



WORKING GROUP: SAGEBRUSH SCIENCE SYNTHESIS

Focal Theme and Questions

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Overarching Theme: Synthesis and evaluation of management strategies and actions to maintain and restore sagebrush ecological integrity in the context of their effectiveness and social acceptance under a changing climate and other emerging stressors.

The goal of the Working Group Science Synthesis (WGSS) is to inform management for adapting to environmental change in the eastern sagebrush biome (Montana, Wyoming & Colorado).

Specific Science Questions

Current Context:



What are the more common management goals in the eastern sagebrush biome? What does the decision landscape look like?



What are considered to be desired conditions for sagebrush ecosystems in different regions across the eastern sagebrush biome?



How is the concept of “ecological integrity” defined and used to inform management at different scales? How is this understood among different actors and decision makers?



What are the different management strategies and actions currently in use or proposed in the literature to preserve “ecological integrity” at different scales? What are the barriers to implementing those actions?

Forward Looking:



What ecological transformations are expected or plausible under projected environmental changes and other emerging stressors? What are the major uncertainties?



How feasible or effective are different management goals and actions given future environmental change and associated ecological responses?



What ecological futures may be desired, or what ecological transformations may be acceptable in a given context? What are the economic and cultural implications of transformation?

Working Group Process

Two-year process (goal of completing this effort by the end of 2026)

Regular (e.g., monthly) virtual working group engagements

Subgroups leading efforts on specific questions outside of working group meetings:

- Ecological Scenarios Subgroup
- Management Actions and Efficacy Subgroup
- Management Goals, Cultural and Decision Context Subgroup

In-person climate adaptation science workshop in 2026 (summer/fall)

August 2025 in-person NC CASC Annual Consortium Meeting

Target audience

DOI agencies, state agencies, Tribal Nations, NGOs and private landowners in the North Central region that manage sagebrush ecosystems under a broad umbrella of maintaining or restoring ecological integrity.

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Potential Scientific Products

Primary Products

1. **Science Synthesis** (report and/or fact sheets)
2. **Adaptation Menus**

Other Outcomes Beyond WGSS

1. **Tools Library** to compile important resources and provide guidance for accessing and using social, ecological, and climate data
2. **Trainings, case studies**, or other guidance to address capacity issues
3. **New research** to address outstanding questions



Photo: Picryl

How can you get involved?

We are actively seeking feedback on the scope of this effort and our approach. We also welcome interest in participation in the working group or input to inform specific subtopics. For further information, please reach out to:

- Kyra Clark-Wolf (kyra.clark-wolf@colorado.edu)
- Imtiaz Rangwala (imtiaz.rangwala@colorado.edu)

Or scan the QR code.

