

GREATER SAGE-GROUSE BACKGROUNDER

Oregon Department of Fish and Wildlife

September 2015

CURRENT STATUS OF GREATER SAGE-GROUSE

On September 22, 2015, the U.S. Fish and Wildlife Service (USFWS) announced that a status review found that Greater sage-grouse remain relatively abundant and well-distributed across the species' 173-million acre range and does not face the risk of extinction. The USFWS determined that protection for Greater sage-grouse under the Endangered Species Act (ESA) is no longer warranted and is withdrawing the species from the candidate species list. More information [here](#).

In March 2010, the USFWS determined that protection of the Greater sage-grouse under the ESA was warranted. However, listing was precluded at the time by the need to address other listings facing greater risk of extinction; the sage-grouse was a candidate species for listing until the 2015 decision.

Sage-grouse range across 11 western states. Primary threats to the species range-wide are:

- habitat loss and fragmentation (including wildfire)
- invasive plants
- energy development
- urbanization
- agricultural conversion and unmanaged grazing.

SAGE-GROUSE IN OREGON

Oregon, home to 6.3 percent of the entire sage-grouse population, is a relative stronghold for the birds; however, even here populations have continued to decline. Rangeland fires and expansion of invasive non-native weeds and juniper into sagebrush habitat are the biggest threats to Oregon's sage-grouse.

SageCon Planning Effort

Convened by the Governor's Office in 2012, the [Oregon Sage-grouse Conservation Partnership](#) (SageCon) was to create an "all lands, all threats" approach to sage-grouse conservation in Oregon. This team of ranchers, conservationists, energy interests, local, federal and state agencies were tasked with addressing the USFWS sage-grouse listing decision and support long-term community sustainability in central and eastern Oregon.

SageCon builds on ODFW's [Greater Sage-grouse Conservation Assessment and Strategy for Oregon](#) which was created by a multi-stakeholder group including federal, state and private agencies. This plan's objective is to maintain large expanses of sagebrush habitat and recommend conservation actions for public and private land managers to help conserve sage-grouse. SageCon's planning effort also complements a Bureau of Land Management (BLM) plan.

Habitat protection focuses heavily on priority areas for conservation (PAC), also known as Core Areas in the state of Oregon. These areas cover about one-third of Oregon's sage-grouse habitat and supports more than 90 percent of the bird's population in the state. Sage Con has and will continue to address sagebrush habitat threats in the Core Areas, including juniper removal and replanting native bunchgrasses, strategically placed fire breaks and improved post-fire reseeding practices.

The Oregon Sage-grouse Action Plan

The [Oregon Sage-grouse Action Plan](#) (Action Plan) was adopted through Governor Kate Brown's Executive Order (EO 15-18) in preparation for the USFWS's listing decision in 2015. It builds on the foundational work of the Oregon Greater Sage-grouse Conservation Assessment and Strategy and was produced by the SageCon Partnership, the BLM and the Natural Resources Conservation Service (NRCS).

The Action Plan is a framework for action and accountability among private, nongovernmental, local, state and federal partners for immediate and long-term efforts. It's built on the premise that conservation strategies must be adaptable to local conditions and needs and supported by long-term investments and regulatory commitments. It's a collaborative, integrative approach to planning and implementation, focuses on maintaining and restoring high-quality, high-function sagebrush ecosystems and enhancing partnerships.

Land Development Mitigation Rules

The Oregon Fish and Wildlife Commission in July 2015 passed new rules that require mitigation actions for large-scale and other development such as aggregate mining, wind, solar, and geothermal energy plants.

The Oregon Land Conservation and Development Commission also approved new rules in 2015 allowing limited development in core habitat after going through an avoidance test and requiring developments to follow ODFW's new mitigation rules. An avoidance test means that a project proposal shows other areas were considered but development is dependent on unique geographic features of the site, not feasible elsewhere, and necessary for infrastructure, economic opportunity or public health and safety.

These rules work together to eliminate regulatory uncertainty in protecting sage-grouse habitat in Oregon.

GREATER SAGE-GROUSE DISTRIBUTION

Rangewide

- Sage-grouse currently range across 173 million acres or 56 percent of their historic range.
- Estimated population is 200,000 to 500,000 birds. Sage-grouse are difficult to count because of their wide distribution, preference for remote areas with limited access, and their camouflage coloring.

