

# **Technical Mapping Advisory Council (TMAC)**

## **Virtual Administrative Meeting Notes**

**September 3, 2021, 10 AM – 2 PM ET**

### **TMAC Members**

Doug Bellomo, *AECOM, Chair*  
Scott Giberson, *CoreLogic Flood Services, Flood Hazards Determination Member*  
Dave Guignet, *Maryland Department of the Environment, State CTP Representative*  
Suzanne Jiwani, *Association of State Floodplain Managers, Flood Plain Management Member*  
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*

Jon Paoli, *Iowa Homeland Security & Emergency Management, GIS Representative*  
Luis Rodriguez, *FEMA, FEMA Designee*  
Jonathan Smith, *Natural Resources Conservation Service, USDA Designee*  
Jeff Sparrow, *Moffatt & Nichol, Mapping Member*  
Josh Stuckey, *Texas Public Infrastructure, Regional Flood and Stormwater Management Member*  
Michael Tischler, *USGS, USGS Representative*

### **Subject Matter Experts**

Stacey Archfield, *USGS, Future Conditions Subcommittee*  
Will Lehman, *USACE, Enterprise Risk Management Subcommittee*  
Ed Clark, *NOAA, Future Conditions Subcommittee*

Doug Marcy, *NOAA, Future Conditions Subcommittee*  
Leonard Shabman, *Resources for the Future, Enterprise Risk Management Subcommittee*  
Charles Yoe, *Notre Dame of Maryland University, Enterprise Risk Management*

### **Government Attendees**

Sarah Abdelrahim, *FEMA, ADFO*  
David Bascom, *FEMA*  
John Ebersole, *FEMA, Legal Advisor*

### **Support Staff**

Henry Cauley, *Team Deloitte*  
Milani Chatterjilen, *AECOM*  
Chris Harley, *RS21*  
Jen Marcy, *Atkins Global*  
Phetmano Phannavong, *Atkins Global*

Ann Terranova, *AECOM*  
Molly Tuttle, *AECOM*  
Sarah Vining, *Team Deloitte*  
Katie Webster, *RS21*



### **Welcome, Roll Call, and Administrative Items**

Ms. Sarah Abdelrahim, the TMAC ADFO, welcomed members and participants to the meeting and introduced the Government attendees and support staff. Ms. Abdelrahim noted that Mr. Brian Koper, TMAC DFO, was currently activated to the National Response Coordination Center (NRCC) and would not be present at the meeting. She then proceeded with a roll call of TMAC members and TMAC SMEs and went through the day's agenda. Ms. Abdelrahim reminded everyone that the meeting is an administrative meeting.

### **Opening Remarks**

Mr. Doug Bellomo welcomed everyone, thanked them for attending the administrative meeting, and noted that a lot of work was already underway. He stated the purpose of the meeting would be to receive an update on the stakeholder engagement data analysis, receive an update from FEMA on the status of the TMAC recommendations, and allow for each subcommittee to report out on their progress thus far. Mr. Bellomo emphasized that the major flooding events that have occurred across the country in the last few weeks highlight the importance of the work of the TMAC and thanked everyone for supporting this important issue. Mr. Bellomo provided an overview for the remainder of the year and stated that time will pass quickly as the TMAC works to develop and finalize the 2021 TMAC Annual Report.

### **TMAC Recommendations Briefing**

Ms. Katie Webster of RS21 provided an update on the data analysis for the 2021 TMAC stakeholder engagement work. Ms. Webster began by providing an overview of the agenda and identified two key terms included throughout the presentation: Risk Rating 2.0 and Graduated Approach. Ms. Webster then provided an executive summary of the findings thus far. A total of 480 responses were received as of August 1, 2021. The responses came from two separate surveys, one for the Association of State Floodplain Managers (ASFPM), and one for the National Flood Conference (NFC). Ms. Webster noted the majority of the responses came from the ASFPM survey, and 11 additional responses were received prior to the closure of the surveys and were still being tabulated.

