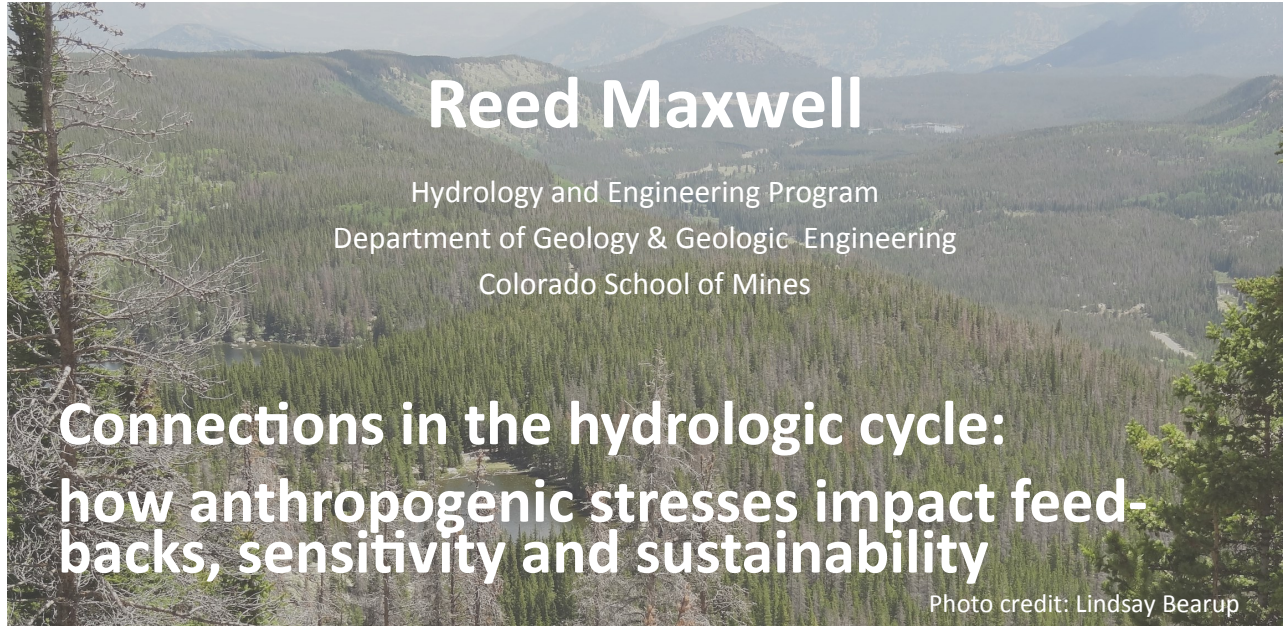


Center for Water, Earth Science and Technology (CWEST)

Distinguished seminar series presents



*Future Wednesday
CWEST Seminars:*

April 13th, Lauren
Hay, US Geological
Survey



Aquifers are a critical water resource, particularly in irrigation, but also participate in moderating the land-energy balance over the so-called critical zone of 2-10m in water table depth. Yet, the scaling behavior of groundwater is not well known. The interdependence between groundwater and land energy fluxes has tremendous implications for hydrologic feedbacks resulting from climate change and anthropogenic activities. Pumping and irrigation are often overlooked in groundwater impact studies but are shown here to impact water table depth resulting in changes to the land-energy budget. Compounding these interactions, recent climate-exacerbated infestation of the mountain pine beetle (MPB) in the Rocky Mountain west has resulted in unprecedented tree death across the region. The spatial and temporal heterogeneity of the epidemic creates a complex and often inconsistent watershed response, impacting the primary storage and flow components of the hydrologic cycle. Here, I will highlight three research areas within my group: understanding the anthropogenic impacts on the hydrologic cycle, impacts of climate-induced insect-drive tree mortality on the hydrology and water quality in the intermountain west and scaling of groundwater and residence times over the continental United States. A range of approaches will be discussed, including high performance computing and implications for understanding dominant hydrological processes at large scales will be presented.

Wednesday | February 24th, 2016 | 11-12

CIRES Auditorium

Light refreshments from 12-12:45

Contact c-west@colorado.edu with questions

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