Virginia Coastal Resilience Technical Advisory (TAC)
RDI Q3 Subcommittee Meeting Minutes

Subject	TAC Resource Data & Innovation (RDI) Subcommittee Meeting - Q3	**Date**	08/15/2024
Chair	Alexander Samms Chief Deputy Virginia Department of Environmental Quality (DEQ)	**Time – START/ADJOURN**	1:00pm/2:23pm
Location	Bank of America Building, 3rd Floor conference room, 1111 East Main Street, Richmond VA	**Scribe**	Addie Alexander, VCU CPP

Committee Members		
Title **[Alternate Title]** **Organization (Abbreviation)**	**Name** **[Alternate Name]**	**Attended?** **V = Virtual**
Chief Deputy [Manager of the Office of Wetlands and Stream Protection] **Virginia Department of Environmental Quality (DEQ)**	Alexander Samms (Chair) [Dave Davis] (Co-chair)	Y
Chief Resilience Officer [Principal Water Resources Engineer] **Hampton Roads Planning District Commission (HRPDC)**	Ben McFarlane [Whitney Katchmark]	V [Y]
Director of Environment and Resiliency Planning [Coastal Zone Program Manager] **Northern Virginia Regional Commission (NVRC)**	Norm Goulet [Rebecca Murphy]	[V]
Director of the Institute for Coastal Adaptation and Resilience [Director of Applied Projects, CCRFR] **Old Dominion University (ODU – ICAR)**	Jessica Whitehead – R [Carol Considine] – R	Y
Director [Environmental Institute Program Manager] **University of Virginia (UVA-EI)**	Karen McGlathery – R [Jonah Fogel]	[Y]
Associate Dean for Research and Advisory Services [Assistant Professor] **Virginia Institute of Marine Science (VIMS)**	Mark Luckenbach – R [Molly Mitchell] (or Lyle Varnell)	[V]
Director **Virginia Sea Grant (Sea Grant)**	Troy Hartley	Y
Director, Virginia Tech Coastal Collaborator **Virginia Tech (VT – CCS)**	Wendy Stout – R	Y
Acting Director **Virginia Transportation Research Council (VTRC)**	Michael Fitch – R	Y
Executive Director [Policy Program Director] **Wetlands Watch (Wetlands Watch)**	Mary-Carson Stiff [Ian Blair]	[Y]

Members of the Public		
Name	**Attended? V = Virtual**	**Speak During Public Comments?**
Adam Gold	V	

Launch / Stantec	
Name	Attended? V = Virtual
Linda Warren (L)	Y
Cece Atkinson (L)	V
Rebekah Cazares (L)	Y
Sidney Huffman (L)	V
Sarah Girard (L)	Y

TAC Staff		
Name	**Title (Organization Abbreviation)**	**Attended? V = Virtual**
Matt Dalon	Resilience Planning Program Manager, DCR	Y
Carolyn Heaps-Pecaro	Resilience Planning Program Coordinator, DCR	Y
Arthur Kay	Lead Mapping & Data Analyst, DCR	Y
Wheeler Wood	Consultant, VCU Center for Public Policy (CPP)	Y
Ellie Plisko	DCR/VCU Wilder Fellow	Y

Reference Links	
Item	**Link**
Meeting Agenda	https://www.dcr.virginia.gov/crmp/meeting/document/2024q3-tac-rdi-subcommittee-agenda.pdf
Meeting Handouts/Presentation Slides	https://www.dcr.virginia.gov/crmp/meeting/document/2024q3-rdi-handout1.pdf
Video Recording of the Meeting	

