



# ECONOMIC DEVELOPMENT AND MITIGATION IN OREGON SAGE-GROUSE HABITAT

## INTRODUCTION AND BACKGROUND

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Populations of the [Greater sage-grouse](#) have been in decline across the Western U.S. due to habitat losses from wildfire, invasive species, conifer encroachment, human development, and other threats. These [threats](#) are widespread and cross land ownership and jurisdictional boundaries throughout sagebrush rangelands in Oregon. Human development can negatively impact sage-grouse through direct habitat loss, habitat fragmentation, and indirect impacts such as noise that may result in avoidance or abandonment of habitat in areas surrounding the development activity. In 2010, the US Fish and Wildlife Service (FWS) determined the Greater sage-grouse was [warranted but precluded](#) from listing as an endangered species. In 2015, based on an unprecedented level of collaboration across eleven western states on plans and actions to address threats, the FWS determined the sage-grouse was [not warranted](#) for listing under the Endangered Species Act. However, given ongoing concerns over sage-grouse population and habitat trends, addressing threats in Oregon remains important to the persistence of sage-grouse.



Photo by Jeremy Roberts, Conservation Media

The **2015 Oregon Sage-Grouse Action Plan** ([Action Plan](#)), coordinated through the [SageCon Partnership](#), outlines a collaborative approach to addressing threats to sage-grouse across all lands in Oregon. This includes a robust approach to minimizing conflict between sage-grouse habitat and human development, resting upon two primary strategies:

- **Limiting development in core sage-grouse habitat** through development thresholds.
- **Use of a mitigation hierarchy** that includes avoiding, minimizing, and mitigating development impacts in sage-grouse habitat as part of the permitting process.

This approach attempts to balance the need for sage-grouse conservation with the value of economic opportunities in rural communities by steering development away from the most valuable sage-grouse habitat in a transparent and predictable way. It coordinates across local, state and federal entities and is based on the best available science. This document summarizes the policy and legal framework for development on private, state, and locally owned lands as outlined in the Action Plan and Oregon Administrative Rules, and addresses Bureau of Land Management (BLM) policies related to development on federal public land in southeastern Oregon.

## THE OREGON LAND USE SYSTEM AND SAGE-GROUSE RULES

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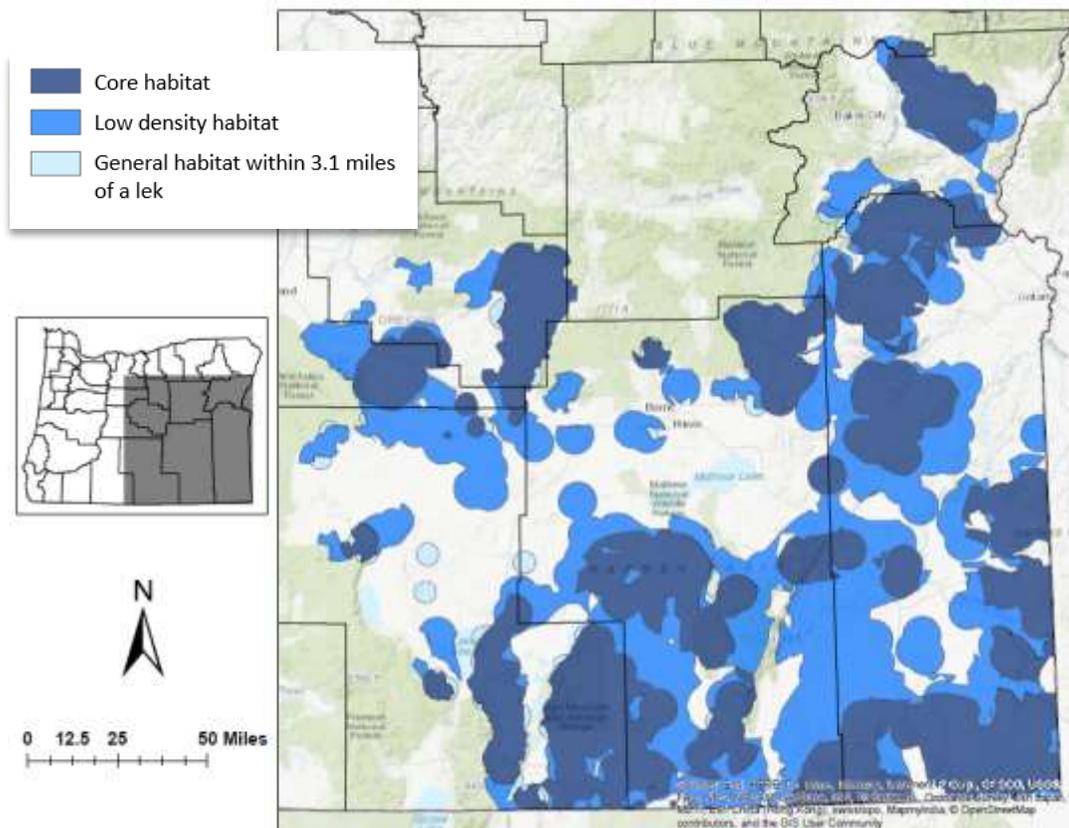
Oregon's approach to addressing development impacts in sage-grouse habitat is founded on a unique [land use system](#), which acts to maintain large areas for agriculture and forestry, contain urban sprawl, and offer additional consideration for special places, sensitive lands, and natural resources including wildlife. In 1973, the Oregon legislature adopted a statewide land-use planning system consisting of specific [statewide planning goals](#). Planning Goals 3 and 4 direct counties to identify and protect areas with value for agriculture and forestry, and nearly all sage-grouse habitat in the state falls under these

