

Virginia Coastal Resilience Master Plan

Technical Advisory Committee – Studies, Research, and Best Practices Subcommittee

Subject	Studies/Research/Best Practices Subcommittee Meeting #5 Virginia Coastal Resilience Master Planning Framework	Date	June 14, 2021
Facilitator	Dr. Robert Weiss	Time	11:00 am – 12:30 pm
Location	WebEx - https://governor.virginia.gov/i/ak95j	Scribe	Emily Sokol

Invitees/Attendees			
#	Name	Organization/Role	Attended?
Studies, Research, and Best Practices Subcommittee Members and Staff Advisors			
1.	Dr. Robert Weiss – Chair	Director, Center for Coastal Studies at Virginia Tech	Y
2.	Dr. Karen McGlathery – Vice Chair	Director, Environmental Resilience Institute, University of Virginia	Y
3.	Shurui Zhang – Staff Advisor	Commonwealth Coastal and Marine Policy Fellow	Y
4.	Elizabeth Andrews	Director, Virginia Coastal Policy Center at William & Mary Law School	Y
5.	Dr. Jessica Whitehead	Executive Director, Institute for Coastal Adaptation and Resilience (ICAR), Old Dominion University	Y
6.	Dr. Carl Hershner	Emeritus Professor of Marine Science, Virginia Institute of Marine Sciences at William & Mary	Y
7.	Whitney Katchmark	Principal Water Resources Engineer, Hampton Roads Planning District Commission	Y
8.	Dr. Mark Luckenbach	Associate Dean for Research and Advisory Services, Virginia Institute of Marine Science at William & Mary	Y
9.	Catherine C. McGhee	Director of Research and Innovation, Virginia Transportation Research Council	
10.	Ashley Montgomery	Associate Designer, Hanbury	
11.	Mary-Carson Stiff	Wetlands Watch Policy Director	Y
12.	William “Skip” Stiles, Jr.	Executive Director, Wetlands Watch	Y
13.	Carlos Rivero	Chief Data Officer	Y
14.	Dr. Robert S. Young	Geology Professor, Program Director for the Study of Developed Shorelines, Western Carolina University	Y
Scheduled Speakers			
15.	Matthew Mampara	Dewberry	Y
16.	Johanna Greenspan-Johnston	Dewberry	Y
17.	Alaurah Moss	Dewberry	Y
Designated Alternates			
Subcommittee Advisors			
18.	Emily Steinhilber	Coordinator, Commonwealth Center for Recurrent Flooding Resiliency at Old Dominion University	Y
19.	Shep Moon	Coastal Planner, Virginia Coastal Zone Management Programs	Y
Other Participants			
20.	Ann Phillips	Rear Admiral, US Navy (Ret.) – Special Assistant to the Governor for Coastal Adaptation and Protection	Y
21.	Connor Winstead	VA Dept. of Conservation & Recreation	Y
22.	Matt Dalon	VA Dept. of Conservation & Recreation	Y
23.	Robert Martz		Y

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#	Name	Organization/Role	Attended?
24.	Cirse Gonzalez		Y
25.	Curtis Smith		Y
26.	Keith Cannady		Y
27.	Elizabeth Schell		Y
28.	Samantha S		Y
29.	Sam Jasinski		Y
30.	Grace Tucker		Y
Consultant Support			
31.	Brian Batten	Dewberry	Y
32.	Emily Sokol	Vision Planning and Consulting	Y

