

OREGON Sage-Grouse HABITAT IMPROVEMENT INITIATIVE

A STRATEGIC APPROACH TO FARM BILL CONSERVATION PROGRAM DELIVERY

Background

On March 5, 2010, the U.S. Fish and Wildlife Service (USFWS) released its finding that the greater sage-grouse warrants protection under the Endangered Species Act but listing was precluded by higher priorities. As a result, sage-grouse became a “candidate” species meaning it will not receive statutory protection under federal law yet and states will continue to be responsible for managing the bird. However, the USFWS reviews the status of candidate species annually and could propose sage-grouse for protection when funding and workload priorities for other listing actions allow.

In response to the declining habitat for sage-grouse, the Natural Resources Conservation Service (NRCS) has partnered with Oregon Department of Fish and Wildlife (ODFW) to develop the Oregon Sage-Grouse Habitat Improvement Initiative, a focused strategy for investing Farm Bill programs and other conservation resources. The purpose of this initiative is to make measurable and significant progress in alleviating a specific threat to sage-grouse, juniper expansion, on private lands in Oregon.

The following is a summary of the threat posed by juniper expansion, as well as an outline of the initiative’s proposed goals, objectives and solutions to combat this threat.

Target Threat: Juniper Expansion

Since the late 1800’s, western juniper has subtly been expanding its range across eastern Oregon into sites previously dominated by grasses, forbs, and shrubs. As juniper invades, sagebrush declines and the plant community transitions to woodland becoming increasingly unsuitable for grouse. Ultimately, this transition results in habitat loss for a species that depends upon sagebrush for food and cover and that evolved in landscapes relatively free of tall vertical structure. Even at low densities, the presence of trees in shrublands may be problematic for grouse. Trees provide enhanced perching opportunities for avian predators, such as raptors and ravens that may result in higher rates of mortality and nest predation.

Lands in the early stages of juniper invasion, referred to as “Phase I or II” successional stages¹, often retain a significant understory of sagebrush, grasses, and forbs compared to later stage woodland sites (Phase III) where understory plant layers are reduced or absent. Consequently, removal of juniper on sites

in Phase I or II stages can produce immediate habitat benefits for grouse and will be the primary the focus of this initiative.

Targeted Geographic Areas

In Oregon, the current range of sage-grouse covers roughly 14-15 million acres², but not all portions of the landscape are utilized equally. Approximately 80% of nesting occurs within three miles of a “lek” site, or strutting ground where birds gather in the spring to mate. Therefore, the area within three miles of a lek is considered a high priority for conservation efforts. These high priority habitats cover about two million acres of private land in Baker, Malheur, Harney, Lake, Deschutes, and Crook counties. This initiative will primarily target a subset of these high priority habitats affected by juniper expansion.

Scope of the Problem

The table below outlines initial estimates of the total amount of private land currently occupied by Phase I and II juniper within three miles of known leks. These figures were calculated using available GIS data on lek locations, Northwest GAP, LANDFIRE EVT, and land ownership.

Table: Acres of juniper encroachment within three miles of a lek

County	Phase I	Phase II	Total
Baker	14,424	5,375	19,799
Crook	24,483	31,679	56,162
Deschutes	1,333	662	1,995
Harney	30,610	46,851	77,461
Lake	12,362	13,863	26,225
Malheur	20,392	10,526	30,918
TOTAL	103,604	108,956	212,560

Goals and Objectives

- **Restore sage-grouse habitat that has been lost or degraded due to juniper expansion**
- **Treat 53,000 acres (25% of the problem on private lands) of Phase I and II juniper expansion in high-priority habitats by the end of 2012.**
- **Demonstrate that sage-grouse conservation is compatible with the sustainability of working ranches**



pictured: Early stage of juniper invasion

Proposed Solutions

This initiative will work with private landowners to implement the following conservation activities:

Juniper management: Juniper will be mechanically removed and downed tree slash will be treated through lop-and-scatter, pile-and-burn, or hauled off-site. If downed trees are left on-site, they will be reduced to less than four feet tall to the extent feasible. Existing sagebrush will be retained.