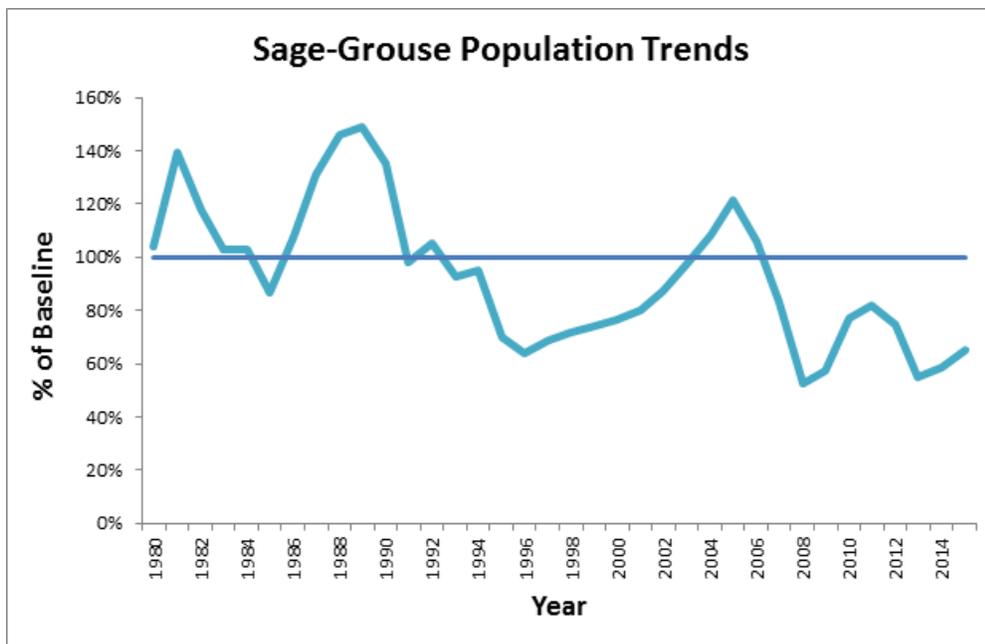
Statewide

- Distribution in Oregon is currently 80 percent of pre-European settlement. Sage-grouse have been extirpated in the Columbia Basin and since 1993 in the Oregon side of the Klamath Basin.

- Sage-grouse in Oregon are found in Union, Baker, Deschutes, Crook, Lake, Harney and Malheur Counties. The southeast corner of Oregon and adjoining portions of Nevada and southwest Idaho contain some of the most intact, high-quality sage-grouse habitat in the species' range.
- Of the sage-grouse habitat in Oregon that is occupied by the birds, 70 percent is managed by the Bureau of Land Management, 21 percent is privately owned and eight percent is under state and U.S. Forest Service management.

SAGE-GROUSE POPULATIONS IN OREGON

- Counting males on leks (breeding grounds) annually is the primary method to monitor long-term population trends. Monitoring efforts in Oregon have increased from surveying fewer than 50 leks a year in 1980 to more than 400. In 2015, ODFW made 1,437 lek visits, with many leks surveyed more than once at least seven days a part.
- Sage-grouse populations can fluctuate dramatically and naturally over time due to weather (e.g. extended drought) and factors that influence reproductive success such as poor nutrition due to lack of grasses, forbs and insects.



Estimated trends in spring breeding population size (males and females) extrapolated from lek count data in Oregon, 1980-2015. The long-term average population goal is represented by the solid straight line. Source: ODFW.

SAGE-GROUSE MANAGEMENT IN OREGON

ODFW is the lead agency for the state management of sage-grouse. In 2005, *The Greater Sage-grouse Conservation Assessment and Strategy for Oregon* was developed to help manage sage-grouse populations in Oregon. It has since been updated and adopted by the

Oregon Fish and Wildlife Commission in April 2011. The strategy identifies and maps Core Areas of habitat that are essential to sage-grouse conservation. The maps and data provide a tool for planning and identifying appropriate mitigation in the event of human development in sage-grouse habitats.

The [Core Area maps](#) define areas that should be targeted for conservation actions or avoided when large-scale disturbances are proposed. Core Area maps also provide a broad-scale filter to assist planners, County, State and Federal agencies in identifying areas of likely high and low resource conflicts associated with development proposals.

Oregon's management goal is to maintain or enhance sage-grouse numbers and distribution at the 2003 spring breeding population level (approximately 30,000) until 2055.

