

Final Report

Transfer Project Title: The Sandy Dialogues; Fostering Resilience through Stories

Project start date: October 2013

Report compiled by: Tin Smith

Contributing team members and their roles in the project:

Team co-lead: Tin Smith, Wells NERR

Team co-lead: Lisa Auermuller, Jacque Cousteau NERR

Team member: Chris Feurt, Wells NERR

Team member: Kristin Wilson, Wells NERR

Team member: Michael Mahoney, Wells NERR

Team member: Annie Cox, Wells NERR

Team member: Chris Hutch, Jacque Cousteau NERR

Team member: Jenna Gatto, Jacque Cousteau NERR

Submission Date: July 31, 2015

I. Project Overview

State the overall transfer goal of your project, and briefly summarize in one or two paragraphs, what you planned to accomplish with this transfer project.

The goal was to use collaborative dialogue (via a site visit to New Jersey and two workshops in Maine) to understand and utilize the approaches and lessons learned by the Jacques Cousteau Reserves' experience with Hurricane Sandy planning, preparedness and recovery to increase effectiveness of community resilience efforts in the beach communities of Drakes Island in Wells, Maine and Camp Ellis in Saco, Maine.

The project was to bring the JC NERR's Sandy experience and lessons learned to southern Maine communities to inform the development of coastal resilience plans. These communities have been involved in the climate role-playing project and local climate adaptation and hazard preparedness efforts which has elevated their knowledge and awareness of the issues. Face-to-face exchanges were meant to address differences in perceptions of risk— a known barrier to developing effective resilience plans and policies--by providing a conduit for intended users to compare their beliefs about risks from storms with New Jersey communities' actual experience of responding to and recovering from a major storm event.

The project had two segments:

- Site Visit: A team of six Wells Reserve staff and stakeholders were to visit the Jacques Cousteau Reserve and the sites impacted by Sandy along the New Jersey Coast. The visit was to focus on how NJ communities prepared for, experienced, and then recovered from the storm. This experience along with what might have been done differently would be at the core of the information transfer to southern Maine. The site visit was also to provide an opportunity to learn about how the JC NERR/Rutgers GIS based DSS was used in planning and recovery in the wake of hurricane Sandy in JC NERR partner communities. Being in the location and talking with community members about their experience with Sandy lends credibility and provides a conduit for intuitive knowledge not possible from a webinar or phone call.

- The Sandy Dialogues: Wells Reserves staff in collaboration with Jacques Cousteau Reserves staff were to develop and implement two consecutive one-day workshops (one in Wells and one in Saco). Participants would include Wells Reserve staff, intended users from Drakes Island and Camp Ellis and staff from the JC NERR and key stakeholders (who participated in the site visit). The workshop design was to be informed by assessment of different methods to engage audiences, past experiences at the Reserve including the role-playing project, lessons and information resulting from the NJ site visit, and interviews/needs assessment conducted with key people in Maine and New Jersey. The Dialogues were also to address participants' perceptions of risks and their role in storm preparedness.

The outputs of these activities would be a needs assessment related to tools, processes and strategies for effective coastal resilience planning in southern Maine, and communications and outreach products to foster continued dialogue with local intended users. Outcomes and lessons learned from this project would also be shared with the Reserve System (via professional and sector sharing at the Annual Meeting).

II. Progress Toward Goals

The stated goals of this project were to:

- (1) understand the Jacques Cousteau Reserve's experience and lessons learned in pre- and post-Sandy planning preparedness and recovery and bring this information to coastal communities in southern Maine.
- (2) bring the Decision Support System (DSS) developed by the Jacques Cousteau Reserve for coastal hazard preparedness and response to Maine communities and see if they could utilize a similar approach.
- (3) explore how the practices and lessons learned in the *Building the Capacity of Coastal Communities to Address Climate Change Risks Through the Use of Role-Play Simulations* might be applied to the JC NERRS' Sandy experience.

Describe progress made toward the transfer goal. In your description, consider the following questions:

Did this project meet the intended users and NSC sponsored project investigator's expectations for transfer? Why or why not?

In several aspects it exceeded expectations. Three more people than planned (a total of nine) made the trip from Maine to Jacques Cousteau NERR in June 2014 and five (two more than anticipated) made the return trip from New Jersey to Maine in September. The Maine team participated in three planned events in New Jersey and took a self tour of Long Beach Island. The September events in Maine included two community presentations, a workshop for municipal and government officials, and an all day tour of resilient coastal sites. The presentations, workshop, and tour were given by the Maine folks who had traveled to New Jersey and the New Jersey folks who came to Maine.