Range planting: Seeding of perennial bunchgrasses, forbs, and/or shrubs where existing cover is insufficient.

Fence modifications or relocations: Fences pose a number of hazards for grouse. Birds may accidentally strike fence wires, and posts may serve as perches for avian predators. If problems are suspected, it may be necessary to modify fences.

Retrofitting watering troughs: Sage-grouse may use livestock watering troughs, especially during the late summer and early fall. If troughs are not equipped with properly-designed wildlife escape ramps, accidental mortality of grouse and other wildlife could occur. It may be appropriate to retrofit troughs on site with ramps to provide safe escape.

Invasive and noxious weed treatment: The presence of invasive or noxious weeds on a site reduces habitat quality and threatens long-term persistence of the native plant community. Recommendations will be made to control and prevent the spread of these weeds if detected.

Upland wildlife habitat management: A wildlife management plan will be written to identify planned actions that will be implemented to improve sage-grouse habitat and rangeland health. Grazing will be managed appropriately to provide adequate herbaceous cover during the anticipated season of sage-grouse use.

Anticipated Sources of Funding

1) NRCS

The Wildlife Habitat Incentives Program (WHIP) and Environmental Quality Incentives Program (EQIP) will be the primary programs used to plan and implement habitat improvement practices on private lands. For fiscal year 2010, NRCS has made available \$12.5 million in EQIP and \$3.5 million in WHIP for states with sage-grouse.

2) ODFW

Funding from Upland Stamp Funds and the Access and Habitat program will be used to assist landowners in accomplishing sage-grouse habitat improvement.

3) Other Potential Sources

Additional funding opportunities are available through the Oregon Watershed Enhancement Board (OWEB) and the U.S. Fish and Wildlife Service (USFWS)

Partnerships and Coordination

NRCS and ODFW will provide technical and financial assistance to private landowners interested in participating in this initiative. A number of conservation partners have indicated support for the initiative including: U.S. Fish and Wildlife Service, Bureau of Land Management, The Nature Conservancy,

Oregon Watershed Enhancement Board, Harney Soil and Water Conservation District, Lake County Watershed Council, Owyhee Watershed Council, Oregon State University Extension, Wy'East Resource Conservation and Development Council, Oregon Department of State Lands, Oregon Habitat Joint Venture, Defenders of Wildlife, Agricultural Research Service - EOARC, U.S. Forest Service - Pacific Northwest Region, Oregon Cattlemen's Association, and private landowners.

Partner contributions to the initiative include:

Outreach: Informing landowners in high priority habitat areas of available assistance and increasing awareness of sage-grouse conservation and rangeland health opportunities.

Targeted Funding: Partners with financial assistance programs and public land management agencies are also treating lands in the high priority habitat areas; increasing the cumulative impact of the treatments.

Monitoring: Partners with technical and financial resources are helping accomplish some meaningful ecological monitoring.

Planning Assistance: Partners with technical assistance resources are working with landowners to gather inventory data and develop preliminary plan alternatives.

Tracking Progress and Monitoring

On a broad scale, progress on the initiative will be measured by the number of priority habitat acres treated. Individual project monitoring will at a minimum include a baseline habitat assessment and establishment of photo points. Additional ecological monitoring, such as vegetation and grouse pellet transects, will be highly encouraged wherever permitted by the landowner in order to gain a better understanding of individual project results.

Literature Cited

¹Miller, R. F., J. D. Bates, T. J. Svejcar, F. B. Pierson, L. E. Eddleman. 2005. Biology, ecology, and management of western juniper. OSU, Ag Experiment Station, Technical Bulletin 152.

²Hagen, C. A. 2005. Greater sage-grouse conservation assessment and strategy for Oregon. ODFW

