

South Carolina Hurricane Matthew After Action Workshop: Challenges and Lessons Learned

May 8, 2017, 9 am-3 pm

SC Department of Health and Environmental Control

1362 McMillan Avenue, Suite 300

Charleston, SC 29405

Participant Check-in

Welcome, Objectives, and Introductions

Dan Burger (DHEC-OCRM) welcomed the participants and outlined the objectives of the workshop. Dan described the relationship between this meeting and previous Abandoned Vessel Working Group efforts, and briefly introduced NOAA's South Carolina Incident Waterway Response Debris Guide.

Sarah Latshaw (NOAA Marine Debris Program) introduced the NOAA Marine Debris Program (MDP) and their 5 pillars: Removal, Prevention, Research, Regional Coordination, and Emergency Response. The MDP has developed Debris Response Guides for the Southeast and Gulf of Mexico, and they are currently working on a guide for the Mid-Atlantic, followed by Northeast. Sarah described the information within the Response Guides and the development process.

Jessica Conway, workshop facilitator (NOAA Marine Debris Program), welcomed the group, covered ground rules, reviewed workshop materials and agenda, and detailed the primary objectives of the meeting.

Participant Introductions

Each meeting attendee introduced him/herself and identified particular areas of concern and interest, including: Structural and contamination impacts of ADVs after storm events, and coordination efforts; Chemical threats, and learn about other agencies involved; Hear about expectations of EMD; Hear challenges experienced; Disaster recovery; Understanding debris removal process; Roles and responsibilities between agencies and how they can work together; Understanding the different entities involved and how they can assist each other; Looking for better ways to remove ADV and mitigate costs; Hear experiences after Matthew; Lessons learned on communication for better chance of reimbursement post-event; Alleviate confusion experienced after Matthew on debris cleanup; better education of boat owners.

Marine Debris Response After a Presidential Disaster Declaration

Elizabeth Ryan, SCEMD Recovery Chief, gave a presentation on SCEMD's Role and Process Overview. Presentation topics included:

- Disaster Declaration Process; SCEMD's role; Non-federal share (if you want money from the legislature, call legislators); Hazard mitigation; SCEMD lessons learned (SCEMD encourages having conversations on legal responsibilities pre-event); Summary of recent recovery operations (2014 ice storm, 2015 flood, 2016 Matthew).

Presentation Highlights:

- County must be declared for municipality to become an eligible applicant.
- SCEMD is an advocate for the applicant and process on behalf of the state.

- SCEMD encourages counties and municipalities to procure contractors independently, this can be done pre-event but typically better for short-term contracts (subject to Federal procurement requirements). DOT will enter into MOUs with local governments for bidding/contracting work. FEMA and EMD encourage pre-event contracts and pre-approved debris management plans.
- Existing ADV problems before an event - funds must be allocated to debris moved into a problematic area by a storm.
- Establishing areas of legal responsibilities is a major challenge.

Paul Wilson, FEMA Emergency Management Specialist, gave a presentation covering the FEMA Public Assistance Program and Direct Federal Assistance of Debris Removal. Presentation topics included:

- Public Assistance Program: *Supplemental* financial assistance will not cover all costs associated with debris removal; eligible applicants/eligible disaster-related work; facility eligibility requirements; categories of public assistance; general cost eligibility; insurance requirements; steps to getting assistance; submission time limits; record keeping (maintain all records for 3 years); appeals; applicants responsibilities.
- Direct Federal Assistance for Debris (mission assignment for emergency work only); ineligible debris removal activities; private property debris removal (when it threatens public health/safety).

Presentation Highlights:

- Eligible applicant needs legal authority/responsibility to remove debris.
- Documentation needed for dock debris (location information). Beaufort used drones to capture location information and to collect pre-removal and post-removal photos.
- Removal efforts should consider potential habitat impacts (NOAA and USFWS consultation).
- FEMA does environmental assessments but excluded from NEPA in Stafford Act disaster.
- Debris impacting private property will be assessed on a case-by-case basis.

Hurricane Matthew Marine Debris Response Successes and Challenges Discussion

Workshop participants described what worked well and went right during the Hurricane Matthew debris response in South Carolina:

- USACE and USCG pre-positioned survey assets, worked with USCG to open the port
- Swift reopening of port to maintain commerce
- Edisto cleanup - networking with FEMA, EMD, DOT, National Guard (using existing relationships)
- Charleston surveyed area immediately after storm, logged info and entered into system
- USCG noted adherence by the public to get boats out pre-event, otherwise could have resulted in much greater damage
- Communication pre-event with the public and internal (ESF-13)
- Evacuation of personnel (smooth, timely, reverse lanes worked)
- No fatalities
- SC Research Authority (SCRA) developed app tracking system to document debris
- MyCoast: post-Matthew quick addition of specific tool for event-based debris
- Beaufort Co used drones (via contractor) for mapping and photographs of debris was helpful to understanding access to debris for removal (sometimes via private property); superior image quality from drones

- Beaufort Co Airport quickly removed 4 boats post-event
- Disposal of ADV in Beaufort Co (all crushed, no salvage); worked with DNR to gain ownership info, placard, noticing, etc (lesson learned: start surveys early)
- Immediately post-storm, DHEC issued emergency order waiving permits to remove material from the critical area

