



Climate Prediction Center Drought Outlook Consistency



Objective

To improve interpretation and provide consistent messaging for the Climate Prediction Center's drought outlooks (DOs), in support of its mission of delivering climate information and products to promote a more climate-resilient society.

Challenge

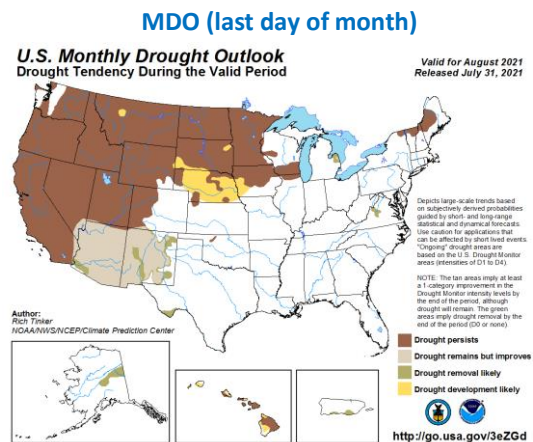
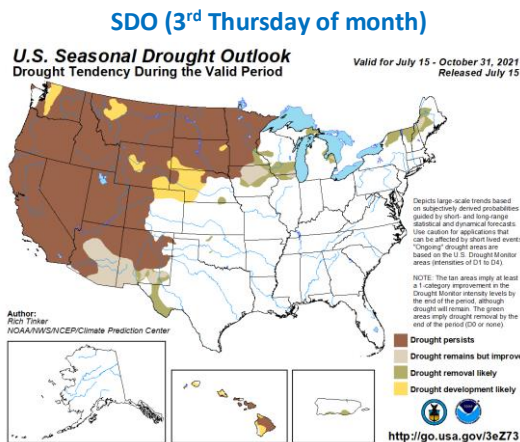
The United States Drought Monitor (USDM) serves as the initial conditions for the DOs. Between the release of the Seasonal Drought Outlook (SDO) on the 3rd Thursday of each month and the Monthly Drought Outlook (MDO) at the end of each month, extreme and/or transient weather events can occur that might result in large changes in the USDM, and subsequently the DOs. Since SDO and MDO valid periods overlap, this can result in forecast categorical inconsistencies, leading to conflicting messaging and causing confusion.

Solution

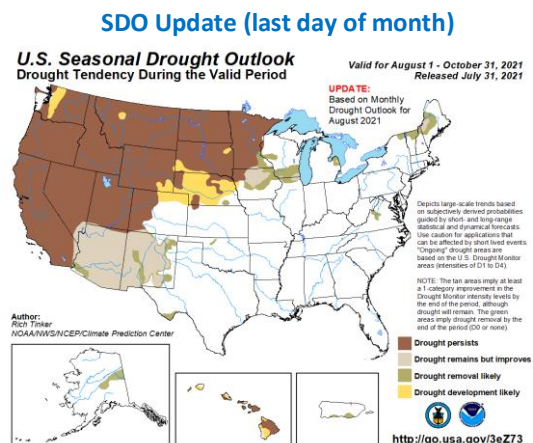
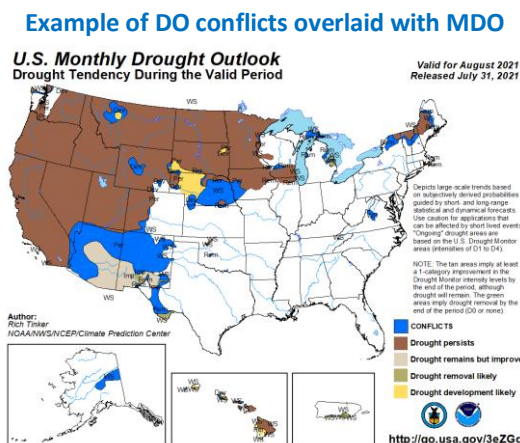
Due to various types and regional definitions of drought, a simple find-and-replace algorithm was not a feasible option for addressing inconsistencies. **Instead, a conflict-detection algorithm and interactive, iterative workflow were developed, enabling forecasters to identify and address inconsistencies between the DOs.**

Process

Example of August-October 2021 SDO Update, based on August 2021 MDO



Conflict detection



Automated iterative update and editing process, and final processing