

WILDLIFE

APPLICABLE OREGON FOREST PRACTICES RULES

Planning forest operations

629-605-0100: Compliance

629-605-0105: Notice of Federal Endangered Species Act

629-605-0140: Notification to the state forester — types of operations

629-605-0170: Written plans

629-605-0173: Plans for an alternate practice

629-605-0190: Written plans for operations near critical, threatened or endangered wildlife habitat sites

Forest practices reforestation rules

629-610-0100: Exemption from reforestation for wildlife food plots

Treatment of slash

629-615-0100: Maintenance of productivity and related values

Water protection rules: Vegetation retention along stream

629-642-0105: General vegetation retention prescriptions for Type SSBT streams

629-642-0110: Relief for general vegetation retention prescriptions for Type SSBT streams

Water protection rules: Riparian management areas and protection measures for lakes

629-645-0000: Riparian management areas and protection measures for significant wetlands

Water protection rules: Specific rules for operations near waters of the state

629-660-0050: Beaver dams or other natural obstructions

629-660-0060: Headwater amphibian species

Specific resource site protection rules

629-665-0000: Specified resource site protection rules

629-665-0100: Species using sensitive bird nesting, roosting and watering sites

629-665-0110: Osprey resource sites; key components; protection requirements; exceptions

629-665-0120: Great blue heron resource sites; key components; protection requirements; exceptions

629-665-0130: Bald eagle nesting sites; key components; protection requirements; exceptions

629-665-0200: Resource sites used by threatened and endangered species

629-665-0210: Interim requirements for northern spotted owl nesting sites

Pest control; forest practices

ORS 527.710: Duties of the board; rules; inventory for resource protection; consultation of other agencies required

ORS 527.676: Leaving snags and downed logs in harvest Type 2 or 3 units; green trees to be left near certain streams

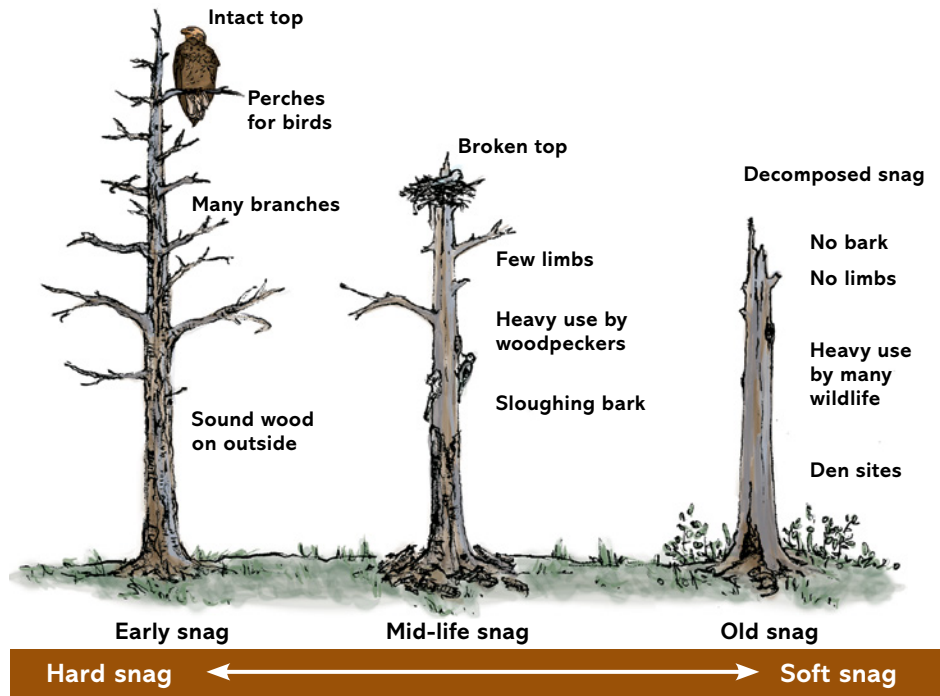
There are laws in Oregon protecting wildlife during timber harvest activities. Understanding the rules for wildlife protection is part of good forest management.

CHAPTER INDEX

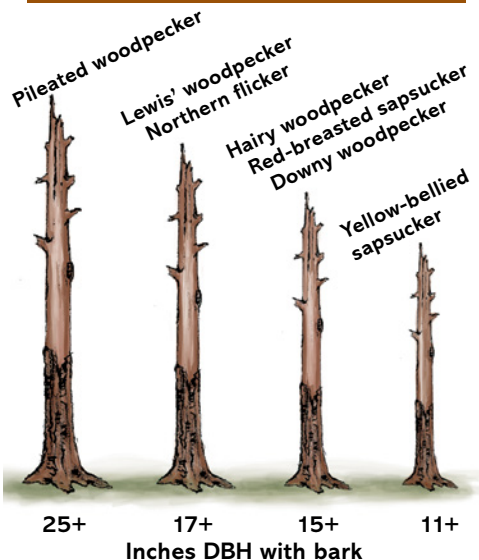
Protecting wildlife during management is the law.	33
Terms to know	33
Wildlife leave trees	34
Requirements near certain streams	37
Alternative plans	37
Required tree retention may count toward wildlife tree retention requirements.	37
Harvests of fewer than 25 acres	38
Fire and safety considerations	38
Selecting wildlife trees and snags	38
Protecting down logs	38
Sensitive wildlife resource sites	39
Certain wildlife species are associated with sensitive resource sites.	39
Critical Nesting Chart	40
Other considerations for sensitive resource sites	41
Northern spotted owl.	42
Marbled murrelet	43
Bald eagle	44
Golden eagle	46
Osprey	46
Great blue heron	48
Band-tailed pigeon.	49
American beaver	50
Wildlife food plots	51
Amphibians.	51

PROTECTING WILDLIFE DURING MANAGEMENT IS THE LAW

It is important to remember that following the Oregon Forest Practices Act (OFPA) rules does not provide coverage under the federal Endangered Species Act (ESA) or Bald and Golden Eagle Protection Act. Under these acts, it is illegal to have “take” of threatened or endangered species or of bald or golden eagles. As defined in the ESA, take is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Incidental take is an unintentional, but not unexpected, taking. This can occur when habitat is removed, manipulated or altered, along with the disturbance of a nest site.



Snag diameters most often used by woodpeckers



Larger-diameter, taller snags stand longer and provide more cavities.

