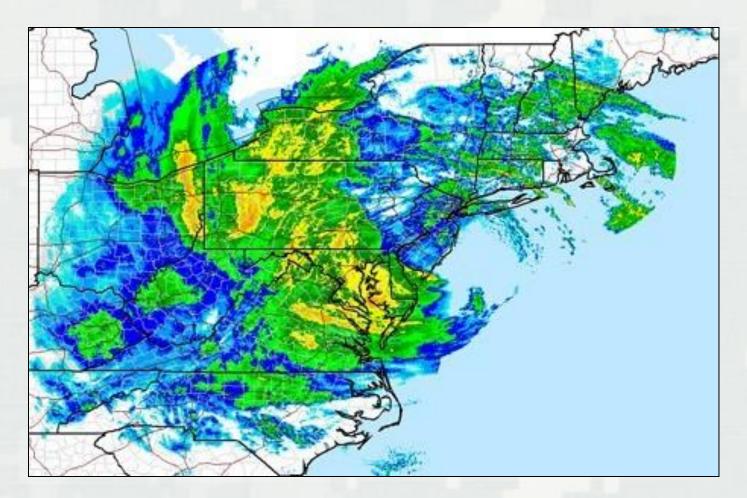
Philadelphia District Response to Hurricane Sandy

LTC Chris Becking 16 May 2013



US Army Corps of Engineers BUILDING STRONG_®

Hurricane Sandy

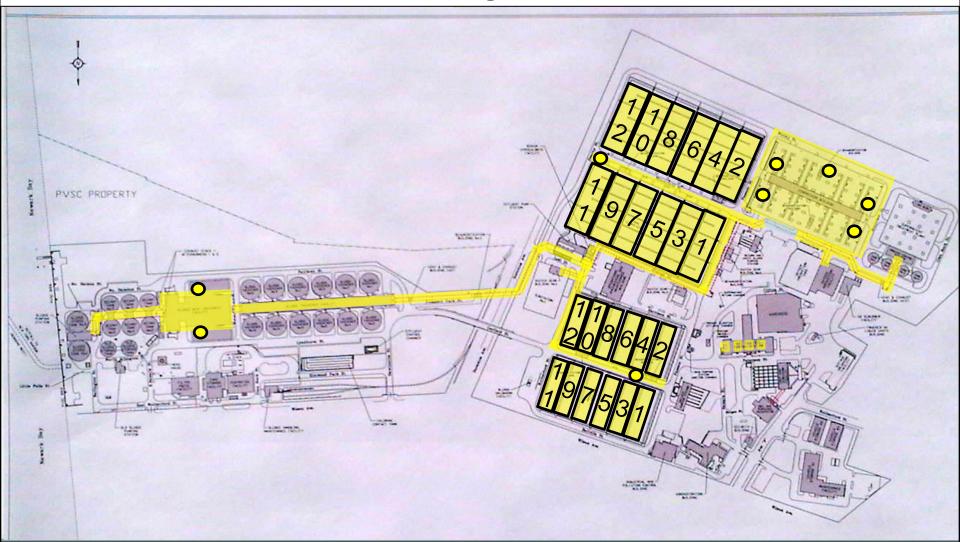


Sandy made landfall about 8 p.m. Mon., Oct. 29, striking near Atlantic City, with 80 mph winds