Ms. Webster highlighted the quantity and scope of responses were strong and that respondents represented all different parts of the country and stakeholder groups. Ms. Webster added that while awareness of Risk Rating 2.0 and graduated approach were strong, understanding of these key terms was more limited. Ms. Webster presented a more detailed overview of the survey respondents, including job types and geographic location by FEMA region. Ms. Webster then shared the main findings and takeaways from the surveys. Overall, there is a high level of familiarity with Risk Rating 2.0 and graduated approach, but not a deep level of understanding. Ms. Webster added that technical literacy was determined to be a major barrier to this deeper level of understanding for these two key terms. Survey respondents from the NFC were more familiar with these terms than those from the ASFPM survey, but they also represented a significantly smaller number of total respondents.

Ms. Webster shared that respondents were generally positive about these new approaches, but many also perceived there to be many challenges, especially for graduated approach. Ms. Webster shared the responses from the subcommittee-specific questions, reminding the TMAC that each subcommittee included two specific questions in the survey. Ms. Webster noted the findings indicate that enterprise risk management (ERM) is a



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potential area for growth, and, while roughly half of the respondents are not currently using ERM, most are interested in potential implementation. Ms. Webster closed out her briefing by noting that an interactive data dashboard, built via Power BI, was currently under development and would likely be available by late September.

Mr. Bellomo thanked Ms. Webster for her presentation. Mr. Bellomo questioned how a respondent can be positive about a graduated hazard approach but also not fully understand the term. Ms. Webster replied that many respondents were aware of the term and had a baseline understanding of what it meant but were unaware of how they might use or implement the idea. Ms. Suzanne Jiwani added that stakeholders are familiar enough to know the idea has potential, but also don't know enough to understand how it might work. As a result, they have concerns regarding those details. Mr. Luis Rodriguez questioned whether the phrasing of the question may have led to some of the concern, but also expressed his encouragement with seeing the results. Mr. Rodriguez added that the results seem to be similar to those collected during the stakeholder engagement process last year.

Mr. Bellomo noted that people remain curious about Risk Rating 2.0, but also want to see the underlying equations. Mr. Bellomo added the trend analysis will be interesting and is pleased to see the findings thus far are similar to those from last year. Mr. Bellomo continued that when looking at the two subcommittee topics from a macro level, it is good to see that over half of respondents think future conditions information will be helpful, and over 80 percent are interested in learning more about ERM. Mr. Bellomo asked if the TMAC had any additional question for Ms. Webster and Mr. Rodriguez asked if the slides would be shared. Mr. Bellomo noted that Ms. Sarah Vining of the PM team would share the slides with the TMAC following the meeting.

### **TMAC Recommendations Briefing**

Mr. Bellomo welcomed Mr. David Bascom of FEMA to present on the current status of the TMAC recommendations. Mr. Bascom thanked everyone for the opportunity to present and noted his agreement with Doug's opening remarks regarding the important work of the TMAC in light of the major flooding events underway across the country. Mr. Bascom began his presentation with "assumptions and things to note," highlighting that FEMA owes a response to congress later this year that will serve as the formal assessment of the TMAC recommendations to date. Mr. Bascom added that some of these recommendations are transformative, and it takes time for a program such as Risk MAP to evolve. Mr. Bascom noted that some recommendations also overlap, such as AR27 and AR33.

Mr. Bascom then shared the implementation status for all 134 current recommendations: 36 percent have been completed, 39 percent are initiated, and 25 percent have either not been initiated or will not be initiated. Mr. Bascom stressed that defining a recommendation as complete can be a challenge, since some recommendations are never finished. Mr. Bascom cited AR17, increase interagency collaboration, as an example. Mr. Bascom added of the completed recommendations, 86 percent of those relate to current mapping operations, and 14 percent relate to the future state of the program. Mr. Bascom shared a slide on recommendations that support a risk-informed NFIP and the percentage for each category: 13 percent completed, 50 percent initiated, 17 eventually to be initiated, and 20 percent will not be pursued. Finally, Mr. Bascom shared the percentage information for the recommendations associated with future conditions: 11 percent complete, 50 percent initiated, and 39 percent not initiated.



