

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

May 15, 2012

The May 15, 2012 Flood Advisory Committee (FAC) meeting began at 10:00 AM at the Commission office (DRBC) in West Trenton, NJ. Tom Suro, U.S. Geological Survey (USGS) chaired the meeting.

ACTION ITEMS:

1. Schedule an update from FEMA RIII on the Coastal Hazards Analysis.
2. Schedule a future presentation on non-regulatory RISKMap products.
3. DRBC to post NWS inundation mapping [video link](#).
4. Add recommendation numbers from the Interstate Flood Mitigation Task Force to each entry in the implementation matrix to more clearly track progress.
5. Input requested from states/other agencies in populating and updating implementation matrix, especially in the areas of stormwater, floodplain regulations and structural/non-structural measures.

A. Introductions and Review of the Draft Minutes from the February 8, 2012 meeting: Minutes of the February 2012 meeting were approved with no corrections or changes noted. Minutes are posted to the DRBC web site. Tapes of meetings may be reviewed upon request.

B. Hydrologic Conditions Report: Hernan Quinodoz, DRBC
A presentation of the current hydrologic conditions was given by Hernan Quinodoz, DRBC. As of May 13th, the year-to-date precipitation for 2012 ranged from 9.75 inches (4.1 inches below normal) for the upper basin (above Montague) to 9.39 inches (5.29 inches below normal) for the lower basin (Wilmington).

To date, for the month of May, streamflow both at Montague and Trenton gages were above the normal range for that time of year. Streamflow at Montague was 135% of normal as of February 7th and Trenton was 125% of normal.

As of May 14, 2012, the total storage for the NYC Delaware reservoirs was 257 BG (95%); Cannonsville at 95%, Pepacton at 95% and Neversink at 93%. As of May 10, 2012, the salt line (7-day average river mile location of 250 mg/l chlorides) was at river mile 71 which is seven miles upstream of the normal position for this time of year.

C. Hydrologic Outlook: Gary Szatkowski, NWS Mt. Holly Weather Forecast Office
According to the US Drought monitor there is some deterioration along the east coast. Stream flow indicates dry conditions for much of the eastern U.S. through April. The short-term drought index indicates that the Mid-Atlantic is experiencing short-term precipitation deficits. We are moving out of La Nina conditions and moving back into neutral conditions. Statistical models favor El Nino conditions during the last half of 2012. [Oceanic Nino Index (ONI): El Nino warmer than normal conditions; La Nina cooler than normal conditions.] The three month outlook combines the effects of long-term trends, soil moisture, and when appropriate, El Nino–Southern Oscillation. The outlook for May, June and July indicates warmer than normal temperatures. Precipitation is expected to be within the range of normal. The NOAA hurricane forecast is not out yet, although El Nino tends to reduce the number of hurricanes. Drought relief through the summer will most likely be driven by thunderstorms, not large scale rain events.

D. Experimental Probabilistic Hurricane Inundation Surge Height (PHISH) Guidance: John Kuhn, NOAA Marine & Coastal Weather Services Branch, Silver Springs, MD
John Kuhn presented to the Committee by webinar. The PHISH products allow for probabilistic storm surge permutations and give either the probability of inundation exceeding 0-20 feet above

ground level, at 1 foot intervals or a 10% through 50% chance of inundation being exceeded from the advisory release time until some specified time after the advisory release time.

PHISH reduces confusion among users with the various tidal and geodetic vertical datums by providing storm surge guidance in terms of feet above ground level (i.e., inundation). PHISH is available whenever a hurricane watch and/or warning is in effect for any portion of the Gulf or Atlantic coasts of the continental United States. PHISH does not currently incorporate river inflow or tides, although tidal influence may be added in 2013.

