

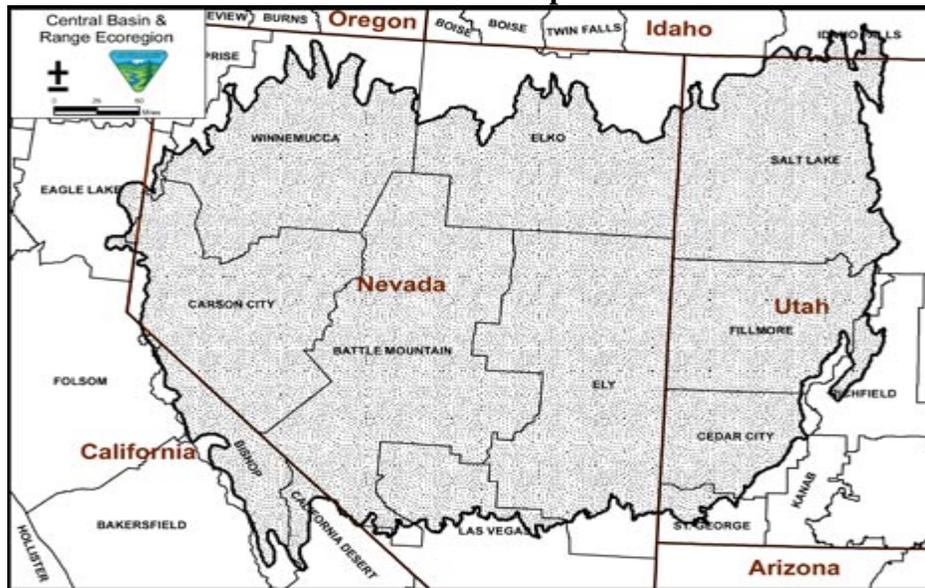
Central Basin and Range Rapid Ecoregional Assessment (REA)

REA Status

The Central Basin and Range REA was initiated in July 2010 and is scheduled for completion in early 2012. REA Task 1, the refinement of management questions, conservation elements, and change agents, was completed in September 2010. The results of Task 1 are described in the *Central Basin and Range Task 1 Final Memorandum*.

Task #	Product	Status
1	Refine management questions, conservation elements, and change agents	Completed. <i>See Task 1 Final Memorandum.</i>
2	Identify and recommend datasets for analysis	
3	Identify and recommend analytical models and tools	
4	Prepare REA work plan	
5	Synthesize datasets	
6	Conduct analyses and generate findings	
7	Prepare REA report, maps, and supporting documents	

Location Map



Location and Setting

The Central Basin and Range encompasses large areas of Nevada and Utah and extends into California and Idaho. It lies to the immediate east of the Sierra Nevada, to the north of the Mojave Basin and Range, to the west of the Wasatch/Uinta Mountains, and south of the Northern Basin and Range ecoregions. The ecoregion has a total area of 120,000 square miles and includes all or portions of 16 BLM field offices.

The Central Basin and Range ecoregion is internally drained and is characterized by a mosaic of dry basins, scattered low and high mountains, and salt flats. It has a hotter and drier climate, more shrubland, and more mountain ranges than the Northern Basin and Range ecoregion to the north. Between the Sierra Nevada to the west and Wasatch ranges to the east, more than three hundred long, narrow, roughly parallel mountain ranges are separated by broad elongated valleys. Basins are generally covered by Great Basin sagebrush or saltbush-greasewood vegetation. Cool season grasses are less common than in the Snake River Plain and Northern Basin and Range Ecoregions. The region is not as hot as the Mojave Basin and Range ecoregion to the south and it has a greater percent of land that is grazed.

Along its western and eastern edges, the ecological boundary of the Central Basin and Range is distinguished by fairly sharp vegetation changes and abrupt transitions into higher elevation environments. The transitions are less abrupt along the southern borders, as cool semi-desert transitions into the warm desert of the Mojave Basin and Range. The northern transition into the Northern Basin and Range is more subtle, as sagebrush vegetation dominates much of that transition.

Rain shadow effects from the east and west create an arid climate throughout the ecoregion. The Sierra Nevada range effectively captures precipitation traveling west from the Pacific Ocean, while the Rocky Mountains intercept precipitation heading northwest from the Gulf of Mexico. Temperatures vary drastically among high and low elevations. Average winter temperatures are 10 to 40° F, while summer temperatures are typically 50 to 90° F.

Management Questions

The management questions for the Central Great Basin REA were finalized and presented in August 2010 in the *Central Basin and Range Task 1 Final Memorandum*. The management questions address specific information needs that guide the REA and will ultimately inform management actions on the landscape. Approximately 81 questions were formulated and are organized in 20 categories. Examples of the categories and number of management questions in each category include:

- Species as conservation elements (9 questions)
- Terrestrial sites of high biodiversity (3 questions)
- Aquatic sites of high biodiversity (4 questions)
- Surface and subsurface water availability (6 questions)
- Climate change: terrestrial resource issues (6 questions)
- Wild horses and burros (7 questions)

Conservation Elements

Conservation elements are resources of conservation concern within an ecoregion. This REA will assess the current status and forecast the future condition of two basic types of conservation elements:

- “coarse-filter” conservation elements, which are broad vegetation assemblages within the ecoregion; and
- “fine-filter” conservation elements, which are representative, important, or vulnerable plant and animal species.

A full list and explanation of the conservation elements can be found in the Phase 1 Task 1 Memo. In brief, the coarse-filter includes 26 terrestrial and aquatic ecological system types and communities, nested within 4 ecosystem categories, which represent the predominant ecological pattern and dynamics of the ecoregion. The four broad ecosystem categories are Basin Dryland ecosystems, Basin Wet ecosystems, Montane Dryland ecosystems, and Montane Wet ecosystems. The Assessment Management Team is currently refining the species that will be evaluated as “fine-filter” conservation elements.

Change Agents

Change agents are disturbances on the landscape that can influence ecosystem health. They can have natural causes, such as wildfire; human causes, such as energy development; and often result from the synergistic interaction of both, such as climate change. A key purpose of this REA is to understand the influences of significant, widespread change agents on the natural resources (represented by the conservation elements discussed above) of the Central Basin and Range Ecoregion.

This REA will examine the potential effects of the following change agents. A more complete discussion of change agents is presented in the Task 1 Final Memorandum.

Change Agents to be Addressed in the Central Basin and Range REA
Wildland Fire
Invasive Species
Land and Resource Uses: Urban and Roads Development Oil, Gas, and Mining Development Renewable Energy Development Groundwater and Surface Water Extraction, Development, and Transportation Military Use Livestock grazing Wild horse and burro grazing Recreational Uses Pollution (Air Quality)
Climate Change