

The Delaware River



*Flowing from the Mountains . . .
... to the Sea*

**Delaware River Basin Commission
2009 Annual Report**

The Delaware River Basin Commission (DRBC) is a federal-interstate agency created in 1961 by compact legislation signed into law by President John F. Kennedy and the governors of the four basin states with land draining to the Delaware River. The passage of this compact marked the first time that the federal government and a group of states joined together as equal partners on a regional body with the force of law to oversee a unified approach to managing a river system without regard to political boundaries. The DRBC and the Susquehanna River Basin Commission, created in 1971, are the only two federal-interstate compact agencies in the United States with the federal government and states as voting members.

The Delaware is the longest un-dammed river in the United States east of the Mississippi, extending 330 miles from the confluence of its East and West branches at Hancock, N.Y. to the mouth of the Delaware Bay where it meets the Atlantic Ocean. In all, the Delaware River Basin (DRB) contains 13,539 square miles, draining parts of Pennsylvania, New Jersey, New York, and Delaware. Over 15 million people (approximately five percent of the nation's population) rely on the waters of the DRB for multiple uses, but the watershed drains only four-tenths of one percent of the total continental U.S. land area. The population served by DRB water includes over seven million people in the New York City area and northern New Jersey who live outside the basin. New York City gets roughly half its water from three large reservoirs located on tributaries to the Delaware.

This publication, which covers calendar year 2009, was compiled and edited by DRBC Communications Manager Clarke Rupert and created by DRBC Graphic Designer Susan Owens. Numerous commission staff provided valuable assistance. It is available on the commission's web site at www.drbc.net. Copies are available upon request by contacting the DRBC (P.O. Box 7360, West Trenton, NJ 08628; 609-883-9500; clarke.rupert@drbc.state.nj.us).

Front cover photo credits

Top - David B. Soete (Upstream view of the main stem Delaware River at Point Mountain near Hancock, N.Y., just below where the East and West branches of the Delaware meet).

Bottom - Jaclyn Rupert (Mouth of the Delaware Bay where the bay meets the Atlantic Ocean at Cape Henlopen State Park, Lewes, Del.)





A View of the Delaware River from the Appalachian Trail in the Delaware Water Gap National Recreation Area.
(Photo by Shane McAleer, August 2009)

Contents

- Signatory Members 2
 - New York
 - Delaware
 - Pennsylvania
 - New Jersey
 - Federal Government
 - Commission Officers
- Commission Staff. 4
- Hydrologic Highlights of 2009. 5
- Natural Gas Drilling Becomes a Major Basin Issue 8
- Flood Mitigation Updates 10
- Basin News Briefs 12
- Financial Summary 19
- Map of the Delaware River Basin 21

Signatory Members



New York Governor
David A. Paterson



Delaware Governor
Jack A. Markell



Pennsylvania Governor
Edward G. Rendell



New Jersey Governor
Jon S. Corzine



Brigadier General
Todd T. Semonite



Brigadier General
Peter A. DeLuca

The ex officio members of the Delaware River Basin Commission include the four basin state governors and the Division Engineer (commonly referred to as the Commander) of the U.S. Army Corps of Engineers North Atlantic Division who serves as the federal representative.

The five members appoint alternate commissioners, with the governors selecting high-ranking officials from their state environmental agencies. Each commissioner has one vote of equal power with a majority vote needed to decide most issues. Exceptions are votes on the commission's annual budget and drought declarations, which require unanimity.

New York

Department of Environmental Conservation (DEC) Commissioner **Alexander B. ("Pete") Grannis** (alternate), Director of Special Projects **James DeZolt** (second alternate), Division of Water Director **Mark Klotz** (third alternate), and Chesapeake and Delaware Program Coordinator **Peter Freehafer** (fourth alternate) continued to represent **Governor David A. Paterson** on the DRBC.

New York City Department of Environmental Protection (DEP) Commissioner **Caswell F. Holloway** replaced Acting DEP Commissioner **Steven W. Lawitts** as advisor to the New York State DRBC commissioner in late-2009.

Delaware

Governor Jack A. Markell replaced **Ruth Ann Minner**, who served as governor for eight years and could not run for a third term. Governor Markell named Department of Natural Resources and Environmental Control (DNREC) Secretary **Collin P. O'Mara** as his alternate. Water Resources Division Director **Dr. Katherine Bunting-Howarth** continued to serve as his second alternate. Senior Science Advisor **Dr. Harry W. Otto**, who served since 1998 as third alternate to Governors Carper, Minner, and Markell, retired from DNREC on July 1.

Pennsylvania

Governor Edward G. Rendell named DEP Bureau of Water Standards and Facility Regulations Director **Dana Aunkst** as an additional alternate on the DRBC.

His previous appointments remained Special Assistant for Pennsylvania's Recovery **Cathy Curran Myers** (alternate), Deputy Secretary for Water Management **John T. Hines** (second alternate), and Water Use Planning Division Chief **Susan K. Weaver** (third alternate).

New Jersey

DEP Commissioner **Mark N. Mauriello** moved from second alternate to alternate, replacing **Lisa P. Jackson** who became administrator of the U.S. Environmental Protection Agency. **Governor Jon S. Corzine** named Deputy Commissioner for Natural Resources **John S. ("Jay") Watson, Jr.** as his new second alternate. Water Supply Division Director **Michele M. Putnam**, Assistant Director of Water Supply Permitting

The current list of commission members and their alternates can be viewed at www.nj.gov/drbc/commiss.htm.



Delaware Commissioner Dr. Harry Otto was honored at the July 15, 2009 meeting for his years of service to the Delaware River Basin and DRBC. A framed collection of images from the basin was presented to Dr. Otto, who is pictured here with his wife Nancy. (Photo by Clarke Rupert)

Fred Sickels, and Research Scientist/Office of Water Policy Chief **Dr. Joseph A. Miri** continued to serve as Governor Corzine’s third, fourth, and fifth alternate, respectively.

Federal Government

Brigadier General Peter A. (“Duke”) DeLuca became Commander of the U.S. Army Corps of Engineers North Atlantic Division and DRBC federal representative on April 17. He replaced **Brigadier General Todd T. Semonite**, who served as the DRBC’s federal representative since May 2007. At his first commission meeting, Brig. Gen. DeLuca noted that he grew up in Reading, Pa. and the basin is still home to many of his relatives, so the matters of concern to the commission are of great personal as well as professional interest to

him. **Colonel Christopher Larsen** (North Atlantic Division Deputy Commander), **Lieutenant Colonel Thomas J. Tickner** (Philadelphia District Engineer), and **Henry W. (“Hank”) Gruber** (Basin Planning Section Chief) continued to serve as Brig. Gen. DeLuca’s alternate, second alternate, and third alternate, respectively. (Editor’s note: During 2009, Brig. Gen. DeLuca held the rank of Colonel. He was promoted to the rank of Brigadier General in May 2010.)

Commission Officers

The Delaware River Basin Compact requires the annual election of a chair and vice chairs, which historically has been based upon rotation of the compact’s five signatory parties. The following members served as commission officers during calendar year 2009:

January 1, 2009 through June 30, 2009 (one-year term began July 1, 2008)

Chair: Governor Corzine (New Jersey)

Vice Chair: Governor Paterson (New York)

Second Vice Chair: Governor Markell (Delaware)

July 1, 2009 through December 31, 2009 (one-year term to end June 30, 2010)

Chair: Governor Paterson (New York)

Vice Chair: Governor Markell (Delaware)

Second Vice Chair: Brigadier General DeLuca (Federal Representative)



Commissioners listen to comments presented at the July 2009 DRBC meeting held in Bethlehem, Pa. Pictured here (from left to right) are Dana Aunkst (Pa.), Brig. Gen. Peter DeLuca (U.S.), Executive Director Carol Collier, Mark Klotz (N.Y., chair), Dr. Katherine Bunting-Howarth (Del.), and John Watson, Jr. (N.J.). (Photo by Clarke Rupert)

Commission Staff

New Hire

- **Eric Engle**, Geologist/
Hydrologist, Water Resources
Management Branch.

Resignations

- **Erin McCracken**, Water
Resources Planner, Planning and
Information Technology Branch.
- **Thais Gardy**, Information
Resources Coordinator,
Directorate.

In Remembrance

November 2009 proved to be a most difficult month as the DRBC family experienced the loss of two co-workers and a long-time former colleague in less than one week.

