

## DELAWARE RIVER BASIN COMMISSION

### MEETING OF JULY 16, 2008

#### Minutes

The Commission met at the office of the Delaware River Basin Commission in West Trenton, New Jersey.

Commissioners present: Michele Putnam, Chair, New Jersey  
Fred Sickels, New Jersey  
Joseph A. Miri, New Jersey  
Mark Klotz, Vice Chair, New York  
Katherine Bunting-Howarth, Second Vice Chair, Delaware  
Harry W. Otto, Delaware  
Lieutenant Colonel Thomas J. Tickner, United States  
Henry W. Gruber, United States  
Cathy Curran Myers, Pennsylvania  
Susan K. Weaver, Pennsylvania

DRBC Staff participants: Carol R. Collier, Executive Director  
Robert Tudor, Deputy Executive Director  
Kenneth J. Warren, DRBC General Counsel, Hangle, Aronchick, Segal  
& Pudlin  
Pamela M. Bush, Commission Secretary & Assistant General Counsel  
Richard C. Gore, Chief Administrative Officer  
William J. Muszynski, Water Resources Management Branch Manager  
Kenneth F. Najjar, Planning and Information Technology Branch Manager  
Chad Pindar, Supervisor, Project Review Section  
Amy Shallcross, Supervisor, Operations Section

Ms. Putnam convened the business meeting at 1:30 p.m. She welcomed Lt. Col. Thomas J. Tickner to the Commission as the new First Alternate representative for the United States Government and thanked Pennsylvania representative Cathy Curran Myers for her service as chair during the previous year.

Minutes. Ms. Putnam requested a motion to approve the Minutes of the Commission's meeting of May 14, 2008. Mr. Klotz so moved, Lt. Col. Tickner seconded his motion, and the Minutes of the May 14, 2008 Commission Meeting were approved by unanimous vote.

Announcements. Ms. Bush announced the following meetings and events:

- *DRBC Water Quality Advisory Committee Meeting.* Wednesday, July 30, 2008 at 9:30 a.m. in the Goddard Conference Room, DRBC, 25 State Police Drive, West Trenton, NJ. The staff contact is Victoria Lawson, (609) 883-9500, extension 308.

- *DRBC Flood Advisory Committee Meeting.* Wednesday, August 20, 2008 at 10:00 a.m. in the Goddard Conference Room, DRBC, 25 State Police Drive, West Trenton, NJ. The staff contact is Laura Tessieri, (609) 883-9500, extension 304.
- *Delaware River Greenway Partnership 10<sup>th</sup> Anniversary Event.* The Delaware River Greenway Partnership (DRGP) celebrates its 10<sup>th</sup> anniversary in 2008 with *Discover the Delaware*. On Saturday, September 13, 2008 DRGP will hold a day-long series of panels and presentations exploring the history, ecology and culture of the river region at the New Hope-Solebury High School in New Hope, PA. For additional details, please contact Pam Bush, event chair, at (609) 883-9500, extension 203. [This event has since been re-scheduled for March 7, 2009].

Hydrologic Conditions. Amy Shallcross reported on hydrologic conditions in the Basin.

The observed precipitation for the Delaware River Basin above Montague, New Jersey for the period January 1 through July 14, 2008 was 24.86 inches or 2.08 inches above normal. The observed precipitation for the Delaware River Basin above Trenton, New Jersey for the same period was 25.65 inches or 2.18 inches above normal. Also for the same period, the observed precipitation for Wilmington, Delaware was 20.51 inches or 2.76 inches below normal.

The average observed streamflow of the Delaware River at Montague, New Jersey in June 2008 was 2,385 cubic feet per second (cfs) or 70.9 percent of the long-term average for the month. For the same period, the average observed streamflow of the Delaware River at Trenton, New Jersey was 5,869 cfs, or 71.6 percent of the long-term average for the month.

For the period from July 1 through July 14, 2008, the average observed streamflow of the Delaware River at Montague was 1,955 cfs, or 75.9 percent of the long-term average for the month. The average streamflow at Trenton during the same period was 4,074 cfs, or 66.2 percent of the long-term average for the month.

In the Lower Basin, as of July 15, 2008, Beltzville Reservoir contained 13.01 billion gallons (bg) usable, or 100.1 percent of usable storage, and Blue Marsh contained 6.57 bg usable, or 101.1 percent of summer pool usable storage. As of July 14, Merrill Creek contained 15.358 bg usable, or 97.9 percent of usable storage.

In the Upper Basin, as of July 15, 2008, Pepacton Reservoir contained 119.818 bg usable, or 85.5 percent of usable storage. Cannonsville contained 79.037 bg usable, or 82.6 percent of usable storage. Neversink contained 29.306 bg usable, or 83.9 percent of usable storage. The total New York City Delaware Basin reservoir storage was 228.161 bg usable, or 84.2 percent of usable storage.

As of June 30, 2008 the average ground water level in eight reported USGS observation wells in the Pennsylvania portion of the Basin was below the long-term average for the month. Water levels expressed as 30-day moving averages at five of those wells were within their normal range for this time of the year while water levels at the remaining three wells were below their normal range. The water levels at the Cumberland County, New Jersey coastal plain observation well

were within their normal range. When last observed on June 26, the water levels at the New Castle County, Delaware coastal plain observation well were within their normal range.

During the month of June 2008, the location of the seven-day average of the 250-parts per million (ppm) isochlor, also known as the “salt line,” ranged from River Mile (RM) 70 to RM 73. The normal location of the salt line during June is RM 67, a location which is two miles downstream of the Delaware Memorial Bridge. As of July 14, the salt line was located at RM 74, which is two miles upstream of the normal location for July.

Executive Director’s Report. Ms. Collier’s remarks are summarized below:

- *DRBC Staffing.* DRBC will add two new staff members to the Project Review Section – David Kovach and Robert Conway. David, a professional geologist trained at Temple University, has worked for DelVal Soils. He will help with the geo-hydro work and will concentrate on Upper Basin matters. Robert, also a professional geologist, comes from Indiana. Robert worked most recently for the consulting firm URS and will concentrate on Southeastern Pennsylvania Ground Water Protected Area matters.
- *Flood Studies and Projects in the Delaware River Basin.* A preliminary matrix of flood mitigation studies and projects was compiled by Laura Tessieri in response to a suggestion by Elaine Reichert. The matrix summarizes all flood studies and projects under way in the Basin, including DRBC, federal and state agency efforts, and interstate advisory committee work.
- *Water Security Committee Memberships.* The Commission is now a member of the New Jersey Office of Homeland Security and Preparedness Water Security Committee, with Bob Tudor as the representative. DRBC is also on the area committee run by the U.S. Coast Guard in the Delaware Estuary.
- *Testimony before the U.S. Congress.* Ms. Collier offered testimony on comprehensive watershed management and planning at the invitation of the United States House of Representatives Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure. Her presentation is available on the DRBC website. Ms. Collier noted that she viewed as positive the committee’s interest in information on watershed planning and the Delaware River Basin Commission. Representatives John Hall (D NY-19) and Frank LoBiondo (R NJ-2) are subcommittee members.
- *Federal Funding.* DRBC has spent years visiting legislators and staffers in Washington, D.C. to restore DRBC’s federal funding. For the first time since federal funding was suspended in 1997, the House of Representatives included funding for all three Mid-Atlantic river basin commissions – the Susquehanna, the Potomac and the Delaware – in the U.S. Army Corps of Engineers’ FY 2009 Budget. The effort to include the funding was led by Rep. Tim Holden of Pennsylvania (D PA-17) and supported by at least ten representatives from the Delaware River Basin. The accomplishment is attributable in large part to strong support from the Delaware River Basin Congressional Task Force and the work of the Northeast-Midwest Institute. Unfortunately, DRBC funding was not included in the Senate

appropriations bill, which contained very few “adds”. The Commission will attempt to build on the House’s support during the joint conference on appropriations.

