

6.5 ASSESSMENT OF THE OPERATIONAL AND ECONOMIC IMPACTS OF HURRICANE IRENE ON DRINKING WATER SYSTEMS

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Hurricane Irene made landfall in North Carolina on August 27, 2011, and moved into New Jersey and the Northeast U.S. the following day. Hurricane Irene caused wide-spread flooding and wind damage, resulting in losses of infrastructure and power outages. More specifically, the Hurricane impacted the operations of drinking water systems along the East Coast of the U.S. Using the results from an electronic survey sent to drinking water systems across the East Coast and follow-up interviews with several of the survey respondents, The Cadmus Group, Inc., with funding from the Water Research Foundation (WaterRF), developed a compendium of lessons learned and summarized the operational and financial impacts of Hurricane Irene on these drinking water systems.

Over half of the responding drinking water systems reported impacts to their system as a result of the hurricane. These impacts resulted in over \$48 million in damages. The most frequent and relatively low cost impact from the hurricane was the loss of power and use of an alternative energy source (i.e. generators). The most costly and least frequent impact from the hurricane was the need to replace critical drinking water infrastructure. Many of the

survey respondents were able to provide continuous service to their customers throughout the hurricane without disruption. For the remaining survey respondents, a majority were able to regain full operational capabilities within 3 days of the hurricane.

Some of the key lessons learned and recommendations reported by survey respondents include: setting up channels of communication with utility staff, customers, city and town officials, utility providers, emergency response and supply crews, and regulators prior to an emergency helps to address problems efficiently and effectively as they arise during an emergency; reviewing insurance coverage frequently is imperative, insurance coverage requirements can impact the system's eligibility to qualify for emergency relief funding; and the frequent review and update of staff safety procedures is essential for keeping drinking water staff safe during both expected and unexpected emergency situations.

A copy of the WaterRF report is available at http://www.waterrf.org/resources/Lists/PublicSpecialReports/Attachments/6/Hurricane_Irene_Survey_Report.pdf

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