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Mr. Bascom then highlighted three overarching recommendations that align with FIMA’s strategic objective to achieve a risk informed NFIP. These recommendations were AR27, AR14, and AR33. Mr. Bascom continued by providing examples of other current recommendations that contribute to these three overarching recommendations. Following this, Mr. Bascom shared three next steps: 1) A report to congress by the end of the year will provide a more detailed description of how FEMA is addressing the current recommendations, 2) FEMA is looking forward to the TMAC providing additional advice on how to address the future conditions recommendations, and 3) FEMA will continue to implement many of the recommendations, including several that will take several years to be fully implemented.

Mr. Bellomo thanked Mr. Bascom, noting that the presentation was organized and clear. Mr. Bellomo asked whether there would be an opportunity for the TMAC to review this report to congress prior to it being submitted. Mr. Bascom replied that FEMA was beginning to outline the response to congress and that determining whether to call some of the larger recommendations complete is a challenge. Mr. Bascom does believe that those decisions can be shared with the TMAC and would be happy to organize a routine check in to provide updates. Mr. Rodriguez agreed with Mr. Bascom that FEMA would be happy to share those updates with the TMAC as necessary.

Mr. Carey Johnson thanked Mr. Bascom for the presentation and requested that any future conditions recommendations that FEMA does not plan to initiate be shared with the Future Conditions subcommittee so that this can be included in their section of the 2021 TMAC Annual Report. Mr. Bascom clarified that FEMA has not said “no” to any future conditions recommendations yet, and that FEMA is looking for TMAC to help them make those decisions. Mr. Bellomo suggested each subcommittee review the entire list of recommendations and identify those most relevant to the 2021 TMAC Annual Report. Mr. Scott Giberson and Mr. Bascom both agreed this would be a helpful exercise.

Mr. Bellomo asked the ERM subcommittee specifically whether they had any questions regarding the three recommendations highlighted by Mr. Bascom as most relevant to FIMA’s strategic objective of achieving a risk-informed NFIP. Mr. Will Lehman of the Future Conditions subcommittee noted these three recommendations do stand out and have been a struggle for the subcommittee. Mr. David Love asked whether the NRDC ASFPM petition could be discussed, but Mr. Bascom and Mr. Rodriguez declined. Mr. Bellomo stated that there is much alignment between the recommendations and what is currently in the petition and asked the TMAC keep this in mind while drafting the annual report. Mr. Johnson offered to share a copy of the petition and the response from Mr. Maurstaud with anyone on the TMAC who is interested.

Mr. Bascom finished his presentation by noting Ms. Abdelrahim as instrumental in helping to organize the report to congress, and both Mr. Bascom and Mr. Bellomo thanked her for all her efforts. The TMAC then went on a 25 minute break.

### **Subcommittee Report Out – Future Conditions Subcommittee**

Mr. Johnson and Mr. Jonathan Smith provided an update on the work of the Future Conditions subcommittee. Mr. Johnson began by reiterating the purpose of the subcommittee, the subcommittee membership, and the subcommittee subject matter experts. Mr. Johnson stated that the subcommittee has been holding biweekly meetings on Fridays since March and have set up a Google Drive location to share resources. Mr. Robert



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Mason has also established a SharePoint site to facilitate collaboration on the report chapter. The subcommittee has received five subject matter expert briefings and each of the briefings has helped contribute to the overall thinking and direction of the subcommittee. There are also several more briefings that have already been scheduled or are in the process of being scheduled.

Mr. Johnson continued by saying the subcommittee has developed an excel spreadsheet that reviews each of the recommendations included in the 2015 report and identifies those that relate to future conditions. The general consensus of the subcommittee is that all of the recommendations continue to apply in some manner and the subcommittee continues to discuss how to develop these into 2021 updates. Mr. Johnson added that the subcommittee has developed a draft outline for their chapter of the report and have agreed that the chapter should be digestible and concise. The subcommittee has also agreed that any additional information necessary could be included as an appendix to the report.