- *New Horseshoe Crab Bookmark.* DRBC has a new bookmark, the horseshoe crab. The Commission previously created bookmarks depicting the eagle and the shad. The Delaware Bay is home to more horseshoe crabs than anywhere else in the United States and very significant to migratory shore birds.
- *Delaware Riverkeeper Network Events.* The Riverkeeper recently held two events entitled *Remember the River* to announce the erection of highway signs at boundaries of the Delaware River Watershed in New Jersey and Pennsylvania. The signs will help increase awareness of the watershed on the part of motorists.
- *DRBC Pilot Compressed Work Schedule Program.* The Commission has initiated a pilot program to test a compressed work schedule to help employees with commuting costs. Participants will exchange nine longer days of work for one day off. An internal evaluation of the success of the program will be conducted upon conclusion of the pilot at the end of October. DRBC would appreciate feedback on the program – both good and bad – from commissioners and the public.

General Counsel’s Report. Mr. Warren reported that he had no updates to offer on the two matters he had cited at the last Commission meeting – Brodhead Creek Regional Authority and M & M Stone Company. Mr. Warren noted for the record that he recused himself on hearing item number 6, the proposed docket for Merck & Company, Inc.

Public Hearing: Project Review Applications. Although the hearing notice listed 20 dockets, consideration of one docket – Omega Homes, Villa Crossing, D-2008-20-1 (hearing item 20) – was postponed to allow additional time for review. Chad Pindar, Supervisor of the Project Review Section, presented the remaining 19 projects in three categories: category A, consisting of docket renewals involving no substantial changes (items 1 through 7); category B, consisting of renewals involving significant changes, such as an increase or decrease in an authorized withdrawal or discharge (items 8 through 15); and category C, consisting of projects not previously reviewed by the Commission (items 16 through 19).

*A. Renewals with No Substantive Changes (items 1, 2, 3, 4, 5, 6 and 7).*

1. Borough of Paulsboro Water Department D-72-67 CP-2. An application for the renewal of a ground water withdrawal project to continue withdrawal of 62 million gallons per thirty days (mg/30 days) to supply the applicant’s public water supply distribution system from existing Wells Nos. 4, 5 and 7 in the Potomac-Raritan-Magothy Aquifer. The project is located in the Mantua Creek Watershed in the Borough of Paulsboro, Gloucester County, New Jersey.
2. Village of Margaretville D-74-157 CP-2. An application to replace the withdrawal of water from the “Fair Street well” in the applicant’s public water supply distribution system. This well has become an unreliable source of supply. The applicant requests that the withdrawal from the “Fair Street replacement well” be limited to 18.529 mg/30

days of water, and that the total withdrawal from all wells remain limited to 18.529 mg/30 days. The project is located in the sand, glacial till aquifer in the East Branch Delaware Watershed in the Village of Margaretville, Delaware County, New York. The site is located within the drainage area to the section of the non-tidal Delaware River known as the Upper Delaware, which is designated as Special Protection Waters.

3. Hazleton City Authority D-91-65 CP-3. An application for the renewal of a ground water withdrawal project to continue withdrawal of 3.6 mg/30 days to supply the applicant's public water supply distribution system from existing Well No. 1. The project is located in the Mauch Chunk Formation in the Schafer's Run Watershed in Lausanne Township, Carbon County, Pennsylvania, within the drainage area to the section of the non-tidal Delaware River known as the Lower Delaware, which is designated as Special Protection Waters.
4. Matrix Realty, Inc. d/b/a Commonwealth National Country Club D-96-27-2. An application for the renewal of a ground and surface water withdrawal project to continue withdrawal of 5 mg/30 days to supply the applicant's golf course irrigation system from existing Well No. CW-2 in the Stockton Formation and one existing pond. The project is located in the Park Creek Watershed in Horsham Township, Montgomery County, Pennsylvania, within the Southeastern Pennsylvania Ground Water Protected Area.
5. Horsham Water and Sewer Authority D-97-16 CP-2. An application for the renewal of a ground water withdrawal project to continue withdrawal of 83.36 mg/30 days to supply the applicant's public water supply distribution system from fifteen existing wells. The project is located in the Stockton Formation in the Pennypack Creek, Park Creek and Little Neshaminy Creek watersheds in Horsham Township, Montgomery County, Pennsylvania, within the Southeastern Pennsylvania Ground Water Protected Area.

Mr. Pindar noted that the Commission received comments from the docket holder that morning seeking to clarify certain conditions of the docket. He noted that they wished to proceed with approval of the docket, with the understanding that they have 30 days to file an appeal. Mr. Pindar said that approval was still recommended.

6. Merck and Company, Inc. D-98-14-2. An application for the renewal of a ground water withdrawal project to continue the withdrawal of 45 mg/30 days to supply the applicant's ground water remediation and facility operations from twelve existing wells in the Brunswick and Locketong Formations. The project is located in the Skippack and Wissahickon Creek watersheds in Upper Gwynedd Township, Montgomery County, Pennsylvania, within the Southeastern Pennsylvania Ground Water Protected Area.
7. Honey Brook Golf Club D-98-28-2. An application for the renewal of a ground water withdrawal project to continue withdrawal of 10.3 mg/30 days to supply the applicant's golf course irrigation system from existing Well No. PW#1 in the Honey Brook Gneiss Formation. The project is located in the Brandywine-Christiana Watershed in Honey Brook Township, Chester County, Pennsylvania.

Mr. Pindar recommended approval of hearing items 1 through 7, reiterating that it had received comment on item 5. Hearing no questions or comments from the Commissioners or the public,

Ms. Putnam requested a motion to approve the seven docket renewals with no substantive changes. Mr. Klotz so moved, Dr. Howarth seconded, and hearing items 1, 2, 3, 4, 5, 6 and 7 were approved by unanimous vote.

*B. Renewals with Substantive Changes (items 8, 9, 10, 11, 12, 13, 14 and 15).*

8. City of Harrington D-68-24 CP-2. An application for approval of the upgrade and expansion of the Harrington wastewater treatment plant (WWTP). The application is for the addition of biological nutrient removal and a 15,400 foot force main to transmit treated effluent to a new spray irrigation site. To comply with the Murderkill Total Maximum Daily Load (TMDL), the applicant is eliminating a stream discharge to the Browns Branch. The WWTP will be expanded from a flow of 0.57 million gallons per day (mgd) to a final flow of 0.75 mgd. The new spray irrigation fields (152 acres) are located adjacent to the Manlove Branch, a tributary to the Murderkill River. The facility is located in the City of Harrington, Kent County, Delaware.
9. Honesdale Borough D-86-9 CP-2. An application for approval of the reconstruction and expansion of the Honesdale Borough WWTP from 1.12 million gallons per day (mgd) to 2.2 mgd. The Honesdale WWTP discharges to the Lackawaxen River, a tributary to the section of the non-tidal Delaware River know as the Upper Delaware, which is designated as Special Protection Waters. The facilities are located in Texas Township, Wayne County, Pennsylvania.
10. Northeast Land Company D-89-10 CP-3. An application for the renewal of a ground water withdrawal project to decrease withdrawal from 4.96 mg/30 days to 4.65 mg/30 days to supply the applicant's public water supply distribution system from existing Well No. 1 and new Well No. 2. The project is located in the Catskill Formation in the Tunkhannock Creek Watershed in Kidder Township, Carbon County, Pennsylvania. The site is located within the drainage area to the section of the non-tidal Delaware River known as the Lower Delaware, which is designated as Special Protection Waters.
11. Upper Deerfield Township D-93-16 CP-3. An application for approval of a ground water withdrawal project to supply up to 40 mg/30 days of water to the applicant's public water supply distribution system from new Wells Nos. 15 and 17 and existing Wells Nos. 3 and 4 and to increase the existing withdrawal from all wells from 19.8 mg/30 days to 40 mg/30 days. The increased allocation is requested in order to meet projected increases in service area demand. The project is located in the Cohansey Formation in the Cohansey River Watershed in Upper Deerfield Township, Cumberland County, New Jersey.
12. Pine Valley Golf Club D-96-34-2. An application for the renewal of a ground and surface water withdrawal project to decrease withdrawal from 32 mg/30 days to 28 mg/30 days to supply the applicant's golf course irrigation and club house from existing Wells Nos. 2 and 3 and Intakes Nos. 1 and 2 in the Mt. Laurel-Wenonah Formation. The project is located in the North Branch Big Timber Creek Watershed in Pine Valley Borough, Camden County, New Jersey.
13. Tidewater Utilities, Inc. D-2002-4 CP-2. An application for the renewal of a ground water withdrawal project to increase withdrawal from 7.95 mg/30 days to 52.056 mg/30

days to supply the applicant's public water supply distribution system from existing Well No. 74787 and new Wells Nos. 193788, 193789 and 184338. The increased allocation is requested in order to meet projected increases in service area demand. The project is located in the Columbia-Pocomoke and Beverdam formations in the Broadkill River Watershed in the City of Lewes and the City of Rehoboth Beach, Sussex County, Delaware.

