

I. PROJECT INFORMATION

Project Title*	Engaging a coastal community to collaboratively design nature-based solutions for climate resilience in Coastal Alabama
Project Director*	Judy Haner
Project Location*	Mobile County (S38/T8S/R3W), Bayou la Batre, Mississippi Sound
Project Summary*	<p>This project proposes to work with the community of Bayou la Batre and rural Mobile County to develop an awareness and understanding of nature-based infrastructure designs that will inform protection of their communities. Specifically, these conversations will target local municipalities and coastal waterfront landowners who through this effort can work together to develop a plan to protect their respective shorelines and the County maintained road that provides access and serves as an evacuation route. The broader community will be engaged to raise awareness of nature-based solutions and to understand their needs, concerns, and challenges with climate related hazards, including storm surge, sea level rise, increasing storm frequency and intensity, and flooding impacts. Understanding how climate related hazards may potentially impact their safety, property and livelihoods and relaying information on potential solutions will build awareness and knowledge to empower this community to make informed decisions for their future.</p>

II. PROGRESS REPORT QUESTIONS

1. Please revisit your proposal and review your goals and the outcomes you were seeking to achieve through this grant. How successful were you in meeting your goals? Please assess your success against the criteria you set in your proposal and use any combination of anecdotes, stories, graphs, charts, visuals as well as data to explain your success. Upload supporting files if you choose.*

The specific objective of this project was to engage with the community of Bayou La Batre to develop a shared understanding of coastal hazards and discuss the potential for nature-based solutions that could be designed to protect the most susceptible portion of Shell Belt Road. Shell Belt Road is regularly subjected to inundation from Portersville Bay in Mississippi Sound and protection will improve its longevity, decrease maintenance cost, and aid in maintaining continued access for residents and users. However, Shell Belt Road is a complex setting as the inland side of the road is primarily lined with residential properties, many of whom have ownership and/or riparian rights on the coastal side of the road.

Our overarching approach for stakeholder engagement involved scoping surveys and interviews with coastal residents, other stakeholders, and community leaders. Our questionnaire design followed the general methodology of Sharpe et al. 2021, which proposed ten criteria to be considered for engaging stakeholders in environmental management decision-making: Level of interest, Level of influence, Magnitude of impact, Probability of impact, Proximity, Economic interest, Rights, Fairness, Urgency/temporal immediacy, and Underrepresented/underserved populations. To implement this framework, we proposed scoping surveys and interviews with at least 60 key community representatives (City of Bayou La Batre, Mobile County, and private landowners) in a tiered approach. In the end, our project interviewed and engaged approximately 100 key stakeholders, including 64 surveys and follow-up interviews.

To meet our broader objective of community engagement, the City and County were involved through individual meetings and a joint meeting forum to gather input on needs, challenges, and priorities to be considered in the design phase, especially relative to the access/evacuation road. Adjacent property owners were invited to two group meetings to discuss the potential project and gather input on their needs, challenges, and priorities for consideration. For any property owners that did not attend the meeting, a collection of contact methods was used to gather input, including phone calls, property visits, and mail outs. Approximately 50 landowners were reached out to through mailings with return postcards for information. A 25% response to this method is considered good and our outreach resulted in a 79% response! Preferred contact information was gathered during this initial mailing and communication through email, text, and phone ensued throughout the remainder of the project.

General public input was gathered through public forums, including Facebook announcements through the City's platform. Additionally, social media channels were utilized to share project information with those who could not attend meetings and to keep the public in the loop with project development.

Total Engagement:

“Properties” is defined as the cumulative parcels that are owned by one person or a person and their spouse, as some landowners owned more than a single parcel. “Individuals” are defined as all persons regardless of if they own property with another person.

- Total properties in the project area: 53
- Total individuals/companies: 76
- First meeting: 35 individuals attended, 24 properties represented (45%)
- Second meeting: 17 individuals attended, 14 properties represented (26%)
- Emails: 30 properties, 33 contacts
- Phone numbers: 31 properties, 44 contacts
- Total email or phone: 36 properties (68%)
- Initial Surveys: 42
- Second Survey: 22

The first meeting was held at the Bayou La Batre Community Center on February 13th and 35 individuals representing 24 properties attended. In addition, multiple City and County representatives, as well as State Agency representatives and key community stakeholders, were in attendance. The Nature Conservancy, Mississippi State University, and University of South Alabama principals welcomed everyone and gave a brief background of the project and agenda covering team introductions, outlining the goals of the funded project, reviewing the timeline of the project, discussing the survey, completing a mapping exercise, and providing next steps in a wrap up.