The public evening presentations in Maine included one in Wells (for the towns of York, Ogunquit, Wells, and Kennebunk) with 37 attending. One in Saco (for the communities of Kennebunkport, Biddeford, Saco, and Old Orchard Beach) with 17 attending. The municipal day time workshop at the Wells Reserve was attended by 41 from a variety of professional backgrounds including town planners, selectmen, code enforcement, fire departments, emergency preparedness, state department of environmental protection, and homeland security, including a few from New Hampshire.

Did (or will) the intended users apply knowledge transferred through this exchange? How, or why not?

Yes. Everyone from the Maine team participated in follow up events and activities to continue the exchange of ideas and push for preparedness in their communities. In addition the Wells town manager with support from Selectmen (one of whom participated) established a site for debris storage and a plan for disposal. The selectman became a state legislator and introduced a bill to provide towns with incentives to implement disaster response plans. The bill failed due to a funding requirement but will be re-submitted next year. This project influenced the development of the *Disaster Response Plan for the Wells Reserve* which was drafted and completed during the same period.

Did this project affect implementation of the NSC sponsored project?

Yes. The demonstration of the *New Jersey Flood Water Mapper* modeling program at the municipal workshop in Maine generated considerable discussion. There are on-going similar efforts in Maine working with coastal communities on sea-level and storm surge issues and the people implementing the Maine program were in attendance. A key component of the presentation was a detailed review of how Jacques Cousteau NERR offered and then implemented their services to communities and their reflections on the elements of its success.

Did any other unanticipated challenges or opportunities evolve as a result of this project?

Several opportunities did arise as a result of the project. In addition to the anticipated session presentation at the NERRs Annual Meeting in November 2014 a poster was presented at the Geological Society of America meeting in Vancouver BC (October 2014) - poster attached to this report. Follow up presentations occurred at the Wells Reserve (March 2015 - 23 in attendance), South Berwick, ME (July 2015 - 17 in attendance) and it was selected as the plenary topic at the Maine Beaches Conference in Portland (July 2015 - > 100 in attendance). A journal article is in final draft for submission to *Coastal Management* and an updated poster abstract submission is planned for the Coastal and Estuarine Research Federation 2015 annual meeting.

Through a supplemental grant (\$6700) a video of the project was produced focusing on the key lessons learned from New Jersey through the eyes of the Maine participants. Production is in its final edits and will be distributed to local access TV, used to supplement presentations, as educational support materials, and to disseminate the lessons learned to other practitioners.

Please also cite any products (participant evaluation data, reports, workshop proceedings, templates, program descriptions, etc.) that reflect your progress toward your transfer goal and note where they can be accessed.

The Sandy Dialogues: Foster Resilience through Stories [blog post](#)

The Sandy Dialogues; Takeaways from New Jersey [blog post](#)
Announcement for [Maine workshops](#)
Maine workshop [agendas](#)
Maine Resilient Coast Tour [agenda](#)
Sandy Dialogues: Preparing for Disaster, article in the [Watermark](#)
The Maine Beaches Conference [agenda](#)
Disaster Response Plan for the Wells Reserve (not yet available on line)
The video should be available on-line within a few weeks.
Sandy Dialogue poster: attached to this report
There were also several newspaper articles on the Maine meetings in local papers

III. Evaluation of transfer mechanism

Was the selected mechanism appropriate to reaching your goals for transfer? Why or Why not?
Do you have any lessons learned related to your use of this approach that might be useful to the NSC or other NERRS transfer teams?