14. Municipal Authority of the Township of Westfall D-2002-23 CP-2. An application for the expansion of an existing WWTP (formerly known as the Hunts Landing Plant) to meet regional growth needs. The proposed WWTP expansion will increase the discharge to the main stem Delaware River from 0.3 mgd to 0.82 mgd. The WWTP is located on the west bank of the Delaware River in Water Quality Zone 1C and discharges to Special Protection Waters classified as "Significant Resource Waters" at river mile 252.5. The facility is located in Westfall Township, Pike County, Pennsylvania.
15. Hudson Valley Foie Gras, LLC D-2006-37-2. An application for approval of the modification of an existing WWTP by the addition of effluent sand filters. The discharge from the 20,000 gallons per day (gpd) WWTP will continue to be discharged to the Middle Mongaup River, a tributary of the section of the non-tidal Delaware known as the Upper Delaware, which is designated as Special Protection Waters. The facility is located in Ferndale, Sullivan County, New York.

Mr. Pindar reported that the Commission had received no substantial comments on these projects and recommended that the eight dockets be approved.

Hearing no other questions or comments, Ms. Putnam requested a motion to approve the group of eight dockets consisting of renewals with substantive changes. Ms. Myers so moved, Mr. Klotz seconded, and hearing items 8, 9, 10, 11, 12, 13, 14 and 15 were approved by unanimous vote.

*C. New Projects (items 16, 17, 18 and 19).* Mr. Pindar explained that the next four projects were either new discharges or withdrawals or were simply new to the Commission.

16. City of Easton D-2007-031 CP-1. An application for the approval of the existing Easton water treatment plant's (WTP) 0.75 mgd backwash discharge. The WTP discharges filter backwash and sludge filter press filtrate to the section of the Delaware River known as the Lower Delaware Special Protection Waters. The facility is located in the City of Easton, Northampton County, Pennsylvania.
17. Mays Landing Sand and Gravel D-2007-32-1. An application for approval of a surface water withdrawal project to supply up to 112.3 mg/30 days of water for sand and gravel processing. The surface water is used to process sand and gravel in a loop system which returns approximately 90% of the water to the pond. The project is located in the Maurice River Watershed in Maurice River Twp., Cumberland County, New Jersey.
18. Philadelphia Water Department (PWD) D-2008-9 CP-1. An application for approval of the construction of the Venice Island Storage Tank Project ("the project"). The project consists of a 3 million gallon storage basin and head house building and a performing arts

center. The storage tank will receive up to 3 million gallons of combined sewer overflows diverted during peak rain events, which will later be returned to the intercepting sewer for subsequent treatment at PWD's Southwest WWTP. The project location is Venice Island, between the Cotton Street and Lock Street bridges, in the Manayunk Section of the City of Philadelphia, Pennsylvania. The project is subject to review as a "Class II" project in accordance with DRBC's Flood Plain Regulations. Class II projects include any development of land – whether residential or non-residential – within a flood hazard area located in a non-tidal portion of the basin, where such development contains more than 25 dwelling units or includes one or more structures covering a total land area of more than 50,000 square feet. Venice Island lies within a flood hazard area, defined by DRBC Flood Plain Regulations as the area inundated by a regulatory flood.

19. Borough of Bryn Athyn D-2008-13 CP-1. An application for approval of the existing 0.065 mgd Academy of the New Church WWTP. The WWTP discharges to an unnamed tributary of Huntingdon Valley Creek, which is a tributary of the Pennypack Creek in Bryn Athyn Borough, Montgomery County, Pennsylvania.

Mr. Pindar recommended that the Commission approve the four new projects.

Commenter Mr. Val Sigstedt said that he had grown up along the creek in Bryn Athyn and remembered everything about it. He recommended approval of the docket for Bryn Athyn, noting that the borough has a nice school and a nice community and needs the project.

Hearing no further comments or questions, Ms. Putnam requested a motion for approval of the four dockets for new projects – hearing items 16, 17, 18 and 19. Mr. Klotz so moved. Lt. Col. Tickner seconded the motion and the four dockets were approved by unanimous vote.

Resolution Concerning Proposed Amendments to the Water Quality Regulations, Water Code and Comprehensive Plan to Designate the Lower Delaware River as a Special Protection Water and Clarify Aspects of the Rule. Mr. Warren described the changes to this resolution that occurred since the Commission's meeting in May. He said that in May, Pam Bush had explained the changes to the rule that were recommended by staff since the latest proposal had been published for comment in October of 2007, and he would not repeat these. Instead, he focused on additional changes presented for the Commission's consideration today. He said the proposed changes all were consistent in his view with maintaining a high level of protection for Special Protection Waters (SPW). The program is designed to insure that there is no measurable change to existing water quality except toward natural conditions, which means that water quality may be improved as a result of the program, not just maintained. He said that the changes also are consistent with the goal of an integrated SPW program, meaning that the program would be applied in the Lower Delaware in the same fashion as it has been applied in the upper and middle reaches of the Delaware. He noted that a theme of the proposal is sustainability, meaning that the program allows economic development without compromising the high value resource that the rule is meant to protect. There is always a balance, he noted, between the highest levels of protection and accommodating economic development. He said he was aware that that everyone involved had given a great deal of consideration to striking the appropriate balance, and he hoped the Commissioners agreed that the proposal struck the right balance between these goals.

Having made those general comments, Mr. Warren pointed out specific language changes to the proposed rule. One of the key provisions of the rule is the definition of “substantial alterations and additions,” because a “substantial alteration or addition” to an existing project triggers the most protective SPW requirements, including the requirement that the applicant demonstrate that its project will cause no measurable change to existing water quality. The definition as proposed refers to a “complete upgrade or modernization of an existing wastewater treatment plant.” Mr. Warren explained that the words “complete upgrade” were chosen deliberately, and that minor changes would not trigger the “no measurable change” requirement. The proposed definition includes examples of a “complete upgrade or modernization” and cites examples of some of the infrastructure that might be modified at a wastewater treatment plant. Mr. Warren explained that additional language changes made since May were intended to clarify that those examples should be linked by the conjunction “and” rather than “or”, because the Commission does not wish to suggest, for example, that replacement of a single settling tank would trigger the most protective requirements. Rather, the intended meaning is that an upgrade of all the infrastructure combined will constitute a complete upgrade or modernization. Accordingly, by way of clarification, the word “or” has been changed to “and.”

Mr. Warren said the definition of “substantial alterations or additions” was proposed to be further modified by the addition of an express exemption for modifications made solely to address wet weather flows. This is so in large measure because the wet weather flows are entering the protected water anyway. By allowing a wastewater treatment plant to be modified to handle them without triggering additional requirements, a better level of protection can be achieved for the river.

Mr. Warren next addressed how the “no measurable change” requirement of the rule is intended to be applied in conjunction with other requirements such as the analysis of discharge alternatives. He pointed out that as those in attendance saw in connection with the dockets approved in the preceding segment of the meeting, a “no-discharge” alternative is preferred. If a direct discharger proceeds because it has demonstrated that all no-discharge alternatives are infeasible, then natural treatment alternatives must be considered, and only then may upgrades to the facility itself be considered.

Mr. Warren described new paragraph 8 of section 3.10.3 A.2.d. of the rule, as an excellent summary of the program as a whole. He explained that the paragraph, which is reprinted below, demonstrates the Commission’s concern for treating existing wastewater treatment facilities fairly, since they represent a capital investment and provide a valuable resource, while at the same time recognizing the desire to preserve existing water quality. Mr. Warren read the paragraph aloud.

