



Delaware River Basin Commission

25 State Police Drive
 PO Box 7360
 West Trenton, New Jersey
 08628-0360
 Phone: (609) 883-9500 Fax: (609) 883-9522
 Web Site: <http://www.drbc.net>

Carol R. Collier
 Executive Director

Robert Tudor
 Deputy Executive Director

**MINUTES (FINAL)
 WATER QUALITY ADVISORY COMMITTEE
 JUNE 23, 2009**

ATTENDEES:

NY Not in attendance	DE DNREC (via telephone) Dave Wolanski, Environmental Scientist
EPA Denise Hakowski, EPA Region III Izabela Wojtenko, EPA Region II (Alternate)	PA DEP (via telephone) Thomas Barron
NJ DEP Debra Hammond, Water Quality Standards & Assmt.	Academia Representative John Jackson, Stroud Water Res. Cntr.
Environmental Organization Representatives Tracy Carluccio, Del Riverkeeper (Alternate)	Regulated Community Representatives Bart Ruitter, DuPont Consultant (Alternate) Mary Neutz, City of Wilmington (Alternate-via telephone)
National Park Service Allan Ambler, Biologist	Local Watershed Organization Chris Kocher, Wildlands Conservancy (not in attendance)
DRBC Jessica Sanchez, River Basin Planner John Yagecic, Supervisor, Stds. & Assmt. Kenneth Najjar, Head, Plan & Information Tech. Thomas Fikslin, Head, Modeling & Monitoring Assmt. Bob Limbeck, Watershed Scientist, Stds. & Assmt. Robert Tudor, Deputy Executive Director Erik Silldorff, Aquatic Biologist, Stds. & Assmt. Carl Natter, DRBC Intern Eric Wentz, DRBC Intern	Other Attendees: Jason Cruz, Philadelphia Water Dept. Josef Kardos, Philadelphia Water Dept. Al Korndoerfer, NJ DEP Jerry Mead, Academy of Natural Sciences Bonita Moore, PA DEP (via telephone) Heidi Biggs, PA DEP (via telephone) Kristen Hice, PA DEP (via telephone)

The meeting was called to order at 9:40 am by Ken Najjar. The WQAC Chair was unavailable for this meeting, Vice-chair Dave Wolanski participated via teleconference. The committee agreed DRBC staff should facilitate the meeting for the Vice-chair.

Approval of Agenda & Minutes

The agenda for today was approved by the committee. Also, the minutes from the March 30, 2009 meeting were approved by the WQAC as presented.

Selection of Chair and Vice-Chair

The committee agreed this would be discussed at the end of the meeting.

Temperature Criteria (Bob Limbeck)

Bob Limbeck presented DRBC's current efforts toward development of revised temperature criteria for Zones 1A through 1E. Current criteria for the non-tidal river are expressed as differentials above background, but background is not defined, making assessment of non-tidal river problematic.

Mr. Limbeck outlined an approach to new criteria including the following elements:

- Retain the West Branch Delaware River as a cold water fishery and adopt PA's cold water fishery criteria for that reach. This could offer protection for Brown Trout, particularly during the fall spawning period.
- Identify a sub reach within Upper Zone 1A as a "Tailwater Transition Fishery (TTF)" or Cool-Water Fishery. This area would represent a transition zone from cold to warm, with intermediate seasonal criteria based on protection of Rainbow Trout, particularly during the spring spawning period. DRBC would work with fishery agencies to delineate cool and warm water subreaches of 1A.
- Retain designated fishery uses for Zones 1B-1E - Narrowsburg to Trenton, which are consistent with a warm water fishery. Adopt appropriately protective criteria.

The West Branch is not entirely a brown trout tailwater fishery. The Upper West Branch is dominated by Brown trout, the Lower West Branch is dominated by Rainbow trout. These are not indigenous species, but the trout fishery is economically important. Cold water does not extend all the way to Narrowsburg. Without Cannonsville releases, the trout probably would most likely not thrive.

DRBC's next steps would include:

- Work with fisheries agencies including the Delaware River Basin Fisheries Coop., PA Fish and Boat Commission, and NYC to refine approaches, subreaches, and seasonal criteria;
- Investigate the influence of natural conditions when criteria are exceeded. Develop a "natural conditions exception" to criteria;

- Investigate using an air/water temperature model at specific sites to account for meteorological drivers for surface water temperature;
- Work toward appropriate temperature monitoring including monitoring of thermal effluents and heat dissipation areas, and adequate ambient monitoring with real time continuous monitors.
- Investigate physiological needs of other aquatic species.

Jerry Mead from Academy of Natural Sciences gave a presentation on a water temperature model of the Delaware River Basin and various applications. The model simulates daily average water temperature of all streams in the Delaware River Basin. Originally, impacts of water temperature and land use change were examined. DRBC staff indicated that the model could be useful for assessment purposes in the river. The model shows that the percent impervious cover in the riparian zone remains positively correlated to water temperature, upstream of the river of that zone.

The group discussed whether defining a temperature transition sub-reach reflected a weakening of protection. Some asked whether the upper Delaware would be a cold or warm water fishery under natural conditions if the reservoirs were not present. Dr. Silldorff indicated that temperature data from the Beaverkill River (above the reservoirs) provided a good indication that the natural condition of the river would be a warm water fishery. The existence of the cold water fishery is a byproduct of the reservoirs. The cold water effect of the reservoirs does not extend all the way down to Narrowsburg. The Fish & Boat Commission is working very closely with DRBC right now to help delineate the cold water and transitional fisheries.

Mr. Limbeck stated that temperature criteria cannot be proposed by December, but the resulting criteria to be derived under the current approach would be consistent with, and protective of, the fisheries in the non-tidal river, defensible, and preferable.

BioCriteria Subcommittee Update

Mr. Al Korndoerfer, Chair of the BioCriteria Subcommittee, stated the last meeting of this committee was March 18, 2009. The committee decided the proposed methodology for the integrated assessment was acceptable. The BioCriteria document will be updated and made available on the website; comments will be solicited by August 2009. The next meeting of the BioCriteria Subcommittee will be September 2009.

Nutrient Management Subcommittee (Erik Silldorff)

A Nutrient Management Subcommittee (NMSC) meeting was held June 10, 2009.

Erik Silldorff gave brief powerpoint presentation. The NMSC would like a consensus for recommendations from the WQAC. Discussion ensued on the timing of components that would go into a use attainability study, relative to the timing of new DO criteria. Through the group discussions, it became apparent that disagreement persisted surrounding details of several recommendations. The discussions highlighted different opinions as to when actions should occur. It also became clear that consideration of the designated use, and potential change to the designated use, would influence actions taken on changing DO criteria.

Meeting Adjournment

Meeting adjourned at 1:00 pm. Due to unresolved issues on this agenda, the WQAC meeting will be continued on **July 21, 2009** @ 9:30 am at the DRBC offices in Trenton, NJ. It will be a half-day meeting.

The meeting handouts will be attached as part of the permanent meeting record.