

**DELAWARE RIVER BASIN COMMISSION  
FLOOD ADVISORY COMMITTEE SUMMARY**

**May 26, 2010**

The May 26, 2010 Flood Advisory Committee (FAC) meeting began at 10:00 AM at the Commission office (DRBC) in West Trenton, NJ. John Moyle of the New Jersey Department of Environmental Protection (NJDEP) chaired the meeting.

**A. Introductions and Review of the Draft Minutes from the February 17, 2009 Meeting**

The minutes were approved with no corrections or changes. The summary will be posted on the DRBC web site. Tapes of the meeting may be reviewed upon request.

**Action/Discussion Items:**

1. Participation via video conferencing, webex or teleconferencing is an ongoing request from committee members (this includes PEMA, NYSEMO and NYSDEC) When requested, DRBC tests video conferencing connections but firewall issues have prevented use of this technology to date.

**B. Hydrologic Conditions Report**

A presentation of the current hydrologic conditions was given by Hernan Quinodoz, DRBC. As of May 23<sup>rd</sup>, the year-to-date precipitation for 2010 ranged from 0.3 inches above normal for the upper basin (above Montague) to 1.1 inches above normal mid-basin (above Trenton) and 1.7 inches above normal in the lower basin (Wilmington).

To date, for the month of May, streamflow both at Montague and Trenton gages were below the normal range for that time of year. Streamflow at Montague was 59% of normal as of May 23<sup>rd</sup> and Trenton was 83% of normal. This is in contrast to earlier this year, for example in March, both Montague and Trenton were approximately 180% of normal.

As of May 24, 2010, the total storage for the NYC Delaware reservoirs was 269 BG; Cannonsville was at 99.7%, Pepacton at 99.6% and Neversink at 98.2%. The reservoirs were releasing at L2 levels. The USACE reservoirs in the lower basin storage (Beltzville and Blue Marsh) were at or slightly above their normal pool indicating that all of flood control storage in the two reservoirs was available.

As of May 20, 2010, the salt line (7-day average river mile location of 250 mg/l chlorides) was at river mile 69 which is five miles upstream of its normal position at 64 miles. The next one-three month outlooks show an equal probability of experiencing either higher or lower than normal temperatures and precipitation.

**C. Flood Inundation Mapping Webinars for County/Local Emergency Mgmt**

Patti Wnek and Ray Kruzdlo (NWS) along with Laura Tessieri (DRBC) held two (2) flood inundation mapping webinars on April 27 & 28, 2010 for the five gages with draft inundation mapping completed (Trenton, Lambertville/New Hope, Stockton, Frenchtown and Riegelsville). These five locations were posted on a beta site, which allowed county and local emergency managers to review the mapping and provide comments prior to it being released online via Advanced Hydrologic Prediction Service (AHPS).

The flood inundation mapping was completed by the Philadelphia District of the U.S. Corps of Engineers using existing topography and floodplain studies. The flood inundation mapping has a water depth uncertainty of  $\pm 1$  ft.

There are still four gage locations to be completed under this initiative: Phillipsburg/Easton, Belvidere, Montague and Port Jervis.

One common statement from users is the limited zoom capabilities. The map is segmented into nine quadrants and you can only zoom into each of the quadrants independently. Although, it should be noted that the mapping can be downloaded as a shapefile for GIS or as a Google Earth kmz file.

#### **D. Status Update on Delaware River Enhanced Flood Warning System Tasks**

The Delaware River Basin Enhanced Flood Warning System has received past support by DRB Congressional Task Force Members FY08-FY10 (FY08: \$235,000, FY09: \$235,000, FY10: \$200,000).

Partners include National Weather Service (NWS), U.S. Geological Survey (USGS) and the Delaware River Basin Commission (DRBC).

Completed Tasks:

- Inventory and evaluation of existing precipitation and stream gage networks (NWS); Report, shapefiles and excel inventory available [online](#) at DRBC's website;
- Gage Hardening (USGS)

Ongoing and future tasks:

- Inundation mapping (NWS);
- Flood Warning User Forums in September (DRBC);
- Gage Hardening (USGS);
- Rating curve extensions (USGS);
- Inventory and evaluation of outside-network precipitation gages (NWS)
- Updates to flash flood forecasting (NWS)

#### **E. Storm Surge Modeling Project for the Delaware Bay: Robin Danforth, FEMA RIII**

Robin Danforth, FEMA Region III, introduced the Storm Surge Modeling Project for the Delaware Bay to the FAC. Project partners include USACE, RAMPP and others. The objective is to use this model for various storm surge pathways and then use the results to develop new FEMA flood insurance rate maps along the Delaware Estuary (DE, PA & NJ) north to Trenton, NJ. RIII will develop the mapping in DE and PA. RII will use the modeling completed by RIII to develop maps for NJ.

