



## Meeting Notes from the Beachfront Jurisdictional Line Stakeholder Workgroup February 26, 2019

The Beachfront Jurisdictional Line Stakeholder Workgroup met on Tuesday, February 26, 2019, in Meeting Room B of the Charleston Main Library, Charleston, SC.

### **WELCOME**

At 10:00 a.m. S.C. DHEC OCRM Chief Elizabeth von Kolnitz welcomed the Workgroup members, thanked them for their participation in this process, and acknowledged OCRM staff and S.C. DHEC facilitators for their support of the Workgroup's efforts. Ms. von Kolnitz stated that during this meeting, the Workgroup would review and provide input for the final report draft outline, scenario #2 (low, wide dune field with taller dune farther landward) and scenario #3 (limited or no dunes present) language, renourishment, and extraordinary erosion.

The following members were in attendance:

Bill Eiser  
Rocky Browder  
Blanche Browne  
Jane Darby  
Nick Kremydas  
Emily Cedzo  
Jean Ellis  
Josh Eagle  
Ryan Fabbri  
Tim Kana

Additional public attendance consisted of Linda Tucker, South Carolina Beach Advocates (SCBA). Kristy Ellenberg was the Workgroup Facilitator (Facilitator).

### **DRAFT OUTLINE FOR FINAL REPORT: GROUP DISCUSSION**

Ms. von Kolnitz presented the Workgroup with the draft outline for the final report, and asked for feedback on organization and content. Ms. von Kolnitz explained that the introduction section will set the framework for the Workgroup's purpose by reviewing the Beachfront Management Reform Act (Act 173). The Background section will include an overview of the history of beachfront management, as well as the resource information that was provided to the Workgroup through presentations and other documentation. The Workgroup Findings section is separated into the two main topics of *primary oceanfront sand dune* and *extraordinary erosion*; this section will capture the discussions, ideas, and recommendations of the Workgroup. Ms. von Kolnitz stated that most of the material for the final report will come from the meeting notes, and reiterated that where there is not consensus by the Workgroup, the dissenting opinions will be noted in the final report.

Ms. von Kolnitz indicated that the Workgroup members could expect a draft of the final report in late March 2019, and comments from the Workgroup would likely be required by early April 2019. Workgroup members asked a number of questions regarding the format for providing comments and edits of the final report back to DHEC OCRM staff. Ms. von Kolnitz indicated that the Workgroup review process would likely include a review round by email for individual member responses, and then a subsequent round using a platform such as Google Documents for simultaneous viewing and editing of other member's comments.

### **SCENARIOS #2 AND #3: FURTHER DISCUSSION**

Ms. von Kolnitz presented a powerpoint entitled *Stakeholder Meeting 8: Wrap up* to further discuss the draft language recommendations for Scenario #2 and Scenario #3. The Workgroup feedback from the February 4, 2019 meeting was incorporated into this presentation and Ms. von Kolnitz asked for comments on the draft language.

#### SCENARIO #2

Ms. von Kolnitz reminded the Workgroup of the Scenario #2 area characteristics: a wide, low dune field with the presence of a primary dune that is significantly landward of a relatively stable vegetation line. The proposed draft recommendation language for Scenario #2 that Ms. von Kolnitz shared with the Workgroup was:

In standard and stabilized inlet zones, if the primary oceanfront sand dune is located more than 200 feet landward of the current line of stable vegetation, the jurisdictional baseline should be established seaward of the primary dune a distance equal to 30% times the measured distance from the primary dune to the current line of stable vegetation.

Workgroup feedback for Scenario #2 consisted of:

- Modify language to read "...a distance equal to 30% **of** the measured distance..."
  - While general consensus was achieved on this edit, the members will reserve their right to review and comment on the final report.

#### SCENARIO #3

Ms. von Kolnitz reminded the Workgroup of Scenario #3 area characteristics: no primary dune, limited to no dunes, and limited or no vegetation line. The proposed draft recommendation language for Scenario #3 that Ms. von Kolnitz shared with the Workgroup was:

On Undeveloped Islands:

In standard and stabilized inlet zones on undeveloped islands, if no primary dune exists, the baseline should be established at the current line of stable vegetation.