Agenda/Minutes		
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1.	Welcome and Chapter 1289 Reading	<p>Dr. Robert Weiss provided a welcome to the meeting and read the required Section 1289 language.</p> <p>It is requested that the attendees ask questions through the chat box, and Shurui Zhang will moderate the chat. For public comment, you can also submit your comment through http://foiacouncil.dls.virginia.gov/sample%20letters/welcome.htm.</p> <p>If there are connectivity issues, please contact Shurui Zhang at 217-979-8438.</p> <p>Staff will be muted throughout the presentations and may ask questions or place comments in the chat box. Members will be unmuted, as necessary when the discussion period is opened.</p>
2.	Roll Call and Quorum Affirmation	<p>Dr. Weiss called roll to establish a quorum, and a quorum was present. Dr. Weiss asked for a motion to continue the meeting virtually. Dr. Karen McGlathery motioned, and Dr. Robert Young seconded. Dr. Weiss conducted the voice vote, and the motion passed unanimously.</p>
3.	Approval of Today's Agenda and Past Minutes	<p>Dr. Weiss asked if members required any corrections to last month's meeting minutes. No comments. Dr. Weiss approved the minutes as distributed.</p> <p>Dr. Weiss also made a statement reflecting the work of the Subcommittee, as volunteers. He stressed that many of the Subcommittee members work at universities with contracts based on the 9-month academic year that require supplemental funding through grants or internal funding over the summer months. In doing so, he wanted to raise awareness to the fact that, when you ask a faculty member to volunteer during a rigorous academic year or during the summer months when they often are not paid, you are asking for a significant contribution of time and resources. One of the most demanding tasks assigned to this Subcommittee is the relocation handbook, which requires time for both writing and significant research. Four undergraduate students, as well as Shurui, have been recruited to aid in the development of the handbook, and the students are being paid through multiple funding sources identified and proposed by different Subcommittee members. He concluded by stating that it simply adds insult to injury when the Subcommittee is told that</p>

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		something is “not in Dewberry’s contract,” when you are asking the volunteer Subcommittee members, whether they are employed by an academic institution or not, to dedicate significant time and resources to these tasks. These are simply the concerns that the Subcommittee wanted voiced, based on discussions conducted over prior months.
4.	<i>Overview of CRMP Impact Assessment Approach-</i> Matthew Mampara, Johanna Greenspan- Johnston, and Alaurah Moss	Dr. Weiss then introduced the Dewberry representatives and opened the floor for them to begin their presentation. The purpose of the presentation was to provide an update to the Subcommittee on the status of and approach being taken for the VA CRMP impact assessment. In doing so, they addressed the objectives, components, quantitative components, and the progressive levels of detail used in describing impact in the impact assessment, in addition to addressing the four themes of the assessment: Community and Cultural Resources, Critical Sectors, Natural Infrastructure, and Underserved Communities. Finally, the Dewberry presenters identified how use and presentation of the impact assessment will support project prioritization, analysis of project gaps, identification of hot spots, refining of data sets, and identification of opportunities for development. (See Attached Slides)
5.	Discussion and Comments	<p>Dr. Weiss then opened the floor to the Subcommittee for discussion.</p> <p>Discussion Point- Dr. McGlathery: I have a couple of questions. Regarding the use of the NOAA marsh migration mapper, that tool does not take into account marsh accretion, I believe. If you are using this tool, you could be overestimating marsh loss.</p> <ul style="list-style-type: none"> - Alaurah Moss: The tool does incorporate accretion; however, the outputs available for download do not incorporate accretion. So yes, it is likely that this tool would overestimate marsh loss. - Dr. McGlathery: Could you also provide some more information about the social vulnerability analysis? One of our concerns was about choosing an index at the census tract versus the block level. You mentioned infrastructure, but are human demographics also being downscaled to the block level? - Johanna Greenspan-Johnston: Yes, for the demographics we are going directly to Census data, which is provided at the block level. As a result, we will be repeating the process of fetching that data and applying it to the structures and following their methodology of looking at percentiles to perform comparisons across different geographic areas. - Matt Mampara: To be clear, the downscaling is being done specifically for residential structures in the landscape. It is not being completed for other aspects. There are fundamental limitations of the location attribute of the data set, which has prevented us from moving forward to vulnerability and risk. The sheer volume of assets that we are trying to attribute to correct building footprints is just impossible to complete in this short time frame. However, we would really appreciate feedback on how to improve. - Mary-Carson Stiff (in chat): I’m sure Dewberry is aware of this, but Molly Mitchell at VIMS is also studying marsh accretion. Could the modeling be used by Dewberry to supplement the data? - Ms. Moss: Yes, we have been in contact with Molly and had a conversation with her. They are looking at the 2050 scenario, but it will not be available until the end of July. Once it is available, we will use it to enhance our assessment.

