

# Peer Review Plan

**Date:** 4/18/2014

**Source Center:** U.S. Geological Survey (USGS)  
Forest and Rangeland Ecosystem Science Center  
777 NW 9<sup>th</sup> St., Suite 400  
Corvallis, OR 97330

**Title:** Using Resistance and Resilience Concepts to Reduce Impacts of Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Sage-Grouse—A Strategic Multi-Scale Approach.

**Subject and Purpose:** This report provides a brief review of the causes and effects of invasive annual grasses and altered fire regimes in sagebrush steppe ecosystems and is intended to help guide and assist wildfire suppression activities, fuels management, invasive species control and management, and restoration activities to enhance Greater Sage-Grouse habitat. It discusses factors that determine resilience to disturbances, such as fire, and resistance to invasive annual grasses. It illustrates how an understanding of three concepts—resilience and resistance; sagebrush habitat requirements for Greater Sage-Grouse; and invasive annual grasses effect on sage-grouse populations—can be used to prioritize management activities across the Great Basin region using landscape principles. The report also discusses the use of Ecological Site Descriptions (ESDs) to understand the diversity of sagebrush habitats that exist within Greater Sage-Grouse priority areas of conservation, and the use of State and Transition Models (STMs) to illustrate the response of these sagebrush habitats to disturbance, restoration, and conservation measures. A case study is used to show how ESD and STM factors can be applied to prioritize management activities on the landscape and determine potentially optimal treatments for individual sites. This report will be published as a General Technical Report by the U.S. Forest Service.

**Impact of Dissemination:** This product is considered by USGS to be Influential Scientific Information.

**Timing of Review (Including Deferrals):** April-May 2014. Deferrals are not anticipated.

**Manner of Review, Selection of Reviewers, and Nomination Process:** USGS will select the peer reviewers pursuant to the requirements in Survey Manual chapter 502.3 – Fundamental Science Practices: Peer Review (<http://www.usgs.gov/usgs-manual/500/502-3.html>). The U.S. Department of Agriculture Scientific Research guidelines (<http://www.ocio.usda.gov/policy-directives-records-forms/guidelines-quality-information/scientific-research>) will also be followed.

**Expected Number of Peer Reviewers:** Anticipate 3 reviewers.

**Requisite Expertise:** Ecosystem ecology, invasive species ecology, fire ecology, sage-grouse ecology, restoration ecology.

**Opportunity for Public Comment:** No opportunity for public comment is formally incorporated for this product.

**Agency Contact:** [peer\\_review\\_agenda@usgs.gov](mailto:peer_review_agenda@usgs.gov).