Wildlife protections also exist under state law through the OFPA, and include certain restrictions and requirements when conducting forest operations. The goal of the OFPA, in part, is to contribute to overall fish and wildlife maintenance. Wildlife are addressed in the OFPA through requirements to provide components of habitat such as snags, down logs and green trees in certain harvest units, and through retaining buffers of trees and vegetation along streams, wetlands, lakes and other sensitive resources. In addition, nesting sites of specific bird species are required to be protected when logging. Even if a species is not identified as threatened or endangered at the state or federal level, their protection and enhancement is still a good forest management practice.

Terms to know

A **WILDLIFE TREE** is either a snag or a green tree of a minimum size that is required to be left standing.

A **SNAG** is a dead standing tree that has lost its needles and small limbs.

A **DOWN LOG** is an existing down log or a down green tree of a minimum size.



Protected areas under the log are used as nesting cover by grouse and as hiding cover by rabbits and hares.



When the bark loosens, there is hiding cover for tree frogs and amphibians. The trunk is a food source for woodpeckers, particularly pileated woodpeckers.



Small mammals burrow into the interior as the log softens. Bears, raccoons and skunks feed on insects.

WILDLIFE LEAVE TREES

Providing natural structures that serve as habitat, such as snags, wildlife leave trees and down logs is important for certain wildlife species. Snags provide homes to owls, woodpeckers, bats, squirrels, bluebirds, wood ducks, swallows, mergansers, weasels, raccoons and many other animals. More than 50 species of birds and mammals use snags for nesting, roosting, denning, feeding and shelter.

A lack of snag cavities for nesting and roosting can limit populations of some bird and bat species. Snags larger than 20 inches DBH (diameter at breast height) can be a limiting factor for these species on private lands. Snags can be created from live trees, and wildlife respond quickly to their availability. You can avoid the cost of creating snags by selecting existing snags, or defective or deformed trees, for retention. In eastern Oregon, down logs are used by 150 species of wildlife, including amphibians, reptiles, birds and mammals. Logs are also important to certain insects, fungi and plants. Be aware that too many down logs can be a fire hazard; however, a forest without down logs may have fewer species of plants and animals. It's not necessary to leave sound logs. Deformed or rotten parts of tree stems left in the forest after a timber harvest can meet down log requirements if they would be solid enough to pick up with a log loader (See Table 2-1).

A timber harvest of 25 acres or more that will leave fewer trees per acre or basal area per acre than indicated in Table 2-2 will require retaining wildlife trees and down logs. Just like the requirements for reforestation, the trees per acre and basal area requirements vary according to site class.

These sizes = 1 down log (10 cubic feet)		These sizes = 2 down logs (20 cubic feet)	
Length (feet)	Diameter (inches, small end)	Length (feet)	Diameter (inches, small end)
6	18	6	25
8	15	8	21
10	14	10	19
12	12	12	17
14	11	14	16
20	9	20	13
28	8	28	11
		36	9
		44	8

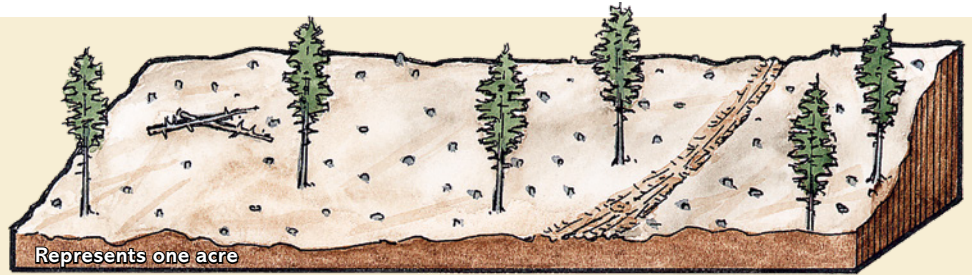
When planning a harvest of 25 or more acres, leave standing the amount of trees in columns two or three, or leave at least two wildlife trees and two down logs per acre.			
Site class	Number of trees per acre at least 11 inches at DBH	OR	Square feet of basal area per acre of 11-inch or larger trees
I, II and III	50		33
IV and V	30		20
VI	15		10

Table 2-3 Four types of harvest and their requirements

TYPE 1 HARVEST

Heavy thinning or shelterwood cutting so few or no seedlings, saplings or poles remain.

- Does not meet reforestation stocking standards.
- Must replant within two years and have “free-to-grow” seedlings within six years.*
- No wildlife trees or down logs are required if retaining an adequate basal area of trees 11 inches in diameter or larger (see Table 2-2).

**TYPE 2 HARVEST**

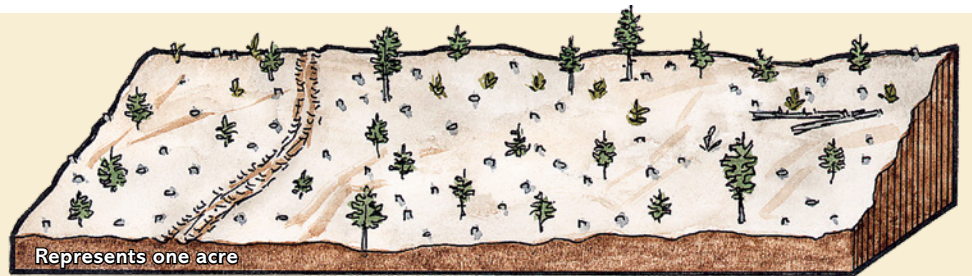
A clearcut in which the required seedlings, saplings and poles are left. The number of large trees is below Table 2-2 requirements.

Requirements for <25-acre harvests

- Meets the reforestation stocking standards.
- No reforestation required.

Requirements for >25-acre harvests

- Leave two wildlife trees and two down logs per acre.**
- No reforestation required.

**TYPE 3 HARVEST**

A clearcut where few seedlings, saplings or poles remain. The number of large trees is below Table 2-2 requirements.

Requirements for <25-acre harvests

- Does not meet reforestation stocking standards.
- Must replant within two years and have “free-to-grow” seedlings within six years.*

Requirements for >25-acre harvests

- Leave two wildlife trees and two down logs per acre.**
- Subject to 120-acre harvest unit size limitation.
- Must replant within two years and have “free-to-grow” seedlings within six years.*

**TYPE 4 HARVEST**

Commercial thinning to leave space between remaining trees, or a light, partial cut.

- Meets the reforestation stocking standards.
- No reforestation required.
- No wildlife trees or down logs are required if retaining an adequate basal area of trees 11 inches in diameter or larger (see Table 2-2).



