

NREL Fall 2013 Seminar Series

“Using Aquatic Ecosystem Science to Inform Freshwater Resource Use and Sustainability” Facilitated by Ed Hall (CSU NREL) and Stephanie Kampf (CSU ESS)

Over the next 50 years water resource issues will be at the forefront of political and societal discussion. As demand for water increases and supply dwindles, how we manage our freshwater resources is becoming more important to an increasing number of people. Sustainable management strategies for freshwater resources often focus on balancing water resource use with maintaining ecological flows. However, freshwater sustainability is also affected by the combination of physical, biological and chemical transformations within aquatic ecosystems and their contributing watersheds. In this seminar series we bring together a series of speakers who work within aquatic ecosystems to discuss the dynamics of those systems and the importance of research at the intersection of biological, chemical, and physical sciences. This semester’s seminar aims to highlight some of the key questions in aquatic ecosystem ecology and how answers to those questions may help in defining successful sustainable management of our global freshwater ecosystems over the next 50 to 100 years.

Sept 6 **Bill Lewis, CIRES, CU Boulder**

Title: "Global Primary Production of Lakes"

Sept 20 **Thomas Borch, CSU’s Department of Soil and Crop Sciences**

Title: “Does Hydraulic Fracturing, Uranium Mining, or Dissolved Organic Matter affect our Health and Environment?”

Sept 27 **Ed Hall, CSU’s Natural Resource Ecology Lab**

Title: “Anthropocenities: Human Drive Influences on Aquatic Ecosystems in a Globalized World – A Tale of Two Watersheds”

Oct 4 **Mike Gooseff, CSU’s Department of Civil and Environmental Engineering**

Title: “The Invisible Work of Steam-Groundwater Interactions that Maintain Aquatic Ecosystem Services”

Oct 11 **Kurt Fausch, CSU’s Department of Fish, Wildlife, and Conservation Biology**

Title: “The Importance of Sustaining Hidden Connections for Conservation of Aquatic and Terrestrial Biota in Stream-Riparian Ecosystems”

- Oct 18** **Jay Lennon, Center for Research in Environmental Science, Indiana University**
Title: "Browning of Freshwater Ecosystems: Culprits and Consequences of Global Change"
- Oct 25** **Pinar Omur-Ozbek, CSU' Department of Civil and Environmental Engineering**
Title: "Smelly and Toxic! What Happened to the Beautiful Lake?"
- Oct 29** **Chris Myrick, CSU's Department of Fish, Wildlife, and Conservation Biology**
Title: "Managing Ecological Connectivity on the Fisheries/Engineering Interface: Fish Passage and Fish Barrier Research at CSU"
- Nov 1** **Diane McKnight, INSTAAR, CU Boulder**
Title: "Climate Change and Drinking Water Quality in the Colorado Rockies: Application of Phytoplankton Ecology in Adapting to "Too Much" Summer"
- Nov 8** **Travis Schmidt, US Geological Survey**
Title: "The River Feeds the Valley: How Resource Extraction alters Cross-Ecosystem Resources Quantity and Quality"
- Nov 15** **Ellen Wohl, CSU's Department of Geosciences**
Title: "Messy Rivers are Healthy Rivers: The Importance of Physical Complexity in Mountainous Headwater Streams"
- Nov 22** **Le Roy Poff, CSU's Department of Biology**
Title: "Environmental Flows: Challenges to Building a Better Interdisciplinary Science to Sustain Freshwater Ecosystems"
- Dec 6** **Ted Stets, US Geological Survey**
Title: "Century of Trends: Historical Perspectives on the Evolution of Water Quality in the US"
- Dec 13** **Brian Bledsoe, CSU's Department of Civil and Environmental Engineering**
Title: "Let's Be Honest: Addressing Key Uncertainties in Stream Restoration and Decision-Making"