- **Donna Gushue**, 52, passed away on Nov. 13. Donna worked for the commission since April 2001, most recently as the secretary of the Modeling, Monitoring, and Assessment Branch. She was a dedicated employee and co-worker, always willing to do whatever was asked of her, but not afraid to rein in the nine scientists and engineers who she supported. She loved to cook and bake, and made sure the lunchroom and her office were always decorated for each holiday.
- **Bridget Ferry** lost her courageous battle with cancer on Nov. 17 at the age of 41. Bridget worked for the DRBC since 2004 as the secretary for the Project Review Section of the Water Resources

Management Branch. She also was a dedicated colleague who was always willing to go the extra mile. Her ability to get the job done right in the most efficient way possible was a true asset to her branch and the commission at large. Bridget was a true pleasure to be around and she had a warm smile and caring word for everyone.

- **Dick Albert**, 63, also passed away suddenly on Nov. 17. Dick worked for the DRBC from 1975 to 2000, where he served in a number of positions, including supervising engineer and the commission's first basin planner. The admiration and respect so many feel for Dick is based in large part on his range of talents and skills rarely found within a single individual. Author of four books, Dick was a prolific writer of articles and publications. His enthusiasm and advocacy for the Delaware River not only influenced policies—such as the DRBC's unique Special Protection Waters regulations—that will protect the river he treasured, but he reached the hearts and minds of many people to whom he became a role model.

Other Noteworthy People News

- Deputy Executive Director **Bob Tudor** was elected to serve on the board of directors of the Interstate Council on Water Policy (ICWP) for a term expiring in 2012. The ICWP is the national organization

of state and regional water resource management agencies. He chairs the Interstate Water Organizations Committee. Additional information can be found on its web site at www.icwp.org.

- **Laura Tessieri**, an engineer in the Operations Section of the Water Resources Management Branch, was elected to the position of regional director of the Association of State Floodplain Managers (www.floods.org).
- **Dr. D. Muralidhar** retired from the New York Department of Environmental Conservation in 2009. During his four decades with the state, “Murali” made significant contributions to the commission and the basin. He was an active member of the Regulated Flows Advisory Committee (formerly the Flow Management Technical Advisory Committee) and the Decree Party Work Group, endeavoring to improve reservoir operations for multiple uses.

The current list of DRBC staff members, including their phone number extensions and e-mail addresses, can be viewed at www.nj.gov/drbc/staff.htm.

Hydrologic Highlights of 2009

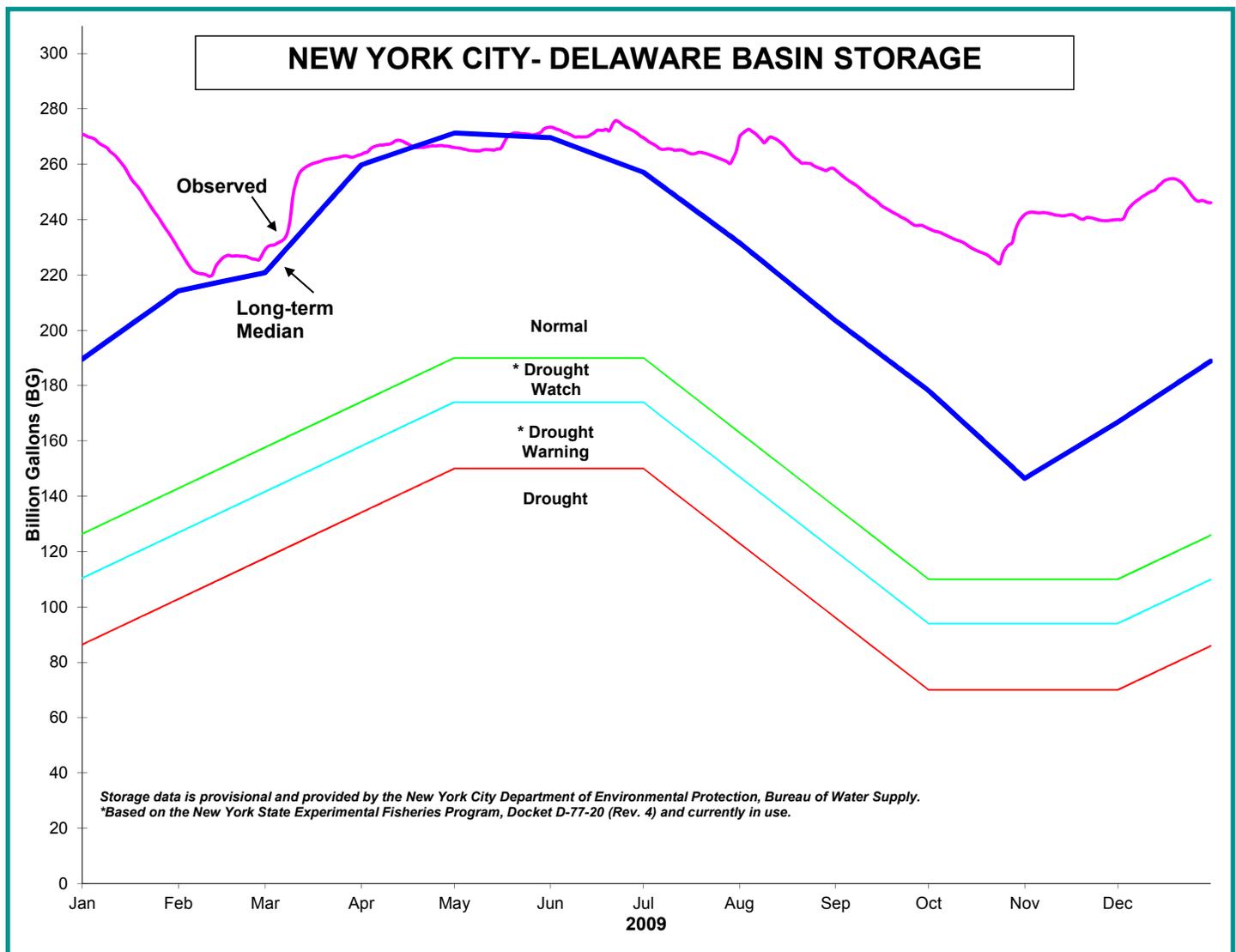
The Delaware River Basin (DRB) was not affected by drought or main stem flooding during 2009. Fortunately, the hurricane season was less active than in prior years and only one of nine named storms impacted the DRB. Tropical Storm Ida came ashore in Alabama on November 10 and eventually transformed into a powerful Nor'easter

that impacted coastal communities in Delaware and New Jersey on November 12-14. Sustained winds of 40-60 mph pummeled portions of these states and caused moderate tidal flooding and severe beach erosion.

Precipitation

Precipitation during 2009 was

above normal for the majority of the basin counties. Only five of the 38 reported counties, all located in the northern tier of the basin, registered below-normal precipitation for the year. These deficits were modest, ranging from 2.1% to 4%. Overall, annual precipitation departures-from-normal ranged from 1.90 inches (4%) below normal in



This graph shows the observed combined water storage in the NYC-Delaware Basin reservoirs (Cannonsville, Pepacton, and Neversink) during 2009, as well as the long-term median and drought rating curves. The period of record represented by the long-term median values is June 1967 to November 1998.

Monroe County, Pa. to 19.10 inches (44%) above normal in Atlantic County, N.J.

Annual precipitation totals ranged from 37.60 inches in Broome County, N.Y. to 62.60 inches in Atlantic County. The observed precipitation above Montague, N.J. for 2009 was 45.46 inches, or 2.20 inches above normal. Similarly, observed precipitation above Trenton, N.J. was 45.93 inches, or 1.04 inches above normal, and precipitation at Wilmington, Del. was 51.40 inches, or 8.59 inches above normal.

Streamflow

Observed monthly mean streamflow at select stations on the Lehigh

River, Schuylkill River, and the main stem Delaware River were generally normal to below normal during the first five months of the year due to periods of below-normal precipitation. The driest periods were February and March when observed streamflow at select stations on the Lehigh and Schuylkill rivers was as much as 60 to 70% below normal. Normal to above-normal precipitation returned to the basin in May and streamflows at select stations recovered. Normal to above-normal streamflow conditions persisted for the remainder of the year.

Lower Basin Reservoir Storage

Both Beltzville Reservoir (located

on the Pohopoco Creek, a tributary of the Lehigh River) and Blue Marsh Reservoir (located on the Tulpehocken Creek, a tributary of the Schuylkill River) maintained storage in the normal range during 2009. Consequently, DRBC's lower basin drought operating plan was not triggered. Due to the above-normal precipitation during 2009, DRBC did not have to direct releases from lower basin storage to meet the Delaware River flow objective of 3,000 cubic feet per second (cfs) at Trenton.

