

Engaging Local Community Members to Improve Residential Storm Water Management in Nags Head, North Carolina

Christine B. Avenarius and Jessica R. Handloff

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In recent years, heavy rainfalls have occasionally brought several days of standing water to some of the driveways, yards, swales, and roads in the Nags Head Acres subdivision in Nags Head, Dare County, North Carolina. As a result, specific street sections have become temporarily impassable. In most incidents, the water receded after a few days. However, the higher frequency of standing water events and the larger volume of water caused many residents to wonder if the conditions have reached a breaking point that calls for modification of established residential practices in respect to storm water management. Residents have asked themselves, their neighbors, and the town manager and town planner what can be done to remedy events of standing water and prevent an escalation of similar water events in the future.

A team of three students led by Dr. Christine Avenarius, associate professor of anthropology at East Carolina University, talked to residents of Nags Head Acres, the town planner, and the town engineer about storm water management practices. Our research design was informed by the recent literature on the challenges of engaging local residents in conversations about the possible effects of climate change on their daily lives (*Akerlof & Maibach, 2011; Groffman et al., 2010; Kuh, 2009; Lazo, Kinnell, & Fisher, 2000; McKinstry, 2004; Poulter et al., 2009*). We asked a series of open-ended questions to collect experiences, observations, concerns, and suggestions (*Bernard, 2006; Johnson & Weller, 2002*). A third of all households, 30 families, participated.

Although we found few differences in opinion by gender or age, variances existed between residents who grew up or spent more than half their lifetime in Dare County and residents who had moved to Dare County after living and working elsewhere in the United States. More than 80% of participating neighbors voiced concern about increased mosquito populations and diseases that the children who play nearby might contract. In addition, many

residents wondered about the relationship between standing water and septic tank management in light of the higher water table and an increase in population density throughout most neighborhoods of Nags Head. All residents of the neighborhood received a report about the distribution of findings that included pictures, graphics, representative quotes, and a list of suggested remedies. The outline and communication style of our report followed best practices for information dissemination found in publications on climate change adaptation planning (Nisbet, Hixon, Moore, & Nelson, 2002; Villar & Krosnick, 2011).

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About the Authors

Christine B. Avenarius is an associate professor of anthropology at East Carolina University. Her research looks at the interrelation between human cognition and social network structures to

understand processes of social and cultural change. She received her Ph.D. in Anthropology from the University of Cologne.

Jessica R. Handloff is a graduate student at North Carolina State University working toward her doctorate in communication, rhetoric, and digital media. She spent two summers on Dr. Avenarius's research team in eastern North Carolina collecting data on changing environmental perceptions.

