

Borough of Little Ferry

Hurricane Irene preparation &
response

Hurricane Irene Preparation

Week of August 21, 2011

- DPW begins cleaning out problem catch basins
- DPW lowers Willow Lake to allow it to hold more water
- DPW inspects all pump stations to ensure their operation
- DPW inspects all generators to ensure their operation
- DPW stages various vehicles around the Borough for access in the event of flooding
- Additional backup generators secured (if needed)
- Forecast for Borough to be hit with Category 1 hurricane

Hurricane Irene Preparation

Week of August 21, 2011 continued

- Building Department secures mutual aid inspectors in event of catastrophic flooding resulting in mass condemnation of dwellings
- Governor Christie declares State of Emergency – Borough Administrator informs Police Department & DPW of new purchasing laws and procedures (purchasing laws suspended; approval for items goes through Borough Administrator)
- Internal staff meetings to discuss planning
- Office of Emergency Management (OEM) meets
- Mayor Raguseo notifies residents of upcoming storm via Reverse 911 call
- Public information campaign begins on Borough website & Facebook account

Hurricane Irene -Day of storm

Saturday, August 27, 2011

- Mayor Raguseo notifies residents of upcoming storm via Reverse 911 call (second call)
- Bergen County Sheriff's Department Labor Assistance Program fills sandbags (Phase I)
- Various groups fill sandbags; Phase II (Mayor & Council, DPW, Fire Dept., First Aid Corps, CERT members, volunteers)
- Evacuations centers on stand-by

Hurricane Irene –Storm Event

Saturday to Sunday

- DPW monitors pumps and establishes various road closures
- Fire Department performs utility shut-offs
- Police Department – additional dispatchers on duty to ensure timely response; establish road closures; traffic control
- First Aid & Fire Department perform evacuations