Mr. Johnson noted there were no surprises from the stakeholder engagement findings thus far and the feedback would help inform the writing of the report. Mr. Johnson also thanked the support team for keeping the subcommittee organized and on track. Mr. Johnson concluded his update by emphasizing the next several months would go quickly and asked if anyone else from the subcommittee or support team had updates to share. Mr. Smith and Ms. Ann Terranova both thanked Mr. Johnson for the updates and stated he did an excellent job.

Mr. Jeff Sparrow asked whether the recommendations have been found to still be relevant and Mr. Johnson confirmed yes. Mr. Sparrow then asked whether there would be a separate stakeholder engagement chapter in the report, similar to last year, or whether there would be a hybrid approach where some portions of the stakeholder engagement work are blended into the other chapters. Mr. Bellomo replied it would likely be a hybrid scenario, with the stakeholder engagement pieces woven into the report but also within their own chapter. Mr. Johnson stated the subcommittee anticipates equity issues and environmental justice to be part of their thinking in the chapter, and Mr. Bellomo noted he was pleased to hear this feedback.

Mr. Bellomo asked Mr. Johnson whether the subcommittee had any thoughts regarding unmapped areas. Mr. Johnson replied they're not saying unmapped miles will be taken care of with 2-D modeling, but that new tools that are deployed with a graduated hazard approach will help address this issue. Mr. Giberson asked whether the subcommittee had heard from FEMA regarding how climate change impacts related to flooding may be displayed in the future. Mr. Johnson replied that they have received several briefings from FEMA and it appears that the science and tools related to coastal future conditions are more evolved than riverine and pluvial conditions. Mr. Johnson added it is important for both subcommittees to collaborate on this issue.

Mr. Love asked whether a coworker could attend the upcoming land use presentation to the subcommittee, nothing that this person has a professional interest in the subject. Mr. Johnson confirmed this person could attend, and also reiterated that all of the subcommittee presentations are recorded and can be shared after the fact as well. Mr. Bellomo thanked the subcommittee and Mr. Johnson for their updates and stressed the importance of getting the report as close to finished by the end of the year as possible.

### **Subcommittee Report Out – Enterprise Risk Management Subcommittee**

Mr. Love began the update for the Enterprise Risk Management (ERM) subcommittee by thanking everyone for



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their hard work. Mr. Charlie Yoe then took over and presented on the work of the subcommittee thus far. Mr. Yoe stated that 29 respondents from the original survey expressed an interest in ERM. The subcommittee is now trying to focus on local practitioners who use ERM. The Subcommittee has taken prebuilt ERM survey questions by Federal Guidehouse and shared it with the local ERM practitioners. The subcommittee has only received seven responses thus far and only one has agreed to share information on how they use ERM specifically. Mr. Yoe noted that while the subcommittee did not have high expectations, they were still very surprised by the low level of response.

Mr. Love then continued on the work of the subcommittee, noting that much of the subcommittee's time has been spent reviewing the FIMA strategic vision to better understand how ERM could be applied to the National Flood Insurance Program (NFIP). Mr. Lehman noted that everyone on the subcommittee has some level of experience with flood risk management and making decisions regarding hazards and risks. Mr. Lehman continued that the subcommittee is working to identify ways to guide both local leaders and FIMA leadership on how to implement ERM. Mr. Love added that one major challenge has been the lack of ERM documentation from FIMA. The subcommittee had originally requested this information no later than the 25<sup>th</sup> of August but has not received it yet. The subcommittee does have several meetings already scheduled over the next several weeks to make progress on their chapter of the report, but the lack of necessary materials is a risk. Mr. Lehman agreed, noting it was very important to receive the FIMA ERM materials so the subcommittee could make recommendations that have not already been implemented.

