

**DELAWARE RIVER BASIN COMMISSION  
REGULATED FLOW ADVISORY COMMITTEE  
MEETING SUMMARY  
September 28, 2017**



The September 28, 2017 Regulated Flow Advisory Committee (RFAC) meeting was held at the West Trenton Volunteer Fire Company Hall in West Trenton, New Jersey. Mr. Brenan Tarrier of NYS DEC chaired the meeting. Copies of presentations given at the meeting can be found on the DRBC's RFAC website: [http://www.nj.gov/drbc/about/advisory/RFAC\\_index.html](http://www.nj.gov/drbc/about/advisory/RFAC_index.html).

**Committee Business**

The meeting summary of the April 5, 2016 meeting was approved with revisions, and the February 16, 2017 summary was approved as drafted. Brenan Tarrier read a letter received two days earlier from the Delaware Riverkeeper Network, requesting that the Subcommittee on Ecological Flows (SEF) be reconvened and tasked with providing ongoing scientific analysis and policy recommendations to RFAC. Brenan indicated that RFAC will discuss and consider this request and report back later.

**FFMP Implementation Performance – Release Year 2016**

Amy Shallcross of DRBC gave a presentation on the implementation performance of the FFMP agreement over the 2016 release year (June 1, 2016 – May 31, 2017). A copy of the presentation is posted online on the RFAC website. Persistent below-normal precipitation in the fall led to low reservoir storage, and basin-wide drought watch operations began on November 23. After a period of near-normal precipitation and a recovery in reservoir storage levels, drought watch operations ended on January 18. During periods of low reservoir storage and drought watch operations, conservation release rates were below the maximum permitted rates. Out-of-basin diversion rates by New York City and New Jersey were within the permitted ranges throughout the year. Despite warmer-than-average summer temperatures in the Upper Basin, reservoir releases kept water temperatures at tailwater locations within the desired ranges. Reservoir storage at the three NYC Delaware basin reservoirs was below the Conditional Seasonal Storage Objective (CSSO) for much of the year, minimizing reservoir spills.

**The Proposed FFMP 2017 Features**

Robert Mason, USGS Delaware River Master, presented an outline of a proposed new reservoir releases program. A copy of the presentation is posted online on the RFAC website. The details of the new program are currently being negotiated by the Decree Parties. The new program would be part of a ten-year agreement. During the initial 5-year period a number of studies will be conducted to assess key components of the flow management program.

**Modeling of the Proposed FFMP**

Amy Shallcross of DRBC presented results of modeling the proposed new program. A copy of the presentation is posted online on the RFAC website. In the proposed new program, some existing

features are modified and new features are added. New features include setting aside volumes of water to be managed as independent “banks” for single-purpose reservoir releases. The proposed new program was modeled and results were compared to those of the most recent FFMP program. Results for a suite of customary metrics were compared, finding only minor differences between the two programs.

### **Open Public Comment**

The following comments were made by members of the public:

- Asked NYC to continue its voluntary program of releases until an agreement is reached.
- Asked for public input before the new agreement is finalized.
- Urged the Decree Parties to reach a new agreement to manage releases from the NYC Delaware Basin reservoirs and avoid the devastating impacts that a reversion to the 1983 operating plan (Rev. 1) would have on the ecosystem and regional economy.
- Concerned that in the absence of a new agreement, reduced conservation release rates (Rev. 1 program) will have negative consequences for the tailwater fisheries.
- Asked to consider extending the current voluntary program of releases to the winter months, when the Rev. 1 program reduced release rates would be very problematic.
- Requested that the Subcommittee on Ecological Flows (SEF) be reconvened to evaluate ecological impacts of decisions affecting river flows.
- Reservoir releases also affect dwarf wedge mussels and other federally listed species, and warm-water fishes in the lower basin (shad); SEF must be reconvened to assess potential impacts to these species as alternative reservoir releases are considered.
- Large and sudden (“yo-yo”) fluctuations in reservoir releases cause adverse economic impacts to businesses that depend on predictable flows and temperatures for recreation on the river; release rates should be gradually changed instead.
- Requested access to the latest PST model and model outputs to review new modeling of releases from thermal bank and estimate ecological impacts.
- Proposed that further studies should examine the relationship between water temperatures and actual ecological impacts on fish; SEF can be involved in this.
- Requested that the new agreement include provisions for adaptive management in response to new information.
- Asked that short papers be developed to inform the public on some of the flow management issues to be studied; asked for opportunities to involve the public in advancing these issues and studies.
- Advocated for storage voids for flood mitigation; concerned about periods when reservoir storage is at full capacity; asked that such periods be eliminated.
- Asked that consideration be given to people living along the river.
- Opposed to large storage voids because they give a false sense of security against flooding; instead DRBC should implement recommendation of its own Flood Mitigation Task Force, including removing people from harm’s way.