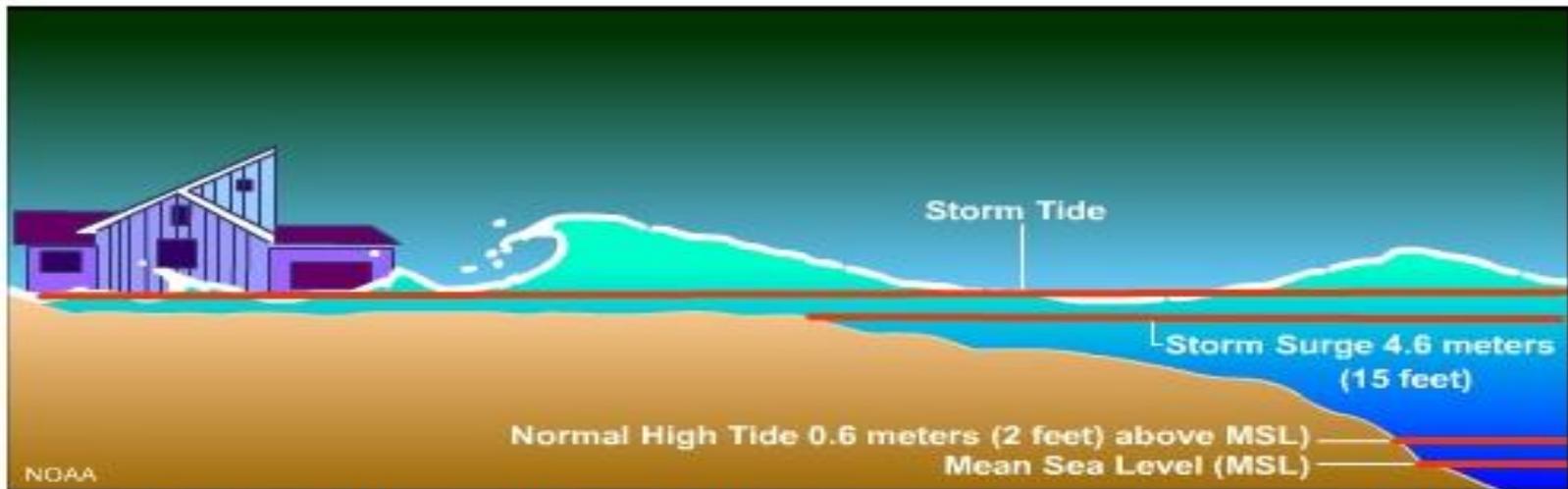
Hurricane Irene –Storm Event

Rain totals

- August already experienced 10.73 inches of rain before the storm. Average August rainfall is 4.44 inches
- Weather.com and WeatherUnderground.com both report 24 hour rain total of 8.22 inches during the storm
- Total August rain was 18.95 inches
- Caused localized flooding
- Pump stations operational

Hurricane Irene –Flooding Types

- Two type of flooding:
 - Fluvial (based on volume of rainfall & corresponding runoff)
 - Tidal (rise in water from ocean)



Storm surge is a large dome of water, often 50 to 100 miles wide, that sweeps across the coastline where a hurricane makes landfall. The storm tide is the combination of the storm surge and the astronomical tide.

Hurricane Irene –Storm Event Flooding

- Occurred approximately 9:44 AM on Sunday, August 28, 2011
- Type of flooding: **Tidal flooding**
- Something to remember concerning flooding: It's elevation not location
- Water came over the Hackensack River's banks
- Precludes any drainage system from having any affect on the severity of flooding
- Simply, the water was too high for the Borough's pumps to be effective. They were pumping water back into **feet** of water.

Hurricane Irene – Historical Context

- As hard it is to believe, this was not a 100 year storm
- In a 100 year storm, the water level would be at 9 feet NGVD (NGVD is Sea Level Datum)
- The highest elevation found was 6.99 feet on Brandt Street.
- This just where the flood waters peaked, not how high they could get in dwellings

Hurricane Irene – The Cleanup

- All Borough pumps operational
- Waiving of Building Permit fees for storm related damage
- Willow Lake pump underwater and slowly draining
- Surrounding municipal fire departments requested to assist in pumping out the Lake (which was lowered earlier in the week) to speed up draining process
- Franklin St. Pump Station damaged but operational. Borough installs a by-pass to ensure continued operations. Station needs to be rebuilt to ensure future operations but station is working

Hurricane Irene – The Cleanup continued

- Monday – Containers placed in hardest hit spots around Borough.
- As of Tuesday, Sept. 13, 2011; over fifty-five 30 yard containers have been utilized totaling approximately three-quarter tons of debris
- DPW begins street sweeping on Tuesday immediately after the Storm; ongoing
- DPW borrows Bogota's thirty yard packer (garbage) truck to assist in cleanup
- DPW starts overtime work to remove debris from streets
- Fire Department begins basement pump outs
- Borough continuously updates Facebook & website with FEMA information as it become available
- One known individual was permanently displaced – shelter found
- During storm. Borough shelters temporarily housed approximately 40 people; all returned home

Hurricane Irene – Frequently Asked Questions & Rumors

- Was the Oradell Reservoir released?
 - ❖ No.
- Did the Borough open tide gates to allow more water to come in?
 - ❖ The Borough doesn't own or operate tide gates. The Borough did not open any tide gates
- Why did my house get water this time but not in 1992?
 - ❖ Water takes the least resistant path based upon elevation. In part, water in your home during a tidal surge will depend on where water came over the river banks.

Hurricane Irene – Frequently Asked Questions & Rumors cont.

- I think there was so much water because catch basins weren't cleaned, is this true?
 - ❖ No. Water came OVER the basins as the water was higher than the Borough's elevation. If the basins weren't clean and the pumps weren't operating, the tidal surge water would not have gone down as quickly
- Why didn't I hear the pumps working?
 - ❖ They were underwater. The pumps were working but the storm surge was too high for them to be effective.
- Did the BCUA dump sewage in the Borough?
 - ❖ No.
- Does the Borough have flood insurance
 - ❖ As part of the largest municipal insurance carrier in the State, the Borough has full flood insurance protection
- ✓ What's next?