Mr. Love asked Mr. Guignet if he had anything to add, and Mr. Guignet agreed with Mr. Love and Mr. Lehman on the need to receive the FIMA ERM materials in order for the subcommittee to continue to make progress. Mr. Rodriguez asked whether the subcommittee has changed their approach since the last time the TMAC had met as a group. Mr. Yoe responded that the subcommittee had planned to meet with FIMA to understand where they stood on ERM, and then would pivot based on whether they were using ERM or not. Mr. Love added that the subcommittee views FIMA's approach as likely being top-down, while the approach with practitioners is often bottom-up. Mr. Lehman reiterated it is very difficult to assess how FIMA is performing with ERM without concrete information.

Mr. Bellomo asked whether the subcommittee had considered doing a focus group session with some of the ERM respondents, similar to the approach taken last year. Mr. Bellomo added that a live conversation could be very helpful to build a better understanding of the current operating environment regarding ERM. Mr. Yoe agreed this was a good idea and that the subcommittee needs to follow up with the respondents. Mr. Bellomo stated he participated in some of the focus groups last year and was very impressed. He added that local officials almost never view flood risk as their number one priority as they are normally more focused on growth for their community. Therefore understanding appetite and tolerance of risk is key. Ms. Suzanne Jiwani noted in Minnesota they provided trainings for local governments and that one of the modules is higher standards. The training provides examples of what other communities have done and the benefits they have received because of these actions, which in turn helps those in the training better understand tolerance and risk.

Mr. Bellomo then asked whether the subcommittee had considered how ERM could affect unmapped areas. The subcommittee responded they had not made this consideration yet, but it should be part of their larger conversations. The subcommittee has also had some preliminary conversations regarding underserved



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communities and equity issues, but still needs to find a way to fit those conversations into an ERM framework. Mr. Lehman added they have discussed social equity, but it has been difficult to understand whether it is a risk to achieving an objective, or whether it is an objective itself. Mr. Bellomo asked for any final comments or questions for the subcommittee. Mr. Johnson reiterated the importance of aligning the work of the two subcommittees whenever possible.

### **Close Out**

Mr. Bellomo began by discussing the schedule for the TMAC moving forward. Mr. Bellomo shared a spreadsheet that proposed three meetings before the end of the calendar year: a public meeting, an administrative meeting, and then another public meeting. Mr. Bellomo noted that the Federal Register Notice needed to be posted for 30 days before a public meeting so the earliest the public meeting could be held would likely be mid-October. Mr. Bellomo asked the TMAC whether there were any issues with meeting in mid-October, and whether there were any issues with meeting on Monday or Friday. The TMAC members did not express any reservations and Mr. Bellomo stated that Doodle Polls would be sent out shortly to finalize the meeting dates. Mr. Bellomo added that the administrative meeting would then be held in mid-November, and the final public meeting would be held in mid-December. Mr. Bellomo emphasized the importance of having solid draft chapters to review at the first public meeting, including potential recommendations, if possible. The formal vote to finalize the report will likely occur sometime early next year.

Mr. Bellomo then provided a summary of the actions coming out of the meeting. The stakeholder analysis will be finalized and available sometime in late September. The TMAC and FEMA need to coordinate on a method to ensure the TMAC is provided with consistent and ongoing updates from FEMA regarding the recommendation report to congress. Each subcommittee should review all 134 recommendations to determine which are critical for the development of their portion of the 2021 TMAC Annual Report. Each subcommittee should review the current petition and keep it in mind when developing the content of their chapters. Mr. Rodriguez will help the ERM subcommittee receive the necessary FIMA ERM documents. Both subcommittees mentioned that higher standards are important and thus should consider this topic as they move forward with the work on their chapters. Both subcommittees should also consider what it will mean for their work if the Federal Government makes a major investment to tackle unmapped areas. Finally, Doug and the subcommittee chairs will need to determine how the stakeholder engagement chapter will be developed and by whom.

Mr. Bellomo asked if there were any last comments and Ms. Molly Tuttle noted there is an editing team available to help the subcommittees if they have comments or questions about the writing of their chapters. Mr. Bellomo then thanked everyone for all of their help and adjourned the meeting.