

Technical Mapping Advisory Council (TMAC)

Virtual Administrative Meeting Notes

April 8, 2021, 10 AM – 12 PM ET

TMAC Members

Doug Bellomo, *AECOM, Chair*

Nancy Blyler, *USACE, USACE
Representative*

Dave Guignet, *Maryland Department of the
Environment, State CTP Representative*

Carey Johnson, *Kentucky Division of Water,
State CTP Representative*

David Love, *Mecklenburg County Storm
Water Services, Local CTP Representative*

Robert Mason, *USGS, DOI Designee*

Salomon Miranda, *California Department of
Water Resources, State NFIP Coordination
Office Representative*

Jim Nadeau, *Nadeau Land Surveys,
Surveying Member*

Jon Paoli, *Iowa Homeland Security &
Emergency Management, GIS
Representative*

Luis Rodriguez, *FEMA, FEMA Designee*

Jeff Sparrow, *Moffatt & Nichol, Mapping
Member*

Government Attendees

Sarah Abdelrahim, *FEMA, ADFO*

John Ebersole, *FEMA, Legal Advisor*

Brian Koper, *FEMA, DFO*

Michael Nakagaki, *FEMA, ADFO*

Support Staff

Henry Cauley, *Team Deloitte*

Michael Knotts, *Team Deloitte*

Jen Marcy, *Atkins Global*

Ryan O'Conner, *AECOM*

Phetmano Phannavong, *Atkins Global*

Ann Terranova, *AECOM*

Sarah Vining, *Team Deloitte*

Subject Matter Expert

Will Lehman, *USACE, SME*



Welcome, Roll Call, and Administrative Items

Mr. Brian Koper, the TMAC DFO, welcomed members and participants to the meeting and introduced the Government attendees and support staff. He then proceeded with a roll call of TMAC members and went through the day's agenda. Mr. Koper reminded everyone that the meeting is an administrative meeting. Mr. Koper also thanked the former TMAC members who were attending the meeting in a SME capacity and noted there were no updates from the CMO as to when new members to the TMAC would be appointed.

Opening Remarks

Mr. Bellomo welcomed everyone and thanked them for attending the administrative meeting. Mr. Bellomo noted there was much he was hoping the TMAC would be able to accomplish during the meeting today. Mr. Bellomo provided an overview of the meeting and shared the five SME briefings the TMAC had already identified and would like to receive: 1) best practices for engaging with underserved communities; 2) a status update on previous TMAC recommendations; 3) a presentation on any prototypes developed by FEMA related to graduated flood hazards and risks; 4) an overview of the new Administration's climate policy; and 5) a presentation on practical incentives related to behavioral change. Mr. Bellomo identified Mr. Jim Nadeau as the best person to help drive the practical incentive request. Mr. Bellomo requested that the two subcommittees identify any additional SME briefs that they or the TMAC should receive during the breakout session today.

Mr. Bellomo noted that two major national conferences were quickly approaching in May and June and that the stakeholder engagement work would need to commence as soon as possible. Mr. Bellomo requested that during the breakout session today the subcommittees also discuss potential stakeholder engagement questions, as well as identify what a timeline for the stakeholder engagement work would look like for the coming year. Mr. Bellomo reminded the TMAC that time would be needed to analyze the data and use the data to write the report. Mr. Bellomo is still positive that the report can be published by the end of the calendar year. Lastly, Mr. Bellomo charged the subcommittees to also consider the length of the report and whether the layout and chapters should be similar to that of the 2020 TMAC Annual Report.

Mr. Bellomo acknowledged he was asking a lot of the subcommittees during the breakout meeting today. Mr. Carey Johnson agreed this was a lot but was important and would be accomplished. Mr. Robert Mason asked for clarification for when SME recommendations should be made, and Mr. Bellomo provided clarification. Mr. David Love asked if the subcommittee assignments had been finalized and Mr. Michael Nakagaki stated that there were a handful of individuals who still needed to be assigned. Mr. Bellomo asked if Mr. Ed Clark, the NOAA replacement for Mr. Tony LaVoi, had joined the meeting. Mr. Clark had not joined the meeting. Mr. Nakagaki organized the remaining participants into one of the two subcommittees and the TMAC broke into the subcommittee working session.

