

# **Delaware River Basin Flood Mitigation Task Force Inventory of Ongoing Initiatives**

**(List to be expanded after input from all parties is received)**

## **Multi-Jurisdictional Use and Management of Water Resources for the Delaware River Basin, NY, PA, NJ & DE**

In May 2006, the Philadelphia District of the U.S. Army Corps of Engineers was appropriated \$1 million in Federal funds to study potential enhancements to the use and management of water resources in the Delaware River Basin. One of the objectives is to accomplish the following tasks as they relate to a multi-jurisdictional approach to flood mitigation:

- Update storm frequency curves at key locations
- Examine depth/damage curves (annual damages)
- Investigate basin flood control storage capabilities (new and existing)
- Investigate structural and non-structural measures
- Review and update sections of the 1984 Corps Study to address flood vulnerability and management capabilities based on review of existing state and federal information on past disasters, NFIP Repetitive Loss data, basin flood storage capacities and flow regime information

## **Delaware River Basin Flood Task Force**

At the direction of the governors of the four basin states, the DRBC Commissioners at their September 27, 2006 meeting directed commission staff to convene an interstate Flood Mitigation Task Force. Although each basin state is working individually to address and mitigate flooding, it is believed that a comprehensive long-term flood loss reduction and flood mitigation strategy needs to be developed through a coordinated watershed approach. The Commissioners set an ambitious schedule with a preliminary action plan including recommended measures for coordinated basin-wide flood mitigation and flood loss reduction due by the close of 2006.

## **Flood Analysis Model – DRBC**

The basin states collectively pledged \$500,000 to enable the Commission to develop a rainfall/runoff and routing model for evaluating the potential for reservoirs throughout the basin to be used to mitigate flooding on the Delaware River and its tributaries. The model will enable the Commission to evaluate the feasibility of various reservoir operating alternatives and the effect of reservoir voids of different magnitudes on flooding at locations downstream from the rivers. The construction of this model is an important step in developing an effective flood operations plan for the reservoirs. Any plan that involves the use of the New York City Delaware Basin water supply reservoirs inherently includes a reallocation of storage and must be unanimously agreed to by the parties to the 1954 U.S. Supreme Court Decree (four basin states and New York City).

### **Interim Spill Mitigation Program – DRBC**

In late September 2006, the DRBC, with the unanimous consent of the five decree parties, established a temporary spill mitigation program for the three New York City Delaware Basin water supply reservoirs to be effective through May 2007. The resolution provided that whenever the usable storage in the New York City Delaware Basin reservoirs is above the 80% rule curve, supplemental releases from the reservoirs will be made as specified. The interim spill mitigation program may potentially reduce spill rated and offer a measure of peak flow reduction during a flood event.

### **Multi-Jurisdictional Flood Mitigation Plan**

#### **for the Non-Tidal N.J. Section of the Delaware River Basin – DRBC, NJDEP, NJOEM**

FEMA has awarded the Delaware River Basin Commission (DRBC) a grant under the Flood Mitigation Assistance program for the preparation of a multi-jurisdictional Flood Mitigation Plan (FMP) for 64 municipalities located within Sussex, Warren, Hunterdon and Mercer Counties that have boundaries either partially or entirely within the Delaware River drainage basin. *NJOEM, NJDEP, and the DRBC will lead this effort to develop the FMP, which will be part of future All-Hazard Mitigation Plans.* Within the next few months, NJOEM, NJDEP, and DRBC and will hold planning meetings with county and municipal representatives in order to engage local community participation. Local involvement in the planning process is crucial for the identification of critical facilities, flood-prone areas, community goals and desired local mitigation actions for the successful development of a FMP.

### **Delaware River Basin Comprehensive NY, NJ, PA, MD & DE**

#### **Interim Feasibility for New Jersey**

The NJDEP has committed funding to be cost shared with the US Army Corps of Engineers (USACE) for the preparation of a feasibility study to evaluate possible flood mitigation options, including flood-proofing and removing or relocating structures within the floodplain of the Mid-Delaware River Basin. The Feasibility Cost Share Agreement between NJDEP and the USACE was signed on July 27, 2006. The USACE is currently working on the preparation of this study.

### **Updated Floodplain Mapping - NJDEP**

The NJDEP has set aside \$1,000,000 to begin the preparation of new floodplain delineations and associated mapping for the main stem of the Delaware River. On May 16, 2006, the NJDEP executed a collaborative agreement with FEMA in order to leverage our funding with the current federal Flood Map Modernization Program resources. The NJDEP is also coordinating with USGS and FEMA on the development of updated hydrologic information for the Delaware River, which will be incorporated into the hydraulic modeling for the new mapping. This state of the art new mapping will be a valuable resource during times of emergency and for the regulation of land use along the floodplain area. The goal of this mapping effort is to more accurately define the limits of the flood hazard area and associated base flood elevation.

### **Delaware River Flood Risk Verification Study – FEMA Region III**

The Delaware River Flood Risk Verification project will look at the past three floods as it relates to flood map products. The project will look at flood frequency, heights and discharges and evaluate if the risk has changed in some areas. The objective of the project is to establish the accuracy of effective FIS studies and update studies and maps that may be in error. The project is being funded with post-disaster mitigation funds.

### **Updated Floodplain Mapping and Regulations – NY State**

NY State is in the process of updating its State Building Codes to require 2 feet of freeboard for all new residential structures. Regarding floodplain mapping, Orange County digital mapping is scheduled to be completed at the end of this year. In addition, Delaware and Sullivan Counties are slated to be completed in FY07.

### **Updated Flood Hazard Area Control Act Rules – NJDEP**

On August 22, 2006, Governor Jon S. Corzine announced a comprehensive rule package which proposes to repeal the State's existing Flood Hazard Area Control Act rules (N.J.A.C. 7:13) and replace them with comprehensive new rules that will better protect the public from the hazards of flooding. The proposed new rules incorporate significantly more stringent design and construction standards for activities in flood hazard areas in order to reduce flood damage potential and prevent increases in flooding due to development. The proposal also reflects a number of recommendations of the draft Report on Delaware River Flood Mitigation and includes the following measures:

- Preserving existing flood storage along inland waterways, which is necessary to prevent future increases in flooding, by implementing a Statewide 0% net-fill standard
- Preserving natural, vegetated stream corridors by implementing buffers along surface waters, the width of which (50-ft, 150-ft or 300-ft) is dependent on the environmental sensitivity of the water being protected
- Allowing the use of Federal flood mapping in communities where no State flood mapping is available, and providing a simplified method to approximate flood depths in communities where no State or Federal flood mapping is available
- Requiring floor elevations and roadway surfaces to be set at least one foot above the State's flood hazard area design flood elevation in order to provide increased flood protection for buildings and public roadways
- Creating 46 permits-by-rule and 16 general permits to both facilitate and encourage projects that have no adverse impact on flooding and the environment, including a permit-by-rule for elevating homes, which requires no prior NJDEP approval, and a free, expedited general permit for the reconstruction and elevation of homes damaged by flooding
- Amending the Coastal Permit Program rules (N.J.A.C. 7:7) and Coastal Zone Management rules (N.J.A.C. 7:7E) to incorporate equivalent flood protection and stream buffers to all waters and flood hazard areas Statewide.