- 8) For wastewater treatment facilities within the drainage area to Special Protection Waters, the actual loads and design flows included in a NPDES permit or docket effective at the time of Special Protection Waters designation (“SPW designation”) may continue without triggering the additional treatment requirements and alternatives analyses required by these regulations. However, when Substantial Alterations or Additions as defined herein are proposed, although the actual discharge at the time of SPW designation remains exempt from additional requirements, the proposed expansion cannot be approved until (a) the applicant demonstrates

that it has evaluated all non-discharge load reduction alternatives for all or a portion of the incremental load and is unable to implement these alternatives because of technical or financial infeasibility (for discharges directly to Outstanding Basin Waters (OBW) and Significant Resource Waters (SRW)); (b) the applicant demonstrates that it has evaluated all natural wastewater treatment system alternatives for all or a portion of the incremental load and is unable to implement these alternatives because of technical or financial infeasibility (for discharges directly to OBW and SRW and for tributary discharges); (c) the Commission has determined that the project is demonstrably in the public interest as defined herein (for discharges directly to SRW); (d) the minimum level of treatment to be provided for the incremental discharge is Best Demonstrable Technology as defined herein (for discharges directly to OBW and SRW); and (e) the applicant demonstrates that the project will cause no measurable change to Existing Water Quality as defined herein (for discharges directly to OBW and SRW and for tributary discharges).

Mr. Warren pointed out that the paragraph describes a hierarchy. Direct dischargers are asked to look first for no-discharge alternatives. The direct discharger who demonstrates that no such alternatives are available must then consider natural treatment technologies. In the absence of natural treatment alternatives, a demonstration of no measurable change is required for the proposed discharge. Mr. Warren explained that a discharger progresses past the analyses of no-discharge alternatives and/or the use of natural treatment technologies by demonstrating infeasibility, defined as technical or financial infeasibility. He pointed out that the language on infeasibility contained in the existing rule, although subject to some discussion among the Commissioners, was retained in the proposed rule. The Commission will provide examples in its comment and response document of how the feasibility determination has been performed in the past. Mr. Warren said the rule as applied would not require dischargers to do something plainly disproportionate or largely disproportionate to the benefit conferred. For example, a non-discharge alternative may be impossible if the discharger does not own land on which the alternative can be implemented. Thus, the standard of “technical or financial infeasibility” provided in the current rule remains unchanged, although the comment and response document will attempt to flesh out a bit how it is to be applied.

Mr. Warren next noted that proposed language had been added to clarify a provision applicable to Significant Resource Waters. The boundary control points, which are compliance points for tributary discharges, are for the most part located in the tributary itself. However, the existing rule does not preclude use of a mixing zone in the main stem for a tributary discharge if the discharger shows that the public interest warrants this. The existing rule makes clear that a direct discharger to the main stem is given an opportunity to have a mixing zone in the main stem if the discharger shows that the public interest requires this. Additional language has been added to make clear that a tributary discharger has the same opportunity. If the discharger can demonstrate that a mixing zone in the Significant Resource Waters (primarily, the main stem) is in the public interest, the Commission may allow it. Although the Commission has never interpreted the rule otherwise, language has been added to make the Commission’s intention explicit.

Additional language also was added since May relating to how an applicant demonstrates “no measurable change” in the context of a discharge that is just one of several that may have a combined or cumulative impact. In some instances, as in the past year or two within the Brodhead Creek Watershed, there is a DRBC-approved model for analyzing the impacts of multiple discharges to determine whether or to what extent a particular new or expanded discharge may in and of itself result in measurable change. The rule as revised says that if there is a DRBC-approved model, the applicant that has the burden of demonstrating no measurable change must use the DRBC-approved model. In some instances, however, the Commission recognizes there may not be a DRBC model in each instance where the potential exists for cumulative impacts. The rule as modified since May provides that the discharger in such cases may suggest to the DRBC an alternate method for taking into account multiple discharges. Once the DRBC staff approves a methodology, the discharger may use that methodology to demonstrate that its proposed discharge will not cause a measurable change. The comment and response document and/or the guidance will explain the type of burden the Commission intends to place on the discharger. For example, the first of multiple applicants who seek the Commission’s approval for a new or expanded discharge to the Lehigh River will not be asked to create a model for use by each and every new or expanded discharger to the Lehigh that may follow, because such a requirement would be costly and unfair. On the other hand, it is likely that the first applicant will not be permitted to simply model the effect of its own discharge without considering the potential for cumulative effects when other anticipated projects come on line. The Project Review Section will work with the applicant to develop a reasonable methodology that will protect the river and at the same time not place an undue burden on the discharger. The rule is attempting to strike a balance.

Addressing the Commissioners, Mr. Warren added that the resolution presented for their consideration provides that the designation of the Lower Delaware and the other provisions of the rule will be effective upon filing. He explained that “filing” is when the Commission Secretary causes the rule to be published in the registers of the Commission’s member states and the federal government. The resolution also extends the temporary designation of the Lower Delaware until such filing occurs, because otherwise, the existing temporary designation might expire before the effective date of permanent designation. Mr. Warren added that absent Commission action, the temporary designation would expire at the end of the month, which might be shortly before the actual filing is accomplished in all jurisdictions. The extension is intended to ensure that no such gap occurs.

Ms. Collier asked Ms. Bush to summarize briefly as she had done in May the process that the Commission had followed for this rulemaking. Ms. Bush noted that she did not have her chronology before her this time, but that in 2004 the Commission published notice of a proposed resolution to designate the Lower Delaware River as Special Protection Waters. In January of 2005, after a public hearing and several public meetings on the matter, the Commission decided to approve the Significant Resource Waters classification for the entire reach, but on a temporary basis only, pending further analysis of the data in order to establish numeric values for existing water quality, to determine whether the Outstanding Basin Waters classification should be assigned to any portion of the reach and to decide whether the designation should be made permanent. At the time, the Commission believed that temporary designation would be needed for only a few months before a determination could be made on permanent designation. Instead, the designation was extended repeatedly in order to allow sufficient time to resolve a number of implementation questions. DRBC published a new Lower Delaware designation notice in the fall

of 2007, this time including additional amendments to allow the rule to be implemented consistently in the lower, middle and upper portions of the non-tidal Delaware River. Another round of public informational meetings took place and a hearing on the proposal was conducted in December of 2007. The penultimate extension continued the temporary designation through May of 2008. At that point the Commissioners anticipated acting on the proposal. However, several municipalities in the Lehigh Valley region of Pennsylvania asked for additional time to voice to decision-makers their concerns as expressed in comments offered during the official comment period. The Commissioners granted this request. Over the next two and one-half months, decision-makers and staff listened in a number of different venues to the concerns of these dischargers and gave their comments further consideration, deliberating amongst themselves about how best to respond. The form of the rule presented for the Commission's consideration today is a product of deliberations that took place through July of 2008.

Ms. Myers said that as Commissioner of Pennsylvania she wished to thank all of her fellow Commissioners and especially the staff that had worked so hard over the past two months to make certain the details were right on this final rulemaking. She also thanked the many interested parties who had waited with bated breath to find out whether and how the Commission would resolve all the issues. Ms. Myers said that this had been an extremely difficult decision for Pennsylvania. Although we benefit greatly from efforts to keep our watersheds clean and protected, and PADEP applies anti-degradation standards wherever possible, she said, on the other hand, by an accident of geography, a group of large, older Pennsylvania communities with old sewage treatment plants are the facilities affected most by this rulemaking. She said it will be a heavy lift for them. Ms. Myers noted that at the bottom of the river, the Philadelphia Water Department is pleased about additional protection for its drinking water supply. The rule will mean long-term security for Philadelphia's water supply as well as lower operation and maintenance costs for its Delaware River plant. As a result of the additional outreach and discussion with Lehigh Valley municipalities in particular, she said, the Commission was able to arrive at some meaningful adjustments and clarifications of the rule, which Ken Warren described. In light of these adjustments, in her view, the heavy lift required of Pennsylvania's municipalities will not be unbearable. Ms. Myers said the Commonwealth stands ready to assist financially, noting that on the 4<sup>th</sup> of July Governor Rendell signed water infrastructure restoration bills that provide for approximately \$1.2 billion dollars in assistance to wastewater and drinking water facilities like those in the Lehigh Valley. She said that wisely, the administration obtained an amendment providing that priority in the award of these funds will be given to municipalities facing new regulatory requirements. As a result, Lehigh Valley communities will receive priority under the new grant assistance program. Ms. Myers read aloud a paragraph of the letter she said Governor Rendell will send to the mayors and legislators of the affected municipalities, because it explains why the Governor believes supporting the proposed rule to be the right decision:

I know that you too believe that keeping the clean water clean is critical to everyone who uses it and enjoys the Delaware River from the Delaware Water Gap to Penn's Landing. The Wild & Scenic Delaware River that supports spectacular trout fishery will attract a growing pilgrimage of nature lovers and sportsmen. The Delaware Bay does not yet suffer from dead zones like those that plague the Chesapeake Bay and with this added protection we may avoid any more costly cleanup measures in the future. We will continue to work with the affected communities to help them comply with these new standards. It will be

challenging but our efforts will ensure the quality of this magnificent river for generations to come.