Decree Party Principals that were present made brief comments in response to questions from the public. They are working towards the goal of having a final agreement by October 10, to avoid reverting to the Rev. 1 program. The process seeks to accommodate issues from all parties, not just issues affecting the upper river. Individual parties have complex sets of issues to consider in attempting to balance competing interests.

**REGULATED FLOW ADVISORY COMMITTEE (RFAC)**

**September 28, 2017**

**ATTENDANCE LIST**

<b>NAME</b>	<b>AFFILIATION</b>
ANDERSON, Kelly	Philadelphia Water
BACHMANN, Bob	Friends of the Upper Delaware River
BAXTER, Stefanie	Delaware Geological Survey
BOSCH, Adam	NYC DEP
DECK, Elba	DRBC
DIFRENNA, Vincent	USGS - Delaware River Master Office
DOMBER, Steven	NJ DEP
EVANS, Richard	NPS
GARIGLIANO, Jennifer	NYC DEP
GENDER, Fred	PA Trout Unlimited
GOLOD, Pete	Upper Delaware Council
HAMILTON, Don	NPS
HARTMAN, Lee	Trout Unlimited
HEINICKE, Karl	DRBC
HESSON, Molly	Philadelphia Water
HOFFMAN, Jeffrey	NJ DEP
KEIFER, Daniel	n/a
KENNEDY, Dan	NJ DEP
KINNEY, Dave	Trout Unlimited
KLEIN, Kathy	WRA DRB
KOLESAR, Peter	Columbia University
LAPORT, Lauren	ELM
LEWIS, Chris	n/a
LEWIS, Cliff	n/a
LEWIS-COKER, Christine	USACE
MASON, Robert	USGS - Delaware River Master Office
McEWAN, Robert	n/a
McGUIRE, Meg	Delaware Currents
McHUGH, Denise	DRBC

<b>NAME</b>	<b>AFFILIATION</b>
MIRI, Joe	NJ DEP
MURALIDHAR, D.	NYC DEP
NOBLE, Mary Ellen	Delaware Riverkeeper Network
ORR, Jenn	PA DEP
PEDRICK, Gail	Delaware Riverside Conservancy
PIERCE, Daryl	PA Fish and Boat Commission
QUINODOZ, Hernan	DRBC
REAVY, Karen	DRBC
RESHOWER, Chris	n/a
RESTI, Sherri	Friends of the Upper Delaware River
ROWE, Samuel	Town of Hancock, NY
RUPERT, Clarke	DRBC
RUSH, Paul	NYC DEP
SCANNAPIECO, Alicia	n/a
SCHMITT, Paula	DRBC
SHALLCROSS, Amy	DRBC
SILLDORFF, Erik	Delaware Riverkeeper Network
SKELDING, Jeff	Friends of the Upper Delaware River
TAMBINI, Steve	DRBC
TARRIER, Brenan	NYS DEC
THARP, Diane	NorDel Conservancy
THISTLE, Nicholas	NJ DEP
THOMAS, Richard	Trout Unlimited
VAN ROSSUM, Maya	Delaware Riverkeeper Network
WOOLF, Donna	DRBC
WUNSCH, David	Delaware Geological Survey