Saving Land and Lives

Staying prepared before and during hurricane seasons

By Clem Gaines

The names roll off the tongue all too easily. Irene, Lee, Ida, Isabel, Agnes, David and now Sandy – all major hurricanes or tropical storms that ripped through the mid-Atlantic region, leaving behind a soaking path of destruction that caused billions of dollars in damages and countless lives lost or changed forever.

In anticipation of flood events throughout the region, the U.S. Army Corps of Engineers, Baltimore District, sets in motion a series of actions aimed at preparing for, responding to, and recovering from these types of natural disasters. The proven expertise of the District's workforce, in combination with their network of 14 owned and operating dams and 150 miles of federally-built levees, helps comprise the District's response to high water events.

First, the District's Emergency Management and Water Control teams follow the weather with an eye toward potentially heavy and destructive storms that impact our area as well as hurricanes and other named events that move across the Atlantic Ocean. Hydraulic engineers pay close attention to developing storms and their likely tracks, continuously monitoring current conditions and forecasts.

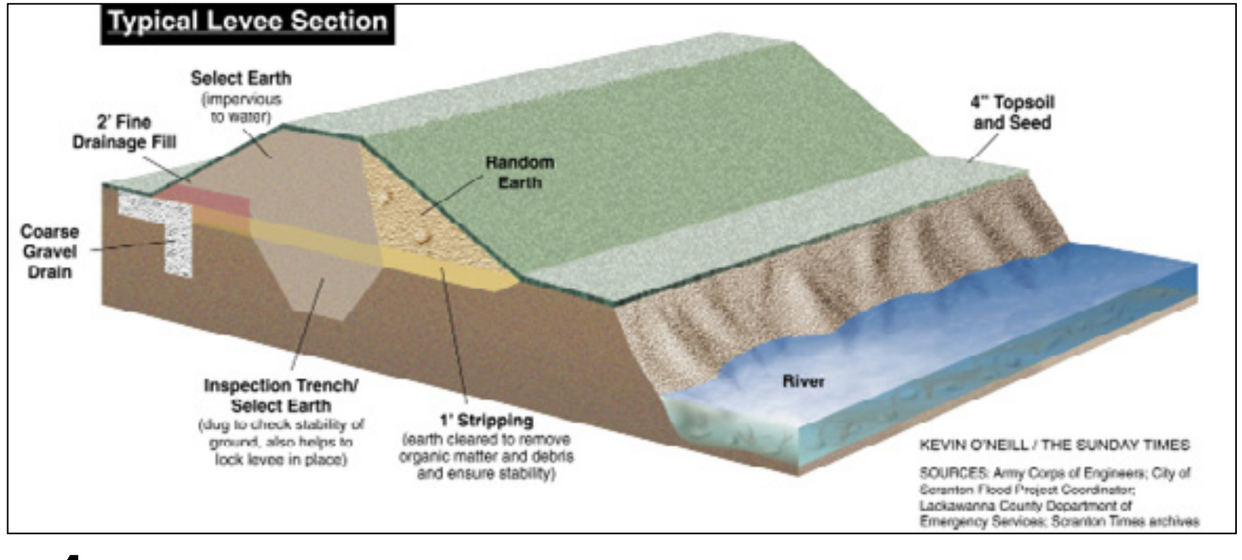
In a high-water event, there are specific river levels where they need to make a decision on what to do at the dams. When the rivers reach those levels and the National Weather Service forecasts that they will exceed flood stage, they direct dam operators close their gates and begin storing water to prevent downstream flooding

"The data collection network is the backbone of our water control system and is critical for making timely reservoir regulation decisions," said Julie Fritz, the chief of the District's Water Control Team. "We rely on the availability of real-time data to provide information about river, weather, and reservoir conditions. Gages at over 200 remote sites within the District record this data 24 hours-a-day, seven days a week, 365 days a year."

In addition, the District has 11 emergency area coordinators in our civil works coverage area (southern New York, central Pennsylvania, Maryland, portions of northern Virginia and West Virginia and the District of Columbia). Their job is to stay in touch with local officials to share information and provide information to the Emergency Operations Center. The District also has liaisons with the Pennsylvania Emergency Management Agency, and their counterparts in Maryland and the District of Columbia, to field requests for U.S. Army Corps of Engineers assistance. In addition, the Robert T. Stafford Act provides the authority for most federal disaster response activities through FEMA.

For levees or dams that expect to experience record, or near-record, levels of water, the District dispatches engineers to area levees and dams. During a high water event, teams of Corps engineers perform 24-hour levee patrols, walking the levees and examining the flood walls and pump stations to ensure proper performance. They also work in partnership with state and local officials to provide technical assistance and support.

No matter the event, public safety is the number one priority. The collaboration relationships and timely information shartng with local and federal partners plays a critical component working to save lives.



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(clockwise) This unique levee design shows the Millennium Portal in downtown Wilkes-Barre, Pa. The wide opening allows public access to the Riverfront Park, a key stakeholder desire. During a high-water event, gates that are stored on both sides of the portal are closed to provide full strength to the levee; Shawn Crossfield (left), Joe Reed (lead inspector), and Dan Risley gather and input data on a Corps-developed geographic information system as Lucas Gagnon, Town of Moorefield, W. Va., director of Public Works, raises and lowers a sluice gate during the periodic inspection; this is part of the floodwall along Riverside Drive in Wilkes-Barre, Pa. This is concrete which encases steel sheet piles and it is a key part in the Wyoming Levee Raising Project; the Millennium Portal gates are closed in a high water event.-- *Photos by Clem Gaines and Engineering Division*