Yes. Overall, the success of this project was based on both Reserve's strong ties to local communities . This connection, built up over years, is likely unique in government institutions that have a national scope. Factors significantly contributing to the success of this project included:

- Wells NERR connections to its service communities, particularly Wells, that enabled key people (selectman and state legislator, town manager, conservation committee chair, code enforcement officer, non-profit executive director, and coastal home owner) to agree to participate in both the New Jersey trip, the Maine workshops, and other events such as the Maine Beaches conference. (The homeowner was so interested she took two days off from work and paid her own way to travel from Pittsburg to meet up in New Jersey.) Many of these connections originated in their participation in earlier climate change events and projects at the Reserve.
- The involvement of Jacque Cousteau NERR staff with their communities in responding to Hurricane Sandy created in depth connections and experiences that were made available to the visiting Maine team. (These connections included business owners, councilman, town administrator, recovery coordinator, town engineer, and a code enforcement officer as well as Reserve staff.)
- The direct connections both in discussions and in the tours of the affected New Jersey sites were consistently remarked on by the Maine team in their follow up presentations. Several of the insightful stories came from casual conversations between the team and New Jersey residents (homeowner, waitress, bartender).
- The election to drive to New Jersey rather than fly provided an extended time for the Maine team to both discuss expectations and to reflect on the experience. The discussions, particularly on the way back provided the basis for both the Maine community events that followed in September and also for individual efforts by the participants in their personal and professional lives.

- Jacque Cousteau NERR's ability to bring three staff and two community members to Maine for the September events. This provided another dimension to the presentations and complimented the Maine team's experience. This was especially effective in the Municipal workshop where Jacque Cousteau staff demonstrated their storm flood mapper modeling program and directly answered questions from Maine state employees and local disaster response personnel working on similar issues and models. The presence of the Brick Township engineer and the Long Beach Island recovery coordinator provided detailed and specific answers from a municipal point of view.
- The ability of the Municipal workshop in Maine to attract a large and diverse audience from state and federal agencies to local community members and the press which generated very interesting and informative discussions.
- A strong connection between the Wells NERR and Maine Sea Grant provided the opportunity to add an all day field tour of resilient coastal sites to the three days of public meetings and workshops around disaster preparedness. The New Jersey team was able to join in for half of the tour before returning home.
- A willingness by the Maine Team to continue their involvement past the agreed upon activities to include the creation of the video and the participation in additional events and to incorporate some of the lessons in their personal and professional activities.

The Coastal Training Program evaluation format was used for two events to formally record the trip to New Jersey and the Municipal workshop in Wells. The results are summarized below:

- There were 5 respondents from the New Jersey Trip and all "Strongly Agreed" with the statement; "Participating in this *meeting/workshop* was a good use of my time" and indicated "A Great Deal" to the question "How much did this meeting increase your understanding of *community impacts of Hurricane Sandy?*". Both responses were the most positive possible. There were 28 comments elicited by questions asking what you would like your community to know, what surprised you most, and what things could a community/homeowner do to minimize impacts.
- 41 people attended the municipal workshop identifying themselves as: Federal (4), State (5), Regional (2), Local (10), Business (3), University (7), Media (1), Non-profit (2), Community member (1), NERR staff (6). The 23 people who answered the question "Participating in this *workshop* was a good use of my time" all either "Strongly Agreed" (16) or "Agreed" (7). 22 responded to the question "How much did this workshop increase your understanding of storm preparedness and response to coastal hazards?" with "A Great Deal" (10), "A Lot" (7), "Some" (4) or "A Little" (1). 20 of the 23 people answered "yes" to the question "Did you learn something new that you will apply in your work or future decisions?". 41 written comments were received to the two questions; where would we look in the future to see evidence of that application, and how can the Wells Reserve and partners help Maine communities move forward to prepare for storms and coastal hazards.

The twenty- eight comments received on the New Jersey trip provided the focus for the Maine workshops. Written comments from the municipal workshop guided messages distributed to the public through newspaper articles, blog posts, the creation of the video, and follow up presentations.

IV. Potential for future transfer

Do intended users and project investigators see value in further transfer activity based on this project? If yes, briefly identify what aspect of the NSC sponsored project future transfer would emphasize and why it would be beneficial to intended users. Please cite any relevant data or products from the transfer project to support your view.

Maine team participants agreed that first-hand experience is a powerful motivator and very useful as the task of preparedness is a challenging and long term endeavor. The team 's continued participation in additional events (video, conferences, legislative work and journal submission) indicate that they very much place value in continuing activities based on this project.

V. Evaluation of use

The Science Collaborative may want to evaluate use of transfer products (knowledge and tools) generated by this exchange some time toward the end of 2013. Please indicate if you would be willing to participate in this process, and whether you have early thoughts about whom this evaluation process should focus on and how it might be designed.

Please submit your final report to Cindy Tufts, cindy.tufts@unh.edu.