SC Beach Preservation Technical Advisory Committee (TAC)
Shoreline Stabilization – Meeting Summary
December 6, 2021

The South Carolina Beach Preservation Technical Advisory Committee (TAC) met on Monday, December 6, 2021, at James Island Town Hall in Charleston, SC.

WELCOME & INTRODUCTIONS

At 9:30 a.m., S.C. DHEC OCRM Chief Elizabeth von Kolnitz welcomed the Technical Advisory Committee (TAC) members and introduced S.C. DHEC's Director of Environmental Affairs, Myra Reece. Ms. von Kolnitz reiterated the charge of the TAC:

> *Inform the South Carolina Beach Preservation Committee by examining research and information related to specific beach preservation techniques, including shoreline stabilization, beach nourishment, and dune restoration, and land management, and evaluate existing and alternative shoreline policies. The outcome of the TAC will be a final report summarizing the deliberations and highlighting policy options for consideration.*

Adam Bode, Coastal Planner in DHEC's Office of Ocean and Coastal Resource Management and Kristy Ellenberg, Director of Collaborative Partnerships & Strategic Initiatives in DHEC's Office of Environmental Affairs introduced themselves as meeting facilitators (Facilitators) and asked participants to introduce themselves.

The following TAC Members were in attendance:
Matt Slagel
Emily Cedzo
Steven Traynum
Ross Appel
Rod Tyler
Alex Butler
Aaron Pope
Katherine Gerling
Melissa Chaplin
Blanche Brown
Paul Gayes
Justin Hancock
Keith Bowers
Rob Young
Amy Armstrong
Jenny Brennan
Blair Tormey

Iris Hill
Michelle Pate

The Facilitators acknowledged additional members from DHEC's Office of Ocean and Coastal Resource Management (Kelsey Fogarty, Jessica Boynton, Barbara Neale, Tara Maddock, Liz Hartje, Chelsea Woodruff) and South Carolina's Coastal Conservation League (Becky Ryon) to assist with note taking.

WHAT IS BEACH PRESERVATION?
To work toward a common, foundational understanding of what "beach preservation" is as it relates to each topic to be discussed by the TAC, the Facilitators highlighted the following statements, which were selected from input provided by the TAC during the Kickoff Meeting:

- Maintaining the status quo
- Preserving natural functions
- Pro-actively maintaining the functionality of the beach/dune system
- Protecting and enhancing natural beach processes
- Balancing habitat and environmental concerns with current development
- Protecting the highly dynamic ecological process and functions that shape, form and maintain the beach, dunes and nearshore habitat.

TAC members were asked to write down words and statements that characterize their view of beach preservation and share with members at their small tables. The Facilitators led a group discussion, including participation from those joining virtually via Microsoft Teams.

Statements and discussion about "what is beach preservation?" included:

- The verb is important. Does the word "preserve" mean preservation, protection, or conservation? The original Blue Ribbon Committee interpreted it as retreat but we now have preservation.
- Maintaining the natural processes and environments of the beach dune system while limiting human impacts.
- Protecting the natural ecosystem and maintaining a balance between environmental needs and recreational use.
- Context and location is crucial. Where you are on the coast and what you're trying to preserve or protect needs to be taken into consideration given the complex and dynamic system we're considering.
- Need to understand what "beach" and "preservation" mean. We have a good understanding of the beach (dune, sand area down to the water mark) but what does preservation mean? Are we considering what sits behind the beach?
- Need to consider temporal and spatial issue as well. Are we looking to keep the beach entirely natural? Are we looking to maintain the beach as what it is today or are we proactively considering what will happen in the next 30 years?
- Need to realize that community priorities will vary and be different by location.
- It is important to consider how a definition would impact other regulatory or administrative processes.
- Need to consider which functions of the beach we are seeking to preserve.
- Beach preservation is straightforward if we are only considering preserving the beach, ie you are preserving the sand dunes and natural processes. The discussion is about the preservation of the infrastructure that we've installed. Those are two different discussions: beach preservation vs beachfront community and economic preservation.

- In most cases, you can't preserve all ecological function and all economic function. Some combination of holding it in place and taking baby steps back here and there.
- Need to remember that what is implemented in one location will likely be implemented in other locations as this is a statewide Policy of Beach Preservation.

Action 1 – Draft high-level definition(s) of "beach preservation."
Action 2 – TAC Members will revise definition(s) to include in final report.

INFORMATIVE SESSION:
A presentation entitled *Shoreline Stabilization: OCRM Perspective* was given by Blair Williams which provided an overview of OCRM's current regulatory and statutory language related to shoreline stabilization, emergency orders and new and other technologies.

The presentation concluded with lessons learned and challenges associated with a previous study involving the deployment of a wave dissipation device seaward of the setback line or baseline.

Questions and discussion resulting from Mr. Williams' presentation included:

