

Temporal Changes in Drought in Georgia: Implications for Agriculture and Water Supply in the Future

Pam N. Knox

Affiliation: Crop and Soil Sciences Department, University of Georgia, Athens GA 30602

Reference: McDowell RJ, CA Pruitt, RA Bahn (eds.), *Proceedings of the 2015 Georgia Water Resources Conference*, April 28-29, 2015, University of Georgia, Athens.

Abstract. In the last two decades, Georgia has gone through three major droughts as well as several minor dry spells. By comparison, drought in the state was almost nonexistent during the period from 1958 to 1980, although earlier decades included some of the worst droughts in Georgia's recorded history. Drought is caused by a number of interlocking factors, including the lack of tropical storms, La Niña occurrence, and increased evaporation from warmer temperatures. The impacts of each recent drought caused both physical and political changes that have affected Georgia's agriculture as well as its ability to supply water to its citizens. Changes in future climate due to global warming suggest a likely increase in drought conditions over time due to both increasing evaporation and evapotranspiration in higher temperatures and more high intensity rainfalls with longer dry periods between rain events. Water managers and agricultural producers will need to adapt to these conditions to supply sufficient water to meet the needs of their communities in future decades.