

WATER – POSTER #48

## **Assessing the Climate Change Component of Flood Mitigation Plans**

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This research provides a content analysis of the climate change language found within South Dakota's Hazard Mitigation Plan (HMP), with a specific focus on flooding. The content analysis consists of researching common words included in climate change language to determine the extent to which climate change is included in this plan. The content analysis includes a tiered approach that consists of four distinct tiers. The first tier is distinguished by the explicit mention of climate change in the plan, including acknowledgement of the importance of the issue being addressed. The second tier includes mention of climate change, but with no plan to address the issue. In the third tier, climate change is indirectly mentioned, such as in other FEMA documents, but again with no plan for action. Finally, the fourth tier includes no mention of climate change anywhere within the plan. This research provides insights into the importance of climate change when developing HMP's and the role of climate change in future hazard predictions and mitigation efforts. The content analysis of South Dakota's HMP was then compared to historical flood events and climate change projections to estimate if the frequency and magnitude of flooding events will likely change given future climate scenarios. Researchers also examined the HMP to determine the relationship of current and likely future hazards to mitigation strategies contained within the plan. This was done to determine if hazard mitigation strategies found within the plan appropriately match the state's current and future hazards risk. This research is an early step in helping to determine if FEMA standards for hazard mitigation plans include sufficient information concerning climate change impacts.