No releases were required from Merrill Creek Reservoir during 2009. Storage in this reservoir, located near Phillipsburg, N.J., is used to replace evaporative water

The three NYC-Delaware Basin reservoirs are being operated under the Flexible Flow Management Program (FFMP), a temporary operations plan unanimously approved by the parties to the 1954 U.S. Supreme Court Decree (four basin states and NYC). The FFMP agreement, which was originally adopted in September 2007 and amended in December 2008, continues to be implemented by the five decree parties through May 2011.

During the summer of 2009, cold water releases from Cannonsville Reservoir were increased to support the tailwater fishery in accordance with the FFMP's adaptive management provisions. This adjustment resulted from the recommendations of state fishery experts and a review of FFMP operations in 2008.

The decree parties also agreed to provide temporary additional releases from the three NYC-Delaware Basin reservoirs during portions of 2009 in anticipation of a shutdown of the Rondout to West Branch Tunnel. This supplemental releases program was implemented since water cannot be diverted from the three NYC reservoirs during the time when the tunnel is temporarily shut down to allow the city to perform necessary work in preparation of future tunnel repairs.

The FFMP agreement can be viewed on the web site of the Office of the Delaware River Master, which administers the provisions of the 1954 Supreme Court decree, at water.usgs.gov/osw/odrm/.

losses (“consumptive use”) caused by power generation when the basin is under DRBC-declared drought operations.

Upper Basin Reservoir Storage

Storage within the three New York City (NYC) reservoirs, located in the upper basin and operated under the Flexible Flow Management Program (FFMP), remained above the long-term median for much of 2009. Consequently, DRBC’s basinwide drought operating plan was not triggered.

On January 1, 2009, combined storage in Cannonsville, Pepacton, and Neversink reservoirs was 270.8 billion gallons (bg), which is 100% usable capacity and 81.3 bg above the long-term median for the date. Combined storage in the three reservoirs dipped below the long-term median during the period April 18–May 18, but refilled to 100% usable storage capacity by May 20. The normal refill date for the NYC reservoirs is May 1. Storage remained above the median for the remainder of the year. On December 31, 2009, combined reservoir storage was 246.1 bg, which is 91% usable capacity and 57.3 bg above the long-term median for the date. Please refer to the graph on page 5 that presents upper basin reservoir storage levels for 2009.

The Office of the Delaware River Master directed releases from the NYC reservoirs totaling approximately 9 bg during dry periods in September and October to meet the normal flow objective of

1,750 cfs at Montague as required by the 1954 U.S. Supreme Court Decree. For comparison, directed releases totaled 47 bg in 2008 and 101 bg during the drought year 2001.

Groundwater

The average monthly groundwater level in eight reported U.S. Geological Survey observation wells in the Pennsylvania portion of the basin remained below the long-term average through July 2009. In response to above-normal rainfall during the June through August period, the average water level of the observation wells increased above the long-term average beginning in August and remained above the long-term average until the end of the year.

Water levels in the New Castle County, Del. coastal plain well began the year at the low-end of the normal range and by March had trended downward to below the normal range. Levels recovered to within the normal range by June and trended upward for the remainder of the year. The year ended with above-normal levels.

Water in the Cumberland County, N.J. coastal plain well began the year within the normal range, but by February dropped to below-normal levels. Water levels recovered to the normal range by August, trending upward to finish the year above the normal range. Mid-year upward trends in both coastal plain wells can be attributed to the above-normal rainfall received during the summer

months.

Water level ranges are defined as: Above Normal (greater than 75-percentile); Normal (25- to 75-percentile); and Below Normal (less than 25-percentile).

Salt Front

The salt front or salt line is the 250 parts per million (or milligram per liter) chloride concentration. The seven-day average location of the salt front is used by DRBC as an indicator of salinity intrusion in the Delaware Estuary. The salt front’s location fluctuates along the main stem Delaware River as streamflow increases or decreases in response to changing inflows, diluting or concentrating chlorides in the river. Long-term average mid-month locations range from river mile 61 in mid-April (0.5 miles below Pea Patch Island, Del.) to river mile 81 in mid-October (Marcus Hook, Pa.). The farthest recorded upstream location of the salt front, river mile 102, was measured during the 1960’s drought of record.

During 2009, the salt front location ranged as far upstream as river mile 75 in February, a location that is three miles downstream of the Delaware-Pennsylvania state line.

More detailed information about the basin’s hydrologic conditions can be found on the DRBC web site at www.nj.gov/drbc/hydro.htm.

Natural Gas Drilling Becomes a Major Basin Issue

The Marcellus Shale formation underlies about one-third of the Delaware River Basin, including the predominantly forested upper region. The formation is expected to yield an abundance of natural gas with the use of hydraulic fracturing, an extraction method requiring large amounts of water to break up the shale to stimulate the release of trapped natural gas 7,000 feet or more below the ground surface. Initially emerging as a basin issue during 2008, natural gas drilling received much greater attention throughout 2009. The role to be played by DRBC continued to evolve as a result of ongoing discussions with state/federal agency partners and as new information on the impacts to water resources was learned.

DRBC Executive Director Determination

DRBC Executive Director Carol R. Collier on May 19, 2009 announced that natural gas extraction project sponsors could not commence any natural gas extraction project located in shale formations within the drainage area of the basin's Special Protection Waters (SPW) without first applying for and obtaining commission approval.

"This determination explains DRBC regulatory requirements on an interim basis and asserts commission review over all aspects of natural gas extraction projects in shale formations within the drainage area of the basin's Special Protection Waters, regardless of the amount of water withdrawn or the capacity of domestic sewage treatment facilities accepting fracking

wastewater," Collier said.

"The intent behind this executive director determination is to provide directional signals, not put up roadblocks," Collier added. "Each of these activities, if not properly performed, may cause adverse environmental effects on water resources. The bottom line for the DRBC is to ensure that proper environmental controls are provided to safeguard our basin's water resources that are used by 15 million people."

Most of the shale formations that may be subject to horizontal drilling and hydraulic fracturing techniques requiring large volumes of water in the basin are located within the drainage area to DRBC's designated Special Protection Waters. The commission's SPW program is designed to prevent degradation in streams and rivers considered to have exceptionally high scenic, recreational, ecological, and/or water supply values through stricter control of wastewater discharges, non-point pollution control, and reporting requirements. Coverage of the DRBC's SPW anti-degradation regulations includes the 197-mile non-tidal Delaware River from Hancock, N.Y. south to Trenton, N.J. and the land draining to this stretch.

Under this determination, a natural gas extraction project encompasses the drilling pad upon which a well intended for eventual production is located, all accompanying facilities and related activities, and all locations of water withdrawals used or to be used to supply water to the project.

Wells intended solely for exploratory purposes are subject to state regulation and were not specifically covered by the May 2009 determination. However, fracturing of shale formations could not be conducted on exploratory wells and they could not be used as or converted to production wells until the project sponsor obtained DRBC approval.

Chesapeake Appalachia's Proposed Water Withdrawal

The first natural gas-related application to receive DRBC scrutiny and widespread public attention during 2009 was submitted by Chesapeake Appalachia, LLC. The company proposed a surface water withdrawal from the West Branch of the Delaware River in Wayne County, Pa. to supply a maximum of 29.99 mg/30 days of water for its exploration and development of natural gas wells in New York and Pennsylvania. The application was not for a production well.

The commission held a public hearing on an initial draft docket (permit) at its July 15, 2009 business meeting in Bethlehem, Pa. and heard testimony from approximately 40 witnesses. Voluminous written comment was submitted on or before the July 15 hearing. In light of the high level of public interest in the project, the commission took no action on the docket on July 15, and extended the written comment period an additional two weeks. Approximately 1,200 written comments (excluding petitions) were

received on the draft docket by the close of the comment period. After review and consideration of these comments, the commission and staff developed a revised draft docket, which was posted on the DRBC web site in September 2009. The public hearing originally scheduled later that month to receive testimony on the revised draft docket was postponed at the request of Chesapeake Appalachia to allow the public and the applicant more time to consider the revised draft docket.

The following month, Chesapeake notified the commission that “. . . we have decided to withdraw the application and reassess our approach to the situation. We believe this is preferable to continuing with hearings and further public debate about the project at this time.”

By the close of 2009, several additional natural gas-related applications submitted by other companies were undergoing DRBC staff review, but none had been approved by the commissioners.

The most current information can be found on the DRBC web site at www.nj.gov/drbc/naturalgas.htm.