Subcommittee Breakout Groups

Enterprise Risk Management Subcommittee

Mr. David Guignet, subcommittee co-chair, started the meeting by requesting that everybody introduce



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themselves by stating their names and what they do. Mr. John Ebersole informed the subcommittee that while he is deployed to support the border, there will be someone else appointed to provide support. Mr. Koper then requested that all TMAC members and SMEs write “TMAC” or “SME” by their name for reference.

Mr. Guignet opened the floor by asking what topics, including ERM, should be covered that can feed into the survey questions. Mr. Guignet referred to Mr. Will Lehman to give a brief overview on ERM. Mr. Lehman explained that ERM is a strategy for managing risks within an entity or organization. He continued by sharing that the Tasking Memo looks at ERM as it relates to FIMA’s strategic objectives.

Mr. Lehman explained what risk profiles are and discussed the risk ranking system which reflects the likelihood of an organization to not hit their objective, then turned the floor back to Mr. Guignet. Mr. Guignet added that a map is a tool that everyone uses, but almost becomes a metric that causes challenges. Mr. Lehman responded that risk profiles are intended to help others understand risk, and that the misinterpretation of maps could be one of the larger risks to the program. Mr. Guignet added that mapping could be a good survey question topic and suggested various questions, such as “what limitations do you see in maps and how is that impacting your community?” and “what would you like see on your map to convey risk?”

Mr. Love, subcommittee co-chair, suggested that it is worth noting that ERM defines risk differently than how it has been used regarding flood communication and hazard and turned to Mr. Lehman for concurrence. Mr. Lehman agreed and referred to ISO 31000 which is where ERM is defined as “the uncertainty to meeting strategic objectives.” Mr. Jeff Sparrow asked if ERM in this context is focused on how FIMA meets their objectives, as well as how to mitigate risks that could hinder success in this endeavor. Mr. Lehman responded that they would need to refer to the Tasking Memo to find answers to this question and posed another question to document: “what do we define as the entity and the strategic objectives.” Mr. Sparrow suggested that the tasking memo referred to two perspectives to consider: 1) the context of strategic objectives; and 2) continuity of ERM, and added that the second perspective is what is being referred to.

Mr. Love thinks that the first step to change culture is to point out where maps falsely convey the number of risks in the program and provided an example around floodplains and freeboards that, if community support is gathered, will change the focus from prioritizing future conditions to mapping higher floodplains. Mr. Lehman added that it might be helpful to focus on one of the FIMA strategic objectives and add questions related to those, such as “what are the barriers” and “what are the risks for working in your community?” Mr. Love added that communities need to understand that undermanaging a floodplain will result in a lawsuit.

Mr. Sparrow suggested at a higher level to conduct a federal review of state agencies and ask the question “are you familiar with community, state or federal agencies who provide ERM at a FRM level and who they are?” Mr. Love added that there is a future conditions 1% chance that is based on assumed built out drainage area but does not incorporate the type of rainfall. Mr. Sparrow asked if those things have been done through the lens of ERM strategy. Mr. Love has not seen anybody in his organization use ERM framework but knows of individuals in the county manager’s office who are looking into ERM and Price Risk Management. Mr. Love wondered how much it varies from Disaster Risk Management, which is the UN focus and seems to be more in alignment with what is currently being considered. Mr. Guignet replied that he knows of communities within Virginia who are pushing for a higher standard around floodplains.