Passaic Valley Sewerage Commission, Newark NJ Dewatering Mission





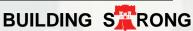
Dewatering Required

Philadelphia District

Passaic Valley Sewerage Commission Dewatering & Technical Assistance Project

Before





Passaic Valley Sewerage Commission Dewatering & Technical Assistance Project

Sandy Impact - 12 ft NAVD 88 Tidal Surge



Passaic Valley Sewerage Commission, Newark NJ Dewatering Mission



Date 0700 11/10/12

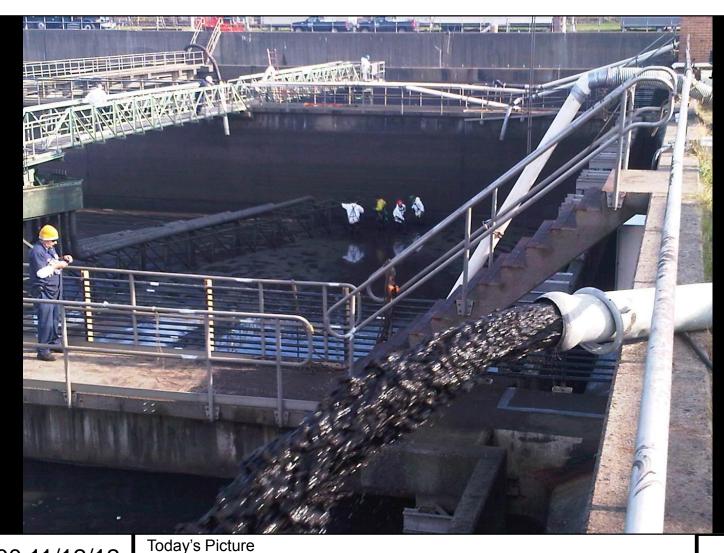
Today's Picture

Shown is part of the PVSC and USACE-CDM approximately 70 MGD in portable pumps capacity currently on site. Not shown are the $2 - 10^{\circ}$, $1 - 8^{\circ}$, 4 addition 6°, $1 - 4^{\circ}$, $4 - 3^{\circ}$ and $22 - 2^{\circ}$ pumps. PVSC is treating sewerage as we dewater basins. This limits the number of basins that can be off line.



Philadelphia District

Passaic Valley Sewerage Commission, Newark NJ Dewatering Mission



Date 1600 11/12/12

Foreground is discharge from our 10" diesel submersible pump dewatering Final Clarifier 10 into Clarifier 7. In the background, PVSC personnel clean debris from final clarifier 9.



Philadelphia District

Passaic Valley Sewerage Commission Dewatering & Technical Assistance Project

Corps Impacts

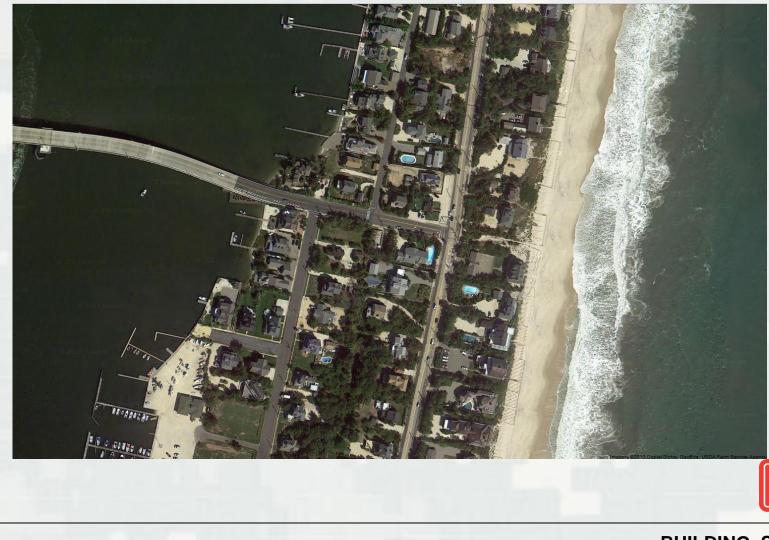


- Specific Key Actions
- ✓ provided technical guidance on order of recovery actions
- ✓ construction oversight of overall recovery actions
- ✓ construction oversight of large-scale pumping operations
- ✓ disaster guidance on FEMA reimbursement requirements