Flood Mitigation Updates

DRBC Releases Results of Flood Analysis Model

The commission's review of the 2004, 2005, and 2006 storm events utilizing the new Delaware River Basin Flood Analysis Model demonstrated that widespread river flooding would have occurred in each instance regardless of the pre-event storage condition in the upper basin reservoirs. These findings were presented in December 2009 to the Delaware River Basin (DRB) Interstate Flood Mitigation Task Force at a public meeting held in Flemington, N.J.

"The results of the flood analysis computer model developed by a federal interagency team for the commission, as well as a review of inundation mapping and structural surveys prepared by the U.S. Army Corps of Engineers, indicate that operational changes to reservoirs alone will not substantially reduce flooding if we experience storms similar to the three major events in September 2004, April 2005, and June 2006," DRBC Executive Director Carol R. Collier said. "We believe the results support the earlier conclusion of the Interstate Flood Mitigation Task Force that no single approach will eliminate flooding along the Delaware River and that we must continue to focus efforts on implementing a combination of flood loss reduction strategies."

The integrated flood analysis model was used to evaluate the effects of various reservoir pre-event storage conditions for downstream flood mitigation. Simulations

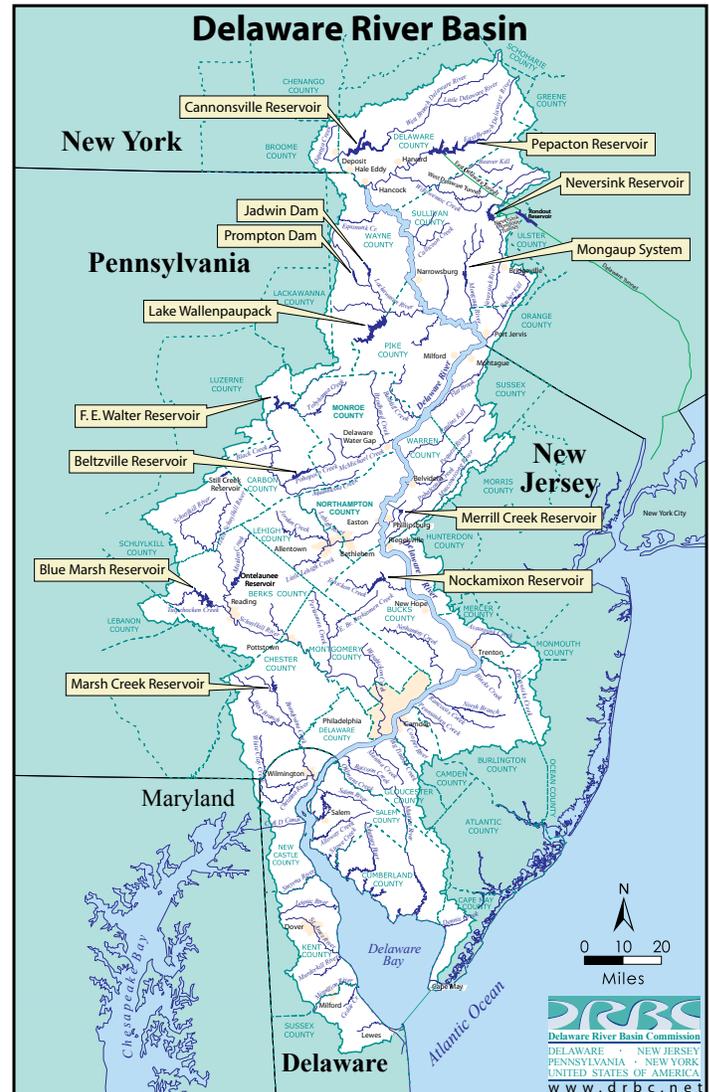
indicated that the amount of additional flood mitigation that can be achieved with changes to operations of existing reservoirs is highly variable and dependent upon the storm event (timing, intensity, path), local topography and channel configuration, local runoff contributions and antecedent conditions.

DRBC will continue to work with basin reservoir operators to evolve spill mitigation programs that shift spilled water to managed water without diminishing the security of regional water supplies. Eleven million people in New York, New Jersey, and Pennsylvania depend upon New York City's three Delaware Basin reservoirs for drinking water—either directly via an out-of-basin diversion or through releases to augment river flows downstream.

Development of the flood

analysis computer model was among the 45 recommendations identified by the DRB Interstate Flood Mitigation Task Force, formed at the request of the four governors, in its July 2007 action agenda.

The interagency team that developed the flood analysis model included staff from the U.S. Army Corps of Engineers (USACE) Hydrologic Engineering Center,



Major Reservoirs in the Delaware River Basin.

National Weather Service (NWS), U.S. Geological Survey (USGS), and DRBC. Work on the flood analysis model began in August 2007 with \$500,000 provided by the four basin state governors. Additional funds and in-kind services from USACE, NWS, and USGS totaled \$285,000.

Additional information can be viewed at www.nj.gov/drbc/Flood_Website/FloodAnalysisModel/index.htm.

Floodplain Regulations

One of the six priority management areas identified by the DRB Interstate Flood Mitigation Task Force in its July 2007 report for a proactive, sustainable and systematic approach to flood damage reduction was floodplain regulations. In May 2008, DRBC commissioners from New Jersey and Pennsylvania requested that a subcommittee of the commission's Flood Advisory Committee (FAC) be formed to address Task Force Recommendation FR-1: *Catalog, Evaluate and Update Existing Floodplain Regulations in the Basin*.

The Floodplain Regulations Evaluation Subcommittee (FRES) was formed in November 2008 to review and evaluate the similarities and differences in floodplain regulations throughout the basin and to develop and present recommendations on the potential for more effective floodplain management. The subcommittee delivered its report to the DRBC FAC in May 2009. Following a review of the

FRES report, FAC members met in August 2009 to discuss the subcommittee's recommendations. Following deliberations and some modifications, the FAC presented its findings and recommendations for more effective floodplain regulations to the DRBC commissioners and the public in October 2009.

Detailed information can be found at www.nj.gov/drbc/Flood_Website/FAC/index.htm.

Enhanced Flood Warning System

Thanks to Congressional sponsors including U.S. Reps. Charlie Dent (Pa.-15), Rush Holt (N.J.-12), Maurice Hinchey (N.Y.-22), Michael Castle (Del.-At Large), and Jim Gerlach (Pa.-6) as well as Senators Frank Lautenberg (N.J.) and Robert Menendez (N.J.), \$235,000 was provided in both 2008 and 2009 to improve flood warning capabilities in the basin. The federal funds supported an evaluation of existing precipitation and stream gage networks, flood hardening of select prioritized stream gages, flash flood forecasting improvements, and implementation of U.S. Army Corps of Engineers

(USACE) flood inundation mapping into the National Weather Service (NWS) Advanced Hydrologic Prediction Service (AHPS) at flood forecast points.

At the March 2009 DRBC meeting, attendees learned about the ongoing effort to create and make available flood inundation maps for the main stem Delaware River at nine flood forecast locations from Trenton, N.J. to Port Jervis, N.Y., excluding the Delaware Water Gap National Recreation Area. This effort is being led by the USACE Philadelphia District and the NWS Eastern Region Headquarters. Once completed, these maps will depict the correlation between forecasted flood stages at stream gages and how adjacent land would be inundated at those river levels.

Flood warning priorities had been previously identified in the July 2007 action agenda of the DRB Interstate Flood Mitigation Task Force and are being implemented as funds become available.

For more information, please visit www.nj.gov/drbc/Flood_Website/flood-warning/index.htm.

The commission was saddened by the passing of Joseph Zagone, who died in July 2009 at the age of 65. Joe was a stalwart member of the DRBC's Flood Advisory Committee representing the Federal Emergency Management Agency Region III, and a champion of stronger floodplain management through his work on the commission's Floodplain Regulations Evaluation Subcommittee. Joe was an expert in National Flood Insurance Program (NFIP) subject matter and he helped to shape national policy, particularly in the area of NFIP compliance.

Basin News Briefs

DRBC Approves New Conservation Program to Identify and Control Water Loss

The commission voted in March 2009 to phase in a program requiring water suppliers to follow a revised water audit approach for identifying and controlling water loss in the Delaware River Basin (DRB). The program aims to reduce water demand at the source, reduce treatment costs, improve system efficiency, and enhance purveyor revenue.

An estimated 150 million gallons of treated and pressurized water is physically lost from public water supply distribution systems in the DRB every day and current methods to account for, track, and reduce this loss are inadequate.

The new rule will require water purveyors to perform a water audit and report their findings in accordance with a new audit structure established by the American Water Works Association (AWWA) and the International Water Association (IWA). This new water audit methodology will facilitate more consistent tracking and reporting than the existing approach allows, as well as advances the commission's water conservation program.

