of 1,290 mgd obtainable without pumping. The continuous safe yield shall be subject to review under the Reassessment provided in Section 15. The IERQ shall be 15,468 cfs-days, except during any leap year the IERQ shall be 17,125 cfs-days.

NYC shall release the IERQ provided for above at rates designed to increase the flow at Montague from 1,750 cfs to 1,850 cfs for the period commencing on June 15 and continuing through September 15, and to maintain a flow at Trenton of 3,000 cfs during basinwide Normal conditions for the period commencing on June 15 and continuing through March 15 referred to as the "seasonal period." The IERQ required to be released in any seasonal period shall in no event exceed 70 billion gallons. In releasing the IERQ, NYC shall not be required to release at rates exceeding the capacity of its release works. NYC shall in each seasonal period continue its temporary releases until the aggregate quantity of the releases from the IERQ is equal to the total quantity of the IERQ as provided above.

The Decree Parties agree to investigate long-term measures including consideration of actions the lower basin states can take that will make adequate water available to support the NJ diversions and NYC detachment of the Montague objective from the salt front vernier during Drought Emergency.

d. Interim Excess Release Quantity Extraordinary Needs Bank

In addition to the hydrologic criteria described in Section 2.5.6 A. of the Delaware River Basin Water Code and subject to other provisional uses of the IERQ as provided herein including Section 6.b, the Decree Parties, the DRBC and the Delaware River Master may at any time review extraordinary water needs to support such research, aquatic life or other water-use activity as may be approved by the DRBC. Upon unanimous agreement, the

Decree Parties may bank all or a portion of the IERQ remaining at such time, and such portion shall be placed in an “IERQ Extraordinary Needs Bank” and used to provide for such extraordinary water needs. Such quantity as may be so banked shall be deducted from the IERQ.

5. DROUGHT MANAGEMENT

Figure 1 defines five zones of combined reservoir usable storage relative to the existing three drought management curves (Drought Watch, Drought Warning, and Drought Emergency) and one additional curve that divides the existing Normal zone into two zones (L1 and L2).

The following drought stage definitions and procedures will be in effect:

a. Drought Watch (L3)

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 raised by four (4) billion gallons during the entire year. In addition, the upper half of the Drought Warning, previously referred to as DW1, is renamed Drought Watch, with diversions and flow objectives as shown in Table 1.

b. Drought Warning (L4)

The lower half of the Drought Warning (DW2), based upon the rule curves included in DRBC Resolution No. 83-13 and as modified by Paragraph a. above, is designated Drought Warning, with diversions and flow objectives as shown in Table 1.

c. Drought Emergency (L5)

The operation level formerly named “Drought” in accordance with the rule curves included in DRBC Resolution No. 83-13 and Docket D77-20 (Revised) is hereby renamed “Drought Emergency.” During Drought Emergency, diversions shall be limited as shown in Table 1. The Montague and Trenton flow objectives are as shown in Tables 1 and 2.

**Table 1**  
**Interstate Operation Formula**  
**For Diversions, Releases And Flow Objectives**

<i>NYC Storage Condition</i>	<i>NYC Diversion (mgd)</i>	<i>NJ Diversion (mgd)</i>	<i>Montague Flow Objective (cfs)</i>	<i>Trenton Flow Objective (cfs)</i>
Normal (June 15 – Sept 15)	800	100	1,850*	3,000
Normal (Sept 16 – June 14)	800	100	1,750	3,000
Drought Watch (L3)	680	100	1,650	2,700
Drought Warning (L4)	560	85	1,550	2,700
Drought Emergency (L5)	520	85	1,100-1,500**	2,500-2,900***
Severe Drought	(to be negotiated depending upon conditions)			

\* To the extent supported by the IERQ pursuant to Section 4.c., otherwise 1,750 cfs

\*\* Varies with time of year, in accordance with Table 2

\*\*\* Varies with time of year and location of salt front, in accordance with Table 2

**Table 2**  
**Interstate Operation Formula**  
**For Adjusting Montague And Trenton Flow Objectives**  
**During Drought Emergency (L5) Operations**

<i>7-Day Average Location of "Salt Front"* (river-mile**)</i>	<i>Flow Objective (cfs)</i>							
	<i>Trenton</i>			<i>Montague</i>				
	<i>Dec 1 - Apr 30</i>	<i>May 1 - Aug 31</i>	<i>Sep 1 - Nov 30</i>	<i>June 1 - June 30</i>	<i>July 1 - Nov 30</i>	<i>Dec 1 - Dec 31</i>	<i>Jan 1 - May 31</i>	
-	-	-	-	1,450	1,500	1,350	1,100	
Upstream of R.M. 92.5	2,700	2,900	2,900					
R.M. 87.0 – R.M. 92.5	2,700	2,700	2,700					
R.M. 82.9 – R.M. 87.0	2,500	2,500	2,500					
Downstream of R.M. 82.9	2,500	2,500	2,500					

\* Defined as the 250 mg/L isochlor in the Delaware Estuary

\*\* Measured in statute miles along the center of the navigation channel, from the mouth of the Delaware Bay



d. Entry and Exit Criteria

Criteria for entry into and exit from the various stages of drought operations shall be in accordance with Section 2.5.3.E of the Delaware River Basin Water Code. L2 or higher level releases will be restored when combined storage in the three City Delaware Basin Reservoirs reaches 25 billion gallons above the drought watch level and remains at or above that level for 15 consecutive days.

e. Balancing Adjustment

In order to conserve water, the River Master is requested to utilize a balancing adjustment, based upon procedures agreed upon by the Decree Parties, when calculating the releases to be directed to meet the Montague flow objectives in Tables 1 and 2. Additionally, during Drought Warning, the amount of the conservation releases from the City Delaware Basin Reservoirs that is greater than the basic conservation release rates as set forth in Table 1 of Docket D77-20 (Revised) shall be considered as directed releases for the purpose of calculating the balancing adjustment.