Study objectives include: (1) Develop, validate and prepare a storm surge modeling capability for the assessment of future inundation risks in the FEMA Region III area and (2) Compute and assess the Region III flood hazard values for 10-, 50-, 100- and 500-year return periods (storm surge elevation map)

Storm forcing included a total of 31 historical storms (1975-2009) and a representative set of synthetic hurricanes. The Digital Elevation Model (DEM) uses consistent bathymetry and topography with 10-m horizontal resolution. Lidar is used for topography where available.

These model runs are not meant for predictive purposes, but some applications for predictive purposes have been developed by Jackson State University in MI to create a forecasting tool associated with this type of model.

Gary Szatkowski, NWS, mentioned that he would like to share this presentation with some involved with CIPs (Chesapeake Inundation Prediction System). He doesn't think they are aware of this modeling effort.

Anticipated completion is for Fall 2010. A Public outreach site is under construction. Google-earth displays of storm tracks, model output fields and return periods will be available.

#### **Action/Discussion Items:**

1. FEMA RIII and cooperating technical partners (CTPs) are to notice NJDEP of meetings

regarding the FEMA RIII Storm Surge Modeling Project. Coordination between FEMA Regions and States is important to ensure agreement and understanding of methodologies used.

2. It was requested that when the public outreach site is online, that a link be sent to the FAC.

#### **F. PA State Hazard Mitigation Plan Update: Sarah Bowen, Michael Baker Corporation**

Sarah Bowen, Michael Baker Corporation, introduced the process they are undergoing to update Pennsylvania's State Hazard Mitigation Plan (HMP). The Stafford Act, as amended by the Disaster Mitigation Act of 2000, requires the updating of state level hazard mitigation plans every three years. Tom Hughes, Pennsylvania's State Hazard Mitigation officer, stated by phone that the intent of the update is to improve on the 2003 and 2007 plans and make future progress measurable.

Sarah indicated the focus of hazard mitigation is a proactive action taken to reduce or eliminate losses to human life and property at the agreement of the property owner. Hazard mitigation is intended to break the cycle of damage/repair, damage/repair cycle. The ultimate goal of the State HMP is to preserve the life, health and safety of the residents of the community. An important outcome of having a State HMP is that it opens FEMA funding streams for flood mitigation.

The planning process involves a risk assessment, development of mitigation goals, objectives and actions, development of a draft hazard mitigation plan, and discussing that draft plan with the public. Risk assessment is a way to identify and study hazards to find out where they happen, what they do, and what and who they impact. The risk assessment then guides mitigation actions.

Sarah Bowen asked DRBC FAC members to review and comment on goals and objectives elements that have been developed to date. The draft plan is expected to be completed by October 2010.

#### **G. Discussion/Status: FAC Recommendations for more Effective Floodplain Regulations**

John Moyle reminded the committee that the FAC presented recommendations to the DRBC Commissioners in October 2009. Since that time, they have not gotten feedback or further direction from the Commissioners. Mr. Moyle emphasized that the FAC and its subcommittee, FRES, put in a considerable amount of work, putting those recommendations together and presenting the report to the Commissioners.

A letter cautioning against any new floodplain regulations due to a negative economic impact was sent to Governor Rendell on January 20, 2010 from John Siptroth, PA State Representative representing Pike and Monroe Counties and cosigned by 15 other PA state representatives and senators. John Hanger, PADEP Secretary, responded to this letter on April 14, 2010. In his letter, John Hanger emphasized that the FAC recommendations are still being considered by the Commissioners and that any action on floodplain regulation recommendations would require a full rulemaking with an opportunity for the public to review and comment. The DRBC received a letter by Clifford Crouch, a member of the NY State Assembly representing portions of Broome and Delaware counties, on March 8, 2010. He cautioned that additional regulations would be an economic burden, that the regulations appear to be "one size fits all" and expressed the need for the socio-economic impact of any regulations to be analyzed. Any copies of the above letters or responses can be obtained from Laura Tessieri, DRBC.

#### **Action/Discussion Items:**

1. Committee requests feedback/direction from Commissioners on their recommendations for more effective Floodplain Regulations in the Basin. Report was presented to Commissioners on October 22, 2009.

## H. ASFPM Annual Conference Highlights: Laura Tessieri, DRBC

Laura Tessieri, DRBC, presented a brief highlight of the Association of State Floodplain Managers (ASFPM) Annual Conference held in Oklahoma City, OK May 16-21. Both New Jersey ([www.njafm.org](http://www.njafm.org)) and New York (<http://ny.floods.org>) have state chapters of ASFPM ([www.floods.org](http://www.floods.org)). Pennsylvania has been working on forming a chapter, but it is not yet recognized one.

Laura Tessieri, DRBC, and Joseph Ruggeri, NJDEP, presented during a concurrent session at the conference. The presentation highlighted the work of the FAC and was titled, "The Delaware River Basin: A Watershed Approach to Higher Standards?"

