Sagebrush Steppe Assessment and Conservation Approach for the High Desert

The Sagebrush Steppe Assessment and Conservation Approach is a multiple stakeholder collaborative assessment of sagebrush steppe ecosystems in southeast Oregon and adjacent landscapes in Idaho and Nevada. It is coordinated by the Sagebrush Cooperative, a regional public-private partnership, and the scientific technical lead is provided by the Eastern Oregon Agricultural Research Center. The Assessment goals are designed to meet several objectives that were collectively identified as key needs for effective regional landscape scale land management and for implementation of larger existing conservation plans.

Background:

The sagebrush steppe ecosystem is recognized by state and federal agencies, conservation organizations and other stakeholders to be threatened or degraded across much of its range. Habitat for sagebrush steppe dependant species is being eliminated by energy development, altered fire regimes and rapid conversion to exotic annual grasslands and juniper woodlands. One of the largest remaining blocks of high quality sagebrush steppe is in the High Desert, a portion of several ecoregions spanning southeastern Oregon, northern Nevada and southwestern Idaho.

There is remarkably little published data or references documenting current condition, trends, threats, and the effectiveness of recent management activities in sagebrush steppe for the region. However, sagebrush steppe habitats have emerged as priority habitats in the Oregon, Idaho, and Nevada state wildlife agency strategies (State Wildlife Plans). Each of the State Wildlife Plans identifies specific priority geographic areas for conservation of sagebrush steppe within the High Desert region.

Several other planning efforts have also been completed that apply to the region or the sagebrush steppe biome. These include The Nature Conservancy's Columbia Plateau Ecoregional Assessment (1999), The Oregon Biodiversity Project (1998) which was a basis for the Oregon Conservation Strategy, the Intermountain West Joint Venture Plans and Important Bird Areas (2005), and the Oregon Sage-grouse Conservation Strategy (2005).

The Sagebrush Cooperative's assessment will synthesize these plans, incorporate sagebrush steppe ecosystem condition and develop specific strategies to improve implementation of plans. The Assessment will also assess the recent trends in management activities and determine if we are as effective and strategic as possible in our efforts to manage and conserve sagebrush steppe and the species that depend on it.

There are several emerging trends that have developed significantly since the production of the state level plans which will be directly addressed in the Sage Steppe Assessment and Conservation Approach. These include new understanding of climate change's potential effects and the rapidly developing renewable energy industry. The assessment project will assess climate change as a factor in sagebrush steppe conversion to annual grasslands at low elevations and to juniper woodlands in more mesic sites. Southeast Oregon has recently become an area of interest for the development of several types of renewable energy resources. Wind towers, geothermal plants, natural gas pipelines, and large transmission line

corridors are all proposed for the area. To allow responsible development, analysis of the condition, critical areas, and the potential impacts of energy development will be necessary. This assessment project will help guide energy development with a regional perspective rather than responding project by project.

Assessment Goals:

- **Assess condition and trend of the region's sagebrush steppe ecosystems**
  - Use best available data to assess the current condition of vegetation communities, wildlife populations, and disturbance regimes
  - Asses future risks and trends including annual grass invasions, juniper expansion, climate change and energy development
- **Assess Management Practices**
  - Assess historical land use and trends in recent management
  - Review current science on common management practices
  - Identify gaps in our knowledge as priorities for research
  - Prioritize areas of highest and lowest likelihood for successful application of specific management practices
- **Synthesize conservation priorities and identify strategies**
  - Bring together stakeholders influential in land management in the region and work towards establishing common priorities and strategies
  - Synthesize priority areas for conservation from multiple existing plans
  - Use assessments of condition, trend, and current science on management practices to collectively identify both spatial and non-spatial strategies for implementation of conservation in, around and between priority landscapes
- **Provide a reference on the region's sagebrush steppe**
  - Produce an education and outreach summary for a general audience
  - Produce a technical reference for managers and decision makers that helps document the needs and basis for project decisions
  - Produce and make publically available a set of maps and data to track regional progress, incorporate adaptive management and plan projects.

Audiences:

There are several intended audiences for different aspects of the assessment process and documents. The technical information, priorities and strategies are intended for an audience of practitioners of land management with a regional perspective. This audience is expected to both participate in the process and use the technical aspects of the document.

A larger public audience will be targeted by the general information and sagebrush steppe condition summaries. The partners in the Sagebrush Cooperative see a need for general public education about the state of the ecosystem. The public audience includes government officials, residents of the region, and private land owners.

Products:

1.) Collaborators are producing a regional sagebrush steppe document as a guide for managers. The document will include maps of priority areas for specific practices including protection of existing high quality habitat, containment and treatment of invasive species, treatment of juniper encroachment, location of wind and energy facilities, and other practices identified in the conservation approach.

2.) A general summary of the document with information about the condition of the sagebrush steppe in the region and the outcome of the conservation approach is being compiled for a general public audience.

3.) An important product of the collaborative assessment process is the relationships developed between the partners, enabling future collaborative on-the-ground work.

4.) The assessment project fits into a regional adaptive management framework by evaluating the effectiveness of recent management practices in meeting objectives. It also identifies adaptive management priorities and strategies for the future.

Partners:

Project Leads:

Eastern Oregon Agricultural Research Center
The Nature Conservancy
Oregon Habitat Joint Venture.

Key partners:

USGS
US Fish and Wildlife Service
NRCS
BLM
Oregon Department of Fish and Wildlife
Idaho Fish and Game
The Oregon Watershed Enhancement Board
Intermountain West Joint Ventures
PRBO Conservation Science
The Nature Conservancy of Oregon and Idaho.