6. TAILWATERS HABITAT PROTECTION and DISCHARGE MITIGATION PROGRAM (THPDMP)

a. Controlled Releases

There is hereby established a Tailwaters Habitat Protection and Discharge Mitigation Program (THPDMP), which consists of conservation releases designed for protection of the ecology in the tailwaters below the City Delaware Basin Reservoirs and discharge mitigation releases, designed to help mitigate the effects of flooding immediately below the City Delaware Basin Reservoirs. The City shall make such controlled releases from the City Delaware Basin Reservoirs in accordance with Figures 1 and 2 and Table 3.

Figure 1 defines five zones of combined reservoir usable storage relative to the existing three drought management curves (Drought Watch, Drought Warning, and Drought Emergency) and one additional curve that divides the existing Normal zone into two zones (L1 and L2). As defined in Table 3, each reservoir has an annual schedule of releases based on seasons, the quantity of combined reservoir usable storage, and the quantity of water available for the THPDMP in accordance with Paragraph b, below. For combined storage Zone L1, Figure 2 defines three zones of reservoir-specific storage (L1-a, L1-b and L1-c) relative to two rule curves for each reservoir. Table 3 further defines discharge mitigation releases based on reservoir-specific storage when combined storage is in Zone 1. When combined storage is below Zone L1, reservoir-specific storage zones as defined in Figure 2 are not relevant, and the releases to be made, as set forth in Table 3, are for conservation purposes only.

**Table 3**  
**Schedule Of Releases (cfs)**  
**With 35 mgd Available**

Cannonsville Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	1500	1500	*	*	*	1500	1500	1500	1500	1500
L1-b	250	*	*	*	*	*	350	300	275	250
L1-c	110	110	200	250	275	275	275	275	140	110
L2	80	80	190	240	260	260	260	260	115	80
L3	70	70	100	100	175	175	175	95	95	70
L4	55	55	75	75	130	130	130	55	55	60
L5	50	50	50	50	120	120	120	50	50	50

Pepacton Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	700	700	*	*	*	700	700	700	700	700
L1-b	185	*	*	*	*	*	250	200	200	185
L1-c	85	85	110	130	150	150	150	150	100	85
L2	65	65	100	125	140	140	140	140	85	60
L3	55	55	80	80	100	100	100	55	55	55
L4	45	45	50	50	85	85	85	40	40	40
L5	40	40	40	40	80	80	80	30	30	30

Neversink Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	190	190	*	*	*	190	190	190	190	190
L1-b	100	*	*	*	*	*	125	125	85	95
L1-c	65	65	85	100	110	110	110	110	75	60
L2	45	45	75	90	100	100	100	100	70	45
L3	40	40	50	50	75	75	75	40	40	40
L4	35	35	40	40	60	60	60	30	30	30
L5	30	30	30	30	55	55	55	25	25	25

\* Storage zone does not apply during this period. Releases will be made in accordance with zone L1-c.

**Table 3 (Continued)**  
**Schedule Of Releases (cfs)**  
**With 20 mgd Available**

Cannonsville Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 -	Apr 1 -	May 1 -	May 21 -	Jun 1 -	Jun 16 -	Jul 1 -	Sep 1 -	Sep 16 -	Oct 1 -
	31-Mar	30-Apr	20-May	31-May	15-Jun	30-Jun	31-Aug	15-Sep	30-Sep	30-Nov
L1-a	1500	1500	*	*	*	1500	1500	1500	1500	1500
L1-b	250	*	*	*	*	*	350	300	275	250
L1-c	110	110	200	250	275	275	275	275	140	110
L2	72	72	165	210	231	231	231	231	103	72
L3	63	63	90	90	158	158	158	86	86	63
L4	50	50	68	68	117	117	117	50	50	54
L5	45	45	45	45	108	108	108	45	45	45

Pepacton Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 -	Apr 1 -	May 1 -	May 21 -	Jun 1 -	Jun 16 -	Jul 1 -	Sep 1 -	Sep 16 -	Oct 1 -
	31-Mar	30-Apr	20-May	31-May	15-Jun	30-Jun	31-Aug	15-Sep	30-Sep	30-Nov
L1-a	700	700	*	*	*	700	700	700	700	700
L1-b	185	*	*	*	*	*	250	200	200	185
L1-c	85	85	110	130	150	150	150	150	100	85
L2	58	58	90	113	124	124	124	124	76	54
L3	50	50	72	72	90	90	90	50	50	50
L4	41	41	45	45	77	77	77	36	36	36
L5	36	36	36	36	72	72	72	27	27	27

Neversink Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 -	Apr 1 -	May 1 -	May 21 -	Jun 1 -	Jun 16 -	Jul 1 -	Sep 1 -	Sep 16 -	Oct 1 -
	31-Mar	30-Apr	20-May	31-May	15-Jun	30-Jun	31-Aug	15-Sep	30-Sep	30-Nov
L1-a	190	190	*	*	*	190	190	190	190	190
L1-b	100	*	*	*	*	*	125	125	85	95
L1-c	65	65	85	100	110	110	110	110	75	60
L2	40	40	65	80	90	90	90	90	63	40
L3	36	36	45	45	68	68	68	36	36	36
L4	32	32	36	36	54	54	54	27	27	27
L5	27	27	27	27	50	50	50	23	23	23

\* Storage zone does not apply during this period. Releases will be made in accordance with zone L1-c.