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Mr. Lehman opened the FIMA FY21-23 Strategic Plan on his screen and posed the question “is there a time when it’s acceptable to build in an area that might be exposed to flood?” Mr. Guignet responded that according to current regulations, 99% of the time it is okay. Mr. Lehman referred to one of the strategic objectives of taking informed risks and actions, and asked if, from the perspective of risk acceptance, it is okay to build in a 100-year floodplain. Mr. Love provided an example of individuals who do it despite knowing the risks.

Mr. Sparrow added that in the context of ERM, a lot of things considered are above the minimum requirements for the NFIP and proposed the outcome of encouraging communities to adopt higher standards than the federal minimum. Ms. Nancy Blyler asked for a way to better visualize the concepts to help individuals stop thinking about maps. Mr. Lehman referred to Mr. Bellomo’s example of flood risk per capita and how any predicted risk above the financial limit must be minimized. Ms. Blyler mentioned that maps might not be the best approach and Mr. Lehman responded that it could be tied to maps, but there needs to be acceptability towards change. He continued that the federal programs have given communities autonomy to do what they want if risk is below a certain standard. Mr. Bellomo joined the conversation and added that he supports the direction of the conversation.

Mr. Lehman asked if the subcommittee members know of anybody who has implemented ERM in the context of FRM and referred to Mr. Guignet’s point about letting communities define risk so that the disparity in the difference can be made known. Ms. Blyler requested a visualization question be added to the list and asked how to visualize risk outside of numbers alone. Mr. Guignet explained how Maryland decided to focus their money on coastal work more widely and stated that when risk is identified beyond the floodplain, construction is done smarter, and individuals can understand it better; Ms. Blyler agreed.

Mr. Lehman asked Ms. Blyler what her strategies are for risk communications and mentioned that others might have strategies that the subcommittee has not thought of yet. Ms. Blyler elaborated that a larger amount of people do better with graphical (non-map) representation. Mr. Lehman referred to First Street’s Flood Factor which is a map-based visualization and posed the question “do you find that Flood Factor communicates risk well?” Mr. Jon Paoli added “who do you trust when it comes to risk communication - state, local, or federal?”

Mr. Lehman changed the conversation to the next agenda topic, SMEs, and mentioned that he knows of somebody from the Nuclear Regulatory Commission who would be willing to present. The Zoom meeting room was closed before the conversation could wrap up and all attendees were moved back into the main meeting room.

Future Conditions Subcommittee

Mr. Johnson, subcommittee co-chair, welcomed everyone to the breakout session and noted his appreciation for everyone participating. Mr. Johnson also thanked Mr. Jonathan Smith for agreeing to be the other subcommittee co-chair. Mr. Johnson noted the subcommittee had not yet identified a liaison to the stakeholder engagement working group and Mr. Nadeau agreed to fulfill this role. Mr. Johnson noted the tight timeline to develop the stakeholder engagement survey by May 10th and informed the group that he had spoken with ASFP leadership about the survey. Mr. Johnson added that ASFP leadership were supportive and excited for this effort. Mr. Johnson also noted that Ms. Jen Marcy was participating in this subcommittee and expressed



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gratitude that Ms. Marcy had been the main driver of the stakeholder engagement work in 2020.

Mr. Ryan O’Conner explained that he and Ms. Molly Tuttle would be coordinating the effort to develop the survey and that they had identified several behavioral scientists with whom they would be sharing the questions developed by the TMAC. This would ensure the questions would be as valuable and impactful as possible. Mr. Johnson noted he would also still like to work with the stakeholder working group, even with Mr. Nadeau serving as the liaison.

Mr. Johnson asked the subcommittee whether there were any additional SME briefings they or the TMAC should receive. Ms. Marcy noted that there are two types of SMEs on the TMAC: those who provide presentations on particular topics, and those who embed themselves with the TMAC and support the report development process. Ms. Marcy identified Mr. Will Lehman as an example of this latter type of SME. Mr. Johnson expressed an interest in Mr. Lehman serving as an SME again and also hoped that some of the authors of the 2015 Future Conditions Report might also be able to serve as SMEs. Mr. Johnson identified Mr. Doug Marcy as one of those authors who would be impactful as an SME. Ms. Marcy stated she could contact Mr. Marcy but requested clarification from the DFO team first if this was allowed under FACA rules. Ms. Sarah Abdelrahim informed Ms. Marcy she would double check and follow up offline but did not think this would be an issue. Ms. Marcy then shared a list of the other authors of the 2015 Future Conditions Report in the chat box.