goals. Planning Goal 5 requires local governments to adopt programs that protect natural resources and conserve scenic, historic, and open space resources on private lands for present and future generations. Due in part to Oregon’s land use system, most sage-grouse habitat on private land has been maintained as intact rangeland. This statewide legal framework provided a strong, enforceable foundation on which to base conservation of sage-grouse habitat in Oregon. In 2015, the State adopted two sage-grouse-specific Oregon Administrative Rules (OARs): a land use rule (Land Conservation and Development Commission [LCDC] [OAR 660-023-0115](#)) and a mitigation rule (Oregon Department of Fish & Wildlife [ODFW] [OAR 635-140-0025](#)). These rules provide predictability and durability related to development in sage-grouse habitat for developers, conservation interests, and other stakeholders.

The rules addressing development in sage-grouse habitat cover areas considered “significant” habitat, which has been mapped across the state and divided into three tiers:

- **Core habitat, also called Priority Areas for Conservation (PACs)**, provides the most valuable habitat, including roughly 90% of the sage-grouse breeding population and the highest density of leks (sage-grouse breeding sites). There are 20 individual core areas in Oregon. Note that core habitat/PACs are also called Priority Habitat Management Areas (PHMA) in BLM documents.
- **Low density habitat** connects core habitat and important seasonal use areas, with a lower density of leks.
- **General habitat within 3.1 miles of a lek** covers other sage-grouse use areas in proximity to valuable breeding habitat but situated outside core and low density habitat areas.

*Sage-grouse habitat is mapped across Oregon as core habitat, low-density habitat, and general habitat within 3.1 miles of a lek, in descending order of importance.*