For the goals of the project, the team explained that they were looking to gain insight from landowners about:

- coastal flood hazards and their thoughts on NBS
- to provide a platform for landowners to broadly discuss the projects progress and any major findings
- to characterize the Shell Belt Road with regards to shoreline profile, bathymetry, historic changes, etc. with their assistance
- to develop preliminary NBS designs to protect Shell Belt Road
- to utilize feedback from them to define a direction forward for the waterfront community

For the participatory mapping exercise, the landowners were asked to find their property or an area of concern on maps provided. Sticky notes and stickers were supplied for them to list issues or concerns. They were also asked some key questions:

1. How does flooding or storms impact your access to your house, work, and errands?
2. What's the biggest change you have seen in the last 5-10 years?
3. What do you want (or not want) for shoreline protection?
4. What do you want (or not want) for other shoreline uses?

Project members positioned themselves around the maps to engage and be available for questions.

After the meeting, participants and those unable to attend were emailed the PowerPoint presentation.

Information was collected from landowners during these meetings and through other forms of communication. Many landowners have lost large areas of land over the past 50 years due to major hurricanes. Information was also collected on the projects landowners had planned for their properties that may have been relevant to the potential NBS, including future piers that NBS plans would need to accommodate.

During this meeting, we received feedback on what landowners desired for the road or other relevant information. Some landowners did not want to improve access to the water due to the number of trespassers already parking on their lawn and using their land to access the water for recreational purposes. Some landowners had hydrology issues due to the road, including ponding on lawns from road impoundment. When these landowners were asked specifically what they would like done to their property to reduce flooding, their answer was to improve the existing seawall. These landowners were not interested in NBS or any alternate methods.

Initial Survey Key Findings:

- Over 90% of residents experience coastal flooding at least part of the time, and more than 60% have experienced a flooding event this year.
- Nearly all adjacent residents feel they should be able to influence the outcome of a shoreline project along Shell Belt Road.
- Residents were most familiar with seawalls and bulkheads as coastal protection features, while much less familiar with living shorelines and buffer zones.

Initial survey quotes:

- “If TNC’s true intent is to protect Shell Belt Rd from wave action, then focusing on repairing the seawall that we have is potentially a welcomed project. However, changing the shoreline or extending the Living Shoreline from Lightening Point to provide habitats for the marine life is not a good idea and is not wanted. This is not the place for that. Shell Belt Rd is a residential waterfront with piers. A Living Shoreline will cause the piers to end up on dry land transforming our waterfront into a marsh thereby greatly increase the gnat population. Gnats are very abundant in the marsh and are intolerable as everyone here knows. We live here to be on the water and that is what we want. I am not in favor of any TNC project to extend or change the shoreline.”
- “New to Shell Belt Road. Fantastic community. Very interested in anything that would mitigate storm damage and would enhance the shoreline and wildlife would be a great plus.”

- "It depends on the type of shoreline project, its impact on shoreline, all residents, follow up of maintenance and upkeep of project, accessibility to people in charge."

We received detailed qualitative and quantitative information from the surveys. Following the first meeting and during the initial survey, landowners demonstrated curiosity, interest, and apprehension. Landowner support of any potential project seemed dependent on the type of shoreline project, its impact on shoreline, all residents, follow up maintenance and upkeep of project, and accessibility to people in charge. There was disparity among the desires of landowners. Some landowners were interested in the potential proposed NBS that could be used to mitigate storm damage and enhance the shoreline, but most landowners reiterated that they would only like to see improvement of the bulkhead or seawall. Some expressed that the potential for NBS to attract wildlife was a good thing, while others deemed it to be a potential negative effect. Some anticipated marshy areas would attract insects. Some landowners were apprehensive about any projects that would draw recreational users, while others were in support due to potential benefits to the community and a draw from tourism. One person surveyed wanted the "citizens" to be "at the core of the project." Another was insistent that, as a major stakeholder, their word should be considered final on any projects.

Two months after the first meeting, a second meeting was convened with landowners. They were presented with highlights from intercept surveys conducted along Shell Belt Road. They were also presented with example NBS designs. Two conceptual designs were developed and projected on the image of a pier located on Shell Belt Road. Landowner feedback on the design ideas was gathered. Several landowners could not attend the second meeting, so follow-up emails were sent to ensure comprehensive communication and feedback.

The study concluded with the following from landowners:

- 45% properties wanted to explore ideas for NBS for their properties
- 19% properties had no desire
- 13% properties were interested in continuing the discussion
- 9% properties were still potentially interested
- 14% properties never communicated during the project

What would be successes or lessons learned from our engagement with landowners? Or how to engage with landowners in the future?