On behalf of Governor Minter of Delaware, Dr. Howarth thanked the Commonwealth of Pennsylvania, the State of New Jersey and her other co-Commissioners as well as the DRBC staff for their hard work on the rule. She also thanked the members of the public who had offered comments that helped to inform the decision-makers.

Ms. Putnam thanked those from New Jersey who felt so strongly about putting the permanent Lower Delaware SPW designation in place. She said she was happy that the Commissioners had reached agreement on the rule.

Although this was not a public hearing, and the comment period on the Special Protection Waters rulemaking had been closed, the Chair allowed comment from members of the public, as follows:

Maya van Rossum, the Delaware Riverkeeper, said that although she needed to review the language before judging the final rule, she was grateful to the commissioners for their action. She recognized the State of New Jersey for demonstrating leadership in support of a strong program. Ms. van Rossum recounted the role of the Delaware Riverkeeper Network (DRN) in bringing about regulatory protections for the Delaware, beginning in the mid-1980s when DRN submitted a petition to have the upper and middle sections of the non-tidal river designated as Outstanding National Resource Waters (ONRW) under the Clean Water Act. The National Park Service (NPS) also advocated strongly for that designation, according to Ms. van Rossum, based upon a large body of data collected by the NPS and DRBC. The Special Protection Waters program was created as the regional version of the ONRW designation. The effort in support of the current action began in 2001, when, building on the work that DRN and others had done in the late 1980s and '90s to obtain National Wild and Scenic River status for the Lower Delaware, DRN petitioned the Commission for SPW designation for this last un-designated portion of the non-tidal Delaware. Ms. van Rossum said that since 2001 DRN had worked very hard, waited very long, advocated, organized, and consulted with the states and DRBC staff, the Commissioners and the community to secure this designation. She said there had been a tremendous outpouring of support from the community, with thousands of citizens, either directly or through organizations like hers, speaking in support of the action. Ms. van Rossum said that for this reason it was frustrating near the end of the process to see the effort nearly derailed by a few people, and gratifying that the eleventh hour opposition effort was overwhelmed and outshone by public support. She said this was a wonderful outcome and a wonderful experience for the staff and members of DRN. Noting that she was hopeful the response document and the examples offered in forthcoming guidance would not bend too far backward to accommodate dischargers, she concluded by thanking the Commission on behalf of the river, the communities that supported the designation, the DRN, and in particular DRN's staff members Mary Ellen Noble and Tracy Carluccio, who were present when the petition for ONRW designation was filed for the Middle Delaware and Upper Delaware so long ago, placing the Basin on the path toward resource protection. Ms. van Rossum urged the Commissioners to remember this history as they moved forward in implementing the SPW program.

Jeff Tittel of the New Jersey Sierra Club thanked Ms. van Rossum and Ms. Carluccio for the hundreds of emails he received on this issue. He said he believed the Lower Delaware SPW

designation was long overdue. Mr. Tittel related that the New Jersey Chapter of the Sierra Club has been advocating for several years to upgrade as many tributaries as possible in the Delaware Basin to Category 1 waters. He said that one of the comments frequently heard from nay-sayers had been that strengthening anti-degradation rules in New Jersey would be unfair and have little or no affect unless Pennsylvania and the other basin states took comparable steps. Mr. Tittel said the Lower Delaware designation made sense because the entire non-tidal river shares outstanding resource values. Moreover, he noted that when floodwaters invade Lower Delaware communities, as they have three times in recent history, the quality of the water makes a difference. Mr. Tittel noted two lingering concerns. First, he wondered how large a mixing zone might be permitted in the main stem; and second, he questioned how cost would be factored into determinations of technical and financial feasibility. He asked for those matters to be resolved in clearer terms in forthcoming guidance. Mr. Tittel noted that his organization also had worked hard to achieve National Wild & Scenic River status for the Delaware and stressed that it was important for the Commission to recognize that the water quality of the Delaware must be maintained for future generations, because it is the irreplaceable life blood of the region.

Introducing himself as the River Administrator for the Wild & Scenic Lower Delaware River Management Committee, Gregg Rackin thanked the Commissioners for acting on a difficult policy matter. He said that the previous evening, his eight-year-old daughter had asked him why he looked so concerned, and he had explained to her that the outcome of today's meeting as to SPW was uncertain. She had advised him to make sure that the Commissioners knew they had to "take good care of our river." Mr. Rackin said his daughter made him see how simple things can be when we ask the right questions. He said that he was born at a time when dissolved oxygen levels in the Delaware River were so low that fish could not swim past Philadelphia. He expressed gratitude for the leadership that had restored the river's health, noting that forty years ago in 1968, the National Wild & Scenic Rivers Act was passed by the U.S. Congress and signed into law by the President of the United States. Ten years later, Congress voted to make the upper and middle reaches of the Delaware a part of the National Wild and Scenic Rivers system, and in 2000, the Lower Delaware was designated as well. He said that thanks to the Commission's action today, his daughter's generation would enjoy better water quality in the Delaware than his generation had. He added that the Lower Delaware Wild and Scenic Management Committee looked forward to working with state and local officials and NGOs to implement the SPW program effectively.

Richard McNutt, President of Tidewaters Gateway Partnership, Inc., reiterated that thanks to actions taken to address water pollution in the 1960s and '70s there are shad in the Delaware River again. Although he expressed some misgivings over what he viewed as unfortunate compromises to secure SPW protections for the Lower Delaware, he acknowledged that negotiated compromises are unavoidable. He pointed out that where portions of the Delaware Valley were once centers of industry, including coal mines and steel mills, today's river-related economy is dominated by recreation. He criticized the Water Resources Association of the Delaware River Basin (WRA), a river advocacy group comprised largely of engineering consultants and municipal and industrial dischargers, for hiring professional legal lobbyists to ask state government to pollute water or cut the costs of producing clean water – outcomes that would place recreational uses of the river at risk. Mr. McNutt also reminded the Commissioners that below Trenton the ecology of the Delaware remains seriously impaired and in need of their urgent attention. He said it was important to remember that municipal and industrial wastewater treatment plants are required to clean water, and that municipal plants in particular are in business to clean water. Although he appreciated the Commissioners' action, he said he feared "we lost a little ground" in that the rule was not approved in its strongest form. He would have preferred to

see New York, New Jersey, Delaware and the United States of America stand up to Pennsylvania. But he urged the Commission to keep working at improving water quality, especially in the Bay, where he lamented the loss of red knots due to the decline of the horseshoe crab.

Elaine Reichert of Aquatic Conservation Unlimited said she thought it incongruous that the four states and the federal government could celebrate their consensus on Special Protection Waters and still not find a way to protect aquatic life in the upper part of the main stem. Citing Dr. Bob Bachman of the Pennsylvania Fish and Boat Commission, she said that the rainbow trout in the upper main stem is in “dire straits” due to insufficient cold water releases from the New York City reservoirs. According to Dr. Bachman, she said, high water temperatures during 2008 and previous summers will likely result in reduced rainbow trout populations for a decade. It is still unclear, she said, whether the gene pool will be left so weak as to destroy the trout fishery entirely. Noting that Amy Shallcross’s hydrologic report predicted high temperatures through the coming week, she begged the Commission to increase cold water releases to protect fish. She called the pattern of “yo-yo” releases from the City reservoirs unconscionable.