**Table 3 (Continued)**  
**Schedule Of Releases (cfs)**  
**With 10 mgd Available**

Cannonsville Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	1500	1500	*	*	*	1500	1500	1500	1500	1500
L1-b	250	*	*	*	*	*	350	300	275	250
L1-c	110	110	200	250	275	275	275	275	140	110
L2	65	65	154	194	212	212	212	212	94	65
L3	57	57	82	82	143	143	143	77	77	57
L4	45	45	61	61	106	106	106	45	45	49
L5	41	41	41	41	98	98	98	41	41	41

Pepacton Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	700	700	*	*	*	700	700	700	700	700
L1-b	185	*	*	*	*	*	250	200	200	185
L1-c	85	85	110	130	150	150	150	150	100	85
L2	53	53	82	103	114	114	114	114	69	49
L3	45	45	65	65	82	82	82	45	45	45
L4	37	37	41	41	69	69	69	33	33	33
L5	33	33	33	33	65	65	65	24	24	24

Neversink Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	190	190	*	*	*	190	190	190	190	190
L1-b	100	*	*	*	*	*	125	125	85	95
L1-c	65	65	85	100	110	110	110	110	75	60
L2	37	37	61	73	82	82	82	82	57	37
L3	33	33	41	41	61	61	61	33	33	33
L4	29	29	33	33	49	49	49	24	24	24
L5	24	24	24	24	45	45	45	20	20	20

\* Storage zone does not apply during this period. Releases will be made in accordance with zone L1-c.

**Table 3 (Continued)**  
**Schedule Of Releases (cfs)**  
**With 0 mgd Available**

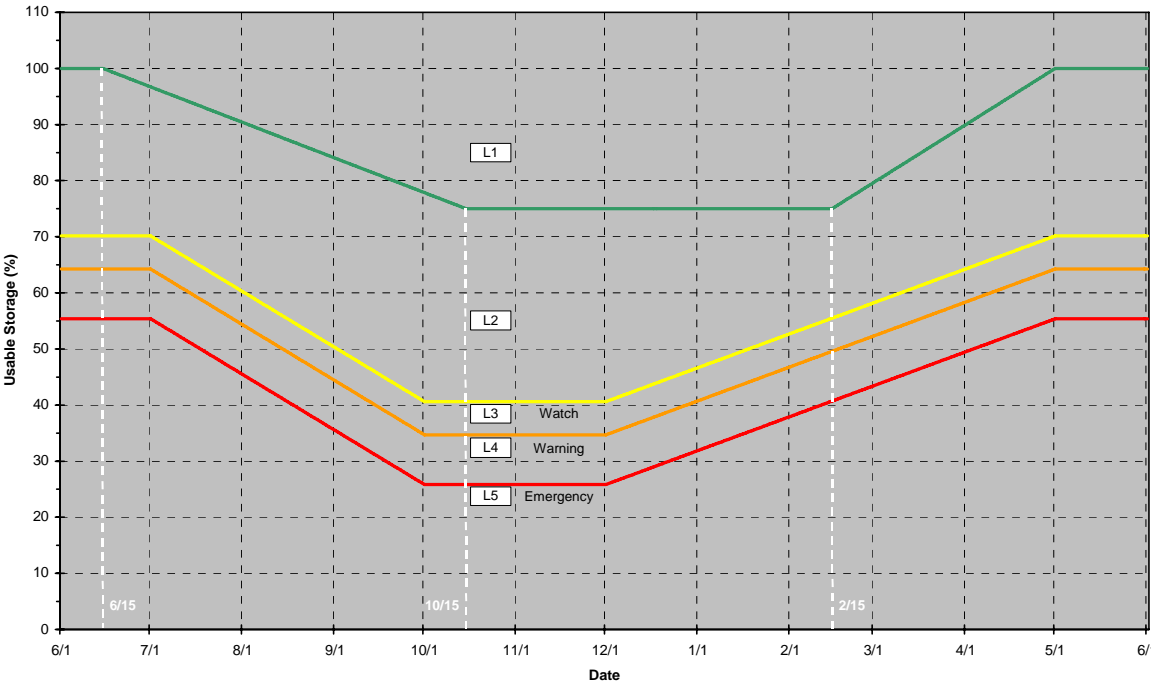
Cannonsville Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	1500	1500	*	*	*	1500	1500	1500	1500	1500
L1-b	250	*	*	*	*	*	350	300	275	250
L1-c	110	110	200	250	275	275	275	275	140	110
L2	58	58	134	175	190	190	190	190	84	58
L3	51	51	73	73	128	128	128	69	69	51
L4	40	40	55	55	95	95	95	40	40	44
L5	37	37	37	37	88	88	88	37	37	37

