Preparing Marinas for the Next Super Storm: Addressing the Social Challenges Posed By Coastal Storms

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Outline

• Why coastal storms?
  • and marinas?
  • and social science?

• Project overview and methodology

• Results

• Next steps and ways to get involved
Why focus on coastal storms?
Superstorm Sandy – October 2012

- Estimated cost of more than $17 million in damages in Great Lakes Region (Coast Guard News, November 2012)
- Coastal communities endured waves of over 20 feet during storm
- Coastal storms most frequent natural disaster from 1980 - 2011 (Smith and Katz, 2012)
Why focus on marinas?

A single marina experienced over $2.7 million in damages from Superstorm Sandy (Coast Guard News, November 2012)
To ensure the Lakes provide high quality of life, economic prosperity, and environmental quality for current and future generations by increasing participation in Clean Marina efforts by marinas and boaters on the Great Lakes.

• Representatives from private industry, government agencies, universities, and non-profit organizations

• Promote environmentally-sound, economically-feasible practices that protect the Great Lakes and benefit the boating industry
IT’S ABOUT THE PEOPLE!
Project Objectives

• Understand local drivers and barriers to behavior change

• Engage stakeholders in discussion around coastal storms impacts in Great Lakes region

• Increase likelihood of stakeholders preparing/adapting/responding properly to coastal hazards

Credit: ODNR Office of Coastal Management
Project Methodology

• Develop a needs assessment utilizing industry, agency, and university input

• Conduct focus groups with marinas in 3 Great Lakes states: OH, PA, WI

• Use focus group data to inform development of tool for Great Lakes marinas

• Disseminate tool and coastal storms education
Project Methodology

• Needs Assessment
  • Specific impacts associated with coastal storms
  • Current preparedness for coastal storms
  • Reasons for lack of preparedness
  • Awareness of existing tools
  • Sources of information for preparedness and response
  • Barriers to meeting needs
  • Types of tools desired
Outreach Plan

• Develop specific, local guidance on how to prepare, adapt, and respond in coastal storms situations

• Tool published in print and online
  • Shared with over 200 marinas through Great Lakes Clean Marina Network

• Education on best practices for coastal storms and climate impacts for marinas and boaters
  • Preparedness, adaptation, and response
  • Shared with Great Lakes marinas through a workshop (and potential webinar) at the end of the project
Preliminary Results

• Impacts associated with coastal storms
  • Dredging
  • Flooding/debris
  • Abandoned and derelict vessels
  • Lake level changes
  • Structural damage/aging infrastructure

• Current preparedness for coastal storms
  • Have an emergency flood plan, but no plan for storms

• Reasons for lack of preparedness
  • Weather: tend to overestimate, don’t believe forecasters
  • Science: not enough scientific information available to convince them to prepare
  • Priorities: other issues take priority & money
Preliminary Results

• Awareness of existing tools
  • Little-to-no awareness

• Sources of information for preparedness and response
  • Word of mouth
  • Local organizations (fire department, city council, etc.)
  • NOAA

• Barriers to meeting needs
  • Money
  • Lack of centralized information

• Types of tools desired
  • Case studies
  • Multiple options: webinar/in-person training/workshop
  • Education publications for boaters
Next Steps and Ways to Get Involved!

- Currently assembling literature review of coastal storms resources (Fall/Winter 2015)
  - Need Great Lakes resources on coastal storms

- Developing outreach materials (Spring 2016)
  - Need assistance in disseminating outreach materials

- Assembling workshops and promoting tool (Summer 2016)
  - Need subject matter experts to present at workshops/webinars