Because this water audit approach is relatively new in a regulatory context, the program calls for phased implementation. Through 2011, DRBC will promote the voluntary use of the water audit program. During this period, information will be gathered from within the basin and nationwide to assist in

the establishment of performance indicators for water loss. DRBC plans to hold workshops for system operators during the phase-in period. Water purveyors will be required to perform an annual water audit conforming to the IWA/AWWA methodology beginning in calendar year 2012.

The DRBC's Water Management Advisory Committee (WMAC), chaired by Robert Molzahn (Water Resources Association of the Delaware River Basin), and its Subcommittee on Water Accountability, chaired by Mary Ellen Noble (Delaware Riverkeeper Network), took the lead in developing the rulemaking approved by the commission. The WMAC is composed of representatives from a wide range of public and private sector organizations. Other important contributors were WMAC member George Kunkle (Philadelphia Water Department) and David Sayers (DRBC staff

liaison to the WMAC). Kunkle and Sayers both served on the AWWA Water Loss Control Committee that led the effort to develop the new software for implementing the water audit approach.

Additional information, including a link to the free water audit software, can be found on the commission's web site at www.nj.gov/drbc/water-audits/index.htm.

Oyster Project Honored by Coastal America

The Delaware Bay Oyster Restoration Project, an ongoing effort to revitalize Eastern oysters in Delaware Bay, was honored with a 2008 Coastal America Partnership Award in October 2009 during a bayside ceremony held at the University of Delaware's Coast Day festival in Lewes. The Coastal America Partnership Award is the only environmental award of its kind given by the White House.

Virginia Tippie, director of Coastal America, and Deputy

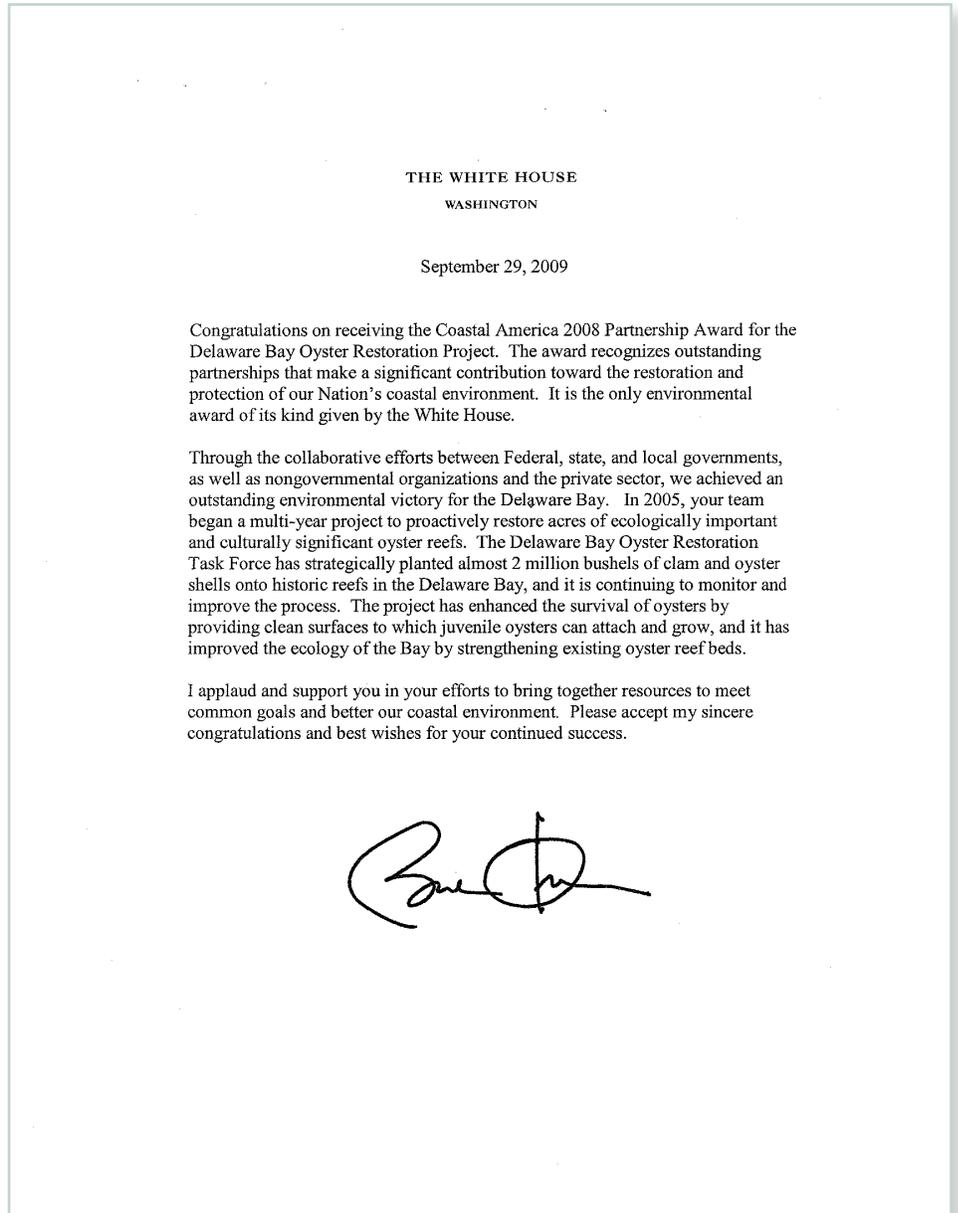


Oyster Project Honored by Coastal America. (Photo courtesy of the Partnership for the Delaware Estuary)

Assistant Secretary of the Army (Policy and Legislation) Terrence Salt presented plaques, certificates, and congratulatory letters from President Barack Obama to representatives from each of the Delaware Bay Oyster Restoration Task Force's member-organizations. Among those accepting awards for their member agencies were DNREC Secretary Collin O'Mara, Lieutenant Colonel Thomas Tickner (U.S. Army Corps of Engineers, Philadelphia District Engineer), and DRBC Deputy Executive Director Bob Tudor. Secretary O'Mara and LTC Tickner both serve as DRBC commissioners representing Delaware and the federal government, respectively. Also attending the ceremony was Congressman Michael Castle, who represents Delaware in the U.S. House of Representatives.

In addition to the DRBC, the members of the Delaware Bay Oyster Restoration Task Force include:

- U.S. Army Corps of Engineers, Philadelphia District
- New Jersey Department of Environmental Protection
- Delaware Department of Natural Resources and Environmental Control
- Rutgers University's Haskin Shellfish Research Laboratory
- Partnership for the Delaware Estuary
- Delaware State University's College of Agriculture and Related Sciences
- Delaware River and Bay Authority



Congratulatory letter from President Barack Obama to the Delaware Bay Oyster Restoration Task Force.

- Cumberland Empowerment Zone Corporation
- Delaware Bay Section of the Shell Fisheries Council
- Delaware Shellfish Advisory Council
- Commercial Township, New Jersey

Coastal America is a partnership of federal agencies, state and local governments, and private organizations whose mission it is to protect, preserve, and restore the nation's coasts. For more information, please visit www.coastalamerica.gov.

DRBC Establishes Civil Penalty Matrix Guidance

The *Delaware River Basin Compact* provides for penal sanctions of up to \$1,000 per day by a court for violations of the *Compact* or any rule, regulation, or order of the commission. DRBC does not have independent authority to levy penalties, but consistent with its *Rules of Practice and Procedure* the commission may negotiate settlements in lieu of penalties for proven or suspected violations to avoid a court proceeding. The commission's rules set forth certain factors for the DRBC to consider in determining the amount of the penalty or settlement that it might seek for any given violation; however, commission staff has lacked guidance in negotiating settlements in lieu of penalties.

The resolution unanimously adopted by the commission in December 2009 establishes a matrix that identifies the settlement ranges corresponding to severe, moderate, and minor violations, based on factors already contained in DRBC regulations. This guidance helps the DRBC and the regulated community by establishing the potential consequences of certain types of violations. For example, if a discharger has a history of non-compliance, the violation moves into the severe category, and the corresponding settlement amount is higher. The matrix is similar to one that the Susquehanna River Basin Commission has had in place for more than a decade.

The penalty matrix serves two functions—providing guidance to staff and potential violators in resolving these matters cooperatively, and providing the commission with guidance in deciding the amount of a penalty to ask a court to impose if the matter should go before a judge. The guidance document does not bind the DRBC, which would have to review and approve, modify or disapprove any proposed settlement reached by staff and a regulated entity.

The civil penalty matrix can be viewed at www.nj.gov/drbc/Res2009-13PenaltyMatrix.pdf.

