

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

August 25, 2010

The August 25, 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 May 26, 2010 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.

B. Request Nominations for Vice Chair: state/local member

John Moyle, New Jersey Department of Environmental Protection (NJDEP), reported that this was his last FAC meeting as Chair. As is customary, the current Committee Vice-Chair will assume the role of Chair at the next meeting. As such, the next FAC Chair will be Tom Suro, an Engineer and Hydrologist with the U.S. Geological Survey (USGS) New York Water Science Center.

Mr. Moyle subsequently requested nominations for the next Vice-Chair. As is customary, the Chair and Vice-Chair alternate representation from federal to state/local organizations from year to year. Since the next Chair will be a federal member, it was requested that the next Vice-Chair be a state/local member of the Committee.

William Winslade, Yardley Borough Manager & Emergency Management Coordinator, was nominated and approved. Mr. Winslade sits on the committee as a local emergency management representative.

C. Hydrologic Conditions Report

A presentation of the current hydrologic conditions was given by Hernan Quinodoz, DRBC. As of August 23rd, the year-to-date precipitation for 2010 ranged from 0.3 inches above normal for the upper basin (above Montague) and mid-basin (above Trenton) and 0.4 inches below normal in the lower basin (Wilmington).

To date, for the month of August, streamflow both at Montague and Trenton gages were below the normal range for that time of year. Streamflow at Montague was 92% of normal as of August 23rd and Trenton was 62% 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 August 24, 2010, the total storage for the NYC Delaware reservoirs was 189 BG; Cannonsville was at 58.4%, Pepacton at 76.3% and Neversink at 73.9%. The FFMP release level for all three was at L2 levels. As of August 24th, directed releases from NYC reservoirs to meet the Montague target were 1200cfs (67% of the target flow). In addition, 200cfs began to be released on August 13th to meet the Trenton target. The USACE reservoirs in the lower basin storage (Beltzville and Blue Marsh) were at or slightly below their normal pool indicating that all of flood control storage in the two reservoirs was available. Beginning in July and as of August 24th, directed releases from both Beltzville (0.9 BG total) and Blue Marsh (1.1 BG total) have been made to meet the Trenton target.

As of August 23, 2010, the salt line (7-day average river mile location of 250 mg/l chlorides) was at river mile 79 which is two miles upstream of its normal position at 77 miles. The next one-three month outlooks show an above normal probability of experiencing higher than normal temperatures and an equal probability of experiencing either higher or lower than precipitation.

D. National Flood Risk Management Program - Silver Jackets Initiative, Jason Miller, USACE

Silver Jackets falls under the National Flood Risk Management Program at the Corps of Engineers and is a state-wide initiative to coordinate federal agency flood mitigation efforts. It has been in existence since 2006.

The National Flood Risk Management Program is meant to help coordinate Corps programs and activities that revolve around flood risk management including: Emergency Management, Dam & Levee Safety, and Planning and Operations.

Silver Jackets is expanding on Corps program coordination and forming a state level partnership with FEMA, other federal agencies and the state to work toward state priorities. Despite the Corps districts being divided up by river basin, but the Silver Jacket teams are being implemented on a state level. Silver Jacket teams are in the beginning stages of forming in Pennsylvania, New Jersey and New York.

Action/Discussion Items:

1. An update on the formation and priorities of Silver Jackets statewide teams should be given at the future FAC meetings.

E. South Jersey Levee Inventory and LiDAR Analysis, Greg Westfall and Gary Casabona, NRCS

NJDEP Bureau of Dam Safety and Flood Control provided funding for the South Jersey Levee Inventory to NRCS through the USACE Delaware River Comprehensive, New Jersey Interim Feasibility Study. NJDEP, USACE and NRCS are partners with the Delaware Estuary Levee Organization (DELO) on this initiative.

Levees were identified using LiDAR and through field inventory. The field inventory evaluated vegetation control, % sod coverage, levee erosion, slope stability, levee settlement, levee cracking, burrowing of animals, rock riprap protection, and encroachment.

The inventory identified 70 levees in 22 municipalities in 4 Counties (Cape May, Cumberland, Gloucester and Salem). None of the levees are accredited as providing sufficient flood control by the Federal Emergency Management Agency. None of the levees meet the eligibility requirements of the US Army Corps of Engineers for their PL-99 emergency assistance program in the event of failure. Many of the levees were built years ago – some 200 years ago.