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		<ul style="list-style-type: none"> - Brian Batten: This is an area where we have noted many challenges and see room for improvement in future iterations. We have had difficulty finding consistent statewide data sets. We can note these limitations and come back to them in the future. <p>Discussion Point- Whitney Katchmark: I appreciate your methodologies. Is there a chance that you will send out a written summary of your work? I have many contacts who would be interested in reading and responding to it. However, this is a difficult setting to digest the material and provide effective feedback. Additionally, is the purpose of this presentation simply to provide an update or to receive feedback from the Subcommittee? Are you past the point of making changes to the current iteration’s methodologies? Also, I believe Hampton Roads provided location-specific data, but I’m not sure if that was incorporated because it was not a statewide data set.</p> <ul style="list-style-type: none"> - Mr. Mampara: Regarding the data provided by Hampton Roads, that information was incorporated into the impact assessment. As a rule, the team is coming to the end of the data collection and integration process. However, we were able to take receipt of local-scale data with respect to key attributes of the built environment. - Dr. Weiss: I was sent a document this morning that is in the draft stage but provides a lot of information on the methodologies of the impact assessment. I have not had a chance to send it to the Subcommittee, as I just received it this morning, but I will distribute it. It will likely answer some of your questions. <p>Discussion Point- Ms. Stiff: One comment that I have is recognizing a limitation of the data set, in which the data set assumes that all those species are present in a coastal cross-section of the shoreline. Regarding the question of if there is room for marsh migration in the data set, there are many things that need to be factored in, such as the accommodation of slope, the existence of structures immediately behind the shoreline, etc. Additionally, the table of the wetlands values is something, I believe, we are all interested in learning more about. Lastly, how would it be best for us to send feedback, considering the specific issue of being respectful of the work that is currently being done?</p> <ul style="list-style-type: none"> - Mr. Batten: There is a lot of nuances to the comments that you have made and the question you posed. Alaurah would know best about the limitations of the data regarding levels of marsh migration. The detailed report we sent to Dr. Weiss has been approved by the State. A month or so ago, we sent a conceptual model with questions and specific items, in the hopes of getting decision points in front of the Subcommittees. It is a challenging schedule for all of us, and we are trying to work through these methodologies effectively. Any input that committee members have is welcome. We want the feedback, and so does the State. We are in no way saying that this is the best possible way of conducting the assessment, as we have recognized many of its limitations. We are doing our best with the available data, given the time frame provided, but we always have open ears to receive feedback that will inform future iterations of the plan. - Dr. Weiss: I will outline in my email that all feedback is to be sent to the Subcommittee Chairs, so that we may collect and collate it into a digestible format for the Dewberry team. - Rear Admiral Ann Phillips: Another thing to consider is that this is only the first master plan, and we have more funding allocated in the program to conduct future research of data. Your input is necessary. We are starting the process now