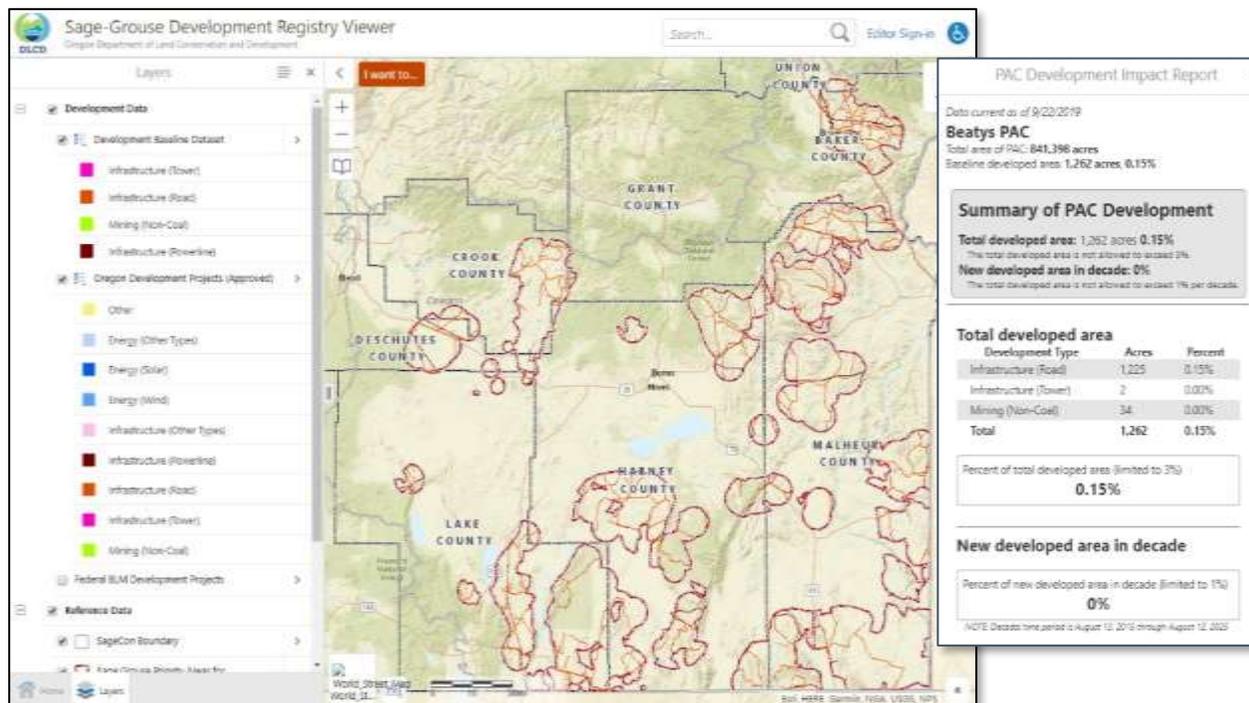


## LIMITING DEVELOPMENT IN CORE SAGE-GROUSE HABITAT

Sage-grouse are sensitive to human development, and populations tend to decline as the density of structures increases. The Action Plan, OARs, and BLM ARMPA set limits on the amount of development in core sage-grouse habitat across public and private lands. State [OAR 660-023-0115](#) limits “large-scale development” and other “conflicting uses” (see box) to 3% of the total area in each core area, with any increase capped at 1% per decade. These thresholds include baseline development prior to 2015 (shown in the attachment to the OAR linked above). Agriculture, forestry, and most ranch operations are exempt, and the development thresholds apply to core habitat (PACs) only. The Department of Land Conservation and Development (DLCD) maintains an online [Sage-Grouse Development Registry](#) to track development in sage-grouse habitat. County Planning Departments and other officials enter proposed projects into the Registry to ensure thresholds are not exceeded, and approved development is viewable by the public. DLCD reports each year on the current level of development in each PAC (see the [DLCD website](#) for previous reports) and is conducting a 5-year rule review in 2020. Since 2015, few new developments have been permitted in sage-grouse habitat, and no core areas have approached the 3% threshold.

**Development types** included in the state development thresholds include: Commercial; Mineral, aggregate, oil and gas; Transportation; Utility/solid waste disposal facilities; and Parks/public/quasi-public (detailed in the attachment to [OAR 660-033-0120](#)). “Large-scale development” means uses that are: over 50 feet in height; greater than five acres; generate more than 50 vehicle trips per day; or create noise over 70 decibels.

*The Sage-Grouse Development Registry is an online tool to monitor development in sage-grouse habitat and ensure it does not exceed the thresholds set in the Action Plan. Public users can view a report of approved developments by core area (PAC).*



The BLM also incorporates development thresholds into management direction on BLM-administered lands. The same 3% overall and 1% per decade development thresholds (also called disturbance caps) apply in core habitat (PHMA) on BLM lands, although there are some differences in the development types that are counted, data sources used, and calculation details. The BLM also applies the development thresholds within a “proposed project analysis area”, defined as the immediate area around the project boundary encompassing a 4-mile buffer around project sites and any occupied sage-grouse leks in the area. In addition to calculating the development thresholds at both the core area and project analysis area scales, density of energy development on BLM-administered lands is capped at an average of one facility per 640 acres. BLM tracks new development through a web tool and syncs information with the state’s development registry to ensure new projects on all land ownerships and jurisdictions are included in the development threshold calculations.

