

# Human Dimensions: Addressing Public Concerns During Oil Spills

April 5, 2017

Nancy E. Kinner

Russia WWF

DWH Lessons Learned Conference



Coastal Response Research Center

1

## Human Dimensions

- During spills public has many concerns/questions
- Important to address these concerns/questions prior to a spill
  - Prepare answers for them
  - Anticipate
- Without effective communication, public becomes skeptical of response
  - Public outreach important



Coastal Response Research Center

2

## Presentation Based on Joint CRRC/NOAA 2-day Workshop

- Addressing Public Concerns During Oil Spills
  - “Sorting Fact from Fiction
  - June 2016, St. Petersburg, FL
  - Federal and state agencies, academics, industry, response organizations, NGOs
  - NOAA Regional Preparedness Workshop/Training
    - Partnered with NOAA Disaster Response Center (DRC)



Coastal Response Research Center

3

## Workshop Goal

- Improve responder’s knowledge of current state-of-science of response
- Improve ability to communicate to public about response
- Response techniques / response concerns
 

• Mechanical recovery	• Fisheries impacts
• Dispersant use	• Shoreline protection
• In situ burn (ISB)	• Tourism
• Seafood safety	• Volunteers

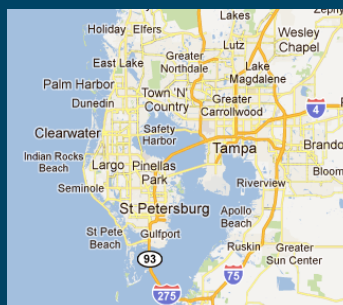


Coastal Response Research Center

4

## Response Scenario

- 50,000 gal spill from tanker
- Domestic crude oil being shipped offshore
- 36 miles off coast of Florida
- Tampa Bay and adjacent coast
- Major tourist areas, especially beaches



Coastal Response Research Center

5

## Response Tools

- Incident Command Systems (ICS) with Unified Command (UC)
  - Federal, state agencies + Responsible Party (RP)
  - Federal On-Scene Coordinator (FOSC)
- Environmental Sensitivity Index Maps (ESIs)
- Geographic Response Plans (GRPs)
- Tidal Inlet Protection Strategies
- Area Contingency Plans (ACP)

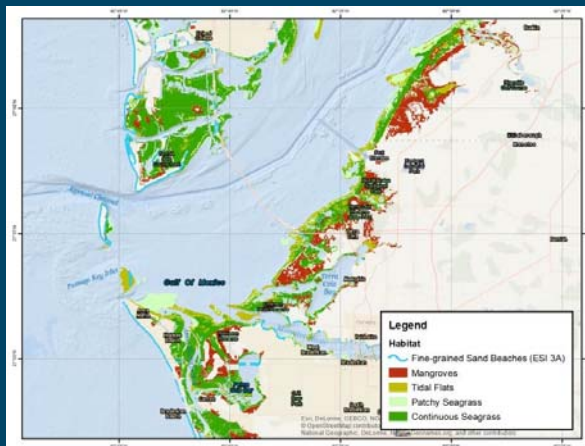


Coastal Response Research Center

6

## Impacts

- Seagrasses
- Mangroves
- Turtle nests
- Birds, Reptiles, Mammals



Coastal Response Research Center

7

## Communication Issues

- TV
- Radio
- Newspapers
- Social Media\*\*
  - New public tool, information changes rapidly



Coastal Response Research Center

8

## Responders Questions for Response Decisions

- What spilled? How it changes over time?
- Where is it going? (Trajectory)
- What is at risk? (Environmental Resources)
- What are the potential impacts to these resources?
- How to mitigate the potential impact?
  - Do No More Harm Than Good



Coastal Response Research Center

9

## Principles of Response

- Protect human life
- Control source
- Contain oil as close to source as possible
- Protect sensitive habitats/environments
- Recover oil
- Minimize impacts
- Enhance natural recovery (mitigation)



Coastal Response Research Center

10

## Potential Concerns During Spill

- Focus areas: dispersant use, seafood safety, fisheries impacts, public health, tourism
- Understand public concerns
- What is known, uncertain and what are disagreements about each concern?
- How to effectively communicate to address public needs
- Understand state-of-science of risk communication



Coastal Response Research Center

11

## Group Approach

- Response technologies focus on in situ burn, dispersants, mechanical recovery
- Shoreline protection/restoration
- Natural resources emphasize fisheries/seafood
- Human dimensions discuss public health, tourism, volunteers



Coastal Response Research Center

12

## Questions / Answers

- Workshop report contains 100+ questions public could ask and the answers to these
- Summary of questions with similar themes
  - Independent of oil spill location
- Questions provide excellent training material
- Questions can serve as basis of public information packets



Coastal Response Research Center

13

## Key Questions

### Response Basics:

- Who is in charge of cleanup?
- How are decisions made?
- What laws govern the response?
- Where can I get timely, reliable, and trustworthy information about the spill and cleanup?
  - What spilled? When? Where? How? Who?
  - Where will the oil go? How will it change?
- Is there an explanation of special oil spill words/terms (e.g., oil types, light vs. heavy crude)



Coastal Response Research Center

14

## Key Questions

### Clean-up Technologies:

- What technologies will be used? How were they chosen?
- How do the technologies work?
- How is the actual clean-up strategy developed?
  - How are clean up priorities established?



Coastal Response Research Center

15

## Key Questions

### Protection of Resources/ Assets:

- How will you protect my personal property?
- How will you protect public property?
- What will happen if an area is closed (e.g., no access to area where I live, fisheries closure)
  - How will I be informed of closure?
  - When will area be open again?
- What is the reimbursement process? How will it operate?



Coastal Response Research Center

16



## Key Questions

### Protection of Resources/Assets (continued):

- How will you protect natural resources?
  - What natural resources are at risk?
- How will spill effect commercial fishing?
- How will spill affect recreational fishing and other recreational activities (e.g., swimming, sailing)
- How will the spill affect tourism?
  - Can tourism be maintained during & after spill?



Coastal Response Research Center

17

## Key Questions

### Human Concerns:

- Is my physical health at risk?
- Is my mental health at risk?
- How do I know my seafood is safe?
  - What are fisheries closures?
  - How long do they last?
  - Are subsistence fisherman, including indigenous people more at risk?
- How can I volunteer to help with the spill?



Coastal Response Research Center

18

## Overall Conclusions

- Need for general informational materials prepared for immediate release
  - How responders react to spill
  - What are the various strategies/technologies used?
- Be proactive with outreach
  - Misinformation will arise on internet
  - Early outreach with trained coordinators is key



Coastal Response Research Center

19

## Link to Academic & NGO Resources

- Working with oil spill researchers and experts ahead of time can limit conflicting statements during response
- NGOs have lots of information on natural and human resources
  - Again work together during a time of no spills



Coastal Response Research Center

20

## Understand How Social Media Works in Russia

- In U.S., social media (e.g., Blogs, Facebook, Twitter, Other Internet Resources) are very quick to pick up on these stories
  - Misinformation can spread quickly and responders need to be out in front with information / answers before the questions or misinformation appears
- Hard to do, there are several studies of this in U.S. for DWH, Refugio, Texas Y spills



Coastal Response Research Center

21

Workshop Report is 300+ pages of information!!

[http://crrc.unh.edu/NRPT\\_Florida](http://crrc.unh.edu/NRPT_Florida)

Nancy E. Kinner, PhD  
 Professor, Civil & Environmental Engineering  
 University of New Hampshire  
 UNH Director, Coastal Response Research Center  
 Director, Center for Spills & Environmental Hazards



Coastal Response Research Center

22