Danawa Buchanan, President of the New Jersey American Indian Alliance and the Native American Alliance of Bucks County, Pennsylvania, said that Native Americans had been monitoring for decades the movement for restoring the power and beauty of the Delaware River. She said that because every generation must protect natural resources for the seven generations that follow, any compromise in water quality by today’s decision-makers would cause unacceptable harm to interdependent natural systems. She thanked the Commissioners on behalf of 52,000 Native Americans in Pennsylvania, 38,000 in Delaware, 83,000 in New York, and 47,000 in the New Jersey but regretted that they had compromised water quality protections to reach an agreement.

Gary Cohen, an attorney with Hall & Associates, said that he spoke on behalf of the Association of Environmental Authorities of New Jersey and several municipalities in Pennsylvania, including Bethlehem and Allentown. He said that although these entities support the Lower Delaware SPW designation, they remain concerned about details of the program approved today. Mr. Hall argued that the Commission’s SPW rule would improperly institute protections more stringent than those set forth in the Lower Delaware Wild and Scenic River Management Plan. In particular, he argued that the SPW rule requires an unwarranted level of removal of total nitrogen, given that nitrogen removal would be extremely costly for municipalities, and there has been no demonstration that nitrogen at current levels is harming river ecology. Mr. Hall said his clients appreciated the change from “or” to “and” within the definition of “substantial alterations or additions” in the rule. He also praised the inclusion in that definition of an exception for alterations designed solely to capture wet weather flows. However, he said that he hoped that the Commission’s response to comments and forthcoming guidance would clarify which kinds of alterations or additions would trigger the most stringent SPW requirements. He added that his clients continue to seek assurances that in the “no measurable change analysis,” when such analysis is required, plant performance will be measured by the same methods used to determine values for existing ambient water quality – i.e., in terms of multi-year, long-term values. He also asserted on his clients’ behalf that permitted loads should be grandfathered on a permanent basis, regardless of whether a facility would require substantial alterations or additions to attain these loads, unless measurable degradation of the receiving waters would result.

Val Sigstedt thanked the Commissioners for reaching a consensus on SPW protections, and at the same time echoed the concern expressed by other speakers as to the effect of compromises in the language of the rule. He said that denying SPW protection for the Lower Delaware would have been unacceptable to thousands of people. He urged the Commission to proceed with all haste in developing the mathematical models required for the “no measurable change” analysis in tributaries and river reaches with multiple discharges. Switching to the topic of flow management, Mr. Sigstedt observed that solving the flow-related issues associated with operation of the New York City Delaware Basin reservoirs and repairs to the Delaware Aqueduct would be more difficult. He observed that since February the City had not diverted water through the aqueduct and that the valves on the City’s three Delaware Basin dams are inadequate to drain the reservoirs quickly enough to avoid spillage in the event of an impending large storm. In Mr. Sigstedt’s view, this situation places downstream residents at an unfair risk. He said that especially in light of climate change, a process to find solutions is required that is open to full participation and involvement by the public.

Dennis Palmer, Chairman of the Water Resources Association of the Delaware River Basin, objected to Mr. McNutt’s earlier assertion that WRA had engaged lobbyists to oppose more stringent water quality protection for the Delaware River. Mr. Palmer said that WRA relies on and advocates for sound technical engineering. He thanked Commissioner Myers and Chairwoman Putnam for taking the time they needed to reach thoughtful solutions to the issues raised in the SPW rulemaking, rather than rushing ahead.

A commenter who did not identify himself said that people live and work in a place for many reasons, including quality of life. He said that he was born and raised in Pittsburgh, Pennsylvania and has seen many benefits come to that city as a result of water quality improvements to its three rivers. People also stay in a place because they can afford to live and work there, he said. He thanked Ms. Myers and Governor Rendell for making funds available to assist municipalities in complying with the new regulations, as citizens and their elected officials work together to manage the river.

Paula Conolly of the Philadelphia Water Department said her department serves approximately 875,000 people within and outside the City of Philadelphia with water from the Delaware. She said that the Commission’s action today was a critical step in helping to ensure the quality of the water served to those customers, and she thanked the Commissioners for bringing this about. Addressing Commissioner Myers, Ms. Connolly noted that as both a wastewater utility and a drinking water supplier, the City often feels pulled in more than one direction. She said the department particularly appreciates Ms. Myers’s effort in navigating through that difficult struggle to the outcome achieved today.

Mary Ellen Noble of the Delaware Riverkeeper Network said that in honor of DRN’s *Remember the River* campaign and the Commission’s SPW action today, she had a special pin for each of the Commissioners. She thanked them as she handed out pins bearing the phrase “Remember the River.”

Joe McMahon introduced himself as the former manager of water resources for the City of Allentown, a current employee of the Lehigh County Authority, and a member of the Water Resources Association of the Delaware River Basin, the Sierra Club, the Audubon Society and some eight other environmental organizations. Mr. McMahon congratulated the Commission on its hard work over the course of years to bring the Special Protection Waters program to this

point. Mr. McMahon said that he believed everyone in the room cared about the environment and water quality and that their only disagreement was over small changes in language that would make big differences in cost to people throughout the Lehigh Valley. Close to fifty percent of residents of the City of Allentown live below the poverty line, according to Mr. McMahon, and we need to be concerned about what the new regulations will mean for those rate payers. He congratulated the Commissioners on their action and urged that they continue to engage in a dialogue with the regulated community, with the understanding that the Commission and Lehigh Valley municipalities share common goals. He thanked the Commission for listening to the concerns of Lehigh Valley residents, albeit these concerns were raised late in the game.

Ms. Myers said that contrary to some of the comments she had heard, not a single one of the language changes and adjustments made to the SPW regulation would relax the requirement for no measurable change to existing water quality as defined by the rule. The issue about feasibility, she said, went to the requirement for evaluation of no discharge and natural treatment alternatives, even where no change to existing water quality would result from a new or expanded discharge. In such instances, she said, dischargers sought more of an affordability test. The “no measurable change” standard would be unaffected. On the question of mixing zones within the main stem, Ms. Myers noted that mixing zones have always been allowed in Significant Resource Waters. The new language merely clarifies that this is so, whether the discharge is to a tributary or directly to the main stem. Ms. Myers asked people to understand that no compromise on water quality was being made.

Hearing no further comments or questions, Ms. Putnam requested a motion to adopt the resolution to amend the *Water Quality Regulations*, *Water Code* and *Comprehensive Plan* by permanently designating the Lower Delaware River as Special Protection Waters with the classification Significant Resource Waters. Lt. Col. Tickner so moved, Dr. Howarth seconded his motion and Resolution No. 2008-9 was approved by unanimous vote and a round of applause.

Public Hearing: Resolution Approving the 2008-2013 Water Resources Program. Dr. Najjar explained that DRBC has a 30-year plan called the *Water Resources Plan for the Delaware River Basin* (Basin Plan), which was signed in 2004 by the governors of the four Basin States, the Commission’s federal representative (the North Atlantic Division Commander of the U.S. Army Corps of Engineers), and regional heads of other federal agencies involved in water resources management in the Delaware Basin. The Basin Plan serves as a guide for the rules and projects to be incorporated in the Commission’s Comprehensive Plan. The Commission is also required by the Compact to annually approve a shorter-term plan, known as the *Water Resources Program*. Where the Basin Plan constitutes a strategic long-term basin-wide management plan that includes federal, state and local responsibilities as well as DRBC tasks, the *Water Resources Program* is a six-year plan that addresses only Commission activities.

The Water Resources Program defines existing conditions, flags policy issues to be resolved, and identifies management directions. Highlights of the 2008-2013 plan are set forth below:

- *Hydrologic Conditions.* The plan identifies hydrologic and water use conditions, including concerns over climate change and the accompanying risk of more frequent and severe floods and droughts.

- *Water Use and Sufficiency.* Ninety percent of withdrawals in the basin are from surface water sources. The largest withdrawers are electricity generators, with more growth expected in that sector in the future. The 72-month accumulated precipitation departure map is referenced with growing frequency. Extreme precipitation events have increased over the last six years.
- *Water Quality.* The non-tidal river is characterized by healthy communities of sensitive macroinvertebrates and exhibits other characteristics of high water quality. In the tidal portion, designated uses are not being met, due to the presence of PCBs and other contaminants that limit fish consumption.
- *Climatic Condition: Adapting to Change.* Temperature and sea level rise are both predicted to increase; however the predictions are still wide-ranging. Sea level is expected to rise in the region between half a meter and five meters over the next century. Precipitation patterns are expected to be more extreme, with more severe floods and droughts. Higher temperatures may also adversely affect water quality.
- Key issues are identified in the *Water Resource Program* for each program area (Key Result Areas, or KRA) defined in the Basin Plan.
  - *Ensuring the Sustainable Supply of Suitable Quality Water.* Extensive work by the states and the Commission in partnership with the U.S. Army Corps of Engineers under a U.S. ACE grant of \$1 million to study supply and demand in ten watersheds that may have potential long-term deficits. The questions are: Will additional storage be necessary? and Will there be sufficient water for the long term?

