

# NOAA Earth System Research Laboratory and NCAR Societal Impacts Program *Seminar Series*

## NCAR Societal Impacts Program (SIP) and Weather and Society Integrated Studies (WAS\*IS)

David Skaggs Research Center (DSRC - NOAA Building)  
325 Broadway  
Boulder, Colorado 80305-3328  
Room GC402 (Multipurpose Room)

Monday, March 16, 2009 2:00 - 3:00pm  
discussion following / refreshments will be served

### *Climate Change in Colorado: Developing a Science Synthesis to Support Water Resources Management Adaptation*

**Andrea J. Ray, Ph.D.**

NOAA - Earth System Research Laboratory/Physical Sciences Division

#### Abstract

The State of Colorado's Climate Action Plan sets out a goal to prepare the state to adapt to those climate changes "that cannot be avoided," and recommends assessing the vulnerability of Colorado's water resources to climate change, analyzing impacts on interstate water compacts, and planning for extreme events such as drought and flooding (CCAP 2007). A team from the NOAA-CU Western Water Assessment, a Regional Integrated Science and Assessment (RISA) program, recently completed a report synthesizing the science on climate change. "Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation," is aimed at planners, decision-makers, and policymakers to support the state's water adaptation efforts.

This presentation focuses on the process of developing the report, our key communication goals, and the choices and challenges we faced in developing this synthesis for decision-makers, and engaging professional stakeholders in framing and developing the report based on their decision processes and needs. One goal of the report was to raise climate literacy of our audience about climate and how climate science is done. For example, a primer on climate models and theory situates Colorado in the context of global climate change and describes how features such as complex topography relate to interpreting and using climate change projections.

Water managers have a history of adapting to changes in economies and land use, environmental concerns, and population growth. However, current practices may not be robust enough to cope with climate change. This report is a step in establishing Colorado's water-related adaptation needs; it responds to the needs of Colorado state agencies and water management community to evaluate impacts on Colorado's water resources and better understand risks. This effort is also an experiment in climate services for climate change information and exploring the challenges of communicating the information to a diverse audience of decision-makers.



#### Off-Site Guests Attending

Mention the WAS\*IS Seminar  
when checking in through  
DSRC security.

#### Questions/Problems

Contact Annie Reiser  
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**WAS\*IS** CULTURE CHANGE

weather & society \* Integrated studies

[www.sip.ucar.edu/wasis/](http://www.sip.ucar.edu/wasis/)  
Sponsored by the NCAR Societal Impacts Program

Changing from what **WAS** to what **IS**  
the future of integrated weather studies