The NJ chapter, NJAFM, was recognized with an award at the 2010 conference. The John Ivey award recognizes certification efforts towards increasing the number of certified floodplain managers (CFMs). The NJ chapter offers training and a scholarship program for local officials to become CFMs. A large number of those that attend FAC meetings are involved with NJAFM. Joe Ruggieri, NJDEP, is the current chair of NJAFM, Laura Tessieri, DRBC, is a past chair, Jim DeAngelo, Baker, served as Secretary, John Scordato, NJDEP, served as secretary and is a founding member, and Greg Westfall is a founding member.

## I. DRBC Opportunity for Public and Interested Party Comments

1. The USGS announced a new service available to real-time data users. **WaterAlert** is a notification system that sends email or text messages to those who subscribe to the service. The user can set a threshold for any real-time data parameter of interest. For instance, you can have an email or text message sent to you when the stage at a gaging station reaches flood stage. Thresholds can be set for stage, discharge, or water quality parameters. A notification can be sent when a data value is greater than, less than, or inside or outside a defined range. It also applies to groundwater level at observation wells with satellite telemetry. Notifications can be sent daily or each time a data value that meets your criteria is sent. Some sites transmit data hourly and some every 4 hours.

To use the service go to <http://water.usgs.gov/wateralert>. A google map interface is available for site selection. Narrow a search of sites by clicking on a state on the map and zooming into the location. Click on the station symbol to subscribe. If you know the full or partial name or number of the station, you can type it in a text box without having to search on the map interface. You can type in the name of a stream to see only the stations located on that stream on the map.

After registering you'll get an email or text notification stating you are registered to receive the information. You must acknowledge the email, stating you would like to receive the information as summarized. You have the opportunity to cancel your subscription with each notice. To reset a threshold, register for the station again and the previous settings will be over written.

2. John Moyle, NJDEP, informed that on April 23, 2010, Governor Christie signed an Executive Order creating a Passaic River Flood Advisory Commission. This advisory commission will be supported by NJDEP staff and will be looking at short- and long-term solutions for the Passaic River. It is expected that the Delaware River Flood Task Force Report will be utilized to help inform the new commission.
3. Audrey Miller, NJ OHSP, mentioned that a meeting was recently held between NJDEP, NJ OHSP and NYCDEP to discuss dam break inundation mapping and the issue that some of the maps contained in Emergency Action Plans west of the Hudson inaccurately stop at the New York-New Jersey state-line.

4. Patti Wnek, announced that there is a new paper out on flood hydrology within the Delaware River Basin. Journal of Hydrometeorology Vol. 11, No. 4, August 2010. **The Hydrology and Hydrometeorology of Flooding in the Delaware River Basin** *James A. Smith, Mary Lynn Baeck, Gabriele Villarini, Witold F. Krajewski*

#### **J. Next Meeting**

The next meeting of the Flood Advisory Committee (FAC) is scheduled for August 25, 2010 at 10:00am in the DRBC Goddard Conference Room.

**FLOOD ADVISORY COMMITTEE  
ATTENDANCE  
May 26, 2010**

<b>NAME</b>	<b>AGENCY</b>
BELL, Richard	Delaware County, NY Department of Emergency Services
BOWEN, Sarah	Michael Baker Corporation
DANFORTH, Robin	Federal Emergency Management Agency (FEMA) Region III
DEANGELO, Jim	Michael Baker Corporation
DUNN, Kim	Dewberry
HUGHES, Tom	Pennsylvania Emergency Management Agency (PEMA)
KRUDZLO, Ray	National Weather Service (NWS)
LANIGAN, Senobar	New York City Department of Environmental Protection (NYCDEP)
LICK, Nicole	Federal Emergency Management Agency (FEMA) Region III <i>(by phone)</i>
MATTE, Al	National Weather Service (NWS)
MILLER, Jason	U.S. Army Corps of Engineers (USACE), Philadelphia District
MOLZAHN, Bob	Water Resources Association (WRA)
MOYLE, John	New Jersey Department of Environmental Protection (NJDEP)
MILLER, Audrey	New Jersey Office of Homeland Security & Preparedness (NJOHSP)
QUINODOZ, Hernan	Delaware River Basin Commission (DRBC)
RUGGERI, Joseph	New Jersey Department of Environmental Protection (NJDEP)
RUPERT, Clarke	Delaware River Basin Commission (DRBC)
SCORDATO, John	New Jersey Department of Environmental Protection (NJDEP)
STEIGERWALD, Scott	Pennsylvania Department of Environmental Protection (PADEP)
SURO, Thomas	United States Geological Service (USGS) - NY
TESSIERI, Laura	Delaware River Basin Commission (DRBC)
TODD, Steve	Pennsylvania Department of Environmental Protection (PADEP)
WEISS, Victoria	Federal Emergency Management Agency (FEMA) Region II; Regional Service Center (RSC)
WESTFALL, Greg	Natural Resources Conservation Service (NRCS)
WINSLADE, Bill	Yardley Borough Manager & Emergency Management Coordinator
WNEK, Patti	National Weather Service (NWS)