On Developed Islands:

In standard and stabilized inlet zones on developed islands, if no primary oceanfront sand dune exists, the upland location of the crest of the primary dune should be located by using the Ideal Dune Analysis [*of a volumetric calculation for a 3 foot high reference dune*]. After this analysis is completed, the baseline should be established at the crest of the ideal dune.

If the ideal dune analysis establishes the baseline landward of a habitable structure, then the baseline can be placed at the seaward edge of the habitable structure provided that the community has [***what to insert here?***]. However, at no time should the baseline be set seaward of its position established by Act 173.

Workgroup feedback for Scenario #3 consisted of:

- Undeveloped islands:
  - Member suggestion was that there should be some consistency between undeveloped and developed islands in how the baseline is established.
    - Member response: the proposed draft language captures how the baseline has been set on undeveloped islands in the past.
  - Qualifying language:
    - Add 'essentially' to address concerns about the definition of undeveloped.
    - Use the term 'beaches' instead of 'islands'.
    - "In standard and stabilized inlet zones on essentially undeveloped beaches/beachfronts..."
- Developed islands (change 'islands' terminology to 'beaches' or 'beachfronts' as noted above):
  - Ms. von Kolnitz stated that the "...upland location of the crest of the primary dune..." proposed draft recommendation language mirrors current statute language. Additionally, she highlighted the inclusion of the 3' high reference dune requirement in the draft recommendation and noted that locating a reference dune that is exactly 3' high may prove to be a challenge for DHEC OCRM.
    - Member suggestions - Base volume calculations on a hypothetical 3' dune where no such dune exists; A 10' contour line could be used and would result in an elevation that is approximately equal to a 3' dune.
  - There was concern about the Ideal Dune Analysis being difficult to explain to the public/property owners and the impact that this methodology may have on the landward movement of the baseline.
  - By using the Ideal Dune Analysis, this proposed draft recommendation incorporates an established scientific method to determine an appropriate location for the baseline. If the Ideal Dune Analysis results in the baseline being on the landward side of the habitable structure, this recommendation then allows for the baseline to be located on the seaward edge of the habitable structure. A member commented that this is a beneficial scenario for property owners.
  - How should this Workgroup address the fact that the seaward edge of development would create a jagged-edge baseline?
    - The baseline should not jut out to accommodate the few habitable structures that are further seaward than the surrounding habitable structures, but should follow a nearly continuous line of development.
      - If a more seaward structure is destroyed in a storm, it is most practical to rebuild in-line with the surrounding structures.
        - A member suggested that such reasoning would result in legal issues for the Department.
      - Suggested language modification: "...the baseline can be placed at the *average* seaward edge of the habitable structure..."

- How does the active beach affect placement of the baseline on the seaward edge of development?
  - It can be problematic to have a baseline located on active beach.
    - Suggested modification: place baseline at the most landward of either the seaward edge of the habitable structure or the active beach line.
- Currently, DHEC OCRM includes porches attached to a habitable structure as part of that structure. Workgroup discussion indicated a preference for not including porches when determining the bounds of a habitable structure and instead using enclosed, heated, or cooled spaces; however, for purposes of the draft recommendation, leave description as “habitable structure” without the inclusion of additional descriptors.
- In general, the Workgroup noted the value in maintaining a scientific technique for placing the baseline, and supported the use of Ideal Dune Analysis methodology as the initial approach when setting the baseline location in Scenario #3. There was concern that a final report including in-depth details regarding various beachfront scenarios may not be well-received by the general assembly and it was suggested that the final report be streamlined with a focus on key points and recommendations.
- Additionally, it was suggested that the final report include a statement encouraging local governments to adopt local ordinances.
- Suggested language modification: remove “...provided that the community has [what to insert here]...”
- To summarize the process for setting the baseline on developed beaches/beachfronts in Scenario #3:
  - Step 1: Conduct Ideal Dune Analysis;
  - Step 2: Establish average seaward edge of habitable structure;
  - Step 3: Ensure that seaward edge of habitable structure is not on active beach, if so, place baseline on active beach line.
- Member statement: the baseline should be placed as far landward as practical with a defensible rationale and should act as an informative line that helps people understand the risks associated with beachfront living.

