Nurture Nature Center delivers final CSAP report on NWS storm warnings: Research is one component of a 10-study program

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FORT HANCOCK — Researchers from the Nurture Nature Center in Easton, Pa. have submitted their final report — They Had the Facts, Why Didn’t They Act?: Understanding and Improving Public Response to National Weather Service Coastal Flooding Forecasts — to New Jersey Sea Grant Consortium.

The Nurture Nature Center-led researchers, which included investigators from Rutgers University Jacques Cousteau National Estuarine Research Reserve and East Carolina University, were one of 10 teams awarded grants through the Coastal Storm Awareness Program, or CSAP, administered by Sea Grant programs in New Jersey, New York and Connecticut. And they are one of three teams administered directly by NJSGC.

"This project was needed because so many people failed to heed evacuation mandates and pleas despite the accuracy of the Superstorm Sandy forecast," said Dr. Peter Rowe, the NJSGC director of research and the principal investigator for New Jersey’s component of CSAP. "These research projects examine different angles of three main questions: how do we improve storm warnings, through what channels do people receive those messages, and how to people make their decisions to act in response to storm warnings. The Nurture Nature Center really dug into the first question by examining how storm warnings are communicated."

The Nurture Nature Center examined emergency weather briefings, typically distributed to emergency management officials by the National Weather Service. By using focus groups, the investigators asked residents of Monmouth and Ocean counties to explain when they began paying attention to Superstorm Sandy warnings and what tools in the briefing packages would have helped them make their decisions, and how to improve the packages for the general public.

The team came to a set of 15 conclusions including:

- Residents rely on locally specific information to determine their coastal flood risk, and their need to prepare.
- Emergency personnel rely heavily on briefings as a source of information and are the earliest users of the packages, with heaviest use six and seven days in advance of the storm (and further out if possible). Residents use the briefings differently, and do not "tune in" until four or five days before a storm, recognizing the uncertainty of the forecast prior to that time frame and understanding the time frame needed to consider preparations.
- Emergency personnel relied most heavily on Internet websites and smartphone apps for information about severe weather, followed by television and radio. Internet websites were by far the most heavily used source for flooding information by residents, followed by television, radio, and to a lesser extent, Facebook. Younger respondents relied on smartphone apps, which can reasonably be expected to become a key source of information in the future.

In late, 2013, NOAA awarded the three Sea Grant programs $1.8 million. The three state organizations then used the funds to create the Coastal Storm Awareness Program. NOAA made the grant with funds approved by the Disaster Relief Appropriations Act of 2013, commonly referred to as Sandy Supplemental Funds.

The funds supported 10 social science research projects chosen through a national competition. The goal of CSAP is to improve the understanding and response to coastal storm hazard information. NOAA put a strict deadline of 18 months on the projects because the information gathered by CSAP researchers will have a national impact on how storm warnings are created and communicated.

NJSGC is an affiliation of colleges, universities and other groups dedicated to advancing knowledge and stewardship of New Jersey’s marine and coastal environment. NJSGC meets its mission through its innovative research, education and outreach programs.

Nurture Nature Center is a dynamic hub for community learning about local environmental risks. One of the center's core areas of environmental focus is flooding. The center was founded in 2007 in the wake of massive and repetitive flooding in the Delaware River Basin. Since then, NNC has established itself as a national leader in flood education. NNC also engages in social science research projects as well as...
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regional public education campaigns, including an ongoing project to educate the public about flooding in coastal areas. For more information about the center visit www.nurturenaturecenter.org.

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