Pepacton Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	700	700	*	*	*	700	700	700	700	700
L1-b	185	*	*	*	*	*	250	200	200	185
L1-c	85	85	110	130	150	150	150	150	100	85
L2	47	47	73	91	102	102	102	102	62	44
L3	40	40	58	58	73	73	73	40	40	40
L4	33	33	37	37	62	62	62	29	29	29
L5	29	29	29	29	58	58	58	22	22	22

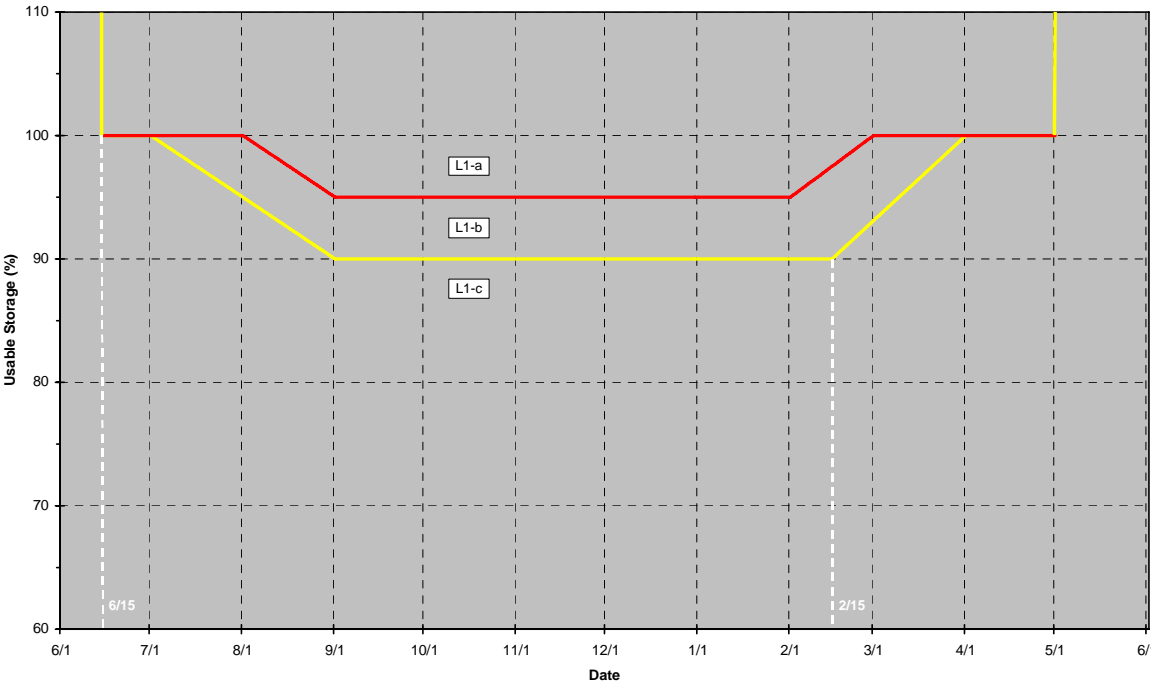
Neversink Storage Zone	Winter		Spring		Summer			Fall		
	Dec 1 - 31-Mar	Apr 1 - 30-Apr	May 1 - 20-May	May 21 - 31-May	Jun 1 - 15-Jun	Jun 16 - 30-Jun	Jul 1 - 31-Aug	Sep 1 - 15-Sep	Sep 16 - 30-Sep	Oct 1 - 30-Nov
L1-a	190	190	*	*	*	190	190	190	190	190
L1-b	100	*	*	*	*	*	125	125	85	95
L1-c	65	65	85	100	110	110	110	110	75	60
L2	33	33	55	66	73	73	73	73	51	33
L3	29	29	37	37	55	55	55	29	29	29
L4	26	26	29	29	44	44	44	22	22	22
L5	22	22	22	22	40	40	40	18	18	18

\* Storage zone does not apply during this period. Releases will be made in accordance with zone L1-c.

**Figure 1**  
**New York City Delaware System Usable Combined Storage**  
**(Cannonsville, Pepacton and Neversink Reservoirs)**



**Figure 2**  
**New York City Delaware System Usable Individual Storage**  
**(Cannonsville, Pepacton and Neversink Reservoirs)**



The City shall make discharge mitigation releases from the City Delaware Basin Reservoirs in accordance with the following:

