Poughkeepsies' Water Treatment Facility

MEMORANDUM

November 12, 2012

To: Water Board

From: Randy Alstadt and Brian Morris

Subject: **Preparation and impact of Hurricane Sandy**

On October 29, 2012, The Facility witnessed a historic river flood level from Hurricane Sandy. The following is an account of the event and final conclusions. Pictures and electrical recommendations for water damaged equipment and gear attached.

Days prior to the storm weather stations predicted a hurricane category storm would impact the northeast coastline. Staff reviewed Emergency Plan and made following directives.

1. Operators will keep College Hill Reservoir should power fail.
2. Maintenance Staff was advised of potential callout and availability determined.
3. Head Mechanic, Joe Marcinell and Maintenance Supervisor, Brian Morris were scheduled to report at 11:30 PM to monitor equipment.
4. Operator Jay Benedict was called in to supplement staffing in event of emergency and so that sludge could be processed.

21:30 Randy Alstadt arrived on site to monitor impact and work with staff.

23:00 Brian and Joe arrived at the facility. The river cresting to its highest level was forecasted to occur at about 1:35 AM. High reservoir level was maintained in the event of power failure.
No power outages were experienced up to this point or through the event.

23:30 Aspects of the storm were tracked on weather web sites. Surging was still on track. River level rose to half way up the retaining wall by the pump station. All areas of the plant were secure. Aside from high winds, little to no rain was experienced. Brian, Randy & Joe monitored the Low Lift station.

24:00 River levels continued to rise. Joe marked a section of a light pole with tape to track the surge level. Within 30 minutes the river rose about 4-6 inches.

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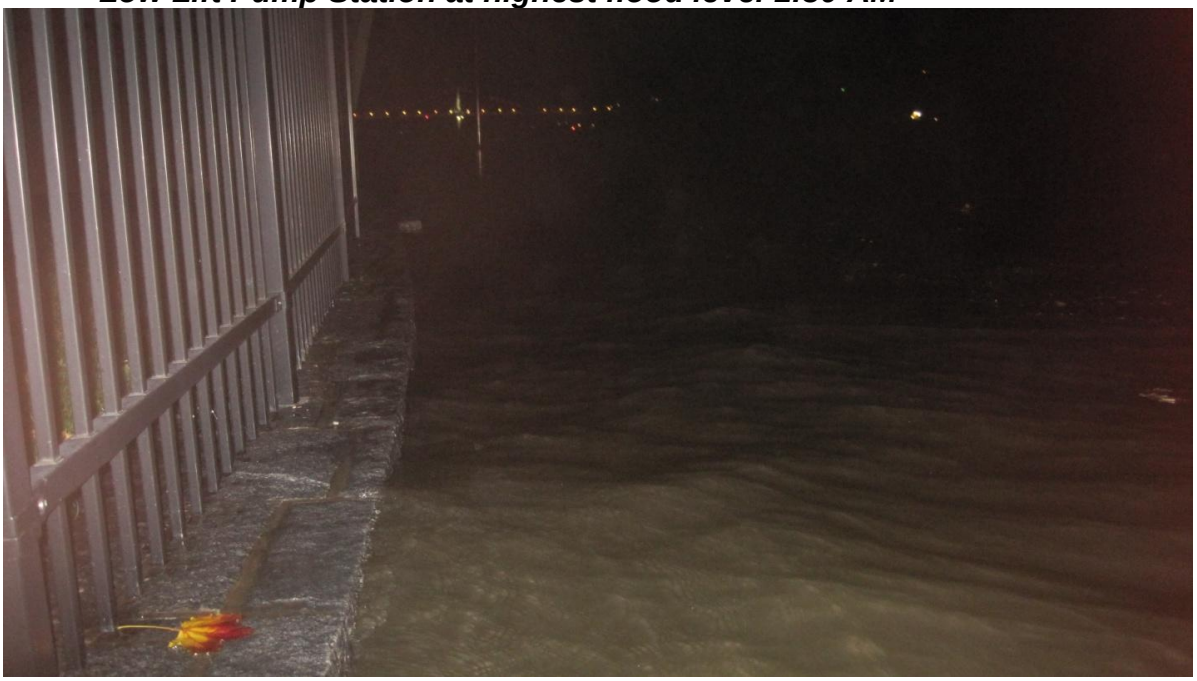
00:50 Surge level continued to rise. Water level reached the river pump station. Manhole to the pump well was 6” short of overflowing. Water reached the Switchgear concrete base.
Electric to the Low Lift station was isolate at the main plant. Plant taken off line.

01:15 Levels continued to rise. Water rising further up the switch gear. Outside valve pit to the l Low Lift was completely filled with water. Manhole to the pump well was completely full.

01:35 Water level reached its highest before starting to recede.
Outside retaining wall was an inch out of the water.
Switchgear concrete base was half submerged.
The entire gated yard to the Low Lift station was submerged.
All wells & valve pits were completely filled with water.

02:45 Water levels receded to the tape marks on the light pole.
It was determined that the river would not continue to rise.
All electrical equipment appeared not to be affected by the river surge. Any electrical devises or connections beneath the floor level were left disconnected.
Power was restored to the Low Lift and pumping resumed. Pump conditions were verified. No issues were found.
Plant returned to normal service.

Low Lift Pump Station at highest flood level 1:30 AM



High Voltage Electrical Gear at 1:30 AM

Flooded pump well (normally 8+ feet below)

Low Lift Exterior water level at 1:30 AM

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