Agenda Item	Minutes
1. Call to Order, Roll Call, Introductions	Alexander Samms (Chair, DEQ) called the meeting to order at 1pm and shared that the subcommittee is now faced with narrowing down their recommendations. Wheeler Wood (CPP) called the roll.
2. Adoption of Meeting Agenda, Minutes	There was a motion and second to adopt the agenda with no discussion. Then there was a motion and second to adopt the meeting minutes by Troy Hartley (Sea Grant) and Jessica Whitehead (ICAR).
3. Subcommittee Overview	Matt Dalon (DCR) introduced Ellie, a graduate student at VCU and Wilder Fellow working with DCR this year. Matt then reviewed the purpose of the TAC in advising DCR on the CRMP Phase II. This plan covers all 8 coastal PDCs, and includes pluvial and riverine funding. This plan needs to be complete by the end of the year, and is renewed every 5 years. The objectives of the RDI subcommittee specifically are to inform development of a flood hazard exposure model, inform inputs to flood hazard risk assessment, and develop recommendations for future planning, which is the primary focus of the current meeting. There will be one more subcommittee meeting after this, at which point the subcommittee will finalize recommendations to be reported to the full TAC at the final TAC meeting in Q4. Matt updated the group on the flood hazard impact assessment. DCR updated their approach with the inclusion of pluvial and fluvial data. They reframed the assessment into two planning horizons: near future and far future, and included two levels for “risk tolerance:” low and moderate. The coastal data from Phase I is being reused. Pluvial modeling was a big accomplishment this year across all 8 PDCs; those models are being crosswalked to the two planning horizons and risk tolerances. For the fluvial side, they are using FEMA data. Now DCR is focused on telling the stories of this data to answer the question of why this data is compelling in different places.
4. Subcommittee Recommendations	Matt shared that at past subcommittee meetings, the group came up with many recommendations, which were narrowed down to 10 via a survey. The current objective is to reduce that list down to 5 top recommendations. All recommendations will be included in the Appendix to the plan document, so de-prioritizing will not mean that those ideas are lost. Recommendations should be things DCR can work on in the next 1-4 years, and can include improvements that DCR can make, or actions that other actors should take. Recommendations should align with the purpose of the CRMP as well as the purpose of this subcommittee, and be aligned with the CRMP principles. Impact, urgency, and feasibility should be considered. In addition, the state recently started the Flood Protection Master Plan, which guides the strategy for state agencies on addressing flooding. The CRMP is meant to be more informative at the local level, while the VFPMP is an opportunity for recommendations on state-wide action. Matt also mentioned the Commonwealth's research University Collaborative, which exists in code, and is meant to facilitate coordination across Universities.

	Linda Warren (Launch! Consulting) reviewed the process for refining recommendations. This meeting is not about wordsmithing, which will happen in Q4. Rather, today is about picking the top 5 recommendations by concept. There will be a vote at the end of this meeting if the group is not able to come to consensus on 5. The members in the room can choose any station to start. Each station has 2-4 recommendations. They are grouped by theme where possible. The members online will move at their own pace through the recommendations. Members should put a check mark or alternative suggestion by each "responsible party," and should add bullet points for each recommendation to help explain what the recommendation is all about. There is an additional comment section to add thoughts on how important the recommendation is, or whether it could be combined with another recommendation. Any thoughts that don't totally fit with this process can be added to the parking lot. Members started the process of reviewing/ prioritizing recommendations. After 30 minutes, members returned to discuss their breakout room conversations. Linda shared that if the group comes Cece Atkinson (Launch!) reported that the online group felt number 1 is a key recommendation. Rebecca Murphy (NVRC) shared that 1, 5, 7, and 9 could be combined because they all include research and partnership. Alexander said that they discussed combining 1 and 7. They created draft language for a combined recommendation. Troy said they may be able to be combined, but there's a difference between public and private research collaboration, and university research. These are two lanes, which could be two lanes of the same recommendation, but neither should be lost. Linda asked the group about combining 5, 7, and 1. Wendy Stout (VT CCS) said they discussed what these look like across agencies. Whitney Katchmark (HRPDC) said it would be helpful to have different collaborations and how they are different. Sidney Huffman (Launch!) shared that in the virtual group, they discussed questions around the concept of "support." Carolyn Heaps-Pecaro (DCR) responded that for number 9, there were a lot of questions about support and multi-institutional, and asked if the online group agreed on what that means? Cece responded that they didn't address it, just that they wanted it to be clarified related to research. Troy said the group discussed that the data is not for risk assessment, it's data on the planning process. So to the folks discussing it in the room, 9 is more connected to 4. Alexander agreed that 9 and 4 both relate to the "why" of research. Whitney asked for an example of an action under 9 and 4 combined. Alexander shared that DEQ and VMRC could work together to improve a watershed based on the data if they streamlined their regulatory functions. Troy added an example of case studies on projects that are already implemented. It would be useful to reflect on those to learn lessons for the future, representing an adaptive management strategy. Wendy suggested that that wording should be included in the language of the goal.