Products are online at: <http://www.nws.noaa.gov/mdl/phish> Feedback on PHISH can be provided through an NWS Survey at: <http://www.weather.gov/survey/nws-survey.php?code=phss>

E. Update on Delaware Bay Storm Surge Modeling Project: Jason Miller, USACE

The RIII Storm Surge Project covers four states plus the District of Columbia, the Chesapeake Bay and the Delaware Bay up to Trenton, NJ. Four components determine the base flood elevation on a Flood Insurance Rate Map: 1. Storm surge stillwater elevation (SWEL), 2. Amount of wave setup, 3. Wave height above storm surge (stillwater) elevation and 4. Wave runup above storm surge elevation. FEMA RIII will perform the Coastal Analysis, Mapping and Preliminary Panel Issuance for DE and PA Counties on the Delaware Bay. FEMA Region II NY/NJ Coastal Study will perform the Coastal Analysis, Mapping and Preliminary Panel Issuance for NJ Counties on Delaware Bay based on Region III stillwater elevations. Differences between the draft updated and published 100-yr stillwater elevations are trending 0.5-1' higher. The published studies are 30-35 years old. These differences do not include any wave analysis.

Action/Discussion Items:

1. An update from FEMA RIII on the Coastal Hazards Analysis was requested for the next meeting
2. Interest was raised as to what Non-regulatory products would be included as part of RISKMap. This was discussed as a possible future presentation.

F. Community Notification Options: City of Lambertville: Dave Burd, Lambertville Emergency Management Coordinator

Dave Burd, FAC member, spoke to the Committee about the ways that Lambertville notifies its residents and businesses ahead of high water events or in times of flood risk. The City of Lambertville is a one square mile community located on the western edge of Central New Jersey along the Delaware River. Mr. Burd stressed that you need many tools in the toolbox to notify the public with the information they need to be able to act. These tools include a rescue truck with a PA system traveling street by street, flyer distribution, residents informing their neighbors and family, a listserv and most recently a SWIFT911 emergency notification system.

During Irene, August 27-28, 2011, Lambertville experienced flash flooding in over 50% of the community. Notification could not be delivered fast enough and power was shutoff to the community limiting means of notification. Following this event, Lambertville implemented SWIFT911, a reverse 911 system that is activated at the local level. A message can be delivered as a voice message and the voice message can go to your home, cell phone, family member living afar, or a smart phone as a text message, it can also go to your Email to your computer or PDA as an email message. Individuals can sign up for alerts, enter their email and up to 3 numbers. All is free to the individual and they are able to manage notifications using a username and password.

It is important that information provided be consistent and available in multiple places. In Lambertville during an emergency, the emergency management coordinator will enter the notification into SWIFT911. The system will then send it out automatically to Twitter and Facebook. The Twitter feed will then be fed automatically over to the City website. So when people go to the website they will see the same message. By putting the message in SWIFT911 it will update all of those systems and provide consistent communications to the public and media.

G. Report on Silver Jackets Efforts/Status in the Basin States: Jason Miller, USACE

The Pennsylvania Silver Jackets (PA SJ) team was initially formed in the fall of 2010 as the Commonwealth's Hazard Mitigation Plan was being updated. Since its initiation the team has frequently held monthly webinars and quarterly face-to-face meetings. The PA SJ team has many recent accomplishments that leverage resources, communicate flood risk and flood related information, and reduce flood damages. The PA SJ team developed a pilot project, a Flood Inundation Mapping Tool for the City of Harrisburg and communities 10 miles upstream and downstream of the City. A major priority for the PA SJ team is outreach and education. The team prepared an interagency program guide that describes the various federal, state, and local flood risk related programs. This guide was shared during the 2011 USACE FRM Workshop and numerous SJ teams have used and modified the guide for their state. Following Irene, the team also helped with post-flood coordination.

The New Jersey Silver Jackets (NJ SJ) team meets quarterly with periodic conference calls. Their focus areas include Passaic River Basin, Inundation Mapping, Outreach & Communication and Agency Coordination Post-Irene/Lee. The NJSJ Team received Pilot Project funding to develop Flood Inundation Mapping at four targeted locations in Passaic River Basin. NJ is going through a large amount of buy-outs within the Passaic River Basin. Currently over 600 homes within the PRB are targeted for buy-outs or elevation projects between FEMA, USACE and NJDEP. Because of the NJSJ Team, duplication of effort is limited and all agency actions are coordinated.