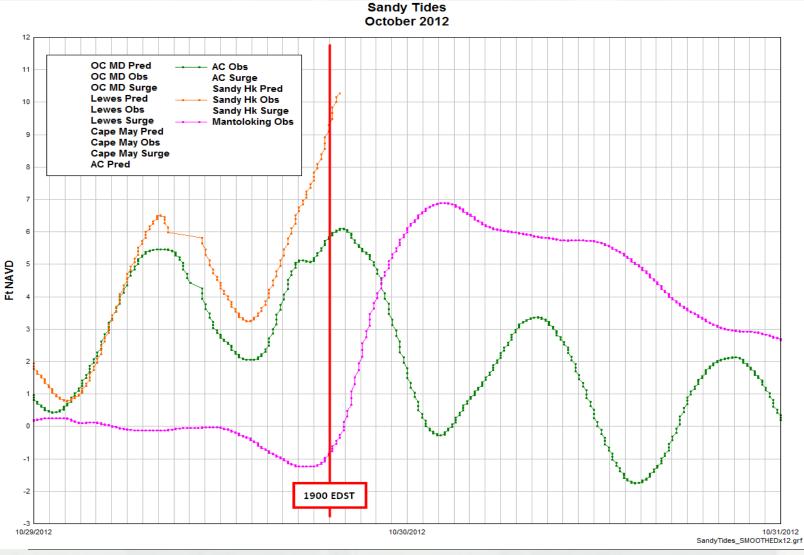


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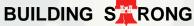
Before



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Sandy Impact





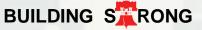
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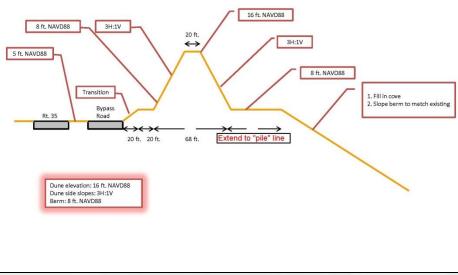








Mantoloking Breach X-Section





















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Corps Impacts – 72 hr timeline, Assessment to Construction shown



Specific Key Actions

- ✓ Tasked By NJ through FEMA 11/1
- ✓ Infrastructure Assessment Team Formed & on site 11/2
- ✓ Coordination with NJDOT
- ✓ Plan of Action Scope of work completed contract signed 11/4
- ✓ Contractor Corps on Site 11/5 Trucks rolling 0700 11/6







Harvey Cedars Post Sandy



Surf City Post Sandy



Holgate south of Federal Project





Sandy Impact

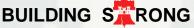


AC Post Sandy



Brant Beach Post Sandy









Specific Key Actions

✓ Tasker from FEMA 11/6 Contracts 11/6 trucks hit the ground.

- Communication between team and Contracting
- ✓ Filed supervision and coordination with office PM's
- ✓ Execution





Sandy Emergency Repairs









Sandy Emergency Repairs









Ft. Monmouth Temporary Housing Project

Building 365 Renovation



Project Schedule and Time Line

- ✓ 12 Nov FEMA Issued Task
- ✓ 16 Nov Evaluation -8 Bldgs + Fam Hsng
- ✓ 19 Nov FEMA Task Building 365 Ren
- ✓ 21 Nov Prepared Building 365 SOW

- ✓ 24/25 Nov Contractor Walk Thru
- ✓ 27 Nov Contract Award
- ✓ 15 Dec Completion (20 Days)
- ✓ 20 Dec Building Habitation by Hurricane Evacuees





Ft. Monmouth Temporary Housing Before Construction Pictures Project

Key Features of Renovation

- ✓ Activate/test /repair/replace utility and life safety systems
- ✓ Convert 6 units into handicap accessible units
- ✓ Convert 30 one bedroom units into 15 three bedroom suites
- ✓ Replace all kitchens
- ✓ Replace all finishes and appliances



Ft. Monmouth Temporary Housing Project

After Construction Pictures

Features of Completed Renovation

- ✓ New floor, wall, and ceiling finishes
- ✓ Renovated and converted handicap bathrooms
- ✓ New kitchens
- ✓ Renovated laundry room
- ✓ Upgraded life safety systems