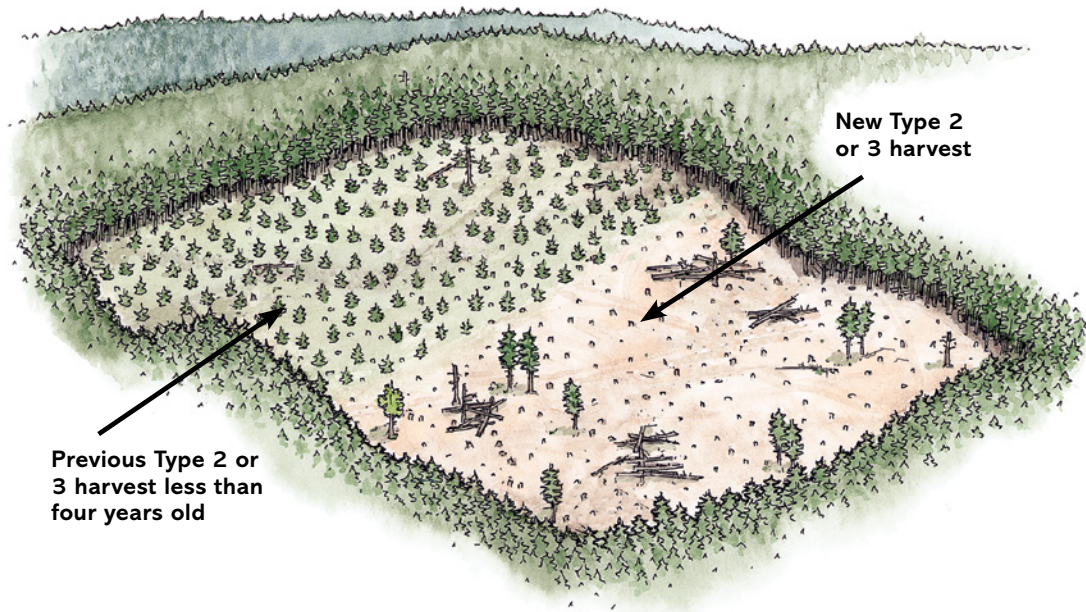
*For full details about reforestation requirements, see the Reforestation chapter. **For more information about wildlife trees and down logs, see the Wildlife chapter.

Wildlife trees and down logs must be left in all Type 2 or 3 harvests that are larger than 25 acres (Table 2-3), and in some cases when adjacent new and older Type 2 or 3 harvests together exceed 25 acres (see example, right).

On average, for each acre you must leave at least:

- two snags or two green trees at least 30 feet tall and 11 inches DBH or larger, at least 50% of which are conifers, plus
- two down logs or down trees, at least 50% of which are conifers. Each must be at least 6 feet long with a total volume of at least 10 cubic feet. Logs containing 20 cubic feet or more count as two logs (see Table 2-1). If a harvest unit does not have enough down logs to meet this requirement, some trees may need to be dropped and retained to make up for the deficiency.

Wildlife trees, snags and down logs may be left anywhere within a timber

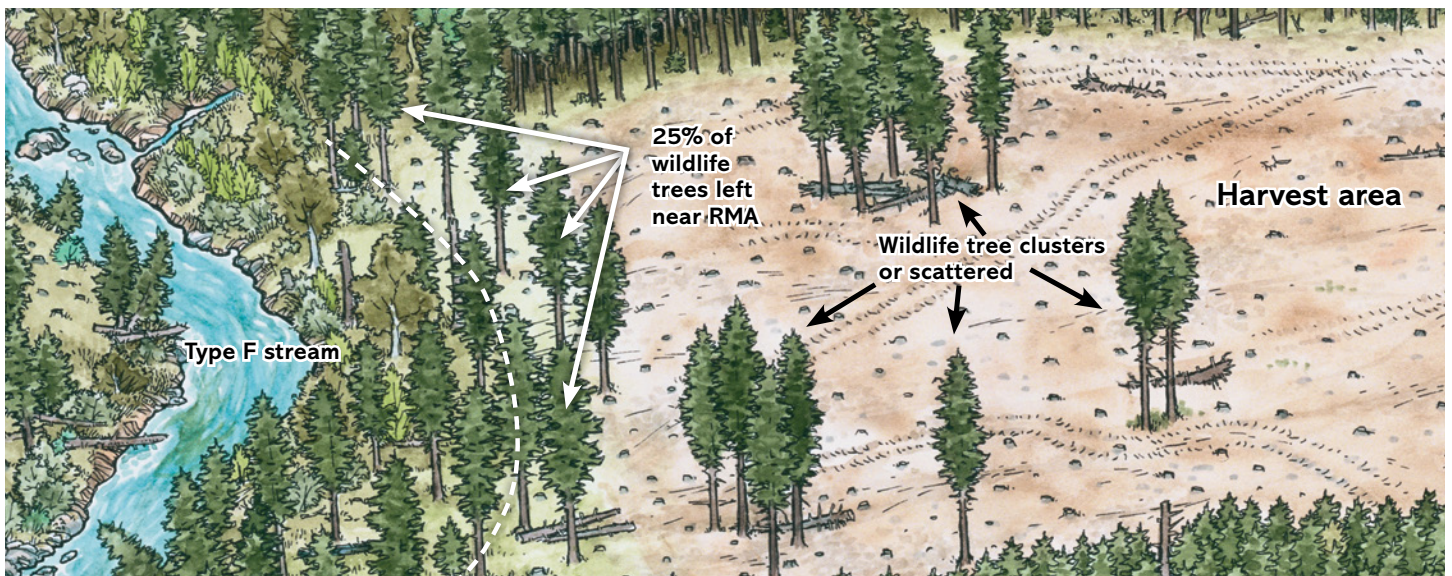


harvest unit. This could include leaving them in riparian, designated debris flow traversal, designated sediment source and slope retention areas. Leave trees and down logs can be left in one or more clusters across the harvest unit or scattered. Research suggests that leaving them in riparian areas is the most beneficial for wildlife.

When clumped, they should be in groups of 15 or more.

Regardless of the size of the harvest unit, all snags and down logs must be left in all wetlands and in all riparian management areas for wetlands, lakes and most streams.

Harvest areas next to Type F streams.