Mr. Johnson also suggested Ms. Shana Udvardy as another potential SME, noting that Ms. Udvardy had been an active attendee at the past several TMAC meetings and had provided several written and spoken public comments for the record. Mr. Mason suggested that Mr. Scott Edelman, chair of the 2015 report working group, also be an SME. Mr. Jonathan Smith suggested Ms. Kate White, formerly of the USACE, as another SME that would be beneficial for the TMAC. Mr. Johnson added that the USACE recently completed a report on the effect of climate change on the Ohio River basin and this would be another good group of SMEs to invite. Mr. Nadeau noted that he had recently begun to serve on the Maine Climate Council and that there were many good contacts who he was serving with that would also be valuable SMEs for the TMAC. Mr. Johnson and Mr. Smith agreed to circle back with Ms. Ann Terranova to develop a more formalized list of names. Mr. Bellomo offered to reach out to Mr. Edelman and Mr. Mason noted that he would also follow up with additional personnel recommendations.

Mr. Johnson then moved the conversation to stakeholder engagement and expressed an interest in leveraging those stakeholders who participated last year. Mr. Nadeau expressed hope that new stakeholder groups would also be brought into the process, including insurance agents, real estate agents, and lenders. Mr. Johnson agreed with Mr. Nadeau and noted the National Flood Conference has a lot of these stakeholders already in attendance. Ms. Marcy recommended that the survey questions be worded differently for the audiences at the two different conferences the TMAC was hoping to target. Ms. Marcy also noted that the tasking for the stakeholder engagement was different this year as compared to last year. Mr. Salomon Miranda stated that the National Flood Conference was next week, and the subcommittee agreed the TMAC would not be able to leverage this opportunity. Mr. O’Conner clarified that the conference in June was the APCIA conference. Mr. O’Conner also suggested the subcommittee co-chairs and working group liaisons meet next week to further develop potential survey questions.



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Mr. Johnson asked if the subcommittee had thoughts on the length and organization of the 2021 report. Mr. Johnson acknowledged any suggestions were arbitrary at this point but that keeping the chapters to 30 pages or less, similar to the 2020 report, was a good place to start.

The subcommittee working session ended and the TMAC members returned to the main group.

Breakout Group Report Out

Mr. Bellomo welcomed everyone back and asked each of the subcommittees to provide an overview of their conversation.

Mr. Johnson agreed to go first and noted that his subcommittee had a robust conversation and was able to identify a liaison to the stakeholder engagement working group, as well as developed a list of several SMEs for the TMAC to consider. The SMEs identified by the subcommittee included authors of the 2015 Future Conditions Report, USACE representatives, and members of the Maine Climate Council. Mr. Johnson clarified that the subcommittee did not identify any long-term SMEs that would be similar to the role Mr. Lehman fulfilled last year but was hopeful those individuals might self-identify during the SME presentation process. Mr. Johnson noted the group had also begun to discuss potential survey questions but was planning to meet with the support team next week to continue the conversation. Lastly, Mr. Johnson stated that the subcommittee would tentatively target a report of similar length to the 2020 report.

Mr. Bellomo thanked Mr. Johnson for the overview and thanked Mr. Nadeau for agreeing to serve as the working group liaison. Mr. Johnson agreed to share the list of potential SME names with Mr. Bellomo. Mr. Bellomo asked if the subcommittee had discussed timing for when subcommittee engagement should be completed and when data analysis and report writing should commence. Mr. Johnson stated the subcommittee did not discuss this topic but felt that this year the process would be easier because the work of one subcommittee was not dependent on the work of the other. Mr. Bellomo added that in order for the report to be complete by the end of the calendar year it really needed to be complete by the end of November. No other members of the TMAC had any question for Mr. Johnson or the rest of the subcommittee.

