

**SOUTHWEST CLIMATE CHANGE INITIATIVE (SWCCI)**  
**CLIMATE CHANGE ADAPTATION WORKSHOP**  
**FOR NATURAL RESOURCE MANAGERS IN THE GUNNISON BASIN**

**December 2-3, 2009**  
**Aspinall-Wilson Center, Western State College, Gunnison, Colorado**

---

**WORKSHOP GOAL:**

Identify management strategies that will help native plants, animals and ecosystems adapt to a changing climate and lay the groundwork for their implementation.

**WORKSHOP OBJECTIVES:**

1. Provide background information on climate change as it applies to the Gunnison Basin.
2. Introduce a framework for landscape-scale climate change adaptation for use at this workshop and as a tool that can be used in other landscapes.
3. Assess the impacts of climate change on a set of high-priority species, ecosystems and natural processes selected by workshop organizers and participants.
4. Identify management strategic actions that will reduce climate change impacts.
5. Identify opportunities for ongoing learning, collaboration, and implementation of on-the-ground climate change adaptation projects in the Gunnison Basin.

**DESIRED OUTCOMES:**

1. Shared understanding of the known current and potential future effects of climate change, through development of conceptual models, for Gunnison sage-grouse, alpine ecosystem and Gunnison headwaters.
2. Set of strategic actions to promote conservation resilience and realignment of Gunnison sage-grouse, alpine ecosystem, and Gunnison headwaters in the face of climate change.
3. Set of opportunities to facilitate successful implementation of strategic actions.
4. Statement of research and monitoring needs for climate adaptation in the Gunnison Basin.
5. Commitment among participants to take action and recommended next steps to be taken by natural resource managers of the Gunnison Basin.

**DECEMBER 2, 2009: 8:30 AM -11:45 PM**

- 8:30- 8:40      Welcome
- Tim Sullivan, *State Director, The Nature Conservancy, CO*
- 8:40-8:50      Southwest Climate Change Initiative (SWCCI) Overview
- Patrick McCarthy, *Director, SWCCI, The Nature Conservancy, NM*
- 8:50-9:10      Statement of the Problem and Rationale for Workshop
- Gregg Garfin, *Director of Science Translation and Outreach, University of Arizona (Workshop Facilitator)*

- 9:10-9:40 Overview of Regional Climate Change Impacts: the Known, the Unknown, and the Uncertain
- Linda Mearns, Senior *Scientist, National Center for Atmospheric Research*
- 9:40-10:15 Overview of Terrestrial Ecological Consequences of Climate Change in the Southwest and the Gunnison Basin Landscape
- Ian Billick, *Director, Rocky Mountain Biological Laboratory*
  - David Inouye, *Professor, University of Maryland and RMBL*

**BREAK: 10:15 - 10:30 AM**

- 10:30-11:00 Overview of Past and Potential Future Trends in River/Stream Flows in Western Colorado and the Gunnison Basin
- Joe Barsugli, *Western Water Assessment, University of Colorado*
- 11:00-11:30 Overview of Conservation Adaptation Planning
- Molly Cross, *Climate Scientist & Adaptation Specialist, Wildlife Conservation Society*
- 11:30-11:45 Implementing a Framework for Adaptation Planning: Future Climate Scenarios, Goals & Logistics for Remainder of the Workshop
- Gregg Garfin & Molly Cross

**LUNCH: 11:45 – 12:45 PM (PROVIDED)**

**12:45 - 4:30 PM, w/ BREAK FROM 3:00 – 3:15 PM**

- 12:45-4:30 Break-out groups assemble in separate rooms; introductions
- Grouse Facilitators: Terri Schulz and Carrie Enquist
  - Alpine Ecosystem Facilitators: Molly Cross and Greg Hayward
  - Hydrologic Regime Facilitators: Gregg Garfin and Dave Gori
- Objectives for the three groups include:*
- *Identify/refine management objectives*
  - *Develop a conceptual model*
  - *Assess impacts of two future climate change scenarios*
  - *Complete Table 1: Climate Change Impacts (in participant packet)*

**DAY ONE ADJOURN: 4:30 PM**

**HAPPY HOUR: 4:30 PM (AT THE ASPINALL-WILSON CENTER)**

**DECEMBER 3, 2009, 8:30 AM -11:30 AM w/ BREAK FROM 10:15 – 10:30 AM**

8:30-11:30 Re-assemble into three break-out groups and designated rooms

Objectives for three groups include:

- *Identify strategic actions by building on the work of the previous day*
- *Complete Table 2: Identification of Strategic Actions (in participant packet)*
- *Review management objectives*
- *Begin to evaluate level of urgency/priority and identify opportunities for implementation*
- *List research and monitoring needs*

**LUNCH: 11:30 – 12:30 PM (PROVIDED)**

**12:30 – 4:30 PM**

12:30-1:30 Break-out Groups Re-assemble in Large Room and Report Back (Gregg)

- All three groups present/review their priority strategic actions
- Facilitated summary and synthesis

1:30-2:30 Opportunities for Strategic Action Implementation: Evaluate top priority actions considering barriers and key uncertainties, e.g., cost, social, political, regulatory, lack of knowledge, and opportunities for implementation

- Facilitators: Gregg Garfin and Patrick McCarthy

Outcomes:

- *Barriers to implementing strategic actions*
- *Opportunities for overcoming barriers to implement the actions*
- *If time is available, include lead agency and timeline*

**BREAK: 2:30 – 2:45 PM**

2:45-3:10 Monitoring & Future Research Priorities: Facilitated Discussion  
Facilitator: Dave Gori, *Director of Science, TNC-NM*

Outcomes:

- *The three groups share research and monitoring needs identified in the breakout sessions.*
- *Participants identify other research and monitoring information that would improve their ability to respond to climate change.*

- 3:10-4:10 Panel/Group Discussion: Potential Next Steps for Implementing Workshop Recommendations (Moderator: Dave Gann, *The Nature Conservancy*)
- Sharon Friedman, US Forest Service
  - Tom Schreiner, Colorado Division of Wildlife
  - Dustin Perkins, National Park Service
  - Taryn Hutchins-Cabibi, Colorado Water Conservation Board
  - Russell Japuntich-Bureau of Land Management
- 4:10-4:20 Workshop Summary, Outcomes and Next Steps: Patrick McCarthy
- 4:20-4:30 Closing Remarks: Tim Sullivan

**PLEASE COMPLETE EVALUATION FORM!! THANK YOU!!**

**WORKSHOP ADJOURNS: 4:30 PM**