Thermal electric power generation needs are being assessed. An evaluation of the Southeastern Ground Water Protected Area program is needed. A new water accountability rule and approach will be implemented as part of an updated conservation effort.
  - *Flow Management.* A Reassessment Study, flood analysis model, and OASIS model update are underway. Instream flow needs studies are also under development.
  - *Water Quality: Determining Quality & Meeting Standards.* Water quality programs include anti-degradation, Special Protection Waters, criteria-based programs, and the Clean Water Act 305(b) report. TMDLs for shared waters will be developed, including the Stage 2 TMDL for PCBs in Zones 2 through 6. Water quality monitoring continues under the U.S. EPA Section 106 grant program. DRBC will focus on water quality in the non-tidal river, contaminants in fish tissue, and the parameters studied in the annual boat run for the estuary and bay. An estuary eutrophication model will be developed in accordance with the nutrient strategy that is under development by DRBC in consultation with its Water Quality Advisory Committee and Monitoring Advisory Committee. Data management goals include updating from STORET to the WQX (Water Quality Exchange) system, and improved coordination among federal and state agencies.
  - *Updating Program Rules and Standards.* Water quality regulations, including numeric criteria, need to be reviewed and updated.

- *Waterway Corridor Management.* Flood loss reduction efforts will involve the anticipated reservoir Flood Analysis Model, a discharge mitigation program model, and flood inundation mapping and warning systems under development by the U.S. ACE and U.S.G.S. Together with the U.S. EPA, DRBC is considering the development of bio-criteria and aquatic life standards. .
- *Collaborative Watershed Planning.* The Commission has completed the \$1 million Targeted Watershed Initiative grant from EPA for the Christina Watershed, and additional projects in the Christina will be guided by that effort. The tri-state area around Port Jervis is the subject of collaborative planning and modeling in connection with the Special Protection Waters program. Under Pennsylvania Act 220, Pennsylvania's Water Management Planning Act, the DRBC completed a pilot study for development of a special area management plan for the Wissahickon Creek Watershed. A pilot integrated water resources plan (IWRP), currently in the contract stage, is planned for the Schuylkill River Watershed. The Schuylkill River IWRP will attempt to integrate water management programs in the 2,000-square-mile sub-basin to achieve more coherent and efficient resource management. The study will generate a set of IWRP best practices and non-point source pollution control strategies, among other products.

Collaborative efforts between DRBC and the states include ongoing projects with the Upper Delaware Council, Partnership for the Delaware Estuary, National Park Service, Schuylkill Action Network, and Mid-Atlantic Coastal and Ocean Observing Regional Association (MACOORA). Coordination with state water supply programs is also ongoing. Ms. Putnam emphasized that a priority for New Jersey would be avoiding duplication of effort.

- *Facility Planning.* The U.S. ACE Multi-Jurisdictional Study (\$1 million study), state water supply plans and the Reassessment Study to be undertaken in connection with management of the New York City Delaware Basin reservoirs all could identify infrastructure needs.
- *Education & Outreach for Stewardship.* Education and outreach efforts, including reporting on basin conditions, are ongoing. The first State of the Basin report is close to completion, as is the Estuary Monitoring Report issued every five years, and an annual hydrologic report. An upgrade of the DRBC website is also planned.
- *Schedule of Prospective Changes to DRBC Programs and Regulations.* The Water Resources Program includes a table that identifies rulemaking and program changes to be undertaken over the six-year period.
- *Schedule of Modeling Projects FY 2008-2013.* A second table lists the modeling efforts underway and how they are inter-related. The modeling staff will need to phase-in this work over the next several years.
- *Schedule of Prospective Changes to Water Quality Standards.* The last table is a water quality standards chart developed in consultation with EPA, showing the items that require attention and in what sequence.

- *State Water Supply Plan.* DRBC will consult with the Delaware Water Supply Coordinating Council (WSCC) and the U.S. ACE in identifying and addressing the effects of ground water withdrawals in Delaware, Maryland and New Jersey.

Dr. Najjar explained that the proposed resolution establishes the *2008-2013 Water Resources Program* as the Commission's program for the next six years.

Hearing no questions or comments, Ms. Putnam requested a motion for approval of the resolution to adopt the *2008-2013 Water Resources Program*. Mr. Klotz so moved, Lt. Col. Tickner seconded his motion, and Resolution No. 2008-10 was approved by unanimous vote.

Resolution for the Minutes Authorizing the Executive Director to Enter into an Agreement for Actuarial Services to Re-evaluate Anticipated Costs Associated with General Accounting Standards Board Statement No. 45. Mr. Gore explained that the proposed resolution would authorize the Executive Director to procure the services of an actuary to help assess the Commission's liability and the annual contribution required to comply with Government Accounting Standards Board Statement 45 (GASB 45). GASB 45 requires government entities to recognize their ongoing liability for employees' post-retirement benefits, consisting largely of health benefits. The Commission is required to begin meeting the GASB 45 requirements in fiscal year 2010. In March of 2005, staff provided the Commissioners with a preliminary statement of the Commission's GASB 45 liability of approximately \$6 million. Mr. Gore explained that in order to prepare the budget for fiscal year 2010, an updated actuarial study is needed. Mr. Gore proposed that Brown & Brown Consulting be engaged to update these calculations at a cost to the Commission not to exceed \$5,000.

The complete text of the Resolution for the Minutes follows:

#### RESOLUTION FOR THE MINUTES

A RESOLUTION authorizing the Executive Director to procure professional actuarial services to project the costs associated with post-employment health benefits in accordance with Government Accounting Standards Board Statement 45 (GASB 45).

WHEREAS, the Commission is obligated to implement the provisions of GASB 45, requiring that the full cost of retiree health benefits earned in the current year and past years be reflected on an annual basis in the financial statements of the Commission; and

WHEREAS, implementation of GASB 45 is required to begin no later than Fiscal Year 2010; and

WHEREAS, in March of 2005, staff provided the Commissioners with a preliminary estimate of the Commission's GASB 45 liability, which at that time equaled approximately \$6 Million (\$4.3 Million for retirees plus \$1.7 Million for active employees); and

WHEREAS, in order to prepare the necessary budget estimates for Fiscal Year 2010, an updated Actuarial Study is needed; now therefore,

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Executive Director is authorized to retain the professional services of Brown & Brown Consulting to provide a calculation of the Commission's GASB 45 liability and to determine the amount of the annual contributions required for compliance with the standard.
2. The cost of professional services for this purpose shall not exceed \$5,000.
3. In accordance with Section 14.9 of the Delaware River Basin Compact, competitive bidding requirements are hereby waived in view of the specialized and professional nature of the services to be procured.
4. This Resolution shall take effect immediately.

Hearing no further comments or questions, Ms. Putnam requested a motion for approval of the resolution authorizing the Executive Director to enter into an agreement for actuarial services to re-evaluate anticipated costs associated with GASB 45. Ms. Myers so moved, Dr. Howarth seconded her motion, and the resolution for the minutes was approved by unanimous vote.

Add-On: Resolution for the Minutes Providing for Annual Salary Rates of Commission Employees for Fiscal Year 2009. This resolution for the minutes would approve a two percent salary adjustment for qualifying full- and part-time Commission employees as of July 1, 2008, and a commensurate adjustment of the Commission's salary schedule. Mr. Gore noted that the amount was included in the approved budget for fiscal year 2009. The action would be retroactive to July 1, 2008 for all employees eligible as of that date.

The complete text of the Resolution for the Minutes follows:

#### RESOLUTION FOR THE MINUTES

A RESOLUTION for the Minutes, providing for annual salary rates of Commission employees for Fiscal Year 2009.