Mr. Guignet began the overview of the conversation within the Enterprise Risk Management Subcommittee. Mr. Guignet noted that the subcommittee had only identified one SME thus far but that the list provided by the other subcommittee was very good. Mr. Guignet stated that the subcommittee chose to begin by first identifying potential stakeholder engagement questions and shared these questions with the TMAC. Mr. Guignet added that the subcommittee was still low on members. Mr. Love added that the stakeholder engagement work could evolve as the survey results are received and thus the entire stakeholder engagement plan might not need to be fully planned at the outset.

Mr. Bellomo expressed his gratitude to the subcommittee for developing draft survey questions, given the tight timeline. Mr. Bellomo added that Mr. O'Conner and his team would be sharing the survey questions with several behavioral scientist and so getting these questions drafted quickly was a priority. Mr. Bellomo added that he appreciates that both subcommittees think the chapter lengths for the report will be similar to last year and that appendices are an option if more space for information is needed. Mr. Bellomo asked if the



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subcommittee had clarified timing for completing the stakeholder engagement work and Mr. Guignet replied the group did not but expressed a similar belief as Mr. Johnson. Mr. Bellomo asked Ms. Marcy and Mr. O’Conner whether completing the data analysis by the end of September still made sense. Ms. Marcy and Mr. O’Conner both replied that it was likely the analysis could be done earlier this year. The TMAC did not have any additional comments or questions for Mr. Guignet or the rest of the subcommittee.

Next Steps and Closing Remarks

Mr. Bellomo identified the immediate next steps for the TMAC, which would be to develop the draft survey questions between now and April 26th. The survey questions would then be shared with the behavioral scientists for review. Mr. Bellomo identified May 10th as the target date for the survey questions to be finalized. Both Mr. Guignet and Mr. Johnson agreed this timeline made sense provided that the working group would be able to meet next week. Mr. Bellomo noted that the survey did not need to be long, but the questions did need to be meaningful and that the questions could be revised after the May ASFPM conference in preparation for a different group of stakeholders at the June conference.

Mr. Bellomo then reiterated the list of SMEs put forth by the TMAC and that these new names would be added to the additional five topics that had already been identified. Mr. Bellomo expressed hope that some of these briefings could be done sooner rather than later, especially the ones concerning FEMA. Mr. Bellomo would like to continue to hold administrative meetings on regular basis in order to conduct these briefings and would like for them to be recorded. Mr. Luis Rodriguez agreed to help coordinate the briefings from FEMA. Mr. Nadeau agreed to reach out to the SMEs on the Maine Climate Council and asked for clarification for how long the presentations should be. Mr. Bellomo suggested 30-45 minutes, with an additional 15 minutes for questions. Mr. Robert Mason agreed to reach out to his SME contacts at USGS, Mr. Bellomo would reach out to Mr. Edelman, and Ms. Blyler would reach out to Ms. White.

Mr. Bellomo asked if there were any more SME recommendations and Mr. Rodriguez suggested a presentation on FEMA’s Nation Risk Index tool. Mr. Bellomo agreed with this suggestion and added it to the list. Ms. Marcy reminded the TMAC that SME briefings could also occur at the subcommittee level and the recordings could be made available to the other members of the TMAC.

Mr. Bellomo noted the two action items coming from the meeting today: the draft survey questions will be completed by April 26th, and FEMA will provide an update on potential presentation dates and times by the TMAC Chair call this coming Tuesday. Mr. Bellomo noted that a doodle poll would likely come out in the next several days for the next administrative meeting and asked the TMAC members to respond promptly.

Mr. Bellomo thanked the TMAC for their participation today and adjourned the meeting.