	Whitney asked who this plan is for, state actors or other actors? Arthur Kay (DCR) said this goal would be at the local and state scale. Whitney suggested combining 2 and 5, which have to do with completing projects and then monitoring them. Jessica said that she's hung up on combining collecting data with analyzing (9 and 4) because the actors responsible would be different. Linda reiterated that we need to be sure the important concepts are maintained moving forward. With 9 and 4, there are different responsible parties. Jessica added that the others they are considering combining, 1, 5, and 7, are all based on having sufficient data. You need 9 to be able to do 4 and that combination. Wendy suggested waiting on 4 for now. Jonah Fogel (UVA-EI) reflected that 1, 5, and 7 are all related to research universities, but 9 says "TBD" for the responsible party. Linda asked the group about number 2. Cece shared that the virtual group suggested combining 2 with 8 and 10, and the in-person group suggested combining 2 (define what success is) and 10 (develop metrics for monitoring). Everyone agreed. Linda asked if 8 fits with 2 and 10. Carolyn shared that there is a lot of data and indices about social vulnerability. Another data set may not be needed, but the key idea is that this data should inform project prioritization. People felt that this was a lower priority recommendation. Troy said that if you have achieved 2, you would have achieved 8, except for the part about informing project prioritization. Jonah suggested bringing in the language about social justice and social vulnerability. Whitney echoed that adding another dataset when data already exists is questionable. Jessica said that localities could get angry at the state if social vulnerability is used for decision-making, even though it's also critically important. In urban areas, there will be more variation, but in rural counties it probably won't make sense as a major criteria. Linda asked again if combining 8 with 10 and 2 makes sense in terms of similarity of concepts. Members agreed to put them together for now. Linda asked about 3 and 6. Cece reported that the online group sees 3 as a high priority and that it should stand alone. Wendy agrees. Matt said that 6 supports research needs on a higher level because it's about the strategy for what research is supported. Cece said the online group wanted to combine 6 and 4. Jessica thought that 6 would better fit with 5, 7, and 1. The group talked about re-wording 6 to make it clearer that it's about strategy, and it could be informed by number 4. Summary of final groupings: 9 1, 5, and 7 4 and 6 2, 10, and 8 (metrics) 3

	Launch! will share the top 5 recommendations coming out of this meeting, members can think about wording and concepts, and at the next meeting the group will wordsmith. Troy commented that in the funding subcommittee there was a lot of discussion of what was actionable, but in this group the wording was more central to the conversation. Support, research, co-production, collaborative research, and partnerships are key concepts here. There is a lot more blending of meaning, so re-working the language should attend to those meanings. After the public comment period, Linda returned to the recommendations to try to assign a purpose and theme for each one. For 2, 8, and 10: Molly Mitchell (VIMS) said these are all defining what success is and determining if success is being accomplished. Jessica said that we need to understand that failure will be part of the process; the group needs to know when something doesn't work, what should they do to correct that. This is the idea behind adaptive management. For 1, 5, and 7: Molly said the purpose is to have the information necessary to support robust decision-making. Troy added that this is about identifying effective flood prevention and expanding the tool kit. Ian Blair (Wetlands Watch) said this also incorporates nature based solutions. Wendy said research is the theme of this grouping. Jessica added that this is about the research needed to define decision-criteria. For 6 and 4: Linda said this is about a state strategy to be informed by research and other inputs. Matt suggested that this is also about impediments to resilience on the local scale, and then creating strategy to support addressing them. Jessica suggested it's about identifying what's most relevant for the appropriate action to be taken. Whitney said 3 may be the same. Wendy said 3 is in a different context. Wendy suggested that information could be added to data. Whitney said number 6 is about co-production, and Jessica highlighted needs assessment. Wendy and Jessica said that it's not always about data. Wendy suggested the purpose is to identify appropriate actions. For number 9: Wendy said this is about priorities. Jonah said that this gets quantified by what Troy was saying; this is about how the state is supporting universities. Jessica added that institutions do not just refer to universities; private researchers are also institutions. Linda suggested that "cross-organizational" or "collaborative effort" alone could indicate a more broad coalition. Wendy and Jessica added that this is about collaboration as well as coordination and minimizing duplication of efforts. Carolyn posed the question of whether this recommendation should be about data *for* or data *on* projects. Jonah said this is about data democratization, or making sure smaller institutions (including universities, local governments, etc.–anyone with a stake in the outcome) with less capacity would have access to the same resources and information as tier 1 institutions. This may

