# Vegetation, Invasive Plants and Wildfire

**The Greater Sage-Grouse is a sagebrush obligate species. Juniper encroachment, invasive plants and wildfire have resulted in loss of sagebrush. Many of the native vegetative species of the sagebrush ecosystem are killed by wildfires, and recovery requires many years. Fire has been identified as a primary factor associated with Greater Sage-Grouse population declines, especially in the western portion of the Greater Sage-Grouse range. Invasive plants may cause loss or degradation of Greater Sage-Grouse habitat because they can out-compete native vegetation. Some invasive plants are difficult to effectively control once they become established. Invasive plants reduce and, in cases where monocultures occur, eliminate vegetation that Greater Sage-Grouse use for food and cover. Pinyon/juniper woodlands can encroach upon, infill, and eventually replace sagebrush habitat. Encroachment of pinyon/juniper into occupied Greater Sage-Grouse habitat reduces, and eventually eliminates sage-grouse occupancy in these areas.**

## Issue: What management actions can the BLM and Forest Service take to prevent loss of habitat due to wildfire, invasive plants, and pinyon/juniper encroachment?

### Management Actions

#### Alternative A

***Vegetation***

· Prioritization is given to projects that benefit multiple resources.

***Wildland Fire***

· Prescribed fire and non-fire fuels treatments are allowed.

· Prioritize fire suppression to protect human life and high value resources.

#### Alternative B

***Vegetation***

· Prioritize implementation of restoration projects based on environmental variables that improve chances for project success and are most likely to benefit GRSG

***Wildland Fire***

· In PPMAs, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems.

· Do not reduce sagebrush canopy cover to less than 15%

· Allow no fuels treatments in known winter range unless are designed to strategically reduce wildfire risk

· Do not use fire to treat sagebrush in less than 12-inch precipitation zones

· In PPMAs, prioritize suppression, immediately after life and property, to conserve the habitat.

#### Alternative C

***Vegetation***

· Emphasis on passive restoration.

· Restore areas to meet ecological site description.

· Exotic seedings will be rehabbed, interseeded, restored to recover sagebrush in areas to expand PPMAs.

***Wildland Fire***

· Any fuels treatments would focus on interfaces with human habitation or significant existing disturbances.

#### Alternative D

***Vegetation***

· Coordinate, plan, design, and implement vegetation treatments (e.g., pinyon/juniper removal, fuels treatments, and green stripping) and associated effectiveness monitoring

· Prioritize habitat restoration projects

· Establish restoration areas where reseeding can be applied to improve impaired PPMAs and PGMAs.

· Implement treatments to reduce cheatgrass

***Wildland Fire***

· Utilize fire management strategies, including management of wildfires to achieve resource objectives in PPMAs and PGMAs.

· PPMAs are the highest priority for conservation and protection during fire operations and fuels management

#### Alternative E

***Vegetation***

· Initiate landscape level treatments in SGMAs to reverse the effects of pinyon/juniper encroachment and restore healthy, resilient sagebrush ecosystems.

***Wildland Fire***

· Use a framework for pre-suppression actions to minimize ignitions and alter fuel conditions to avoid, whenever possible, large damaging fires.

· Restore the appropriate role of wildfire to establish resiliency, and actively engage in prevention, suppression and restoration of the effects of fire and invasive species

· Use well designed fuel breaks and “green strips” to break up fuel continuity

#### Alternative F

***Vegetation***

· Prioritize implementation of restoration projects based on environmental variables that improve chances for project success and are most likely to benefit GRSG

· Avoid sagebrush reduction/treatments to increase livestock or big game forage in PPMAs and PGMAs and include plans to restore high-quality habitat in areas with invasive species.

***Wildland Fire***

· Similar actions as Alternative B that would focus on designing and implementing fuels treatments with an emphasis on protecting existing sagebrush ecosystems.

### Fire Occurrence (1992 – 2011)

| Population Areas | Fire Size Less than 5,000 Acres | Fire Size Greater than 5,000 Acres |
|---|---|---|
| PPH - BLM | 171,500 | 1,035,200 |
| PGH - BLM | 111,800 | 789,000 |
| PPH - FS | 14,600 | 16,200 |
| PGH - FS | 13,000 | 104,000 |
| PPH - Other | 63,400 | 629,500 |
| PGH - Other | 38,800 | 236,400 |
| **Total** | **413,100** | **2,810,300** |



Photo Credit: F. A. Martin