Leave these wildlife trees:

- Two snags or two green trees
- at least 30 feet tall
 - 11 inches DBH or larger and
 - 50% must be conifers

- And two down logs or down trees
- at least 6 feet long
 - at least 10 cubic feet total volume and
 - 50% must be conifers

Requirements near certain streams

To provide increased benefits to fish, the Oregon Department of Forestry (ODF) may require operations adjacent to a fish-bearing or domestic-use stream to leave additional trees standing in riparian management areas (RMAs). Up to 25% of the green trees are required to be retained, or be left in or adjacent to the RMA of the stream. Additionally, ODF may require logging operations to leave available green trees and snags in or adjacent to small, non-fish-bearing streams subject to rapidly moving landslides. In this case, the logging operator would leave available green trees and snags within an area that extends 50 feet on each side of the stream, for a maximum of 500 feet upstream from a riparian management area of a fish-bearing stream.

Alternative plans

The location and species of wildlife trees and down logs may be modified following review by ODF. For example, hardwood species may be substituted for conifer species when managing for hardwoods. Additional leave trees in one unit can also be substituted for those required in another. This type of modification requires a plan for an alternate practice (see the Planning chapter).

Required tree retention may count toward wildlife tree retention requirements

In some cases, required retention trees along streams will also count toward the total retained wildlife trees needed for a planned timber harvest. You may count trees in harvest Types 2 or 3 that otherwise meet the wildlife tree requirements within a portion (or all) of the tree retention area, depending on the stream type. (See “Stream protection design and layout in timber harvest areas” in the Riparian Management chapter.) Required tree retention may count toward wildlife tree retention requirements in the following scenarios:

- All trees meeting wildlife tree requirements within the outer 20 feet of the required stream buffer width for medium and large Type F and Type SSBT streams in western Oregon.
- All trees within the required stream buffer widths for small Type F, Type SSBT, Type D, Type Np and Type Ns streams in western Oregon.
- All retained trees in the outer stream buffer zone along all stream types in eastern Oregon.
- All retained trees in the outer buffer zone (SFO minimum) along Type F, Type SSBT and Type N streams in eastern Oregon.
- All trees retained as required for designated debris flow traversal, designated sediment source and slope retention areas, as well as stream-adjacent failures that otherwise meet the requirements for leave trees, may count toward requirements for wildlife leave trees within harvest Type 2 or 3 units.
- SFO minimum features identified in the slopes model, and stream-adjacent failures that otherwise meet the requirements for leave trees, may count toward requirements for wildlife leave trees within harvest Type 2 or 3 units.
- Snags and down wood left within wetlands, seeps or springs may be counted toward wildlife leave tree requirements, provided they meet the definition of a wildlife tree or down log.

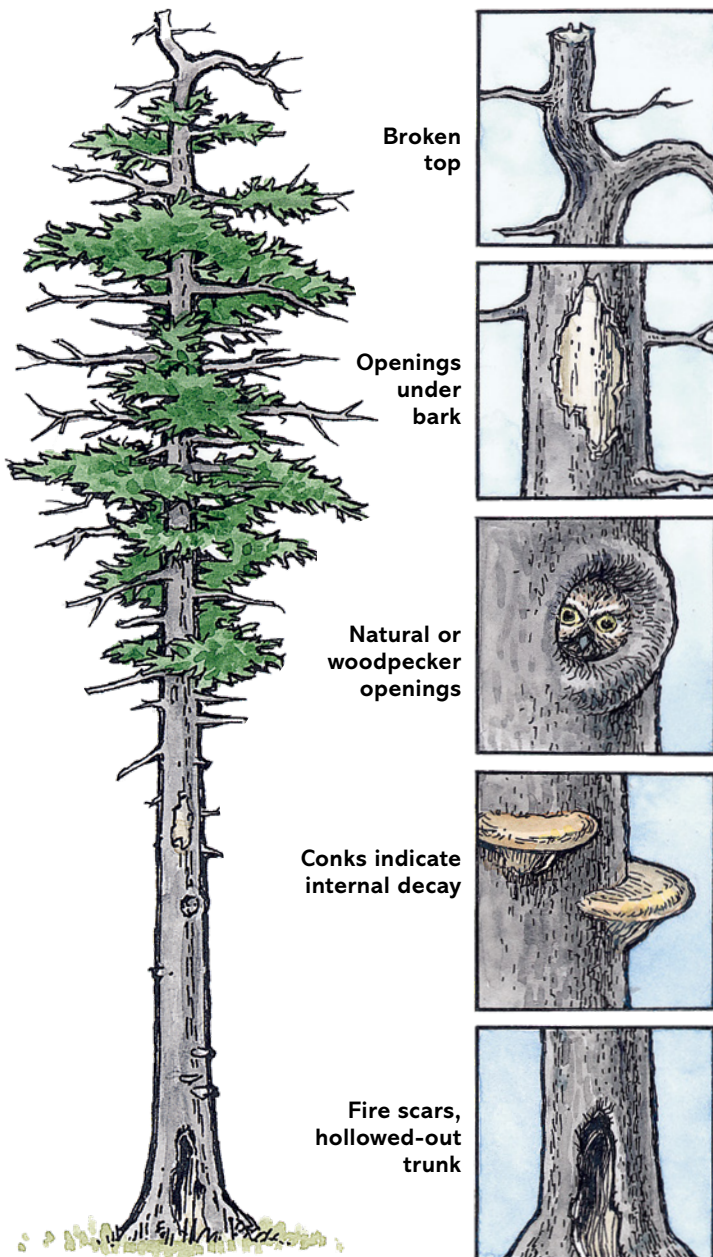
Note that trees required to be left for other reasons, such as for bird protection (e.g., bald eagles and osprey) or for wetlands, lakes and 300-foot buffers between clearcut harvest units, do not count toward the wildlife tree retention requirements. These trees cannot be double-counted.

Harvests of fewer than 25 acres

Leaving wildlife trees, snags or down logs is not required if your actual timber harvest, combined with any adjacent prior harvest on the same ownership, is less than 25 acres. However, leaving wildlife trees, snags and logs voluntarily is always encouraged since it benefits many forest animals.

Fire and safety considerations

Snags are vulnerable to lightning strikes, and during a wildfire hollow snags also can create a chimney effect where burning embers are sent into the air, starting new fires some distance away. However, despite these hazards they are extremely important for wildlife.



Snags can collapse or drop limbs without warning. Oregon law requires forest operators to always identify snags and other potentially dangerous trees.