Successes:

- Dissemination of surveys using multiple methods achieved stakeholder participation and feedback
- Significant participation in mapping activities at meetings yielded important information to help guide designs and target areas
- Landowners were not afraid to approach team members for discussions as the meeting format allowed for

conversations to develop throughout the project

- Identification of shoreline management wants from the community, even if the majority did not want nature-based solutions.
- Improved networking and communication between landowners and natural resource entities.
- Improved communications among landowners about shoreline management options.
- Collection of high resolution aerial imagery and bathymetry/shoreline slope data that could be used for future efforts.
- Identification of alternative sites (i.e., Coden Bayou), which have more public access

Major lessons learned and recommendations from this collaboration include:

- Social media posting on the initial meeting devolved into mis-informed opinions about the project, yet resulted in a high participant turn out – RECOMMENDATION: Identify a local resident stakeholder to co-create and disseminate project messaging. Ensure initial information is as thorough as possible and use high turn out to the project's advantage.
- Although the project partners are active in the local community, many participants did not know the organizations or understand their overarching roles – RECOMMENDATION: Spend time in initial correspondence and at the beginning of meetings to better introduce the partners, their organizational goals, and role on the project.
- Although the landowners live adjacent to a large-scale NBS projects, they lacked an awareness or in-depth understanding of NBS and fell back to traditional/known protection methods – RECOMMENDATION: Provide time, especially in initial meetings, for a NBS 101 explanation. MSU has some great information on this that we should have employed.
- The idea for this project was to solicit input from the landowners and stakeholders and use it to inform initial conceptual designs. The community had difficulty with the “blank slate” approach, wanting to see the “designs”. This approach was meant to be open and inclusive; rather it seemed to breed doubt and suspicion – RECOMMENDATION: Give proper background on nearby NBS projects and their connection to landowners' waterfront, including initial shoreline history and historical aerials. In addition, provide examples of NBS that have been implemented along similar waterfronts to engage with landowners and educate them on potential NBS options.
- The conceptual designs developed by MSU and presented at the 2nd meeting were a valuable communication tool. Landowners wanted to see what their specific property might look like with NBS so incorporation of visualization tools will be part of future similar efforts.

Optional File Upload

2. How has your work benefited your organization, professional field, community, or other stakeholders?*

This project benefitted our organization by strengthening our connections with the community and demonstrating to stakeholders that we are aiming to assist them in ensuring their physical access to vital resources and/or protecting their shorelines and properties from coastal storms through NBS. Historically, many communities have been taken advantage of and the needs of stakeholders have been ignored for the sake of conserving the environment. This work offered TNC the chance to demonstrate that the needs of stakeholders are being taken seriously in the design and implementation of a project. In addition, this project strengthened relationships between TNC, MSU, and USA and other stakeholders, including the City of Bayou la Batre, Mobile County, Bayou la Batre Utility Board, and ADCNR.

This project benefitted our professional field by creating a road map of how to engage stakeholders openly, while listening to individual concerns. Approaching stakeholders to protect their private property with the added benefit of conservation is not a common practice, and our successes, methods, and lessons learned may be utilized to help inform future projects that involve approaching communities.

The project was initiated due to the need for protection of the road the stakeholders own, reside on, or rely on, as well as their waterfront access to coastal resources. This project benefitted the community by raising awareness of NBS that could protect their land from erosion and build up resilience of adjacent infrastructure and their properties. The project also gave landowners a chance to help lead the decision-making processes.

3. Are there any other successes related more broadly to this project that you would like to share with us?*

Beyond what was mentioned in the above paragraph, this was truly the first time that a project team led by TNC engaged with a suite of private landowners prior to initiating a project, so they could share their thoughts, needs, and concerns. It was a unique opportunity for the project team to learn different ways to educate landowners who have yet to be exposed to NBS and the options available. It taught lessons on how to present the material a bit differently and more gently than our normal approach of jumping right in. The main success was exposure of NBS to a group of landowners who likely never thought of NBS occurring along their shoreline, even if they opposed it.

4. What did you learn (positive or negative) as a result of this grant? What lessons would you share with other organizations or the field at large?*

More communication is needed throughout the project as there were still information/knowledge gaps about our organizations, NBS, and the process of implementing restoration projects. Timing was also a factor. This was intentionally a short process. However, with more meetings and discussions, additional information could have been provided, yielding a different outcome. Most landowners seemed to want to think about changes a bit longer than the grant time frame afforded. Additional meetings may have changed minds and relationships and developed trust with the project team.

An observation throughout this process that may have benefitted the project or other similar projects would be to present more example or conceptual designs during the initial meeting. It seemed difficult for property owners to grasp the tiered approach of gathering their wants/needs without having a design to comment on. For many people it is much easier to review vs. create and I think this was evident in the meetings.

5. How do you characterize your relationship with GRP and what suggestions do you have for improvement?*

Our relationship with GRP was valuable and led us to this unique opportunity. While this opportunity did not result in consensus for NBS, it helped strengthen already solid relationships and expose the team to a different sector of the coastal community along Mississippi Sound. TNC, MSU, and USA have a deep bench of engagement in this area and look forward to working with GRP to further expand their efforts and our collaborative goals in this area.

6. Please provide any other feedback or comments you have for the GRP.*

None at this time.

7. If applicable, please identify and describe the ways you or your organization leveraged GRP's grant (e.g., other funders, volunteers who worked on the program, in-kind donations etc.) Please specify the value and/or number/hours of volunteers if possible.

n/a