## **RENOURISHMENT: REVIEW AND DISCUSSION**

The powerpoint slideshow entitled *Stakeholder Meeting 8: Wrap up* was utilized by Ms. von Kolnitz to further discuss with the Workgroup the following renourishment considerations: General Recommendations, How to Qualify for an Extension, and Draft Recommendation language. Ms. von Kolnitz informed the Workgroup that during the next jurisdictional line review cycle, which cannot start until January 2024, all of South Carolina’s beaches will be on the same schedule instead of the staggered review that has historically been the process.

General Recommendations as shared with the Workgroup by Ms. von Kolnitz:

- Preferred Workgroup option is to allow a request to extend the line review period rather than petition to revise the line after renourishment is completed.
- Local governments and state should discuss planned renourishment projects, including during Local Comprehensive Beachfront Management Plan updates, to inform the line review schedule.
- Extension should allow time for construction to be completed and stabilization to begin.

*Workgroup feedback* – no suggested modifications.

How to Qualify for an Extension requirements as shared with the Workgroup by Ms. von Kolnitz:

- Request should be made at the beginning of the review so that sufficient time can be allocated within legal timeframes (4 years).
- Renourishment permit should be issued and “in effect”, meaning all appeals have been concluded.
- Funds should be encumbered to complete the renourishment project.
- Community must have initiated the renourishment project by the beginning of the review cycle by:
  - Commencement of sand being placed on the beachfront OR
  - Demonstration of a signed contract with dredging operation that includes date of commencement within [6 months/1 year?]
  - OR other?
- Renourishment project has been designed to include a primary oceanfront sand dune [and/or include stabilization techniques designed to aid primary dune formation?].

*Workgroup feedback –*

- Regarding a community’s initiation of a renourishment project through demonstration of a signed contract:
  - Member suggestion: include one (1) year as the timeframe for work to commence.
  - Member comment: renourishment can be accomplished through means other than dredging.
    - Ms. von Kolnitz stated that the language can be modified to clarify that the signed contract must be with the contractor conducting the renourishment work.
      - Member suggestion to use ‘codified agreement’ terminology in lieu of ‘contract’.
- Regarding the inclusion of a designed primary oceanfront sand dune in the renourishment project:
  - Ms. von Kolnitz stated that a renourishment project that does not include the establishment of a primary oceanfront sand dune may create a situation in which DHEC OCRM is establishing the baseline in an area where there is no primary dune.
  - Member preference is to remove this language with the explanation that the processes (i.e. Ideal Dune Analysis, etc.) are now established for determining the baseline location even if no primary dune is present.
  - If Ideal Dune Analysis is removed from methodology for establishing the baseline in areas where no primary dune exists, then this requirement should remain.

Draft Recommendation language as shared with the Workgroup by Ms. von Kolnitz:

- At the initiation of a jurisdictional line review cycle, communities may submit a request for an extension of the jurisdictional line review for their community if they have an issued OCRM Critical Area Permit that is in effect for a renourishment project, or a federal renourishment project with an associated state-issued Coastal Zone Consistency Certification.
- The purpose of the extension is to allow construction of the renourishment project to be completed and the beach/dune system to begin to stabilize.
- The community requesting the extension must demonstrate that 1) funds are encumbered to complete the renourishment project, 2) the project has been designed to include a primary oceanfront sand dune [including stabilization techniques such as plantings and/or fencing], and 3) the project has been initiated [by what means].

- Local governments are encouraged to communicate with DHEC OCRM regarding pending renourishment projects, including during the update of the community's Local Beachfront Management Plan. This coordination would inform the development of the jurisdictional line review schedule.

*Workgroup feedback –*

- Regarding what the community requesting the extension must demonstrate:
  - Remove item #2 and include the one (1) year time-period requirement for initiation of project.

**EXTRAORDINARY EROSION: QUESTIONS AND RECOMMENDATION DISCUSSION**

The powerpoint slideshow entitled *Stakeholder Meeting 8: Wrap up* was utilized by Ms. von Kolnitz to review the previous Workgroup discussions, further evaluate a Member presented approach, and obtain feedback on the draft recommendations regarding extraordinary erosion.