## MITIGATION HIERARCHY - AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION FOR DEVELOPMENT IMPACTS

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In addition to limiting development in core sage-grouse habitat, the state also created a sage-grouse mitigation program to ensure development is sited to minimize impacts to significant sage-grouse habitat (core, low density, and general habitat near leks), as described above. LCDC [OAR 660-023-0115](#) and ODFW [OAR 635-140-0025](#) establish a mitigation hierarchy that consists of three tiers:

1. **Avoidance:** First, impacts to sage-grouse habitat should be avoided if possible. If a development can proceed outside significant sage-grouse habitat, the project should not be sited in sage-grouse habitat. Exceptions such as developments that rely on unique geographic features or minerals or unique local economic opportunities apply in some circumstances.
2. **Minimization:** Second, unavoidable impacts in sage-grouse habitat may be minimized through siting decisions, design features (e.g., structures that deter predatory birds from perching on transmission lines), or operation measures (e.g., restricting activities during breeding season when noise may be most harmful).
3. **Compensatory Mitigation:** Where development impacts cannot be avoided or minimized, the developer must offset residual impacts to sage-grouse habitat with compensatory mitigation. Oregon offers three compensatory mitigation options: 1) permittee responsible mitigation (includes habitat restoration, maintenance and protection), 2) payment into an in-lieu fee fund managed by ODFW, or 3) purchase of credits from an ODFW approved sage-grouse mitigation bank. Compensatory mitigation must provide long-term assurances (such as a conservation easement), demonstrate a net conservation benefit (improvement in condition), and maintain habitat quality into the future. For more details, see the program documents on the ODFW [Mitigation Program](#) website.

The avoidance and minimization components of the mitigation hierarchy have greater requirements in core habitat. As habitat designations change to low density and general, restrictions are reduced. Specific requirements for core, low density, and general habitat can be viewed in [OAR 660-023-0115](#), sections 9-11.

Oregon’s mitigation hierarchy considers both direct impacts (developed area or project boundary) and indirect impacts (impacts extending beyond the development boundary such as noise or an increase in predators). Indirect impacts are greatest near the development footprint and decrease with distance

from the development. A **Habitat Quantification Tool (HQT)** forms the basis for determining the amount of compensatory mitigation required for a development project (debit) or the credit asset earned from conducting a beneficial restoration project. The tool calculates habitat value based on sage-grouse habitat designations (core, low density and general), proximity to leks, current habitat function (vegetation characteristics and existing development), and anticipated magnitude and duration of direct and indirect impacts of the development or project. The HQT scientific rationale and user guide are available on the ODFW [Mitigation Program](#) website.

The types of development subject to state mitigation rules generally meet the following criteria:

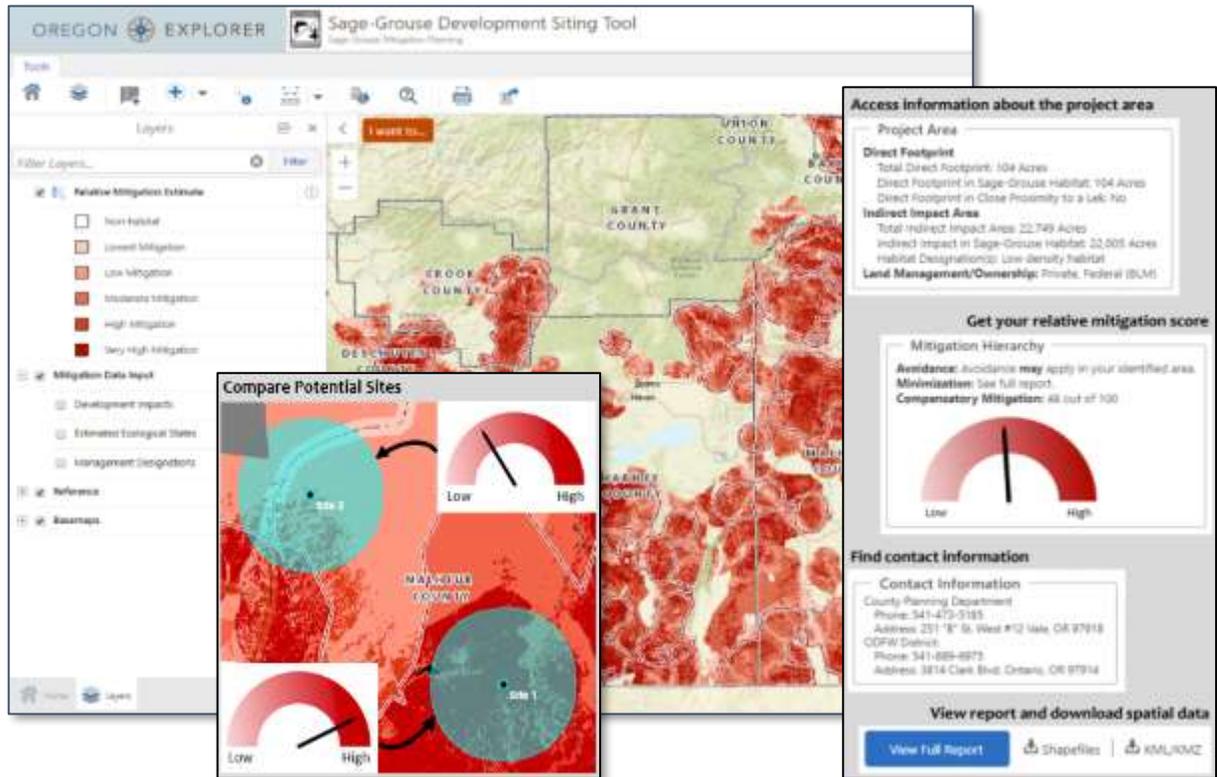
- The project **requires a permit** from a state, local, or (sometimes) federal jurisdiction.
- A development is considered **large-scale or another conflicting use** in [OAR 660-023-0115](#) (see box on page 3 of this document).
- The project affects **significant sage-grouse habitat**, which includes core areas (PACs), low-density sage-grouse habitat, and general habitat within 3.1 miles of a lek (see above). In some cases, projects located adjacent to significant habitat may be subject to mitigation rules if indirect impacts extend into significant habitat.

