

# Mountain Pine Beetle Science Symposium: Impacts on the Hydrologic Cycle and Water Quality

8:30am

Coffee

9:00am

Welcome and Introduction

*Jeff Lukas and Eric Gordon, Western Water Assessment*

9:15am

A view from the field

*Liz Schnackenberg, Routt National Forest*

*Carl Chambers, Arapaho-Roosevelt National Forest*

9:25am

The impact of the pine beetle infestation on snowpack accumulation and melt in the headwaters of the Colorado River: results from the 'red phase' of tree death

*Evan Pugh, University of Colorado-Boulder*

9:50am

Impacts of mountain pine beetle outbreak on distributed snowpack processes

*Noah Molotch, University of Colorado-Boulder*

10:15am

Break

10:30am

Hydrological response to mountain pine bark beetle infestation in Western subalpine watersheds

*Kelly Elder, USFS Rocky Mountain Research Station*

10:55am

Comparing water, soil, vegetation, fuel and fire behavior responses to management options in mountain pine beetle-infested forests

*Chuck Rhoades, USFS Rocky Mountain Research Station*

11:20am

Response of evapotranspiration and greenhouse gas emissions to the bark beetle and blue stain fungus epidemic in Rocky Mountain forests

*Holly Barnard, University of Colorado-Boulder*

11:45am

Impacts of beetle kill and wildland fire on regional water and energy cycles in western North America

*Fei Chen, National Center for Atmospheric Research*

12:10pm

Lunch (on your own in the Mesa Lab cafeteria)

1:00pm

Baseline information to help understand hydrological and hydrochemical responses to the mountain pine beetle outbreak, Como Creek watershed, CO

*Ty Atkins, University of Colorado-Boulder*

1:25pm

Effects of mountain pine beetle on water quality in the Upper Colorado River Basin

*David Clow, United States Geological Survey*

1:50pm

Preliminary investigations into the impact on hydrology and metal fluxes in mountain pine beetle infected watersheds: Summit County, Colorado

*Kristen Mikkelson, Colorado School of Mines*

2:15pm

Effects of the mountain pine beetle on water quality in Colorado mountain streams

*Jimmy McCutchan, University of Colorado-Boulder*

2:40pm

Break

2:55pm

Water resource responses in beetle-killed catchments in north-central Colorado

*John Stednick, Colorado State University*

3:20pm

Quantifying the effects of large-scale vegetation change on coupled water, carbon, and nutrient cycles: Beetle kill in Western montane forest

*Paul Brooks, University of Arizona*

3:45pm

Summary discussion: What do we know and what don't we know? Providing stakeholder synthesis and identifying future research efforts

*Moderators: Jeff Lukas and Eric Gordon, WWA*

4:30pm

Symposium conclusion

**Colorado**  
University of Colorado at Boulder

  
**WESTERN WATER**  
**ASSESSMENT**