Never operate machines near snags. They can be accidentally bumped, or the ground vibration can cause unexpected collapse of the tree. Always mark a safety hazard area around snags. Isolate snags and notify all forest workers by marking the area with plastic ribbon.

If wildlife trees being retained consist of snags or other dangerous trees, workers should be notified about the hazard areas before any logging or other forest operations begin. Reminding workers of these hazards when work commences is also suggested, especially when moving cables, during log skidding or when tree felling is occurring nearby.

Minimize worker exposure to wildlife tree hazards by leaving snags and other dangerous trees among a clump of other trees; along harvest boundaries; within or near stream riparian management, slope retention or debris flow traversal areas; between cable corridors; on rock outcrops; or at the back end of the timber harvest area.

Selecting wildlife trees and snags

Before beginning tree felling in timber harvests larger than 25 acres, identify the wildlife trees that will be left. This will ensure enough wildlife trees are left in the harvest area. The first choice should be to leave safe snags in safe locations, but it is often necessary to leave green wildlife trees that will eventually become snags. Look for the following traits to identify these types of trees:

- a broken or dead top
- dead branches in the crown
- old wounds or scars at the base of the tree
- indication of internal rot (fungi, conks or existing woodpecker cavities)
- the largest-diameter and tallest trees

Protecting down logs

Down logs can be crushed and broken by equipment. Never allow yarding and skidding without informing workers about down log needs. It may be possible to save existing down logs by identifying their locations.

SENSITIVE WILDLIFE RESOURCE SITES



Habitat sites of fish and wildlife species identified as threatened and endangered, or on other lists adopted by rule by the Oregon Fish and Wildlife Commission, or federally listed under the Endangered Species Act (ESA) must be protected through forest management.

Sensitive wildlife sites include:

- sensitive bird nesting, roosting or watering sites specifically identified for protection in the Oregon Forest Practices Act (OFPA)
- critical wildlife or aquatic habitat sites that are listed in a 1984 cooperative agreement between Oregon's Board of Forestry and the Fish and Wildlife Commission

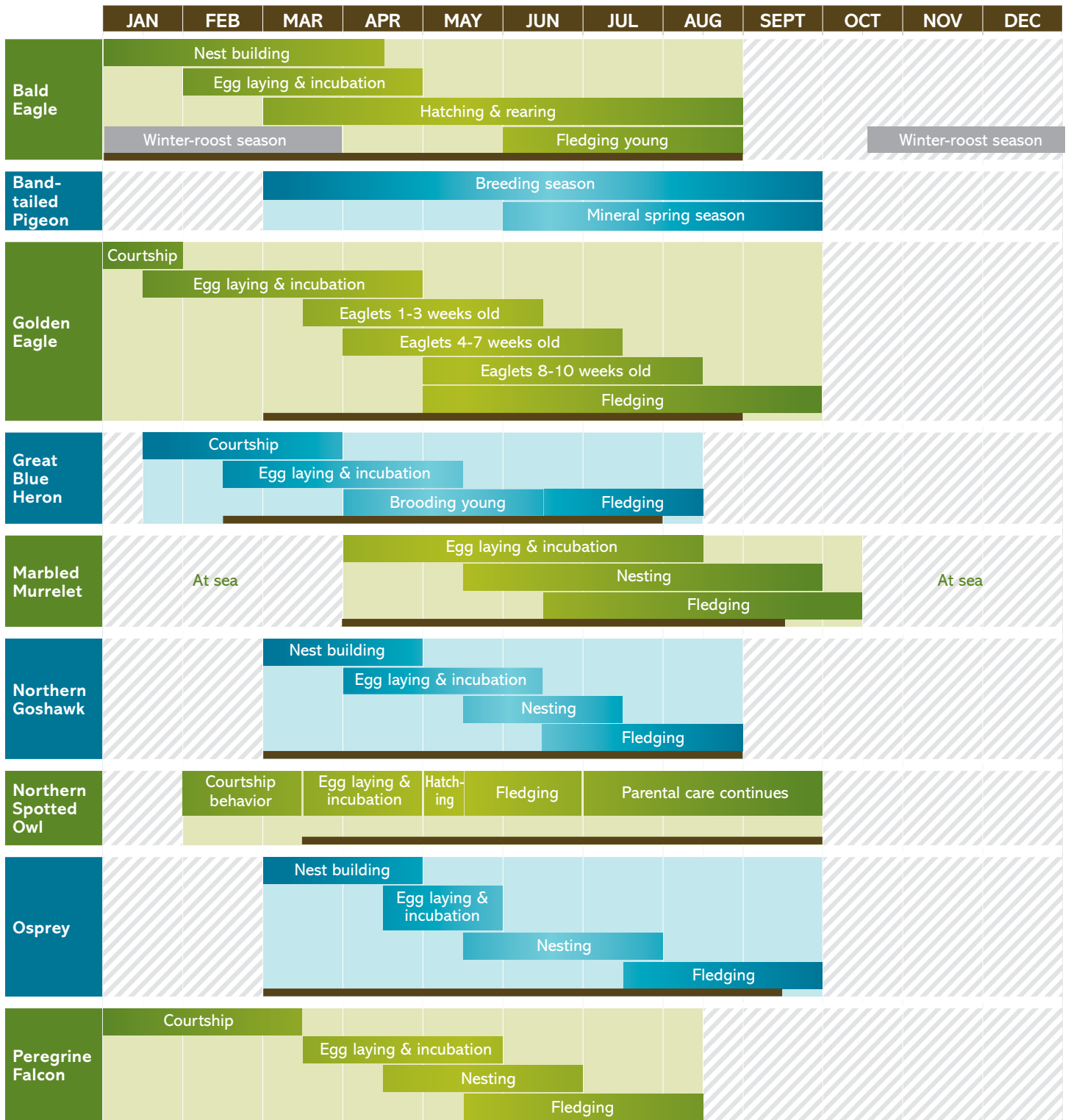
Certain wildlife species are associated with sensitive resource sites



Managed forests provide valuable habitat for wildlife at all forest stages. Some wildlife, including sensitive, threatened and endangered species, have special protections. Understanding when these species are most sensitive, such as during nesting season, is helpful in planning operations to avoid conflict with these species. The nesting chart (next page) outlines the nesting seasons for all bird species with special protections under the OFPA. In addition, the chart highlights the critical nesting period for each species:

- northern spotted owl
- bald eagle
- osprey
- great blue heron
- golden eagle
- marbled murrelet
- band-tailed pigeon

The Oregon Department of Forestry (ODF) has responsibility for maintaining inventories of sensitive resource sites. When you submit your Notification of Operation online, it is ODF's responsibility to identify any sensitive resource sites that may conflict with your operation. Landowners do not have a responsibility under the OFPA to search for and inventory unknown sites. However, if a landowner or operator knows of or discovers a non-inventoried site during planning, or while conducting a logging or other forest operation, they must stop the operation and inform ODF so they can evaluate the site and determine if protection is needed.