For six (of the 70) levee locations:

- Over 3000 homes, business and other structures were identified as being protected by levees
- Over 14,000 acres of various land uses were determined to be protected by levees

Conclusions of the Levee Inventory:

- Nearly 18 miles of levee were inventoried.
- Nearly 70 percent of the levees are owned by private individuals
- 86 percent of the levees inventoried were located in Salem and Cumberland Counties
- Twenty two municipalities in the four counties studied have one or more levees
- Nearly 50 percent of the levees have no vegetation control/management
- Over 20 percent of the levees have less than 50 percent sod cover
- Nearly 24 percent of the levees inventoried had erosion
- Over 19 percent of the levees had unstable or moderately unstable slopes
- Over 35 percent of the levees had some or considerable settlement
- Over 29 percent of the levees had some or considerable depressions

- Some levee cracking was observed in 25 percent of the levees
- Nearly 30 percent of the levees had burrowing animal presence
- Riprap protection was observed on approximately 31 percent of the levees
- Nearly 15 percent of the levees had encroachment by non-levee uses

F. Discussion of Rating Curve Development/Extensions, Bob Hainly and Bob Reiser, USGS

Maintaining full rating curves (the relationship between river flow and river stage) improves the accuracy of river flood forecasts. A recommendation of the Interstate Flood Mitigation Task Force, FW-3, was to extend rating curves at a number of forecast points in the Delaware River Basin to 125% of the peak of record flow that has been recorded.

A priority for the use of FY-10 congressional and NOAA grant funding towards the Delaware River Basin Enhanced Flood Warning System is rating curve extensions and development.

Action/Discussion Items:

1. DRBC staff to set up a conference call among DRBC, NWS and USGS to discuss prioritization of gages for rating curve development/extension work to be completed under FY10 Delaware River Basin Enhanced Flood Warning funds.

G. Flood Warning Users Forums, DRBC, NNF, NWS & USGS

Laura Tessieri, DRBC presented handouts for upcoming flood warning user forums. The forums are geared towards county and local emergency managers. Partners included USGS, USACOE, The Nurture Nature Foundation, NOAA, and NWS. Funding is provided through congressional and NOAA grant support towards the Delaware River Enhanced Flood Warning System.

Forums will be held in Easton on 9/21, Lambertville on 9/22, Narrowsburg on 9/28. Agendas include presentations about the latest flood warning improvements in the basin, the flood inundation mapping tool, current and future NWS forecast products, USGS WaterAlert, how river forecasting works, flash flooding tools and the Nurture Nature's flood awareness and safety campaign

H. Brief update on Delaware Bay Storm Surge Modeling Project, Jason Miller, USACE

Jason Miller, USACE, gave a brief update on the Storm Surge Modeling Project for the Delaware Bay. His update follows the presentation given by Robin Danforth, FEMA Region III at the May 2010 FAC meeting.

The modeling will be used to develop flood insurance rate maps along the Delaware Estuary (DE, PA & NJ) north to Trenton, NJ. NJDEP and RII will use the modeling completed by RIII to develop maps for NJ. The public outreach site is www.r3coastal.com.

By January 2011, new hazard elevations are expected to be produced using FEMA design storms (10-, 50-, 100- and 500-yr return periods). It was reported that submittal of first two reports are currently under review.

FEMA RII contacts are Alan Springett, RAMPP coastal representative and Paul Weberg, project manager.

Action/Discussion Items:

1. FEMA RIII is to notice NJDEP of meetings and progress regarding the FEMA RIII Storm Surge Modeling Project. This was requested at the May 2010 meeting, but no contact has been initiated to date.

2. A question was raised whether if or how sea level rise is being taken into account when evaluating storm surge for flood insurance maps.

I. Opportunity for Public and Interested Party Comments

An Annual Open House is to be held at the NWS Mount Holly Weather Forecast Office on Saturday, September 25, 2010 from 11:00 a.m. – 4:00 p.m. The general public is invited and the NWS is also inviting other agencies that the NWS works with and if they want to set-up a table display.

J. Next Meeting

The next meeting of the Flood Advisory Committee (FAC) is scheduled for November 17, 2010 at 10:00am in the DRBC Goddard Conference Room.

**FLOOD ADVISORY COMMITTEE
ATTENDANCE
August 25, 2010**

NAME	AGENCY
BELL, Richard	Delaware County, NY Department of Emergency Services
BENT, Christine	RSC2 FEMA
BOWEN, Sarah	Michael Baker Corporation
BURD, David	Local Emergency Management: Lambertville, NJ
CASABONA, Gary	USDA-NRCS
DANFORTH, Robin	Federal Emergency Management Agency (FEMA) Region III
DEANGELO, Jim	Michael Baker Corporation
DUNN, Kim	Dewberry
GOULD, A. Chris	NJ DEP
GRECO, Robert	USACE, NY District
GRUBER, Hank	USACE
HAINLY, Bob	USGS - PA
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)
NOBLE, Mary Ellen	Delaware Riverkeeper Network
OLIVIO, Dana	NYC DEP
PATEL, Rupal	DEP – Flood Control
QUINODOZ, Hernan	Delaware River Basin Commission (DRBC)
REISER, Robert	USGS
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)
WILLIAMS, David	PEMA
WINSLADE, Bill	Yardley Borough Manager & Emergency Management Coordinator
WNEK, Patti	National Weather Service (NWS)
WEBERG, Paul	FEMA