
GCSC Seminar Series

210 ASB
(Aline Skaggs
Building)

ALL ARE WELCOME

Tuesday, October 16, 2018
4:00-5:00 PM

Refreshments &
meet the speaker
at 3:45

Seth Arens

Research Integration Specialist, Western Water Assessment Utah

“Planning for drought and climate change in Utah: working with resource managers to develop usable science”



Photo “Drought in Utah” by Elizabeth Haslam ([CC BY 2.0](#))

Western Water Assessment helps advance the understanding of and preparedness for climate change and drought in Utah by developing collaborative research projects with resource managers, state and federal agencies and municipalities.

Abstract

As the second driest state, drought is a common climate condition in Utah. Droughts within the historic record (last 150 years) were generally shorter in duration and less severe than droughts in the paleo-historic record (last 1,000 years). Climate change is expected to warm average temperatures in Utah up to 10°F by 2100. Warmer temperatures alone will likely increase the severity of future droughts. Changes to the amount, timing, type and intensity of precipitation will impact not only drought, but also water supply, infrastructure and ecosystems. Regardless of future global greenhouse gas emissions, Utah climate will warm, precipitation patterns will change and drought will likely become more common. Western Water Assessment is a University of Colorado-Boulder-based climate research group that actively works with resource managers, state and federal agencies and municipalities in Utah to understand climate risks associated with climate change and drought, how it affects their management and how to prepare for future changes. Many organizations in Utah are eager to more clearly understand climate change, its impacts and adaptation strategies. One barrier to organizations such as wholesale water providers or municipalities, is the lack technical scientific knowledge regarding climate change or drought. Western Water Assessment works with organizations in Utah to provide expertise on climate and where appropriate, to develop collaborative research projects that directly address the organization's research needs. This presentation will introduce the general model used to develop usable, applied climate science projects with Utah organizations and briefly outline collaborative climate change and drought research in Utah.

Bio

Seth Arens has worked for Western Water Assessment as a research scientist since 2015. Seth has a diverse background in science, including research experience in ecosystem and plant physiological ecology, snow hydrology and atmospheric science. Seth worked as an environmental scientist for the Utah Division of Air Quality, where he developed research program to assess the extent and causes of ozone pollution in Utah and maintained Utah's air quality monitoring network from 2010-2015. Prior to working in Utah, Seth studied impacts of climate change on ecosystem structure and carbon balance of Arctic ecosystems in Alaska and Greenland. Seth earned a BA in Biology and Environmental Policy from Colby College in Waterville, ME, an MS in Biological Science from the University of Alaska-Anchorage and an MS in Biology from the University of Utah.