Perspectives from U.S. Drought Monitor Authors on state weekly input
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Exactly what indicators do the authors use? How do authors weigh different indicators? What soil moisture tools and indicators do they prioritize?

BF: None of this is static and changes all the time based on the season, conditions (type of drought), and any number of factors. The short answer is the authors use **_everything_** each and every week and dial in on specific indicators that are showing the current assessment the best at that time. There is not "golden ticket" or a "Secret menu" of indicators that we keep internally. The entire process is transparent, and this is well known to those who are participating in the process.

DS: As Brian mentioned, we look at the whole array of products available. In general, I'd say we may favor certain ones a bit more based on the nature of the climate in the SE and how drought can develop quickly in your region. That said, I may favor usage of shorter-term time scales on SPI/SPEI (i.e., 30-120d) or other products that could help in the detection of flash drought situations using indicators, such as, QuickDRI, VegDRI, satellite-based vegetation health products, streamflows (over shorter time frames), soil moisture products, and EDDI.

Should/Could the state and local contributors use or consider certain data and information when they provide their input? Could you share a 'gold star' example of what that would look like?

BF: What they use has to make sense for their location/season. Ideally, they would look at the entire suite of indicators and not focus on one, such as percent of normal precipitation from AHPS.

BF: A map of changes being suggested and the data used to support those changes is what would be great for each/every state. A clean/clear map for the authors to see proposed changes as we often get a very hard to read map that has lines haphazardly drawn on it, and finally, a consolidated message from each state, which I think is an issue in this region as a whole.

DS: I wouldn't say there's a gold star example, necessarily. However, I would say the important point is that the state teams/contributors utilize the broad spectrum of indicators available to them to provide the most comprehensive picture of the situation and to be in synch the "convergence of evidence" approach. Using the array of indicators available is not only important in terms of getting a comprehensive picture, but also from the perspective that the authors and state team are generally looking at the same tools available. For example, if I receive a recommendation that's based on some local indicator that I don't have access to or is not one that has been vetted properly, then I may not draw the same conclusions when I go to validate the state-level recommendation. Additionally, I can't stress enough that utilization of percentage of normal precipitation shouldn't be the primary indicator used in making a recommendation.

Anything on the horizon related to the USDM process that the region should be aware of?

BF: The switch to ArcPro will enable the Authors to share more data and the **_exact_** data being pulled into our GIS projects. A data repository is being established where anyone can go an pull the data. The NDMC is working on new "Objective Blends" utilizing AI/ML technology to select inputs and weights. The Authors also are working with developers of new data (AIRS Platform at NASA/JPL) for inclusion into the weekly USDM process.

What is the role of continued training and education in the USDM process?

BF: This is not "one and done" as people come and go constantly throughout all the agencies that are represented. Training/education/outreach is a continual effort and should be scoped out by all groups who want to be involved. The USDM author's should be involved in these efforts by whomever is conducting them.

DS: Continued training and education are important because new monitoring products often become available (i.e., NASA AIRS products which may be used in detecting flash drought) and new contributors are frequently added to the state teams and could benefit from the dialogue. However, adherence and buy-in by the state team contributors (re: our USDM process) can be a limiting factor at times and it's important for the group to have constructive conversations in person to work through any differences in approach. Also, on a very basic level, it's important to have occasional face-to-face interactions which, in my opinion, help with building a better rapport between the authors and the broader group which is vital considering the number of contributors.

Cross-state collaboration on the USDM has improved across the Southeast. What more should/could we do?

BF: A single/final message to the Author. All too often, after a state has made recommendations, a single person will come back with proposed changes to the consolidated "final" recommendation. That instigates a plethora of emails and it is usually late in the game, when time becomes more of a limited asset. Regional entities need to let the states hammer out their ideas and once they are happy with them, they should be left alone.

DS: From my perspective, I'd like to see a more standardized approach/method by the state teams in terms of how they present their USDM recommendations to the weekly author. Currently, each state team has a differing way of putting their recs on the map and it can be difficult for us to interpret. Some recommendations come in without a map at all and those can be challenging as well because I'll have to spend time looking up the location of specific counties/place names and as you know places like Georgia have a lot of counties. Moreover, I'd specifically request that teams steer away from making recommendations on NWS AHPS maps. They can be hard to read especially due to the size of the maps, differing projection, and the large number of counties. Ideally what I'd like to see is that the weekly input to the USDM include a brief synopsis of the recommendation, the indicators used to justify, and a map that clearly shows the recommended changes. I'd be glad to provide some examples of maps from state teams that I find easy to read/interpret.