Ms. von Kolnitz summarized the previous Workgroup discussions on extraordinary erosion in the following points:

- Assessing extraordinary erosion by beach or island was suggested as a reasonable approach.
- Important to understand typical erosion and site conditions, including seasonal trends.
- Determining typical erosion for each beach and seasonal cycles requires repetitive measurements which may be costly.
- OCRM currently collects beach profile data once per year ~ 2000 ft. apart.
- Local governments conduct annual surveys to determine typical erosion and also conduct periodic post-storm surveys when there are erosional impacts. Data may be available for ~70% of developed coast.
- Consultants, academia, and other government entities may have additional data they are willing to share.

*Workgroup feedback –*

- Regarding 'typical' erosion
  - Does DHEC OCRM already have such information in the form of long-term erosion rate data obtained from beachfront monuments?
    - DHEC OCRM staff response: Shoreline change data (long-term erosion rates) are calculated using historical wet/dry shoreline positions. These rates show shoreline position changes using units of feet/year. These shoreline change rates are not volumetric. If the Workgroup recommendation is to assess volumetric data, using units of cubic feet/year for example, DHEC OCRM does not have background volumetric rates.
  - At the initiation of the Beachfront Management Act, beach erosion rates were calculated based on natural processes and were, by definition, 'background' erosion rates. It is important to understand the natural erosion rate as many South Carolina beaches have been renourished so much in recent decades that these beaches would show positive long-term rates. Background erosion rates are valuable in determining what is 'extraordinary' so having a context for typical/background erosion rates is important.

- Defining 'typical' erosion is made more difficult when considering varying timescales such as long-term erosion rates and short-term volatility (i.e. shoal bypassing events which may cause rapid erosion).

Ms. von Kolnitz presented the previously suggested approach by a Workgroup Member on how to determine the severity of erosion. This approach consists of a two (2) step process.

**Step 1:** Assess the recession of the vegetation line or loss of primary dune.

- If recession of the vegetation line is greater than [multiplier] or loss of the primary dune is greater than [x%] then erosion would be considered above typical and move to step 2. If not, then erosion is not extraordinary.

**Step 2:** Analyze the volume of sand on the visible beach to determine the amount of sand lost due to the erosional event (qualified survey data provided by local governments).

- If sand volume loss is greater than [factor] compared to typical erosion, then erosion would likely be 'extraordinary'.

*Workgroup Feedback –*

- A Member noted that if the result of an event is the loss of half the sand from a renourishment project, then the local government would likely consider the erosion to be extraordinary even though it may not alter the vegetation line or the primary dune
- Ms. von Kolnitz clarified that this methodology is viewed by DHEC OCRM to be less data-centric and more as an opportunity to capture the initial post-event beachfront triage efforts by local governments.
  - If the local government conducts the initial beachfront assessment and is not alarmed, the need for DHEC OCRM to further evaluate the beach may be mitigated; however, beachfront assessments may not be a priority for local governments when addressing life-threatening issues and loss of habitable structures, etc. following an event.
- Ms. von Kolnitz asked if a timeframe for Step 1 is necessary. Would 30 days post -event be an appropriate amount of time to complete an initial erosion triage?
  - While 30 days is a reasonable start, an initial assessment of beach impacts will vary depending on specific storm characteristics such as intensity and extent of geographic coverage. Some Members do not think this timeframe is necessary.
  - A Member noted that post-storm data such as aerial imagery from NOAA/other or DHEC OCRM post-storm flights could be relied upon for initial beach impact assessments.
- Ms. von Kolnitz stated that DHEC OCRM does not currently have the resources to solely implement this approach and will have to rely heavily on local government data. Will local governments be apprehensive in providing such data to DHEC OCRM considering that the local government paid for the data?
  - Workgroup recommendation is for DHEC OCRM to have a Memorandum of Agreement (MOA) with local governments for data sharing.