New Administrative Agreement with New Jersey

New Jersey signed a new agreement with DRBC on December 18, 2009 that establishes practices and procedures for the submission and review of projects to promote intergovernmental coordination. It replaces the previous administrative agreement that had been in place for approximately thirty years and will be used as a prototype for updating the agreements with the remaining three basin states.

The administrative agreement sets forth streamlined procedures and practices for the review of projects designed to reduce duplication of functions for agency staff and of permitting requirements for the regulated community. The agreement focuses on water withdrawal and wastewater discharge projects, which constitute the bulk of applications subject to DRBC

review. In accordance with the project review thresholds established by the *Rules of Practice and Procedure*, DRBC will continue to review and approve projects consisting of ground or surface water withdrawals from the shared waters of the basin, projects involving wastewater discharges to either shared waters or tributary waters to Special Protection Waters (SPW), and all projects that involve inter-basin transfers of water or wastewater. DRBC will no longer routinely review and issue dockets for projects consisting of ground or surface water withdrawals from intrastate streams, nor will it routinely review wastewater discharges to waters outside the drainage area of SPW or to intrastate streams. The commission does not review industrial landfill and sanitary landfill development projects and these exclusions will continue.

The agreement establishes a process by which the NJDEP will notify DRBC of applications it receives. DRBC will post these on the commission's web site, noting which are subject to DRBC docket reviews under the administrative agreement and which are not. At the request of a commissioner or the executive director, DRBC will undertake a full review of any project that could have a substantial impact on the water resources of the basin or that might impair or conflict with the commission's comprehensive plan. NJDEP also will provide DRBC with the opportunity to review and approve wastewater management plans that

are submitted to the state.

Detailed information can be found at www.nj.gov/drbc/AA/index.htm.

WRA's 50th Anniversary

The Water Resources Association of the Delaware River Basin (WRA) held its 50th Anniversary and Recognition Dinner on April 22, 2009 in Philadelphia. The celebratory event included a detailed history of the WRA and its long relationship with the DRBC.

Both the DRBC and the WRA share common roots and perhaps neither would be here today if it were not for the Delaware River Basin Advisory Committee (DRBAC). The DRBAC was established as the result of an agreement in July 1955 among the governors of the four basin states and the mayors of Philadelphia and New York City to unite in a drive to seek basinwide solutions to the water resource challenges of the Delaware Valley.

As described in the DRBC's first annual report, the formation of the WRA—a non-profit and non-partisan citizen group dedicated to the basin's orderly development—provided a significant boost that was needed to alert prominent citizens, organizations, and the general public to the needs of the Delaware Valley and the benefits of creating the DRBC.

Over the past 50 years, the role of the WRA has changed as the DRBC's role continues to evolve and adapt to changing conditions. The

WRA provided valuable input in the development of the 2004 Water Resources Plan for the Delaware River Basin and DRBC continues to rely on the expertise of its members who participate on advisory committees, such as the Water Management Advisory Committee.

The future water resource challenges facing the basin are great. The commission knows that the WRA will continue to play the important role envisioned by the DRBAC fifty years ago as the DRBC's "friendly watchdog" and looks forward to working together with WRA in the years ahead.

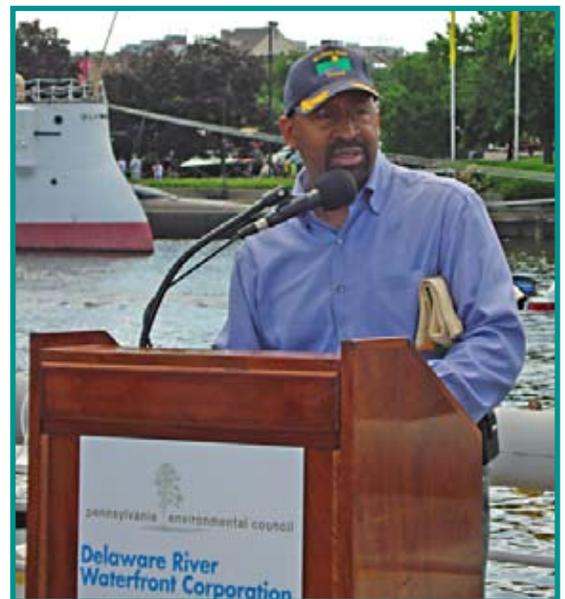
15th Annual Delaware River Sojourn

The theme of this year's sojourn, which took place June 21-27, was "No One Left Inside," encouraging people of all ages and experience levels to enjoy one of Mother Nature's finest water parks, the wild and scenic Delaware River. A total of 425 paddlers participated, many of them on all seven days. Media and political attention focused on this year's event as two "Lord High Admiral" awards were bestowed on special basin notables: on day two, Congressman Christopher Carney (Pa.-10) spoke to participants at Kittatinny Canoes' River Beach Campground in Milford Pa. and Mayor Michael Nutter was on hand to welcome the sojourners to Philadelphia on day seven. Mayor Nutter

also announced the launch of Kayak Penn's Landing, a collaboration between the Pennsylvania Environmental Council and the Delaware River Waterfront Corporation to sponsor a free kayak program as part of the "Take Me to the River" program, which is administered by the Delaware Valley Regional Planning Commission and funded by the William Penn Foundation. Nearly 800 people participated in Kayak Penn's Landing throughout the summer.

The Delaware River Sojourn is an annual event organized by a steering committee representing various organizations and government agencies in the basin. The 2009 committee was co-chaired by Dick Rhodes of the National Canoe Safety Patrol and Kate O'Hara of DRBC.

Additional information about



Philadelphia Mayor Michael Nutter, wearing his "Lord High Admiral" cap, speaks to the sojourners at Penn's Landing. (Photo courtesy of the Delaware River Sojourn)

the sojourn can be viewed at www.delawareriversojourn.org.

Pocono Creek Watershed Update

The DRBC submitted the *Framework for Sustainable Watershed Management in the Pocono Creek Watershed* final report to the U.S. Environmental Protection Agency (EPA) in May 2009.

Pocono Creek is an 18-mile-long tributary to McMichael Creek in the Brodhead Creek Watershed. The Brodhead flows into the Delaware River near the Delaware Water Gap.

This initiative was the result of many cooperative efforts during the project's development, which was funded by EPA. The Framework's diverse partnership included the Brodhead Watershed Association, DRBC, EPA, Monroe County Conservation District, Monroe County Planning Commission, Pennsylvania Department of Environmental Protection, Pennsylvania Fish and Boat Commission, Pocono Arts Council, and the U.S. Geological Survey.

The Framework for Sustainable Watershed Management was created to address a paradoxical issue many rural communities dependent on natural resources for economic stability face—how to develop sustainably. Using the Pocono Creek Watershed as a “sustainability watershed laboratory,” the aim of the Framework was to create a mechanism that would allow for development while protecting water resources in the region using science-based decision making.

The Framework introduced a program that balances growth with natural resource protection, so that future generations can enjoy the highly valued natural resources of the region, along with economic prosperity. This program is accomplished in three stages: technical, planning, and watershed community outreach. The technical stage identified the impacts of rapid growth on a watershed's water resources. The planning stage developed management strategies that balance regional growth needs with natural resource protection. The watershed community outreach effort introduced an innovative approach to protecting the region's water resources through a community-wide public art event that received extensive media coverage, had high visibility, and generated enthusiastic community participation.

Trout Tales and Trails, which was part of the watershed community outreach effort and previously described in the DRBC's 2008 annual report, won a second place award in April 2009 from the Northeastern Pennsylvania Non-profit and Community Assistance Center in the arts and culture category. In October 2009, *Trout Tales and Trails* also received the Northeastern Pennsylvania Environmental Partnership Award by the Pennsylvania Environmental Council.

Additional information, including the final report submitted to EPA, can be viewed at www.nj.gov/drbc/pocono.htm.

Delaware River Referenced in Presidential Speech

George Washington and his Continental Army crossed the Delaware's ice-choked waters on Christmas night, 1776, ambushing a party of Hessian troops in Trenton. Also present at the crossing was another future president, James Monroe. It was a turning point in the Revolutionary War.