- i. For the period June 16 through April 30, if combined reservoir usable storage is in Zone L1 in accordance with Figure 1, discharge mitigation releases shall be made based upon individual reservoir usable storage in accordance with Zones L1-a, L1-b and L1-c as provided in Figure 2 and Table 3. During the period October 1 through April 30, fifty percent (50%) of the water equivalent of snow pack in the watersheds above the reservoirs shall be included in the determination of combined and individual reservoir usable storage in relation to Figures 1 and 2.
- ii. For the period April 1 through April 30, if combined reservoir usable storage including snow pack is in excess of 100%, discharge mitigation releases shall be made based upon individual reservoir usable storage in accordance with Zone L1-a as provided in Figure 2 and Table 3.
- iii. For the period May 1 through June 15, Zones L1-a and L1-b shall not be applicable in accordance with Figure 2, and discharge mitigation releases shall be made in accordance with Zone L1-c as provided in Figure 2 and Table 3.
- iv. The NYCDEP and NYSDEC release managers may transfer spills to bottom releases to the extent possible and mutually agreed upon at any reservoir.
- v. The current National Weather Service flood stage for the West Branch Delaware River at Hale Eddy is 11 feet. Accordingly, Zone L1 discharge mitigation releases will not be made from Cannonsville Reservoir when the river stage for the West Branch Delaware River at Hale Eddy is above 9 feet, or is forecasted to be above 9 feet within 48 hours of a planned discharge mitigation release, and releases shall be made in accordance with Zone L2 through L5 as provided in Table 3. This guidance may be modified at any time upon unanimous consent by the Decree Parties, if additional information demonstrates that a different cautionary stage should be used to limit the discharge mitigation releases.
- vi. The current National Weather Service flood stage for the East Branch Delaware River at Fishs Eddy is 13.0 ft. Accordingly, Zone L1 discharge mitigation releases will not be made from Pepacton Reservoir when the river stage for the East Branch Delaware River at Fishs Eddy is above 11.0 ft. or is forecast to be above 11.0 ft. within 48 hours of a planned discharge mitigation release, and releases shall be made in accordance with Zone L2 through L5 as provided in Table 3. This guidance may be modified at any time upon unanimous consent by the Decree Parties, if additional information demonstrates that a different cautionary stage should be used to limit the discharge mitigation releases.
- vii. The current National Weather Service flood stage for the Neversink River at Bridgeville is 13 feet. Accordingly, Zone L1 discharge mitigation releases will not be made from Neversink Reservoir when the river stage for the Neversink River at Bridgeville is above 12 feet, or is forecast to be above 12 feet within 48 hours of a planned discharge mitigation release, and releases shall be made in accordance with Zone L2 through L5 as provided in Table 3. This guidance may be modified at any

time upon unanimous consent by the Decree Parties, if additional information demonstrates that a different cautionary stage should be used to limit the discharge mitigation releases.

viii. Discharge mitigation releases may be suspended from the respective reservoir if NYCDEP and NYSDEC in consultation with the National Weather Service determine that ice conditions threaten flood prone areas of the Neversink River below Neversink Reservoir, East Branch Delaware River below Pepacton Reservoir, or West Branch Delaware River below Cannonsville Reservoir.

ix. Discharge mitigation releases will be designed so that the combined discharge from each reservoir's controlled release works and spillway does not exceed the flow rate in Table 4 below. Respective controlled releases will be reduced to L2 releases in Table 3, or lower.

x. To more naturally effect downward or upward transitions between discharge mitigation release rates identified in Table 3, discharge mitigation release rates may be ramped generally over a period not to exceed three days at Cannonsville and Pepacton Reservoirs or two days at Neversink Reservoir, but in increments no less than 10 cfs at any reservoir.

**Table 4**  
**Maximum Combined Discharge Rates**

<i>Reservoir</i>	<i>Maximum Combined Discharge Rate (cfs)</i>
Neversink	3,400
Pepacton	2,400
Cannonsville	4,200

b. Sustainability

The sustainable source of water for releases in accordance with the THPDMP described herein is the possible construction of an additional 13 billion gallons of combined storage at the Cannonsville and Pepacton Reservoirs, the feasibility of which is being evaluated by NYS and the City. This possible additional storage will be constructed for the primary purpose of supporting a sustainable fisheries program. Prior to construction, the Decree Parties shall unanimously agree on any additional purposes for which such storage will be used. In addition, an operating plan covering filling and drawdown of the storage may be prepared, for consideration and unanimous approval by the Decree Parties. With this possible additional storage the releases in Table 3 with 35 MGD shall be applicable. Until such time as the construction of that additional storage is completed, but not later than December 31, 2012, unless a later date is agreed upon by the Decree Parties, an interim source of water for the THPDMP shall be provided from such unused portion of the New York City diversion allocation of 800 million gallons per day under Normal conditions as may be available from year to year and from such portion of the IERQ as may be approved



for such use from year to year by all of the Downbasin Parties (DE, NJ and PA) as provided for below.

Each year, the City shall estimate and report to the River Master the anticipated quantity of unused allocation, not to exceed 35 mgd, from the City Delaware Basin Reservoirs for the ensuing year. Such estimated amount shall be available for use for the THPDMP.

In any year in which the City's estimated quantity of unused allocation is less than 35 mgd, the Downbasin Parties may determine and report to the River Master a quantity of the IERQ which may be made available for use for the THPDMP for that year, not to exceed the difference between 35 mgd and the quantity estimated by the City for that year. Such quantity shall be deducted from the IERQ.

In the event that less than 35 mgd combined is available from the City's unused allocation and the portion of the IERQ approved by the Downbasin Parties for this purpose, in any year, or if during any year, an unanticipated emergency renders unavailable a portion or all of the City's unused allocation or the IERQ, the THPDMP releases shall be determined in accordance with Table 3 based upon the quantity of water available. Subsequent to December 31, 2012, if the proposed additional storage is not completed, then releases shall be made in accordance with Table 3 for 0 MGD, unless otherwise agreed upon by the Decree Parties.

7. DISCHARGE MITIGATION

Discharge mitigation releases designed to reduce discharges from the City Delaware Basin Reservoirs during periods of high flow shall be made in quantities described in the THPDMP.

8. SALINITY REPULSION

The operating objective should be to limit salinity in the Delaware Estuary to a maximum 30-day average of 180 parts per million of chlorides and a maximum 30-day average of 100 parts per million of sodium at River Mile 98 (i.e., one mile upstream of the Walt Whitman Bridge), unless the salinity repulsion flows necessary for estuary and bay ecological health, as addressed in Section 12, require a more stringent limit.