REASONS FOR SAGE-GROUSE POPULATION DECLINE IN OREGON

- Conversion or loss of sagebrush habitat including winter, breeding and nesting habitat.
- Development
 - Sage-grouse evolved in sagebrush habitats largely devoid of trees or vertical structures. Construction of vertical structures often increases avian predator abundance and in some cases has led to local extirpations of sage-grouse leks or populations.
 - Electricity generation and transmission development can create perching and nesting sites for raptors, be barriers to movement, and present a new set of challenges for sage-grouse which doesn't appear to adapt well to rapid changes in its habitat.
 - Human development in winter range or habitat-type conversion to agriculture, exurban or industrial uses.
- Sage-grouse life history
 - Sage-grouse are vulnerable to changes in their habitat because they are relatively long-lived (three to seven years) compared to other upland game birds (one to two years). They also lay seven to nine eggs compared to 12 to 14 eggs laid by other upland game birds. The result is a species that is quick to decline after disturbance yet slow to recover because of lower productivity.
 - Sage-grouse exhibit strong fidelity to nesting and lek areas and winter range, returning to the same areas each year. If a large disturbance occurs and removes these habitats, often the birds continue to try and survive in these areas, typically to their detriment.
- Encroaching juniper and invasive plants
 - Encroaching juniper woodlands eventually crowd out the grasses, forbs and sagebrush that sage-grouse need to survive. They also provide perches and hiding cover for sage-grouse predators.
 - Invasive weeds including medusa head rye, cheat grass, white-top, and knapweed take over sagebrush habitat. Cheat grass and medusa head rye can perpetuate a wildfire cycle leading to permanent conversion to an annual grassland with no value to sage-grouse.

HUNTING SAGE-GROUSE IN OREGON

ODFW allows a conservative hunting season in some areas of the sage-grouse range in Oregon. The carefully managed hunts have harvest levels well below the level believed to impact populations. ODFW's self-imposed policy is not to harvest more than five percent of projected fall sage-grouse populations and in practice, the harvest is about 2.5 percent. Scientific research has found these harvest levels did not affect the size of the subsequent breeding population.

Hunters are asked to submit one wing to ODFW from each bird harvested. The wings allow ODFW to calculate age ratios, sex ratios, peak hatch dates and proportion of successful hens. In the past, hunters have even submitted blood samples from harvested birds for other research on West Nile Virus. ODFW will likely maintain some limited harvest, which will provide a limited recreational opportunity while at the same time allowing the collection of biological data that would be difficult and/or expensive to collect in other ways.

GREATER SAGE-GROUSE AND ITS HABITAT, GENERAL INFORMATION

Greater sage-grouse are birds that occupy the semi-arid deserts of Eastern Oregon. Sage-grouse feathers are colored to hide the birds among the volcanic scab rock and sagebrush areas they occupy. Males have white showy breast feathers during the breeding season and are larger than females – six and a half pounds and three pounds respectively. Females retain camouflage feathers throughout the year.

As the name suggests, sage-grouse are sagebrush “obligates,” meaning they are dependent on sagebrush for reproductive success and year-round survival. Sage-grouse are also recognized as a landscape species with an annual range that can cover several hundred square miles. However, they are very selective in which areas are used seasonally within these vast landscapes, and often return to these same areas year after year.

Sage-grouse seek areas of dense sagebrush canopy cover and healthy understory of native grasses and forbs to conceal their nests from predators. The location of nesting females attracts males to congregate on leks (breeding grounds) to conduct their breeding displays. After chicks are hatched – typically in late April or early May – they learn to forage near the nest site. As broods mature, females will lead their young to moist areas often higher in elevation or they may use natural meadows and irrigated hay or alfalfa fields. Chicks are largely independent from the brood female by September or October.

As the desert dries out in fall, sage-grouse shift their foraging to a diet of sagebrush, which will comprise nearly all of what they eat until the following spring. Amazingly, during this period young birds continue to grow to nearly adult size, and adults gain 10 to 15 percent of their body mass eating nothing but sagebrush. The availability of sagebrush above the snowpack is critical to winter survival of sage-grouse. Winter habitat can vary from low sagebrush exposed on wind swept ridges to tall dense stands of basin big sagebrush in valley bottoms.

FOR MORE INFORMATION

[USFWS](#)

[Greater Sage-grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat](#)

[Core Area Maps](#)

[Core Area Fact Sheet](#)

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