



Unwatering Team

U.S. ARMY CORPS OF ENGINEERS

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Background

In the aftermath of Hurricane Katrina devastating the Southeast Louisiana Coast in 2005 and inundating vast areas of the Greater New Orleans Metro Area (GNOMA) that lie below sea level, the U.S. Army Corps of Engineers received the unwatering mission from the Federal Emergency Management Agency.

To accomplish this, the Mississippi Valley Division of the U.S. Army Corps of Engineers established Task Force Unwatering with responsibilities assigned to the Corps' Rock Island District, located in Rock Island, Ill.

The mission of the Task Force was to unwater the GNOMA and set the conditions for traditional recovery operations to begin. The Rock Island District retains this on-going Task Force Unwatering

mission assignment for future storm events in the Greater New Orleans Metro Area. The Task Force has responded to Hurricanes Rita (2005), Gustav (2008), Isaac (2012), and has provided technical assistance following the Missouri River and Thailand floods in 2011.



Hurricane Sandy (2012)

The Task Force's most recent undertaking occurred when storm surge from Hurricane Sandy flooded New York City's network of underground tunnels in October 2012. Five subway tubes, two Amtrak tunnels and three of the city's primary roadways, including the longest coastal tunnel in North America were flooded. Joint Task Force Unwatering, assisted by the United States Navy and the U.S. Coast Guard, teamed with the New York District, AMTRAK, the Metropolitan Transit Authority, and other city, local, state, and federal organizations to unwater the major tunnels under New York City in less than two weeks.

The team, led by USACE, concluded its transit unwatering mission in New York City on Nov. 10 with approximately 275 million gallons of saltwater removed.

Unwatering Team

The core team comprises 10-12 Corps civilian professionals with expertise in civil, electrical, mechanical and hydraulic engineering; contracting; emergency management, public affairs and other specialties. The team is led by the District's commanding officer, Col. Mark Deschenes. However, the team size can increase at an exponential rate as it has the expertise of the entire U.S. Army Corps of Engineers to draw from for additional support, assistance and manpower.

Team Concept

The Unwatering Team has the engineering knowledge and situational awareness to react to most any set of events that will require an unwatering mission in the Gulf Coast region. The team represents engineering

and contracting capabilities to mobilize private and coordinate public and military assets to execute unwatering activities related to:

- Creating strategic breaches in levees and embankments where needed to facilitate gravity drainage of receding floodwaters;
- Implementing emergency repairs of breached levees and floodwalls to prevent reoccurring storm surges from re-flooding the area;
- Initiating repairs to existing drainage and pumping facilities, providing temporary portable pumps as needed to unwater critical infrastructure; and
- Beginning intermediate repairs to the damaged flood protection system.

Of note, the Unwatering Team does not have large pumping or construction equipment or operating manpower on staff or on contract standby; all such assets must be procured under emergency contracting provisions and personnel deployments.

Deploying the Unwatering Team for Similar Flood Events

The Unwatering Concept of Operations for GNOMA are basic engineering and contracting principles that would apply to similar applications of areas requiring mechanical assistance to remove trapped or contained floodwaters from an area, and measures to prevent a reoccurrence of flood inundation when feasible.

Situational knowledge of existing levee systems, pumping facilities and infrastructure to be unwatered would need to be garnered. From this information, engineering parameters regarding flood protection, pump repairs or temporary portable pumping needs (including pumps, fuel, and/or power generation for electric pumps, as required) would be scoped and an unwatering plan devised and executed.

Equipment and manpower for unwatering execution would be by available public, multi-national, military or private assets in the immediate vicinity.

If the Corps is given a mission by the U.S. Department of Homeland Security, Federal Emergency Management Agency, to undertake an unwatering mission, the Unwatering Team would provide the command and control of the mission assignment through deployed and virtual personnel across the required project management and engineering disciplines.

For more about the Rock Island Districts' Emergency Management mission, visit us on the Web @ <http://www.mvr.usace.army.mil/About/Offices/EmergencyManagement.aspx>