9. DWARF WEDGE MUSSELS

The Decree Parties and the DRBC agree to review and evaluate available data during the implementation of this FFMP and will consider any modifications that may be necessary to avoid taking, harming, or adverse effects on Dwarf Wedge Mussels.

10. LAKE WALLENPAUPACK

The Decree Parties and the DRBC agree to evaluate seasonal or snowpack-based discharge mitigation programs, as may be proposed by the operators of Lake Wallenpaupack, and consider any modifications to the Lake Wallenpaupack operations plan (Resolution 2002-33) that may be required to implement such programs, if found feasible.

11. RECREATIONAL BOATING

The Decree Parties and the DRBC agree to evaluate potential release programs, if proposed, for supporting whitewater boating activities and provide a report of potential alternatives and recommendations for such release programs, if found feasible.

12. ESTUARY AND BAY ECOLOGICAL HEALTH

The Decree Parties and the DRBC agree to review and evaluate available data during the implementation of this FFMP and will recommend modifications that may be necessary to maintain the ecological health of the Delaware Estuary and Bay including that of oysters, shellfish and endangered species. The focus of this FFMP element includes the Upper Delaware Estuary, Lower Delaware Estuary, and Delaware Bay, and such modifications shall be considered in accordance with the criteria described in Section 1.b.

13. WARM-WATER AND MIGRATORY FISH

The Decree Parties and the DRBC agree to review and evaluate available information on the effects of implementation of this FFMP on warm-water fishes that occur in the Delaware River and will consider any modifications to conserve native species of special concern and migratory species. Efforts will be made to improve the knowledge of the populations, habitats, and needs of these species to inform the adaptive management process.

14. MONITORING AND REPORTING

NYSDEC shall, on April 30 of each year, submit to the Decree Parties and to the DRBC annual status reports on the effectiveness of the THPDMP. Discussion of such reports shall be included as an agenda item at annual meetings of the Delaware River Master Advisory Committee.

NYSDEC shall conduct a biological monitoring program in 2009 and thereafter, once every five years, in accordance with the NYSDEC "Monitoring Plan for the Delaware River Tailwaters."

By March 31, 2011, and every 5 years thereafter, NYSDEC shall submit to the Decree Parties and to the DRBC a scientific report describing the effects on the fishery and other

aquatic resources resulting from implementation of the THPDMP. Such report shall include an abstract or executive summary, statements of purpose, scope and objectives, procedures, results, conclusions, recommendations for additional work if warranted, and supporting literature, and shall describe effects on the fishery and other aquatic resources resulting from implementation of the THPDMP.

By April 30, 2009 and every two years thereafter, NYSDEC and the City shall submit to the Decree Parties and to the DRBC a status report on the effort by New York State to secure funding and implement the construction of additional storage in the City's Delaware Basin Reservoirs. Such reports shall discuss potential alternative funding sources and include an estimated phased construction schedule for such work and projected completion dates.

#### 15. REASSESSMENT STUDY

In accordance with Section VIII of the "Recommendations of the Parties to the U.S. Supreme Court Decree of 1954 to the Delaware River Basin Commission Pursuant to Commission Resolution 78-20 (with appendices), known as the "Good Faith" agreement" of 1983, whereby the Decree Parties agreed that in consultation with the DRBC, they would periodically review the "Good Faith" agreement and recommend such adjustments or modifications thereto as might be required to respond to changing conditions, the Decree Parties hereby agree to conduct a comprehensive reassessment (Reassessment Study) of the safe yield (to the extent described in this Section) and operations of selected Basin reservoirs and the Delaware and Raritan Canal, including a reassessment of the Montague and Trenton flow objectives, as well as complete detachment of the salt front vernier.

The objectives of the Reassessment Study will be: (a) to identify current issues and concerns related to continued operations under the 1983 Good Faith Agreement; (b) to identify alternatives for Basin reservoir operations (NYC and non-NYC impoundments), to optimize the system of usage of waters of the Basin for water supply management under routine and drought conditions and for flood mitigation, fisheries management, and overall ecological protection of the River system, while maintaining Decree Party equity established by the Decree; and (c) to establish recommendations for improved water management planning in the Basin. All of the Decree Parties agree to provide information on current and contemplated use of Basin water.

The Reassessment Study shall also include evaluation of the components used in the calculation of the ERQ as defined in the Decree. NYCDEP will calculate the safe yield of the City Water Supply System based on the most current information available and will calculate the expected annual consumption of the City Water Supply System. The safe yield calculation and its supporting data will be provided by the NYCDEP for purposes of analyses called for in this Agreement. NYCDEP recognizes that this information may be utilized for analyses outside of the scope of this Agreement; such analyses shall not be used or relied upon in connection with the Reassessment Study. The Reassessment Study to be conducted pursuant to this Agreement shall not revise or test other assumptions for the safe

yield of New York City's water supply system.