The Crossing of the Delaware continues to inspire Americans as evidenced by its reference in President Barack Obama's January 20, 2009 Inaugural Address:

“So let us mark this day with remembrance of who we are and how far we have traveled. In the year of America's birth, in the coldest of months, a small band of patriots huddled by dying campfires on the shores of an icy river. The capital was abandoned. The enemy was advancing. The snow was stained with blood. At the moment when the outcome of our revolution was most in doubt, the father of our nation ordered these words to be read to the people: ‘Let it be told to the future world . . . that in the depth of winter, when nothing but hope and virtue could survive . . . that the city and the country, alarmed at one common danger, came forth to meet [it].’ ”

Two Schuylkill Watershed Restoration Projects Receive Grants

The Exelon Schuylkill River

Watershed Restoration Fund, initiated as a condition of DRBC docket D-69-210 CP issued to Exelon Generation Company, LLC for its Limerick Generating Station, provided \$175,000 for two projects in 2009. Berks County Conservancy was awarded \$75,000 to leverage an additional \$182,000 for management improvements on a farm in the Manatawny Creek Watershed to mitigate agricultural runoff. The fund also awarded \$100,000 to the Schuylkill Headwaters Association to prevent infiltration at the Wheeler Run Flume, part of the Pine Knot Mine Tunnel discharge. Pine Knot is Schuylkill County's largest contributor of abandoned (acid) mine drainage to the Schuylkill River. The fund is administered by the Schuylkill River Heritage Area.

Additional contributors are being sought to support restoration projects in the Schuylkill River Watershed, the Delaware's largest subbasin. As a result, the Exelon Restoration Fund was re-named the Schuylkill River Restoration Fund to reflect this expansion from a solely Exelon-funded initiative.

For more information, please visit www.nj.gov/drbc/SchuylkillRestorationFund.htm.

Stream Gages at Risk

The U.S. Geological Survey (USGS) operates and maintains a nationwide network of approximately 7,500 stream gages designed to provide long-term, accurate information to meet the multiple

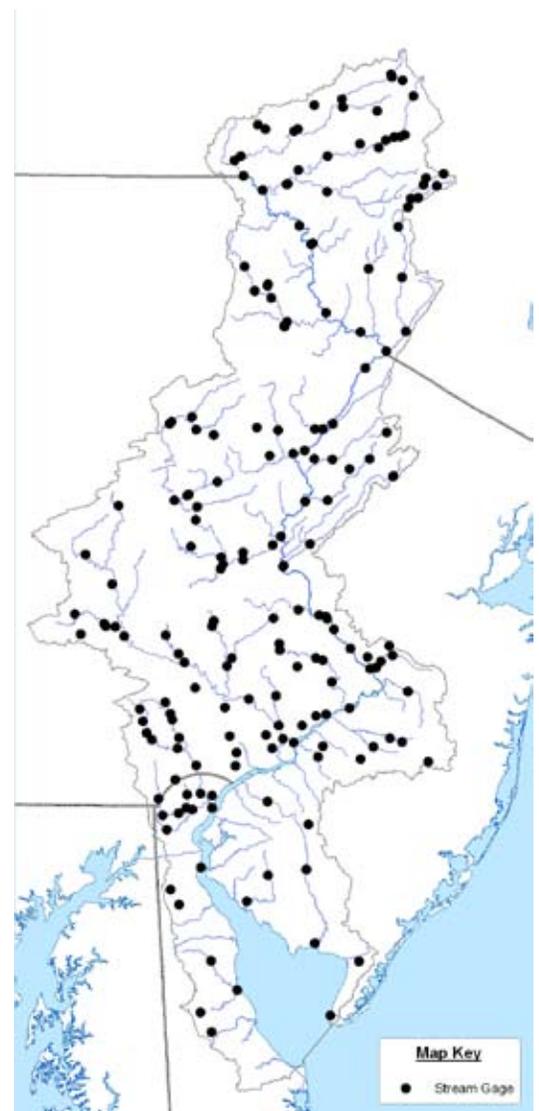
needs of many diverse national, regional, state, and local users. In the Delaware Basin, these gages measure a variety of hydrological conditions and events, and are critical for flood warnings and water quality monitoring.

About 85% of the USGS national network is funded in whole or in part by state, local, tribal, and other federal agencies. Over time, the cost-share for the USGS Cooperative Program has shifted from 50:50 to more like 70% local and 30% USGS. In hard budget times, this level of cost share is not sustainable, which takes the form of local entities (states, local governments, and others) decommissioning gages that have long, continuous records.

The commission is working with partners to establish which gages in the Delaware River Basin are vitally important and find additional or alternate funding sources for those at risk so that years of data are not lost or compromised. Pennsylvania stepped in to support three important gages in the Upper Delaware River that might otherwise have been abandoned during 2009. New York City picked up the funding to support several others and USGS successfully obtained the money to keep two critical gages in the basin operational. Congressman Maurice Hinchey (N.Y.-22) met with USGS Director Suzette Kimball in

April 2009 to press for continuation of stream gages. He vowed to use his position on the House Appropriations Committee to fight for the additional funding Kimball said is needed to maintain the operation of stream gages over the short- and long-term.

Additional information can be found at www.nj.gov/drbc/gage/gageshp.htm.



Stream gages in the Delaware River Basin.

Protecting Water Quality – New PCB Criterion Proposed for the Delaware Estuary

The DRBC in 2009 published proposed changes to existing regulations that would revise the current human health water quality criteria for polychlorinated biphenyls (PCBs) to a consistent 16 picograms per liter in water quality management Zones 2 through 5, extend application of the criterion to Delaware Bay (Zone 6), and provide for the use of compliance schedules where a reduction of the pollutant concentration or loading is needed. Informational meetings in Norristown, Pa. and Bordentown, N.J. as well as a public hearing in West Trenton, N.J. were held in early October 2009. The commission is evaluating the comments received and staff will be working with the U.S. Environmental Protection Agency (EPA), the estuary states, and the U.S. Army Corps of Engineers to develop a path forward.

PCBs are a class of chemicals present in the waters of the tidal Delaware River and Delaware Bay (also referred to as the Delaware Estuary) at concentrations up to 1,000 times higher than the water quality criteria and have been classified by the EPA as a probable human carcinogen. The U.S. banned the manufacture and new use of PCBs in the late 1970s, but the chemical stability of these compounds has allowed them to persist in the environment. PCBs enter fish through absorption or by ingestion of prey and accumulate

in their tissues at levels many times higher than in the surrounding water, prompting fish consumption advisories to be issued by Delaware, New Jersey, and Pennsylvania.

The current DRBC water quality criteria for PCBs to protect human health in the tidal Delaware were established in 1996, vary by location, and pre-date the collection of additional studies on PCBs in the estuary. DRBC currently has no PCB water quality criterion for the Delaware Bay; however, New Jersey and Delaware have established a criterion of 64 picograms per liter for this water body. Bioaccumulative pollutants such as PCBs are particularly problematic since their association with the sediments of a river or bay can prevent achieving the updated criteria for decades.

The revised PCB human health water quality criterion will be used as the basis for further refinement of the Total Maximum Daily Loads (TMDLs) that were established in 2003. These refined loads, known as Stage 2 TMDLs, will be developed by DRBC staff and are expected to be established by EPA. A TMDL sets the maximum amount of a pollutant that a water body can receive without violating applicable water quality criteria and allocates that amount among sources in the watershed—both point (end-of-pipe) and non-point (runoff). Dischargers must reduce loads to the allocated levels in order to achieve and maintain the criteria.

Additional information can be found on the commission's web

site at www.nj.gov/drbc/pending-rulemaking.htm.

Sustainable Water Supply - PA Water Plan

Pennsylvania adopted a new state water plan in March 2009, the first since 1983. Required by Act 220 (2002), the plan provides a vision for Pennsylvania's future as well as priorities and recommendations for action. The water plan's innovative water use analysis tool, which determines where demands may exceed supply, is being used to identify potential Critical Water Planning Areas in the Pennsylvania portion of the Delaware River Basin.

The DRBC, along with the Susquehanna River Basin Commission and many others, worked very hard on the development of the new state water plan. John Hines, now a Pennsylvania alternate DRBC commissioner, led this effort for PADEP.

Additional information can be viewed at www.nj.gov/drbc/wateruse/PAact220.htm.

Water Quality Standards Academy

Through the efforts of DRBC, EPA held a week of water quality standards education at the Rutgers Eco-Complex in Bordentown, N.J. in January 2009. This special session enabled more than 80 government and nongovernment staff to refresh their knowledge of federal Clean Water Act regulatory programs at a greatly reduced cost. Drs. Tom Fikslin and Namsoo Suk from DRBC staff participated as instructors.

Financial Summary

“The respective signatory parties covenant and agree to include the amounts so apportioned for the support of the current expense budget in their respective budgets next to be adopted, subject to such review and approval as may be required by their respective budgetary processes.”