Critical Nesting Chart



 Non-breeding season
 OFPA critical nesting period

When operations conflict with sensitive resource sites, protection is required. For some sites, such as significant wetlands and sites used by northern spotted owls, bald eagles, great blue herons and osprey, potential conflicts have been identified, and levels of protections are established in the OFPA rules. For other sites, such as those used by golden eagles, band-tailed pigeons, marbled murrelets or other threatened or endangered species, ODF determines if a conflict exists and works with the landowner to develop or review their site-specific plan. If needed, ODF will recommend protection measures that will avoid conflict. In both cases, the following questions must be answered:

Note that additional fish or wildlife species may be protected in the future if granted federal threatened or endangered status.

1. IS THE SITE ACTIVE?

“Active” means the site has been used in the recent past by one of the species listed on the following pages. For example, a bald eagle may be using another nest site, but the nest site on your property may still require protection. Another example is an old osprey nest that was last used by the bird six years ago. This site would be considered “abandoned.” No protection is required for abandoned resource sites. Multi-year surveys are usually needed to show that a site has been abandoned, and these surveys are subject to ODF review.

2. WHAT ARE THE POSSIBLE CONFLICTS, IF ANY?

A conflict exists if an operation may lead to sensitive resource site destruction, abandonment or reduced productivity. The proposed operation is reviewed and the site is inspected with the landowner, operator and representative of the Oregon Department of Fish and Wildlife (ODFW) to identify conflicts. If there are no conflicts, no special protection measures are required.

3. HOW WILL CONFLICTS BE RESOLVED?

A written plan must describe reasonable measures sufficient to resolve the conflict in favor of the resource site. Reasonable measures may include but are not limited to protecting the site and key habitat components, limiting the timing of forest practices, redesigning the proposed practices in favor of site protection and excluding the forest activities outright.

Other considerations for sensitive resource sites

- Compliance with OFPA requirements does not ensure compliance with the federal ESA or the Bald and Golden Eagle Protection Act. It is the responsibility of the landowner and operator to know and incorporate federal ESA requirements in their actions.
- Landowners with approved “incidental take permits” under the federal ESA may be allowed some exceptions to compliance with the forest practices requirements.
- Additional information about the federal ESA can be obtained from the Oregon offices of the National Marine Fisheries Service (for listed anadromous fish) or the U.S. Fish and Wildlife Service (wildlife and non-anadromous fish):

National Marine Fisheries Service
Oregon State Habitat Office
1201 NE Lloyd Blvd., Suite 1100
Portland, OR 97232
503-231-2202

U.S. Fish and Wildlife Service Oregon
State Office
2600 SE 98th Ave., Suite 100
Portland, OR 97266
503-231-6179



NORTHERN SPOTTED OWL

The northern spotted owl is a federally threatened species. A threatened species is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Northern spotted owls nest in unique forest habitats that require protection when the birds are nesting.

Northern spotted owl resource site

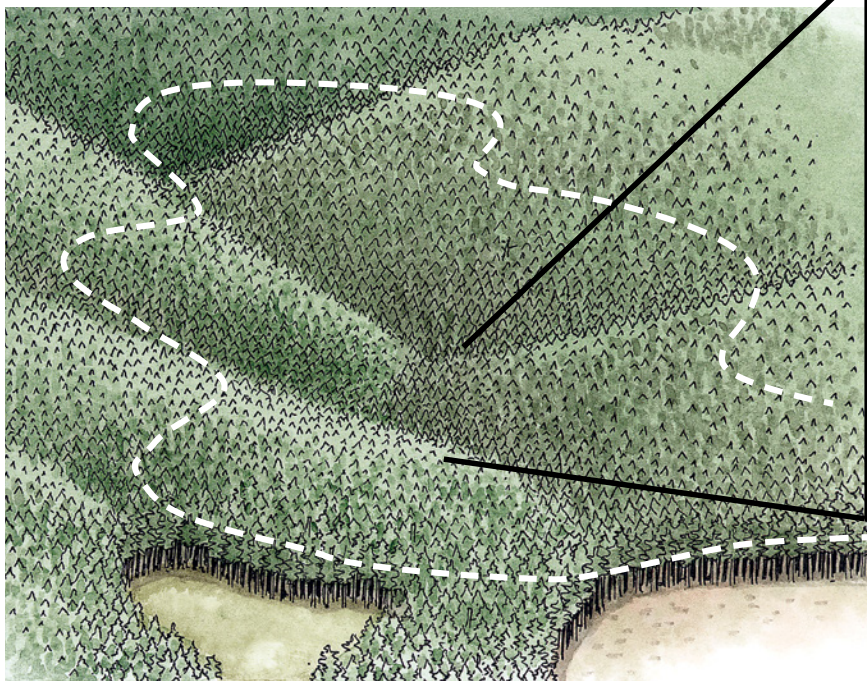
A 70-acre “core area” encompassing a northern spotted owl nesting site, which can be an actual tree or an activity center of a pair of adult northern spotted owls, is the resource site. Nesting sites require protection until there is reliable evidence that the site is no longer occupied by a pair of northern spotted owls. The shape of the core area can vary depending on the characteristics of the forest. The boundary is designed to make a contiguous habitat, or core area, used by the nesting owls.

Protect the resource site

When a landowner submits a Notification of Operation within one-half mile of a northern spotted owl resource site, ODF will inform the landowner that the owl resource site exists. ODF maintains an inventory of owl sites. If the proposed operation conflicts with the northern spotted owl resource site, the landowner must submit a written plan for review prior to beginning the operation.

The 70-acre core area of suitable northern spotted owl habitat is determined by the landowner

A 70-acre core area of suitable northern spotted owl habitat is required for protection of the nest site. In most cases, timber harvesting is not allowed within this area. Nearby operations that may disturb nesting owls are restricted from March 1 to Sept. 30.



A northern spotted owl nest site can be an actual tree or an activity center of a pair of adult owls.