The New York Silver Jackets (NY SJ) team meets biannually with periodic conference calls. Focus areas include Gage Inventory/Prioritization, Outreach & Communication and Agency Coordination Post Irene/Lee.

Delaware is in the process of developing an Interagency Team. It may form around the existing Hazard Mitigation Council or Flood Plain Mapping Advisory Group.

H. Availability of NOAA NWS Flood Inundation Mapping 2.0 Video

The NWS created an inundation mapping [video](#) displaying the Google Earth interface of the mapping. The video describes how to use and view the mapping. The video can be accessed via the link above or this webpage: <http://www.nj.gov/drbc/programs/flood/warning.html>

I. Opportunity for Public and Interested Party Comments

Questions were raised as to the status of implementation of the recommendations published by the Task Force in 2007. A matrix, updated periodically by DRBC, is the current tracking tool of implementation. The matrix tracks not only the progress of DRBC led initiatives, but also tracks the progress of states and other agencies. The matrix is online at <http://www.state.nj.us/drbc/programs/flood/> under Flood Studies/Projects in the DRB.

Action/Discussion Items:

1. DRBC to add recommendation number to each entry in the matrix to help track implementation of the task force report.

J. Next Meeting

The next meeting of the Flood Advisory Committee (FAC) was scheduled for Wednesday, August 29, 2012 at 10:00am in the DRBC Goddard Conference Room. This meeting was subsequently postponed and rescheduled for September 19, 2012.

**FLOOD ADVISORY COMMITTEE
MEETING ATTENDANCE**

May 15, 2012

NAME	AGENCY
AHNERT, Peter	National Weather Service (NWS)
BELL, Richard	Delaware County, NY Department of Emergency Services
BURD, David	Local Emergency Management: Lambertville, NJ
CAPECCI, Don	PPL Generation
CREVELING, Ellen	The Nature Conservancy (TNC)
DEANGELO, Jim	Michael Baker Corporation
FANOK, Su	The Nature Conservancy (TNC)
FERRARI, Mark	NYS Division of Homeland Security & Emergency Services RII
GAUL, Andrew	Pennsylvania Department of Environmental Protection (PADEP)
GOULD, A. Chris	New Jersey Department of Environmental Protection (NJDEP)
GRIGGS, Pat	FEMA Region II
HOGAN, Laurie	National Weather Service (NWS)
HOPPE, Heidi	United States Geological Survey (USGS) - NJ
KUHN, John (by phone)	NOAA Marine & Coastal Weather Services Branch
MILLER, Jason	United States Army Corps of Engineers (USACE), Philadelphia District
MILLER, Audrey	New Jersey Office of Homeland Security & Preparedness (OHSP)
MOLZAHN, Bob	Water Resources Association of the Delaware River Basin (WRADRB)
MOYLE, John	New Jersey Department of Environmental Protection (NJDEP)
QUINODOZ, Hernan	Delaware River Basin Commission (DRBC)
ROLAND, Mark	United States Geological Survey (USGS) - PA
RUGGERI, Joseph	New Jersey Department of Environmental Protection (NJDEP)
RUPERT, Clarke	Delaware River Basin Commission (DRBC)
SCANNAPIECO, Alycia	Homeowner
SCORDATO, John	New Jersey Department of Environmental Protection (NJDEP)
SURO, Thomas	United States Geological Survey (USGS) - NY
SZATKOWSKI, Gary	National Weather Service (NWS)

TESSIERI, Laura	Delaware River Basin Commission (DRBC)
THARP, Diane	The North Delaware River Watershed Conservancy (NorDel)
TUDOR, Robert	Delaware River Basin Commission (DRBC)
WESTFALL, Greg	Natural Resources Conservation Service (USDA-NRCS) - NJ
WHITE, Kirk	United States Geological Survey (USGS) - PA
WILLIAMS, David	Pennsylvania Emergency Management Agency (PEMA)
WNEK, Patti	National Weather Service (NWS)
WO, Jeremy	The North Delaware River Watershed Conservancy (NorDel)
Zigon-Richardson Valerie	Delaware River Basin Commission (DRBC)