Delaware River Basin Compact (Public Law 87-328, Article 13, Section 13.3c)

On May 6, 2009, the commissioners unanimously approved the DRBC’s current expense budget of \$6,517,600 for fiscal year 2010, which extends from July 1, 2009 through June 30, 2010. It calls for the following signatory party shares: Pennsylvania \$893,000 (25%), New Jersey \$893,000 (25%), United States \$715,000 (20%), New York \$626,000 (17.5%) and Delaware \$447,000 (12.5%). This was the same level of signatory party contributions as last year. In addition, the commissioners approved the DRBC capital budget (Water Supply Storage Facilities Fund) reflecting revenues of \$3,556,000 and expenditures of \$3,348,600.

During fiscal year 2009, which extended from July 1, 2008 through June 30, 2009, New Jersey and Pennsylvania each paid their full fair share of \$893,000. Delaware’s actual contribution of \$434,000 was \$13,000 short of its full share and New York’s payment of \$590,920 was \$35,080 below its 17.5% full fair share. The 2009 Omnibus Appropriations bill, signed into law

on March 11, 2009, provided the federal government’s full fair share contribution of \$715,000. This was the first time since October 1996 that the federal government contributed any funding towards the DRBC’s annual operating budget.

DRBC would like to recognize and thank U.S. Reps. Rush Holt (N.J.-12), Charlie Dent (Pa.-15), Maurice Hinchey (N.Y.-22), and Michael Castle (Del.-At Large), who serve as co-chairs of the Delaware River Basin Congressional Task Force, and U.S. Rep. Tim Holden

(Pa.-17), who made this a top legislative priority. Appreciation also is extended to U.S. Reps. Jim Gerlach (Pa.-6), Allyson Schwartz (Pa.-13), Robert Brady (Pa.-1), John Hall (N.Y.-19), and Christopher Carney (Pa.-10) who all supported the DRBC’s request with House Appropriations leadership.

In addition, federal funding restoration would not have been possible without the efforts of Senators Arlen Specter (Pa.), Frank Lautenberg (N.J.), Tom Carper (Del.), Charles Schumer (N.Y.),

Delaware River Basin Commission Fiscal Summary-Agencywide for Fiscal Year Ending June 30, 2009

Revenues:	
Signatory Contributions	3,347,170
Grants & Special Projects	1,602,338
Surface Water Supply Charges	2,592,260
Project Review Fees, Investment Income & Other	432,306
Expenses:	
Salaries & Benefits	4,396,310
Operating Expenses	2,275,099
Debt Service and Depreciation	1,569,910
Building Improvements/Equipment Acquisition	96,550

Robert Casey, Jr. (Pa.), Robert Menendez (N.J.), and former Senator Hillary Rodham Clinton (N.Y.) , who all supported the DRBC's request before Senate appropriators. Vice President Joseph Biden also was a staunch advocate of funding restoration while serving as Delaware's senior senator.

The challenge now is to restore commission funding in the president's budget as required in Section 13.3(c) of the *Delaware River Basin Compact*. Efforts by congressional supporters to provide funding to DRBC, the Susquehanna River Basin Commission, and the Interstate Commission on the Potomac River Basin for the federal fiscal year beginning October 1, 2009 received stiff resistance since funding was not included in the Administration's budget request, and were unsuccessful. The executive directors of the three Mid-Atlantic river basin commissions met with Assistant Secretary of the Army (Civil Works) Jo-Ellen Darcy at the Pentagon in November 2009 to discuss necessary support from the Corps of Engineers in its role as federal member on the three commissions. In addition, two letters signed by 10 U.S. Senators and 29 U.S. Representatives were sent to President Obama in the fall of 2009 urging him to include funding for the three commissions in his future budgets.

Amendments to the Commission's Project Review Fee Schedule

The commission at its May 2009 meeting unanimously approved changes to its project review fee schedule to enable DRBC to attempt to bring costs and revenues for the function closer together. This was necessary since the commission has never recouped through fees a sum close to the actual costs associated with project reviews.

The fees had last been increased in June 2003, with procedural incentives and late review fees added to the schedule in 2005 to encourage timely filing of docket renewal applications.

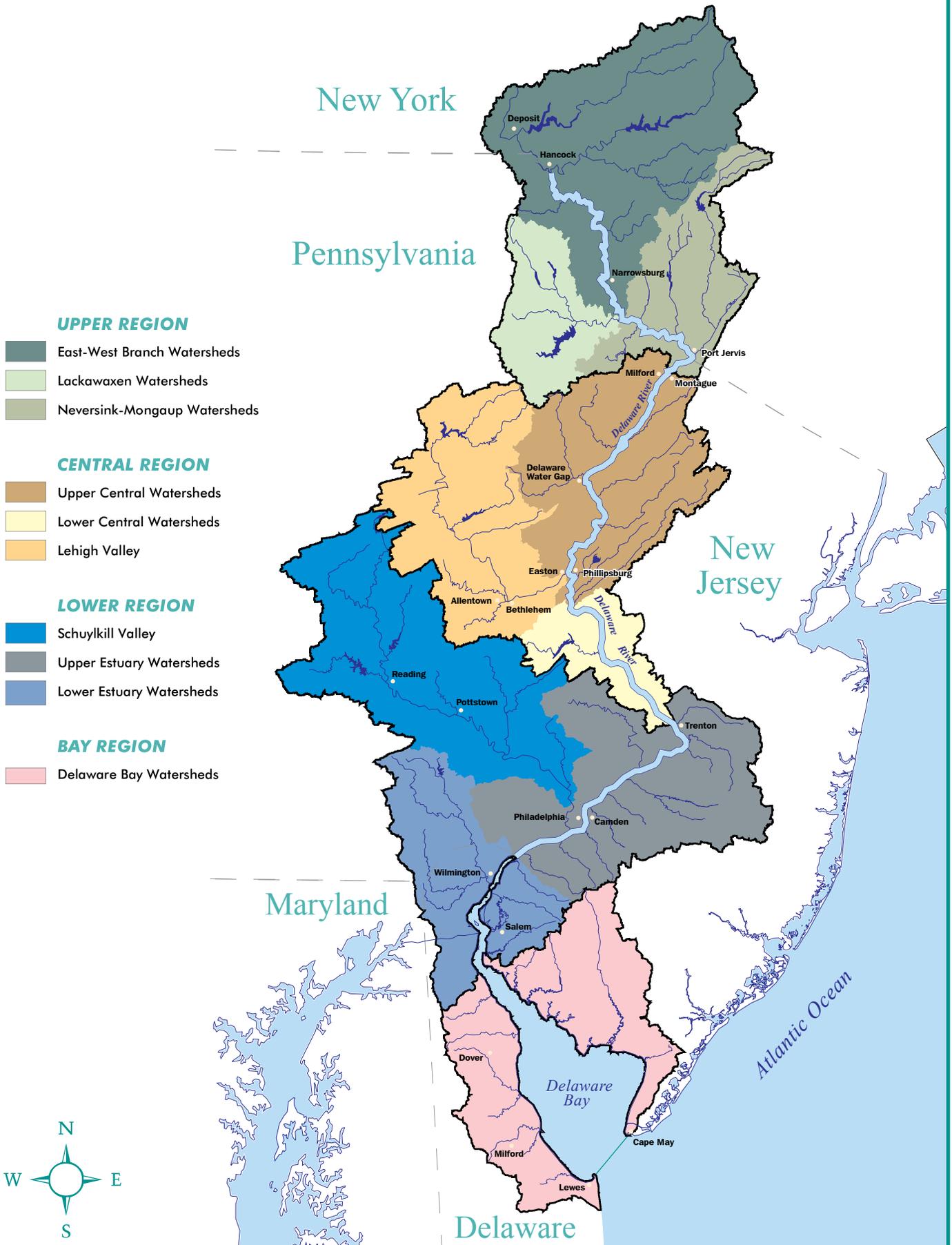
For fiscal years 2005 through 2008, DRBC collected average review fees of approximately \$360,000 annually. In 2010, project review costs are expected to equal \$773,000.

The fee changes took effect on July 1, 2009 for all applications of reviewable projects under Section 3.8 and Article 10 of the *Delaware River Basin Compact* submitted on or after the effective date. The approved changes include a doubling of current fees, with notable exceptions. The maximum fee based on project cost increased from \$50,000 to \$75,000, an increase of 50%. DRBC retains the ability to charge a fee based upon the actual cost of review for those projects with extensive review requirements and/or for which special hearings may be required.

Additional information can be viewed at www.nj.gov/drbc/pjrev.htm.

DRBC's financial records are audited annually as required by the *Delaware River Basin Compact* and are available for inspection, upon request, at the commission's West Trenton headquarters.

Delaware River Basin



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