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		<p>of seeing what needs to be changed and how to improve for future iterations. We want you to make recommendations about what research is required and what data sets are needed to make better decisions in statewide resilience planning. Long-term needs are not being ignored. They will be addressed as recommendations for future analysis. Brian’s request for feedback is well-supported by the State, but please ensure that it is sent to your Subcommittee Chairs first so that it can be consolidated, well-formulated, and traceable in the future.</p> <p>Discussion Point- Elizabeth Andrews: You mentioned that you were identifying tribal impacts. How are you measuring this? There is not a map that measures all cultural sites or assets of tribal groups, rightfully so.</p> <ul style="list-style-type: none"> - Mr. Mampara: We do have a measure of tribal jurisdiction and extent. We are looking at permanent land loss and inundation measurement as a driver. We are also looking at the population piece as well. - Ms. Greenspan-Johnston: We have been using the Virginia Indian Heritage Trail. For now, we are using 20 points in the coastal area. Hopefully, it will give us a better idea of what points to look at outside of tribal boundaries. We have put out a data call and want to improve on this. <p>Discussion Point- Dr. Jessica Whitehead: I understand that this is a swift timeline and choices must be made. However, we need to recognize that these choices introduce uncertainty into the results. There will be a lot of attention from policymakers when this master plan is completed and local governments wanting to identify projects. How will you articulate this uncertainty so that decisionmakers who do not have issue-specific knowledge will understand it? We need to create a process for this long-term and in the next iterations. What does the process look like for communities to provide input to Dewberry for incorporation into the plan? How are we going to establish a process so that data and new input can continue to be incorporated in future iterations? How can we interact with you to inform that process?</p> <ul style="list-style-type: none"> - Mr. Mampara: The Dewberry team is currently focused on a version of the master plan that is less process-focused and more revelatory about the implications of the plan than the material that has been provided to you. You make a great point about acknowledging uncertainties. For example, we do not have 2020 Census data to use for this analysis. We think we know what that demographic landscape looks like, but Virginia has grown by 8-9% over the past decade. These are the kinds of unknowns we want to acknowledge. We are trying to make this an engaging and accessible document, while not shirking our due diligence to scientific certainty/uncertainty. That is a point that we want to ensure carries forward into the plan. - Rear Admiral Phillips: It is the State’s responsibility to address this issue. It is also our duty to determine how the TAC will move forward past the first iteration of the master plan. It is a tremendous responsibility and a terrific question. - Dr. McGlathery: Even if it is not included in the main body of the master plan, we must identify the limitations of the assessment and next steps for improvement, as well as be clear about how these will be reflected in the plan. They can be included in the appendix, but they need to be there.

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		<p>Discussion Point- Dr. Young: Your impact analysis did not include geomorphic change as a hazard. Is this something we will be addressing later? We have areas that are already experiencing these changes and their negative impacts, without the prompting of a storm.</p> <ul style="list-style-type: none"> - Mr. Batten: At this time, we are not assessing coastal erosion or geomorphic change, given that there is a lack of data to do so at this point. Those changes are items we can hopefully capture through some of the outreach efforts currently being planned and implemented. The path forward will be made with them in mind, but we need further consideration about how that will be quantified in an analysis. Those changes are very difficult to measure, especially long-term. - Dr. Young: Okay, I just want to stress that, for these communities, it is more than just the threat and fear of storm surge, but also the creeping loss of property. - Mr. Batten: Yes, for many that is an even bigger threat than flooding. Duly noted and fully acknowledged.
6.	Updates from Chair	Dr. Weiss told the Subcommittee that they have four students, as well as Shurui Zhang, working on the handbook and the research required to develop it. Dr. Weiss acknowledged that, considering the need for extensive discussion on the impact assessment during this meeting, updates from the Subcommittee’s working groups would not be presented at this time. He asked all working group chairs to email him a few details about what they have accomplished since their last meeting. Dr. Weiss offered time for discussion or comments from the Subcommittee that were very important or needed to be addressed. There were no additional comments.
7.	Public Comment Period	Dr. Weiss opened the floor for public comments. Shurui Zhang advised that no one had signed up for public comment and no public comments had been posted in the chat.
8.	Wrap-Up and Adjourn	Dr. Weiss asked for a motion to adjourn the meeting. Dr. McGlathery moved, and Dr. Luckenbach seconded. Dr. Weiss conducted the verbal vote, and the motion passed unanimously. Dr. Weiss adjourned the meeting at 12:34:34 pm.

Action Items			
#	Action Item	Owner (Organization)	Due Date
1.	Submit all comments and feedback for Dewberry regarding the Impact Assessment to the Subcommittee Chairs.	Subcommittee Members	
2.	Provide a status update on the work accomplished by each of the working groups since their last meetings.	Working Group Chairs	

If you have any questions, please contact Emily Sokol, Vision Planning and Consulting, at esokol@vision-pc.net.