The mitigation hierarchy is secondary to the development threshold (previous section). Therefore, if development thresholds are exceeded in core habitat, then no new development is allowed under the state rules regardless of the ability to meet mitigation rule provisions, unless qualified under a land use rule exemption or exception.

The approach to mitigation on BLM land in Oregon is outlined in the 2015 Oregon Greater Sage-Grouse Approved Resource Management Plan Amendment ([ARMPA](#)). To ensure a consistent approach to mitigation across land jurisdictions, ODFW and the BLM Oregon State Office entered into a Memorandum of Agreement ([MOA](#)) describing a framework for how BLM and ODFW will implement sage-grouse compensatory mitigation policies in Oregon. The MOA outlines a mitigation direction and development impact assessment in a manner consistent with both state and federal policies, including BLM Washington Office Instruction Memorandum on compensatory mitigation [IM 2019-018](#). The MOA calls for early coordination between BLM, ODFW, local county planning departments, project proponents and other pertinent parties, and outlines a mechanism for BLM to enforce state-directed compensatory mitigation for development impacts on BLM-administered lands. Development impacts on both public and private lands will be assessed through the state's HQT (see above), ensuring that mitigation is applied as consistently as possible across all lands.

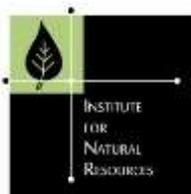
To aid developers and planners in project siting to minimize impacts to sage-grouse and reduce the mitigation obligation for developers, the SageCon Partnership developed the [Sage-Grouse Development Siting Tool](#). The tool provides an easy way for developers to access site-specific information about mitigation in sage-grouse habitat through an interactive web-based application. Users can compare multiple potential project sites and obtain estimates of direct and indirect project impacts, permitting entity information and contacts, and site-specific considerations related to avoidance, minimization, and compensatory mitigation, including a relative mitigation score (see next page). Although this tool does not replace the permitting process or provide an official mitigation estimate, it is designed to help developers understand the considerations related to mitigation in sage-grouse habitat and evaluate potential sites based on mapped estimates of habitat value.

The Sage-Grouse Development Siting Tool is a web application that allows developers to access site-specific information about mitigation in sage-grouse habitat.



## MORE INFORMATION AND RESOURCES

- ❖ See the [SageCon Partnership website](#) for more information about sage-grouse and rangeland ecosystems in Oregon, [articles and stories](#) of interest, [technical tools](#) for planning in sage-grouse habitat, the SageCon Dashboard, and other resources.
- ❖ The [Oregon Sage-Grouse Action Plan](#) contains a more detailed overview of Oregon’s land use system as it applies to sage-grouse (p. 114-146), and identifies 9 actions and 20 sub-actions to address the impacts of development on sage-grouse in Oregon.
- ❖ The ODFW [Mitigation Program website](#) includes a suite of resources, including program documents, technical resources, summary documents providing an overview for development proponents and credit generators, links to decision support tools, and other information.
- ❖ The approach to human development on BLM-administered land in Oregon is described in the [2015 BLM ARMPA](#) (the current BLM plan being implemented as of July 2020), [IM 2019-018](#), and the [MOA](#) between ODFW and BLM.



This document was produced on behalf of the SageCon Partnership by the [Institute for Natural Resources](#) at Oregon State University.