Ms. von Kolnitz posed several remaining questions regarding extraordinary erosion to obtain additional information and clarification from the Workgroup. The questions and subsequent Workgroup responses are:

- Which beaches currently collect data pre-and post-event? How to address areas that aren't collecting data?
- What multiplier/percent/factor should be used to compare pre-and post-storm [erosion rate, sand volume] to determine "extraordinary"?
- What additional resources or tools should be made available to obtain adequate data?

*Workgroup feedback –*

- Regarding collection of pre- and post-event data by beaches/local governments:
  - Use the DHEC OCRM issued permits for beach renourishment projects to determine which beaches are collecting data.
  - For those beaches that are not renourishing or not collecting data, DHEC OCRM may need to fill in the data gap.
  - To understand the monitoring requirements of federal renourishment projects, DHEC OCRM could benefit from closer coordination with the U.S. Army Corps of Engineers (Corps). The Corps may also be an additional data source.
- Feedback regarding the use of a multiplier/percent/factor to determine 'extraordinary' erosion was wide ranging:
  - Loss of a 3' primary dune denotes extraordinary erosion.
  - While extraordinary erosion would be measurable, using one multiplier for the entire coast would be problematic due to the variability by beach; furthermore, this Workgroup is not in a position to establish a multiplier/percent/factor for determining the occurrence of extraordinary erosion.
  - Extraordinary would be erosion such that the baseline would move more than X feet landward.
  - Extraordinary would be erosion that results in any landward movement of the baseline.
  - Use 25' of shoreline recession as an indicator of extraordinary erosion with the rationale that a 3' high dune would have a base width of approximately 15-20 feet. Twenty-five feet (25') of shoreline recession would indicate that the 3' dune is no longer present.
- For future data considerations, a Member suggested that DHEC OCRM model South Carolina's dune systems with newer dune and beach morphological change models. Such models would allow for the prediction of impacts based on different storm scenarios. This statement was not meant to advocate for basing regulations on modeling.
- The rearrangement of sand is not necessarily erosion. Does sand have to be moved off the beach for erosion to occur?
- Ms. von Kolnitz stated that DHEC OCRM will be challenged by the inability to capture sufficient snapshot references to determine when a beachfront change occurs (i.e. did the vegetation line move slowly over six (6) months or rapidly after a storm event?).
  - A Member suggested using representative volumetric survey data from local governments to help address this specific example.
- Legislative intent was to protect constituents by having a broad effect on data collection after a major event.
- Nor'easters will also cause erosion. Without renourishment efforts, beach erosion after three (3) or four (4) years of storms is cumulative.

The proposed draft recommendations for the determination of 'extraordinary' erosion that Ms. von Kolnitz reviewed with the Workgroup were:



- DHEC OCRM should evaluate and implement provisions for extraordinary erosion on an island or beach geographic scale rather than by erosion zone.
- DHEC OCRM should implement a framework to coordinate with local governments and other government entities to obtain pre- and post-storm data to assist with 1) establishing typical erosion along an island or beach, and 2) determining when extraordinary erosion events have occurred along an island or beach.

*Workgroup feedback –*

- A Member reiterated the suggestion that extraordinary erosion can be defined in standard and stabilized inlet zones that have a primary dune, as the loss of a 3' primary dune during a single storm event that would result in the landward movement of the baseline.
  - Extraordinary erosion is not limited to this scenario; additional criteria for other scenarios (such as areas absent a primary dune) should be explored.
- The legal definition of erosion is slow and imperceptible change.
- Member recommendation for statutory change to "jurisdictional line" instead of "primary dune line" to clarify nomenclature.
- Improvements for Real Estate Disclosure requirements are being reviewed.

**NEXT STEPS**

Ms. von Kolnitz concluded the meeting by reviewing the next steps in the development of the final report and updating the Workgroup on the timeline for promulgating regulations. Ms. von Kolnitz highlighted the various opportunities for public input (and continued stakeholder input) during the regulation development process.

The Workgroup shared the following recommendations for the final report:

- ❖ Context of the final report should highlight the variability of South Carolina's coast and that the Workgroup recommendations are based on this variability;
- ❖ Inclusion of pictures/visuals would be helpful;
- ❖ Distribution to local governments is important.

The Meeting was adjourned at 2:00 p.m. by Ms. von Kolnitz.