The Reassessment Study should reflect yield and operations based upon existing infrastructure, and should consider opportunities for additional storage, including water storage purchases, infrastructure enhancements, treatment upgrades, water conservation and water reuse. The Reassessment Study also should include a comprehensive review of the current rule curves and the drought recovery criteria as it relates to the resumption of normal diversions, Montague and Trenton flow objectives and conservation releases. However, nothing in this Agreement shall be construed as amending or expressing an intention to amend the existing rights of the Decree Parties contained in the Decree to diversions and releases to meet flow objectives. For each recommendation identified, the associated opportunities/benefits and challenges/detriments should be described. The Reassessment Study should be closely coordinated with activities undertaken in connection with the DRBC Flood Mitigation Task Force Action Plan.

The Decree Parties agree to provide funds to the DRBC to engage an independent contractor to conduct the Reassessment Study, the cost of which shall be equitably shared by the Decree Parties. DRBC shall solicit qualified consultants utilizing a request for proposals (RFP) process. The DRBC Executive Director shall convene a Reassessment Steering Committee, consisting of a representative from each of the Decree Parties and the Federal Government, which shall direct the scope and conduct of the Reassessment Study. The RFP to be utilized in soliciting bids from qualified consultants, including the scope of services, shall be subject to the review and unanimous approval of the Decree Parties, as shall the selection of the consultant chosen to undertake the Study. . Final products of the Reassessment Study are expected within the three-year time frame of this FFMP, but a firm estimate of cost and timeline will be solicited as part of the RFP process. DRBC and the Decree Parties will provide the contractor with access to all data required for the Reassessment Study. These data shall include but shall not be limited to storage criteria, safety factors, per capita use, seasonal demand patterns, physical limitations on conveyance, secondary augmentation storage, population served, projected demands, reductions in water demand as a result of water conservation efforts or water reuse, expenditures on water conservation measures, the investigation and construction of additional storage, or the purchase of supplemental water sources, and current and expected peak day, peak month, and annual average and conjunctive use constraints, such as water quality and storage levels. Data or information that are sensitive from a security standpoint may be withheld by any Decree Party, unless arrangements acceptable to such Decree Party are put in place to protect the confidentiality of such data or information. The final report shall not include any such sensitive information unless consented to by the Decree Party providing same.

If consensus is reached based on the findings of this Reassessment Study, it is the intention of the Decree Parties to consider and potentially to adopt revisions to operating procedures, revisions to laws and regulations, or other changes to policies or procedures as may be necessary to implement such findings. Where appropriate, such revisions or changes may be incorporated into rules and/or dockets established by the DRBC following public notice and a hearing.

16. PERIODIC EVALUATION AND REVISION

In order to support an adaptive management process and to improve over time the scientific basis for the various elements of the FFMP, periodic evaluation of the elements shall be required of the appropriate Decree Parties or DRBC. Such evaluations shall be conducted in accordance with evaluation plans approved by the Decree Parties and DRBC. Components of the evaluation plans shall include: evaluation need(s), purpose and scope, objectives, approach and methods, evaluation benefits, content of planned reports, evaluation schedule, personnel needs, budget, source of funds and, where appropriate, results of previous investigations.

The Decree Parties and the DRBC shall, at the conclusion of the DRBC rulemaking process, consider whether any revisions to the FFMP should be made on the basis of the public comments received. In addition, the Decree Parties and the DRBC shall annually evaluate the results of the FFMP, relative to the purposes described in Section 1.a and other water uses and considerations as may be deemed appropriate, including consideration of any evaluations that have been completed within the previous year and input from the public. The Decree Parties agree that during the entire effective period of this Agreement, as monitoring, reporting and evaluation may show to be appropriate, the provisions of this agreement specifying triggers for and quantities of releases may be revised through an adaptive management process to further enhance the overall natural resource and economic benefits derived from the releases from the City Delaware Basin Reservoirs. Any resultant action taken shall be subject to the unanimous approval of the Decree Parties.

17. TEMPORARY SUSPENSION OR MODIFICATION

From time to time, the Decree Parties and DRBC may agree that emergencies, maintenance and repair operations, short-term needs, or unanticipated effects of the FFMP may require temporary suspension or modification of one or more of the provisions herein. In considering such temporary suspensions or modifications, the Decree Parties and DRBC may estimate probabilities and risks associated with the temporary suspensions or modifications. Any resultant action taken, other than modifications to the releases as provided below, shall be subject to the unanimous approval of the Decree Parties.

The City shall establish the scope of work and the work schedule for maintenance and repair operations and shall provide such information to the Decree Parties and DRBC as early as practicable. In the absence of unanimous approval of a modified release schedule as may be required for purposes of necessary maintenance and repair, the City, acting in cooperation with the NYSDEC, will make releases to the best of its ability for the duration of the maintenance or repair work, provided, however, that releases shall be sufficient to meet the Montague flow objective in effect at the time.

Modifications to releases not to exceed seven consecutive days for purposes of maintenance

or repair of immediate necessity, or modifications to avoid unreasonable sub-daily fluctuations in releases, shall not require Decree Party approval, but shall be done in cooperation with NYSDEC, provided, however, that releases shall be sufficient to meet the Montague flow objective in effect at the time.

18. RESERVATIONS

Nothing contained herein shall be deemed to constitute a waiver or modification of, or limitation on, NYC's right to divert up to an average of 800 mgd, combined, out of the basin from the City Delaware Basin Reservoirs or New Jersey's right to divert up to an average of 100 mgd out of the basin, or the Lower Basin Parties' right to releases from the City Delaware Basin Reservoirs sufficient to maintain the 1,750-cfs Montague flow objective, consistent with the terms of the Decree. This Agreement shall not be cited as precedent of any intention to waive or modify or limit the above-cited rights. Notwithstanding this reservation of rights, the Decree Parties intend to be legally bound by the terms and conditions of this Agreement.