Workshop participants described challenges encountered during the Hurricane Matthew debris response in South Carolina:

- Communication and logistical challenges:
 - Identifying the scope of the problem
 - Logistics of marine transportation, loading, unloading, and use of landings
 - Marinas may ask at-risk (no insurance) boats to move boats out of marina pre-storm, creates problems elsewhere; Some marinas require all boat owners to have insurance
- Drone challenge: subtracting acres where debris was not found
- Identifying responsible party is difficult
- Lengthy removal process; removal is very expensive (ex. 25-30' boat = \$12-15K)
- No mitigation funding available
- Not enough flexibility in legislation and enforcement
- Unidentifiable docks/floating docks on public and private property
- Establishing where debris originated (private/public)
- Debris that is not free-floating can pose a hazard (e.g. partially damaged dock)
- Knowing agency roles and who to call
- Methods for surveying and quantifying debris
- Increased time associated with marine transportation and getting necessary permits
- Pre-planning and enforcement of marinas and dock owners

The above challenges were "lumped" and then prioritized by workshop participants in a Challenge Ranking Exercise.

Challenge Ranking Exercise

Top 5 Challenges Identified:

1. Understanding agency roles and who to call
2. Improving methods for surveying and quantifying debris
3. Overcoming legislative challenges and enforcement
4. Identifying the responsible party is difficult
5. Pre-planning and enforcement for marina owners

Storm scenarios: stepping through the SC Incident Waterway Debris Response Guide Flowchart

Jessica described MDPs Regional Response and Recovery efforts including development of the SC Incident Waterway Debris Response Guide. Jessica walked the group through the Response Action Flowchart. Two post-storm scenarios were presented to the group for individuals to move each scenario through the flowchart, then each scenario was reviewed as a group.

Flowchart feedback and recommendations from participants:

- FEMA suggests funding should be another flowchart entirely (separate from response)

- authority/responsibility for removal).
- In SC: 25% of funding on the applicant and no cost share.
- SCEMD prioritizes funding; they publish a list every day during response.
- SCEMD not comfortable providing this flowchart to potential applicants (e.g. expectations, timing - unrealistic to wait on a determination to move forward to next step, etc). This flowchart is more theoretical and perhaps less practical.
- DNR does a river sweep pre-storm (see who may be riding out the storm, encourage them to leave) and post-storm (compile list of hazards).
- Who makes the determination (has responsibility to make a determination) if a pollution threat needs to be mitigated? Start with local law enforcement to determine threat assessment, then call USCG if a hazard or potential hazard exists. ***This could be added to local emergency plans for clarification.***
- Clarification from Attorney General is needed to determine legal responsibility for debris in waterway and marsh
- Remove non-tidal water piece from NRCS responsibility.
- Provide disclaimer that flowchart is just a guide.

Recommendations Discussion

Workshop participants developed recommendations for overcoming and/or improving response to challenges identified.

1. Understanding agency roles and who to call
 - Participating in tabletop exercises
 - Understand/elevate to someone willing to make decisions
 - Identifying and recognizing agency constraints
 - Interagency coordination and having conversations pre-storm
 - Recognition that response to ADV has improved over the past year or two
 - MOUs/MOAs should be established as necessary so that municipalities that lack capacity for removal and/or contracting are supported by counties that do.
2. Improving methods for surveying and quantifying debris
 - Collaboration on surveying and data sharing
 - SCRA contact/program
 - GIS database to share jurisdictional information
 - Increase usage and reporting to MyCoast
 - Boots on the ground early as possible
 - Share resources that state agencies have
 - Identify agency role to survey, then proactively fund and contract drone service etc. and be ready to hire them after an event
3. Overcoming legislative challenges and enforcing them
 - Discuss boat insurance and registration requirements
 - Discuss altering county/local ordinances - Start at local level (law enforcement, city council)
 - Discuss funding mechanisms; market the positives of taxing (ex. protecting boaters from hazards)

- At state level, convene all agencies to determine authority, then decide where changes are needed
- Educate local judges
- 4. Identifying responsible party is difficult
 - Locally-driving conversation: Bringing everyone together and running through scenarios, asking what each individual/entity can do
 - ADV Working Group list serves including all partners and sharing information (e.g. using MyCoast to alert parties of new threats)
 - Team approach: joint task force specifically for marine debris (ID scope, work together as a team from each of the agencies to address the issues)
- 5. Pre-planning and enforcement for marina owners
 - Look into local ordinances and codes
 - Make sure marine owners have SCEMD's hurricane plan and other related resources. This information may be incorporated into SC Clean Marina program
 - Requirements to maintain status/ documentation pre-storm

Next Steps

Sarah encouraged continued feedback on the Incident Debris Response Guide and Flowchart, indicating that these are "living documents" and contact information should be updated frequently. Every few years the guide will be sent out to interested participants for comments and updates.

Dan closed out the workshop by thanking participants and notifying them that the information collected during workshop discussions would be circulated to workshop participants in the coming weeks. Dan also indicated that DHEC-OCRM continues to seek opportunities to assist with tool development and grant applications for ADV removal.