

# DELAWARE RIVER FLOW MANAGEMENT Proposal for April 2009 through March 2010

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## Delaware River Conservation Coalition

*Friends of the Upper Delaware River  
North Delaware River Watershed Conservancy  
Aquatic Conservation Unlimited  
Drowning on the Delaware  
Residents Against Flood Trends  
New Jersey Council of Trout Unlimited  
New York State Council of Trout Unlimited  
Pennsylvania Council of Trout Unlimited*

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# **EXTRA WATER FOR 2009-2010**

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- Delaware Aqueduct Shutdown**
- Reduced New York City Consumption**
- Weekly Montague Flow Averaging**

# Delaware Aqueduct Shutdown

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- Access Shaft Repair Work – Shaft 6
  
- Shut Off Diversions from Delaware Reservoirs
  
- Extra Water in Reservoirs (700 mgd)
  - 34 Days = 23.8 bg = 65 mgd
  - 60 Days = 42 bg = 115 mgd
  
- Decree Parties 2008 Winter Release Schedule: Release Extra Water by May 1

# REDUCED CONSUMPTION

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- Seven Percent Reduction Current Year
- Consumption Recent Years ~ 1 bgd
- Reduced Consumption ~ 70 mgd

# Weekly Montague Averaging

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- Current Directed Releases Change Daily**
- Change to Weekly Averaging**
- Reduces Peaks Saving 13 mgd**

# Proposed Release Schedule Alternative #1

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	Oct - Mar	April	May	June	July	Aug	Sep
<b>Cannonsville</b>	125	600	650	650	650	650	600
<b>Pepacton</b>	100	220	220	220	220	220	220
<b>Neversink</b>	75	150	150	150	150	150	150

Overlay of Existing Release Schedule  
Based on a **34 day** Aqueduct Shutdown  
All figures in cubic feet per second (cfs)

# Proposed Release Schedule Alternative #2

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	Oct - Mar	April	May	June	July	Aug	Sep
<b>Cannonsville</b>	250	600	650	650	650	650	600
<b>Pepacton</b>	240	240	240	240	240	240	240
<b>Neversink</b>	100	150	150	150	150	150	150

Overlay of Existing Release Schedule  
Based on a **60 day** Aqueduct Shutdown  
All figures in cubic feet per second (cfs)

# No Increase in Water Supply Risk

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- ❑ New York City uses OASIS to quantify risk based on projected “drought days” scores
- ❑ FFMP (12/2008) = 5560 drought days
- ❑ Release Schedule #1 = 5557 drought days
- ❑ Release Schedule #2 = 5548 drought days



# FFMP Release Schedule Aug. 2008

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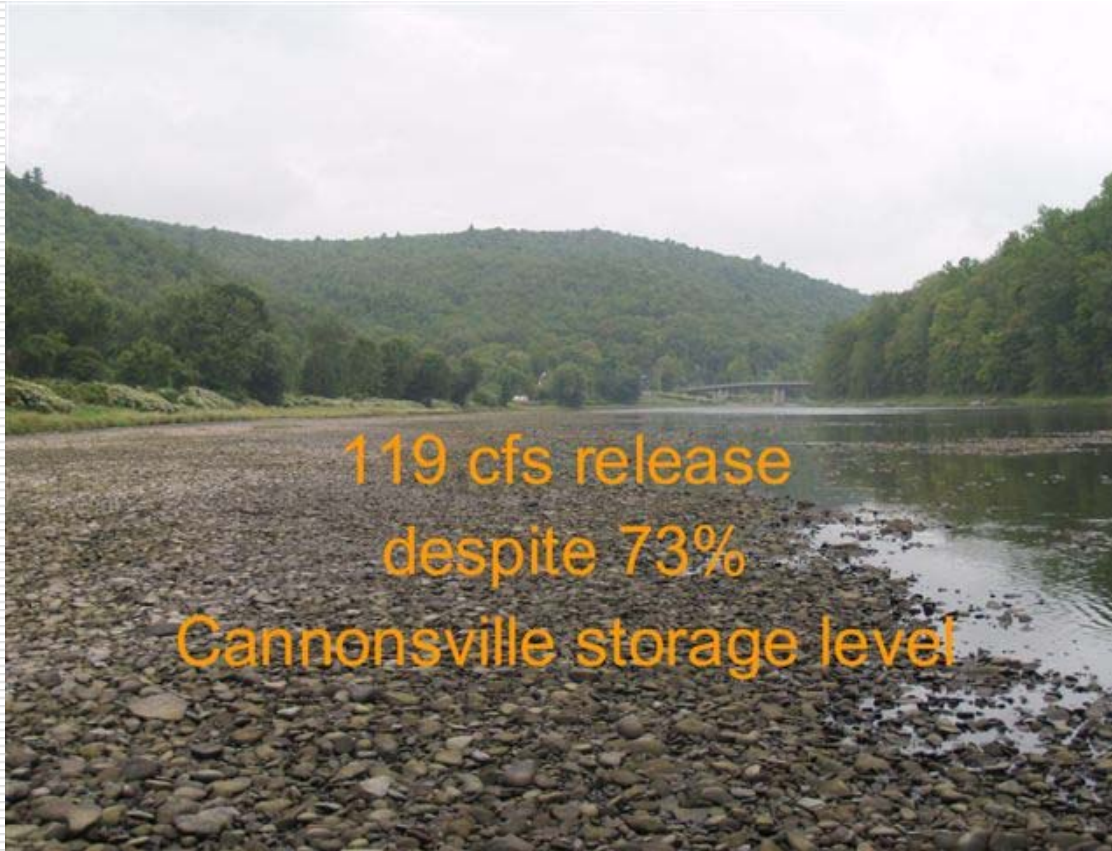
# FFMP Release Schedule Sept. 2008

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# FFMP Release Schedule Sept. 2008

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# AQUATIC HABITAT BENEFITS

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## Proposal #1

Main Stem – Adult Trout:	+117% (April – June) +92% (July – Sept.)
East Br., West Br., Neversink – Spawning Trout:	+32 – 45% (Oct. – Apr)

## Proposal #2

Main Stem – Adult Trout:	+107% (April – June) +90% (July – Sept.)
East Br., West Br. Neversink - Spawning Trout:	+54 – 118% (Oct – Apr)

# FLOOD MITIGATION MEASURES

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- Flood Risks Currently Very High**
- Increased Flood Risk Due To:**
  - Limited Capacity of Release Valves
  - Aqueduct Closures = Storage Levels > Normal
  - Consumption Reduction (< 1946 pre-reservoirs)
- DRBC Flood Analysis Model Still Not Completed**
- Immediate Flood Prevention/Mitigation Measures Should Be Added**

# Structural Mitigation Measures

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## □ Measures

- Reduced Storage (Voids)
- Siphons
- Crest Gates and/or Flood Gates
- Larger Release Valves
- Dry Dams

## □ Precedent

- Several of These Measures Have Been Implemented at the Gilboa Dam



# Gilboa Dam Siphons & Crest Gate

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# Non-Structural Mitigation Measures

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- Basinwide Flood Management Plan
- Detailed Emergency Action Plans for Downstream Communities
- Expanded Dam Safety Investigation and Public Reporting
- Improved Flood Warning Systems