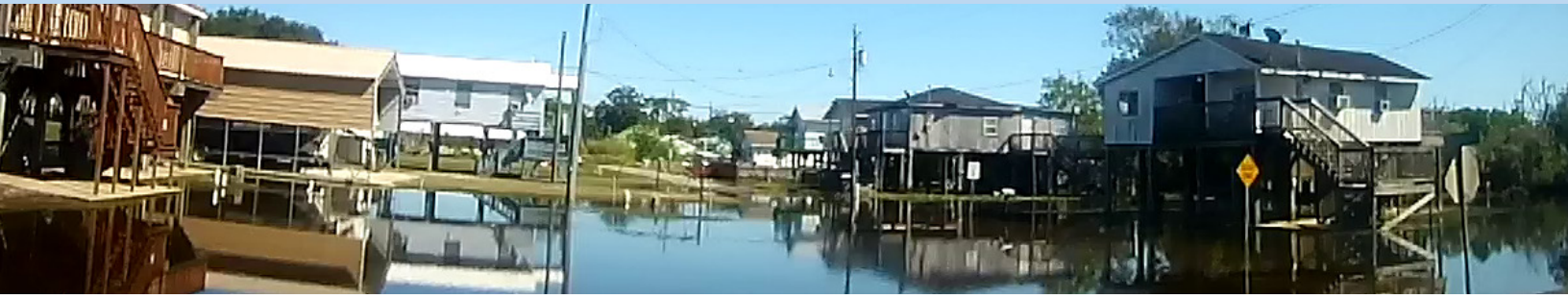
Sea Grant NEW YORK

# Natural and Nature-based Features
## Case Study #8



Location of blue-sky flooding in Dulac, Louisiana, identified by a local Indigenous resident during a spatial video geonarrative trip. Photo credit: The Water Institute

# Active Community Engagement in Protection & Restoration Planning: Coastal Louisiana

**Project Overview:**

Dr. Scott Hemmerling's team aimed to increase community approval and knowledge of NNBF projects, as well as to incorporate local knowledge into project implementation. They approached these goals through participatory planning, mapping, and modeling using several methods at each stage of project implementation to engage community members in areas of coastal Louisiana that will be impacted by marsh restoration projects.

## Key Takeaways

- Engagement is defined as a process of learning from and communication among researchers or engineers and the community implicated in a project. Many people confuse engagement with outreach, but they are not the same. Outreach is one-way communication, while engagement is two-way communication that builds trust and a sense of ownership among community members. They are both important, but different.
- Community engagement can be incorporated within the timeline and deliverables of an engineering project if it is strategically built into the architecture of a project from the outset.
- Spatial video geonarratives provide an approach to mapping and modeling that centers local knowledge.

## Project Context

Many coastal protection and restoration projects struggle with local buy-in, public engagement, and education. This case study from coastal Louisiana highlights several methods that have successfully integrated community engagement into restoration and protection projects, increasing understanding among residents and broadening their awareness of ecological issues. Coastal Louisiana is composed primarily of wetlands that face extremely high rates of subsidence and erosion. Many coastal protection and restoration projects seek to mitigate this issue. These projects, however, have historically faced distrust among residents who live in places where the implementation of NNBF projects may result in changes to marsh access, the distribution of recreational or commercial fisheries, and other cultural uses.

**Kathleen M. Fallon,** Ph.D.
*Sr. Coastal Processes and Hazards Specialist* | email: kmf228@cornell.edu | 631-824-4746

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## Tool Highlight

- Spatial Video Geonarratives: A local knowledge mapping approach
  - Use GPS enabled cameras to do video interviews while moving through the landscape
  - Bring that information into GIS to identify unseen patterns
  - Identify important topics through discourse analysis
- Participatory Modeling
  - Community-based co-design educates community on modeling and how it works
  - Social value assessment combined modeling with community input

## Results

Dr. Hemmerling found that implementing these community-engaged research methods from the beginning of the project timeline resulted in a less contentious planning process that engendered a collaborative feeling between those implementing and those affected by the project. The team found that these methods not only incorporate local knowledge into the project, they also educate the public—through their participation—about the problem being addressed, the project goals, methods that will be used, and trade offs or co-benefits that may result.

## Implications for Practice

When incorporated into the project planning timeline, community engagement can increase public support for NNBF projects. This level of engagement involves time and effort; those who are used to running models, collecting samples in the field, or working in the lab will need to come out of their offices to meet residents where they are. The technology, however, is advanced enough that it is possible—if the desire is there—to meet residents where they are.

Local knowledge mapping exercise held at the Delcambre Seafood and Farmers Market in Delcambre, Louisiana. Photo credit: The Water Institute

## Featured Researcher: Dr. Scott A. Hemmerling

Dr. Scott A. Hemmerling is an Associate Professor of Environmental Health, Climate, and Sustainability at Louisiana State University Health Sciences Center in New Orleans. This case study highlights Dr. Hemmerling's research on climate adaptation and community resilience, conducted at The Water Institute. His recent work focuses on developing approaches to incorporating local and traditional knowledge into assessments of community resilience. He is also working on several projects to develop methodological approaches for measuring socioeconomic change in coastal communities and quantifying the social value of ecosystem restoration projects.

## References


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**About SRIJB** (https://srijb.org/): The SRIJB is a CUNY-wide institute created through a partnership amongst the National Park Service, the City of New York, and the City University of New York (CUNY). Our mission is to produce integrated knowledge that increases biodiversity, well-being, and adaptive capacity in coastal communities and waters surrounding Jamaica Bay and New York City. The Institute is hosted and supported by Brooklyn College and works closely with member organizations including NY Sea Grant, the Jamaica Bay Rockaway Parks Conservancy, and the Jamaica Bay Ecowatchers.

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