	go in another section. Jessica added that it's not just minimizing duplication, it's effectively mobilizing our collective capacity to get more things done. For 3: Wendy reiterated that this recommendation is really about data and data-centric solutions. Wendy said the purpose of 3 is maintaining current and authoritative/ best-available data so that decisions are being made based on the most up-to-date information. Linda will share and then everyone will get back together in Q4.
5. New Business	None
6. Public Comment	None
4. Action Items, Scheduling	Matt reviewed the upcoming scheduling September 18, 10-1: Full TAC in the Patrick Henry Building October 10: 1-3: RDI subcommittee next meeting November 13, 10-1: last full TAC meeting in the Patrick Henry Building
6. Adjourn	Alexander Samms adjourned the meeting at 3:01

The purpose of these minutes is to record and preserve, to the best of our ability, the major contributors and general topics covered during this meeting. Verbatim transcription is not the intent of this document. If you have any questions, please contact flood.resilience@dcr.virginia.gov

Top 5 RDI Recommendations: (10, 2, 8), (1, 5, 7), (6,4), 3, 9

Recommendation Combination (10, 2, 8)

- **(10)_**A.4.2.a: Define what resilience success looks like.
- **(2)_**A.1.4.a: Develop measures and methods to monitor performance of resilience projects (dashboards including ecological, infrastructure, social, economic, cultural, and justice indicators), including sensor, drone, and other smart-tech data gathering and analysis methodologies.
- **(8)_**A.1.1.e: Support research on next generation Social Vulnerability Indices (SVI) and understanding of climate justice, cultural and historic resources, including a Virginia flood-centric SVI dataset to inform project prioritization

Recommendation Combination (1, 5, 7)

- **(1)_**A.1.1.b: Support research to evaluate flood reduction metrics of natural and nature-based solutions. Establish topic-specific, standing, and ad hoc sub-working groups to track research progress on needed research and data gaps, identify research priorities regularly, and catalyze teams to secure funding from applicable RFPs.
- **(5)_**A.3.1.b: Conduct use-inspired collaborative R&D between public and private partners on adaptation solutions, including nature-based solutions that simultaneously meet water quality and water quantity standards; enhance marsh plant production; alternative septic; wells – saltwater intrusion; beneficial dredge use; property scale monitoring technologies (sensors, drones).
- **(7)_**A.1.3.a: Support research to evaluate the benefits and costs of resilience action and of failing to take resilience actions.

Recommendation Combination (6, 4)

- **(6)_**A.3.2.a: Develop statewide strategy to support co-production of initiatives/products/future research needs with stakeholders, including mechanisms to engage and incorporate community and stakeholder input into research, data visualization, and project implementation.
- **(4)_**A.1.2.a: Research (planning, design, regulatory, legal, financial) obstacles that exist at the local scale, and what innovations are required at the state level to meet local needs innovatively and effectively.

Recommendation (3)_A.2.6.a: Identify critical data needs for resilience planning and develop a plan for regular funding for acquisition, processing, and analysis.

Recommendation (9)_A.2.1.a: Support multi-institutional efforts to collate quantitative AND qualitative data on modeling, risk assessment, and planning decisions in Virginia.