The Decree Parties and DRBC have authorized certain actions, including but not limited to discharge mitigation releases, in this Agreement to assist in mitigating the impacts of flooding immediately below the NYC Delaware Basin Reservoirs. By incorporating flood mitigation as an objective and taking the actions provided herein, the Decree Parties and DRBC do not create or assume any duties or obligations regarding flood mitigation or in any way modify any such duties or obligations that may be otherwise prescribed by law.

19. EFFECTIVE DATE

This Agreement shall take effect upon unanimous consent of the Decree Parties and shall expire on May 31, 2011, unless renewed as provided for in Section 20 or the expiration date is revised.

20. RENEWAL AND REVISION

This Agreement may be revised only through the unanimous written agreement of the Decree Parties. The Decree Parties agree to consider the results of the Reassessment identified in Section 15, including possible changes to the Drought Operations Plan as defined under the "Good Faith Agreement" and modified herein, as they become available. Revisions to the Drought Operations Plan based upon such reassessment, may be incorporated into this Agreement through the unanimous approval of the Decree Parties. This Agreement, and any unanimously agreed to revisions, may be renewed for an additional 5-year period beginning June 1, 2011 by unanimous written agreement of all the Decree Parties and adoption by DRBC prior to May 31, 2011. If renewed for such additional 5-year period, the Agreement shall thereafter automatically renew in five-year increments, unless terminated as provided for in Section 21. If this Agreement is not renewed for the additional 5-year period, prior to May 31, 2011, the Decree Parties agree to enter into good faith negotiations to determine a course of action in the absence of such renewal.

21. TERMINATION and REVERSION

Any Decree Party may terminate the Agreement on any automatic renewal date, commencing with the June 1, 2016 renewal date, by providing notice to the other Decree Parties, no less than 180 days prior to such renewal date, of its intent to terminate the agreement on such renewal date. If timely notice of intent to terminate is given, the Decree Parties agree to enter into good faith negotiations to determine a course of action in the absence of such renewal. Upon any failure by all Decree Parties to continue this Agreement, and any revisions to this Agreement, in accordance with Section 20, in effect either on June 1, 2011 or any renewal period thereafter, and in the absence of agreement upon a course of action as provided in Section 20 and this section, operations shall revert to those provided in Docket D-77-20 CP (Revised). The Decree Parties agree to use their best efforts to develop by June 1, 2011 appropriate amelioration for fisheries habitat protection in accordance with Article 3 of Resolution 2002-33 (the new PPL Drought Management Plan), to be applied in conjunction with such operations.

In determining the course of action as provided above, the Decree Parties also agree to consider means by which the provisions of Tables 1 and 2, related to the NJ Diversion and the City detachment from the salt front vernier, can be continued under such course of action while preserving the Downbasin Parties' interests.

22. RESCISSION AND NULLIFICATION

The Parties recommend that the DRBC rescind Resolutions and Dockets D-77-20 CP (Revision 2) through D-77-20 CP (Revision 10), to the extent each has not already expired. This Agreement shall be null and void, and of no further force and effect, if such rescissions are not effected.

STATE OF DELAWARE

The State of Delaware hereby approves this Agreement of the Parties to the U.S. Supreme Court Decree of 1954 for a Flexible Flow Management Program and recommends that this Agreement be submitted to the Delaware River Basin Commission for implementation as appropriate through rules, dockets and/ or resolutions, subject in each instance to the further agreement of the Parties as required by Section 3.3(a) of the Delaware River Basin Compact.

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STATE OF NEW JERSEY

The State of New Jersey hereby approves this Agreement of the Parties to the U.S. Supreme Court Decree of 1954 for a Flexible Flow Management Program and recommends that this Agreement be submitted to the Delaware River Basin Commission for implementation as appropriate through rules, dockets and/ or resolutions, subject in each instance to the further agreement of the Parties as required by Section 3.3(a) of the Delaware River Basin Compact.

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CITY OF NEW YORK

The City of New York hereby approves this Agreement of the Parties to the U.S. Supreme Court Decree of 1954 for a Flexible Flow Management Program and recommends that this Agreement be submitted to the Delaware River Basin Commission for implementation as appropriate through rules, dockets and/ or resolutions, subject in each instance to the further agreement of the Parties as required by Section 3.3(a) of the Delaware River Basin Compact.

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STATE OF NEW YORK

The State of New York hereby approves this Agreement of the Parties to the U.S. Supreme Court Decree of 1954 for a Flexible Flow Management Program and recommends that this Agreement be submitted to the Delaware River Basin Commission for implementation as appropriate through rules, dockets and/ or resolutions, subject in each instance to the further agreement of the Parties as required by Section 3.3(a) of the Delaware River Basin Compact.

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COMMONWEALTH OF PENNSYLVANIA

The Commonwealth of Pennsylvania hereby approves this Agreement of the Parties to the U.S. Supreme Court Decree of 1954 for a Flexible Flow Management Program and recommends that this Agreement be submitted to the Delaware River Basin Commission for implementation as appropriate through rules, dockets and/ or resolutions, subject in each instance to the further agreement of the Parties as required by Section 3.3(a) of the Delaware River Basin Compact.

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