WHEREAS, the Commission wishes to adjust the salary rates of Commission employees commensurate with the budget, recognizing the high level of competence, dedication and professionalism exhibited by the Commission staff; and

WHEREAS, a 2.0% salary increase can be accommodated within the Fiscal Year of 2009 budget authority; now therefore,

BE IT RESOLVED by the Delaware River Basin Commission:

1. All Full Time and Part Time Permanent Employees are to receive a 2.0% salary increase effective July 1, 2008.
2. Accordingly, the General Salary Schedule of Annual Salary Rates by Grade for Fiscal Year 2008 is hereby increased by 2.0% for Fiscal Year 2009.
3. This Resolution shall take effect immediately.

Hearing no further comments or questions, Ms. Putnam requested a motion for approval of the resolution for the minutes providing for annual salary rates of Commission employees for fiscal year 2009. Mr. Klotz so moved, Ms. Myers seconded her motion, and the resolution for the minutes was adopted by majority vote, with Delaware abstaining.

Public Dialogue. Ms. Putnam opened the floor to public dialogue. Ms. Reichert of Aquatic Conservation Unlimited (ACU) said that she had attempted to obtain answers from the New York City Department of Environmental Protection to questions concerning the City's Delaware Basin reservoirs and Delaware Aqueduct but had received no response. She read her questions aloud:

- o What are the load capacities and what are the load capacity limits of the spillways of the Delaware River reservoirs? Ms. Reichart said it seemed critical to know how much the spillways could carry and how frequently they could do so without failing.
- o What are the City's plans concerning repair of the Delaware Aqueduct and on what timetable? In the event of any uncertainty about timing, Ms. Reichart requested that target dates be provided. She emphasized that the City's work on the aqueduct would affect everyone in the Basin.
- o What were the findings of the inspection that had required a shutdown of the Delaware Aqueduct in 2008?

Ms. Reichart requested that New York City be asked to make a presentation at one of DRBC's public meetings to respond to the above questions.

Ms. Reichart also asked the Commission to add the rainbow trout and the dwarf wedgemussel to its bookmark series before the trout and the endangered mussel disappear.

On the subject of the FFMP, Ms. Reichart said that ACU had requested that a vote on codifying this plan be postponed until the flood model developed by the U.S. Army Corps of Engineers and U.S.G.S. could be completed. She said that equally important before any decision on the FFMP was to complete the update of the OASIS model with data sets from 2001 through the present. Ms. Reichart said that before acting on the plan, the Commission also needed to answer questions about how the ERQ is calculated under existing rules and how this differs from the IERQ established for the FFMP.

Ms. Reichart commented that the conservation efforts by New York City from 1995 through 2005 had resulted in about 300 million gallons a day in savings that are not shared with the lower basin states. She asked that in light of the continuing period of warm weather, with 90-degree days forecast, conservation releases from Cannonsville, Pepacton and Neversink reservoirs were

urgently needed to protect fish. She asked that a release program be undertaken to address the upcoming heat wave.

Ms. Myers said that although the FFMP represents an improvement in flow management, it will not be perfect under all conditions, including the recent period of high temperatures and low rainfall. She said that on an *ad hoc* basis on two occasions additional releases had been made to protect fish. In addition, in accordance with an agreement among the Decree Parties, a portion of the IERQ had been banked for future conservation releases. She said the agreement was entered into on July 10, 2008 and would remain in effect through September 15. Using a portion of the IERQ, it created an extraordinary needs bank of 1,340 cfs-days to be released as required on high-temperature days. She added that the agreement was primarily for Cannonsville operations. She was not aware of evidence to support releases from the other dams.

Mr. Klotz concurred with Ms. Myers's statement. He added that although the quantity of water sounded large, it is not sufficient to address temperature needs all summer long. Rather it will be used during extreme circumstances, defined as three successive days when the average air temperature is 90 degrees or higher. Mr. Klotz said that he did not yet know what would happen next summer or at other times, but this bank for Cannonsville releases to the West Branch was available now. Mr. Klotz explained that it is nearly impossible to control temperature on the East Branch, because the Beaverkill flows high and very warm into that stream. Mr. Klotz said it is not possible to release enough water from Pepacton to control temperatures below the Beaverkill and into the main stem. Mr. Klotz said that fishery staff had advised him that temperature was not a problem in the Neversink at this time. He said that he believed the parties had taken the appropriate action by establishing an extraordinary needs bank for releases from Cannonsville.

Ms. Reichert asked why it was necessary to wait for three successive days of 90-degree temperatures before releasing cold water, when on a clear 90-degree day with no cloud cover, the ambient temperature of the water could be 74 degrees. Mr. Klotz said he would try to explain the reason for this approach. He agreed that water temperatures of 75-78 degrees are thermal stress conditions for trout. However, according to NYS DEC biologists, standard releases in accordance with the FFMP provide an opportunity for fish to reach thermal refuge. Although pulsed releases may sometimes be necessary, they should not be made too often, he said, because releasing a "slug" of cold water may induce trout to congregate in areas that then become dewatered and warm up quickly as soon as the release has passed by. The resulting abrupt change in temperature can be more devastating to the fish than gradual and sustained warming.

Ms. Reichert insisted that the conclusions she drew from this explanation were: (a) that the temporary plan is not working for the fishery; and (b) that although the effort is laudable, it misses the mark, because, according to the prevailing view of aquatic biologists, once water temperatures exceed 68 degrees, trout will die. She asserted that the fishery is being destroyed. Mr. Klotz concurred that the experts were not all in agreement on this approach and that some maintained that fish kills would result. According to Mr. Klotz, there is no evidence of significant stress or a fish kill to date this season, although evaluations are ongoing and monitoring will continue through the summer. Mr. Klotz emphasized that the recent agreement is a stop-gap measure. More data and information will be collected, and in continuing dialogue with various experts, the parties will work toward a better program.

Ms. Buchanan urged that everything in the circle of life is interdependent and that all creatures have a right to habitat and nutrition, not just human beings.

Returning to the topic of the SPW program, Mr. McNutt urged that some of the new technology is cheaper to implement and operate than older systems, citing ultraviolet light disinfection as an example. He cautioned regulators not to accept too readily a discharger's argument that an upgrade would be too costly. Mr. McNutt noted that some operators simply misunderstood the economic impact of the program. As a case in point, he said the Mayor of Frenchtown had opposed SPW designation for the Lower Delaware because he thought that it would require the use of expensive chemicals not currently used to operate Frenchtown's sewage treatment plant, and which would have other adverse impacts on the environment. Mr. McNutt said this assumption was incorrect because the rule was not prescriptive about how no measurable change must be achieved. Mr. McNutt said that workshops to assist treatment plant owners and operators would be needed, as well as open communication. Ms. Collier said that her staff is always ready to answer questions or meet with operators on an individual basis. She suggested that if anyone knew or heard of other stories like this one, they should phone the Commission and someone would walk them through the requirements. Mr. McNutt asked who would make decisions as to technical and financial feasibility. Mr. Warren said that as a strict regulatory matter, the rule is clear that the burden is on the applicant to demonstrate lack of feasibility. However, as a practical matter, the Commission tries to provide advice and resources to assist applicants and will work cooperatively with them. In response to another comment by Mr. McNutt about the cost to ratepayers, Mr. Muszynski said that when an applicant seeks a state grant, the state will look closely at the projected costs to make certain that the proposed technologies are not more elaborate or costly than required.

Mr. McNutt then addressed the matter of the horseshoe crab population and the decline of the red knot. He said he had attended a meeting in New Jersey at which during two-and-one-half hours of testimony there was not a single comment on water quality. Mr. McNutt asked whether the crabs and by extension the red knots that are next in the food chain might have been poisoned by an accumulation of contaminants on the river bottom from the Athos, Merck, DuPont and other recent spills. He said that if the moratorium on horseshoe crab harvesting and protections for the birds had not helped, there must be another root cause. Mr. Tudor said that an effort was under way over the summer to study the biota and chemical constituents on the bottom of the bay to help scientists answer that question.

Hearing no further requests for comment, Ms. Putnam adjourned the Commission's business meeting at 4:20 p.m.

/s/ Pamela M. Bush

Pamela M. Bush, Esquire, Commission Secretary