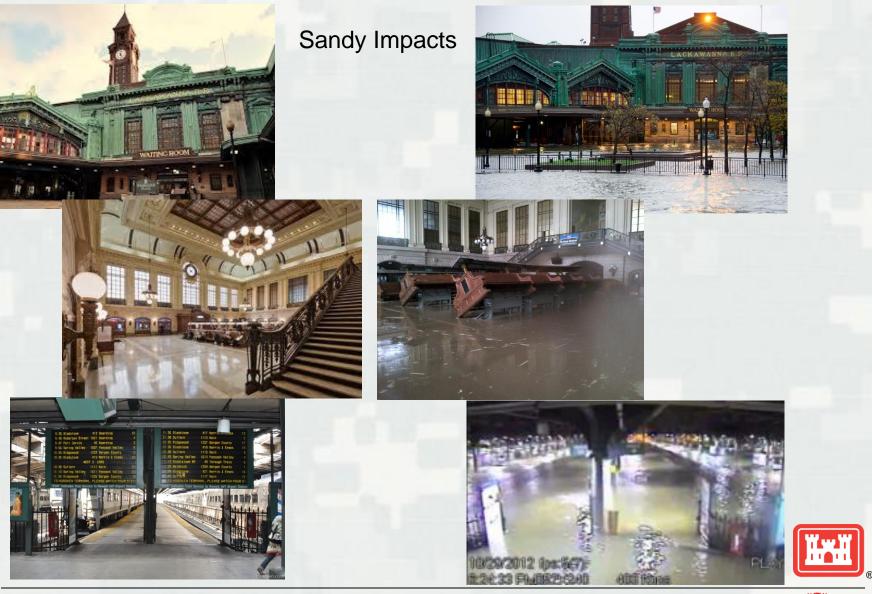
Hoboken Ferry Terminal & Power Delivery Project

Before





Hoboken Ferry Terminal & Power Delivery Project





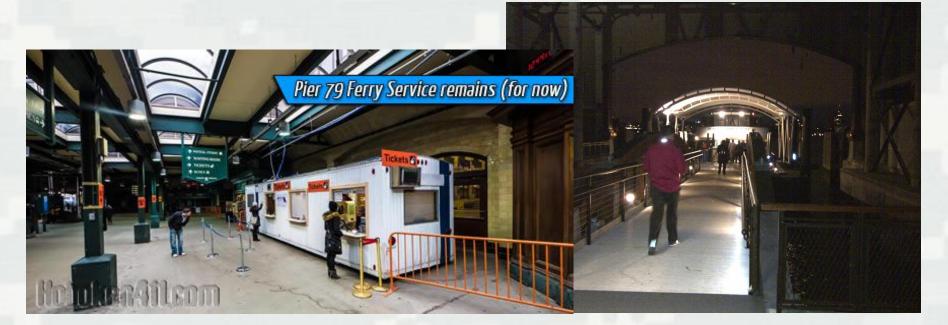
DoD Efforts to Restore Terminal



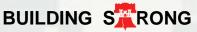


Hoboken Ferry Terminal & Power Delivery Project

Corps Impacts – Terminal Operational by 0500 Monday, 5 Nov







What Next?





Repair and Restoration of Existing Coastal Protection Systems









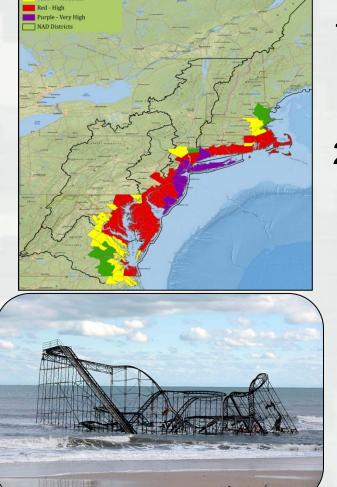


Construction of New Coastal Protection Systems





North Atlantic Coast Comprehensive Study Goals



- 1. <u>Provide Risk Reduction Framework</u>– Reduce risk to which vulnerable coastal populations are subject.
- 2. <u>Promote Coastal Resilient</u> <u>Communities</u> – Ensure a sustainable and robust coastal landscape system, considering future sea level rise and climate change scenarios, to reduce risk to vulnerable population, property, ecosystems, and infrastructure.

*Consistent with USACE-NOAA Rebuilding Principles



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