- Question: How does OCRM ensure that Emergency Orders / Authorizations are temporary?
  - OCRM coordinates with the local governments and conducts site visit evaluations to see if a habitable structure is in "imminent danger" as defined by law. Staff works with the property owners to explain the process, discuss bonding, and offer other options. Sandbags are meant to be temporary while the property owner works towards a long-term solution such as nourishment. Compliance Section staff inspect to ensure bags are installed correctly and being properly maintained.
- Question: What is the confidence level that the state can enforce the removal of sandbags?
  - Staff is confident of the ability to work with property owners to remove sandbags or work on a plan for renourishment. Bonding requirement provides funding for removal if necessary.
- Question: Are large scale offshore breakwaters legal?
  - Yes. Regulations-30-13N(1) includes permitting standards for offshore breakwaters under erosion control.
- Question: Has the Department experienced repetitive requests for Emergency Orders? When does an emergency stop being an emergency?
  - Yes. There are areas that are repeatedly in an emergency situation and therefore have requested multiple emergency orders over time. Some property owners request authorization for sand scraping or minor renourishment, which do not require a long-term renourishment plan like sandbags. Some communities are pursuing long term solutions to chronic erosional issues.
- Question: Do you require bonding for research projects?
  - Yes. There is a bonding requirement under Section 48-39-130(D)(1).
- Question: What does OCRM look for in a research project? What is required of the applicant?
  - OCRM learned a lot from the Wave Dissipation Study, as outlined on the lessons learned slide. Projects should be vetted extensively prior to starting the study. Research proposals should include a clear purpose with the use of sound

scientific methods, a control and prescribed monitoring to determine success and the effects of the technology on the area including downdrift communities. Early coordination with USACE, USFWS, NOAA NMFS, SC DNR, and State Historic Preservation Office to look at potential impacts is critical.

- Question: Why is emergency scraping allowed but not allowed to be used with sandbags. Why do sandbags required to use off-beach sand?
    - Using sand from the beach to fill sandbags removes the available sand within the system and can cause further erosion. To maintain the available sand resource at the site, that sand needs to stay in the environment and off-beach sand is required to fill bags.

SMALL TEAM DISCUSSION: PROCESS PATHWAYS & APPROACHES

The TAC was divided into small groups to identify specific examples where the current process and approaches are working well and specific challenges or hurdles with the process. The guiding question for these discussions was:

How can DHEC OCRM be more efficient, effective, and flexible in considering and evaluating new technologies for shoreline stabilization?

FACILITATED GROUP REPORT OUT: CURRENT SUCCESSES & CHALLENGES

Following the small team discussions, the Facilitators led the TAC members through a full group report out. The following is a summary of those discussions:

What's Working Well

- Regulatory Framework
    - The regulatory framework (DHEC OCRM) is well established and working well for Emergency Order sandbags and sand scraping. This process could be further expanded upon or used as a starting point for evaluating new technologies.
- Communication and Coordination
    - Channels for communication and coordination with other governmental agencies and entities have been established and are working well.
- Scale
    - DHEC ORCM has a successful approach and process for working at the individual level. Approach and process could be modified for a larger, more community level approach.
- Science Advisory Panel
    - Although not currently in place in South Carolina, the North Carolina Coastal Resources Commission established the CRC Science Panel, which provides the Coastal Resources Commission with scientific data and recommendations pertaining to coastal topics. The volunteer panel is composed of coastal geologists and engineers.

Action 3 – TAC will further discuss the formation of an ad hoc science advisory panel during Meeting 2.

Challenges

- Politically Influenced Process (Board, Legislature)
- Where, When, How to Evaluate and Test
  - South Carolina lacks a test or study site(s) where technologies can be tested in a controlled environment to evaluate the effectiveness of these approaches from an ecological, economic, social, and environmental impact perspective.
  - Issues surrounding testing technology in an emergency situation as it doesn't provide adequate time for evaluation.
  - Need to define holistic success criteria.

Action 4 – TAC will further discuss the need for a test or study site(s) in SC during Meeting 2.

FACILITATED GROUP DISCUSSION: PROCESS PATHWAYS & APPROACHES

The Facilitators led the TAC in a facilitated discussion to determine whether current best practices or process could be used to evaluate new technologies or whether a modified or new process should be created.

Questions and discussion from this facilitated group discussion included:

- Question: Does OCRM feel like they have the staff expertise to definitively evaluate some of the ideas that come to OCRM? Do you have coastal engineering staff at OCRM, in addition to the staff resources, that are necessary to fully and accurately assess project proposals?
  - Although OCRM has a wealth of staff expertise within Critical Area Permitting Section, staff utilize other areas within DHEC and other state agencies (SC DNR, for example) for input.
  - For the Wave Dissipation Study, OCRM utilized a third-party consultant firm (GEL Engineering) for the evaluation of the proposal.
- Question: What review is done before devices are placed on the beach?
  - OCRM is currently discussing what types of additional processes should be in place to assist in project review. One idea is the ad hoc science advisory panel mentioned earlier in the meeting.
- Question: Is there any way to leverage the engineering capacity or review from the USACE?
  - An invitation was extended for a member of the USACE to participated in the TAC but they declined.
  - The USACE do not usually participate on panels or committees such as these as it could be viewed as a conflict of interest.
- Question: What is the current public notice process?
  - This varies based on the type of application or service request.
    - Individual permit – Department notifies adjacent property owners and local government, and places project on DHEC website. Applicant runs a newspaper ad in state or local paper.
    - General permit – The General Permit is noticed to the public via the DHEC website. Once General Permit is available, applicant applies for individual coverage under the GP and must certify mail neighboring property owner(s), local government and run a newspaper ad.

        - Emergency Orders (EOs) – These are an exception to a permit. No notification to general public but notify USACE and local government. OCRM sends EOs to federal and state resource agencies. Use of new technologies, if authorized under an EO, would have no public involvement or notice.
        - New Technology Pursuant to Proviso 34.44 – This is a law that allows the study of a qualified wave dissipation device and is an exception to a permit. No notification to general public. OCRM coordinates project with USACE, federal and state resource agencies.
- Question: Have there been any research projects permitted under the Proviso?
    - No, not under this current application process.

The TAC members agreed that they need to better understand the various aspects of the current permitting and/or authorization process pathways and approaches to further discussions.

Action 5 – DHEC OCRM staff will create fact sheets to outline the current permitting and/or authorization process pathways and approaches prior to Meeting 2