(sometimes multiple landowners) and ODF. Fledgling owls need this area before they leave the nest site. Juvenile owl mortality is very high, and is often caused by predation from other owls or starvation. Suitable habitat is important for their survival before they disperse from the nest.

The core area must be located so that it includes forest stands that come closest to approximating suitable habitat for northern spotted owls. Suitable northern spotted owl habitat for the core area means:

- a stand of trees with moderate to high canopy closure (60-80%)

- a multi-layered, multi-species canopy dominated by large overstory trees (greater than 30 inches DBH)
- a high incidence of large trees with deformities (large cavities, broken tops and other evidence of “decadence”)
- numerous large snags and large accumulations of fallen trees and other woody debris on the ground
- sufficient open space below the canopy for owls to fly

Forest practices that do not maintain the core area’s habitat suitability for owls are not allowed. In most cases, timber harvesting within the core area

will not be allowed.

The period between March 1 and Sept. 30 is when nesting owls can least tolerate disturbance. Forest operations within one-quarter mile of a nest site are not allowed during this time. Seasonal restrictions may be waived if survey data shows that the spotted owls are not actively nesting or not present.

Exceptions

ODF may grant exceptions to the protection requirements if the operator has obtained an incidental take permit from federal authorities under the federal ESA.

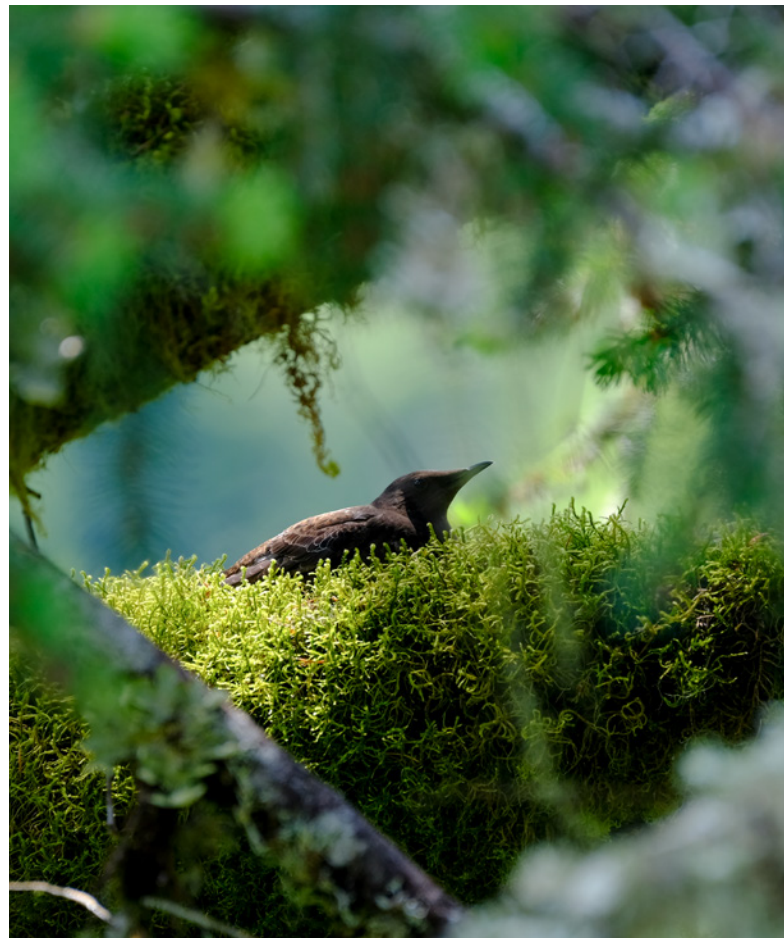
MARBLED MURRELET

The marbled murrelet is a federally threatened species. Marbled murrelets spend most of their time at sea, but breed in older coniferous forests up to 50 miles inland. Breeding sites are characterized by large trees, multiple canopy layers and moderate to high canopy closure. Marbled murrelets do not build their own nests; instead, they utilize old raptor nests or other horizontal nest platforms, such as those created by large moss-covered limbs, mistletoe brooms, limb deformities or tree damage.

Marbled murrelet nesting site protection

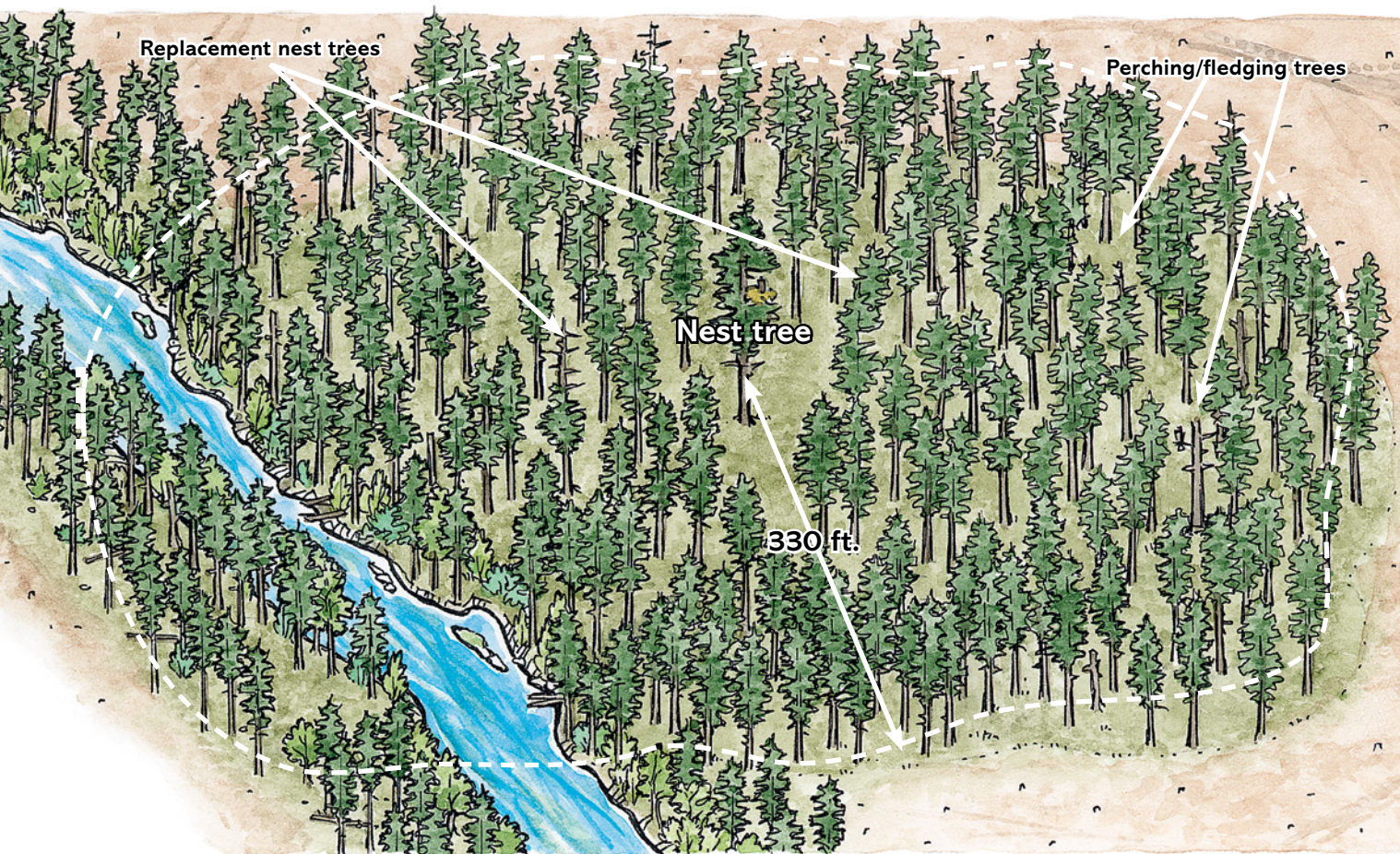
A written plan is required if forest operations are planned near a known marbled murrelet location. Recommended protection measures include:

- maintaining site integrity
- avoiding disturbance during the nesting season
- submitting plans to ODF before operating within or near a resource site



BALD EAGLE

The bald eagle is a legally protected species, and forests with suitable nest trees are needed for its maintenance. Bald eagle nesting sites are sensitive to forest practices and require protection.



The protected area around a bald eagle nest tree is no less than 330 feet in all directions from the nest tree. Size and shape depend on use of the area by bald eagles. The resource site includes the active nest tree and all identified key components, such as perching or fledging trees, replacement nest trees and a forested area around the nest tree. Do not disturb within 660 feet of the resource site (1,000 feet for aircraft, including drones). For nesting sites, operations are restricted from Jan. 1 to Aug. 31.

Bald eagle nesting resource site

- Bald eagles often construct more than one nest, and vary their use between them from year to year. All bald eagle nests within a given territory require protection, although a nest may not be currently occupied or may not have been used for raising young for many years.
- An active nest tree is one in which a bald eagle has nested in the past five years, whether or not the tree still contains a nest. As long as the nest tree remains standing, it and the surrounding designated area require protection for up to five years. If the nest tree has fallen but the surrounding area has suitable replacement nest trees present, the area requires protection for up to a five-year period. This is to allow time to determine if the eagles will return and rebuild a new nest.
- Replacement nest trees ensure maintenance of a site in the future. Bald eagles show a strong attachment to a chosen territory. If a nest tree is lost, the pair will use a nearby replacement nest tree.
- Perch trees are often adjacent to the nest tree. In addition to perching, they're used as nest access points by adults, or as pilot trees their young use when learning to fly. They're often snags or live trees with exposed, strong, lateral branches high in the crown.
- Perching, fledging and replacement trees comprise a forested area around the nest tree that provides additional protection and acts as a visual screen.

Protect the nesting site

When a landowner proposes an operation within one-half mile of a bald eagle nesting site, ODF begins a review. If they determine that the operation may pose a conflict for the site, they will require a written plan describing how the site will be protected.

Any forest operations around the site must be designed to protect the trees from damage and windthrow. Experts must agree on the vegetation to be left. Trees are left to perform a job, either to provide a visual screen for the site or to protect the site from windthrow. This area should not be less than 330 feet from the nest. Its size and shape depend on actual use of the area by bald eagles. General guidelines for nesting areas call for maintaining the existing integrity of the stand.

From Jan. 1 to Aug. 31, when nest construction, mating and rearing of young occurs, forest operations are not permitted within 660 feet (or 1,000 feet for aircraft, including drones). ODF may modify this time period and the distances where forest operations are not permitted, if an operation will not cause the birds to flush from these trees.

Exceptions

ODF may grant exceptions to the protection requirements if the operator has obtained an incidental take permit from federal authorities under the Bald and Golden Eagle Protection Act.

Facts about bald eagle nests:

- Nests are 5 to 8 feet in diameter and 2 to 3 feet deep.
- Nests are typically located partway down the tree, as eagles prefer to have live branches to shelter the nest.
- They are found in large trees, in prominent locations, giving a clear view of the water. Nest trees are usually located within 1/4 mile of large water bodies, but rarely right on the water's edge.
- In contrast, osprey nests are smaller, located at the very top of a broken-topped tree or snag and typically very close to the water's edge.

GOLDEN EAGLE

The golden eagle is a legally protected species. Golden eagles are found in many habitats, including open ponderosa pine and mixed-conifer or deciduous forests. Nests can be found on cliffs or in trees. Nests are massive (sometimes greater than 10 feet in diameter) and are used year after year. Golden eagles are known to consume a wide variety of prey, including ground squirrels, marmots and other birds. They will also eat domestic sheep, lambs and carrion, and will take prey away from other raptors.



Golden eagle resource site

The resource site includes the active nest tree and any identified key components, such as forested areas around the nest tree that offer perching, fledging and replacement nest trees. An active nest tree is one that has been used by golden eagles in the recent past.

Protect the resource site

Your local ODF office has the responsibility for maintaining inventories of golden eagle resource sites. ODF will notify you if there is an OFPA-protected golden eagle near your planned operation when you submit your written Notification of Operation form. Only certain sites listed in the 1984 ODF and

ODFW cooperative agreement are protected under the OFPA. However, other golden eagle sites may warrant voluntary protection or protection under the Bald and Golden Eagle Protection Act.

A conflict may exist if an operation has the potential to modify or destroy the resource site, cause nest abandonment or failure, or reduce productivity at the resource site. Conflicts are solved by working with ODF, and may include measures such as:

- conducting a site inspection with ODF and applicable wildlife agencies
- implementing timing restrictions for forest operations outside the nesting season of Jan. 1 to Sept. 30

OSPREY



Osprey resource sites are protected under the OFPA. Osprey resource sites require protection because they provide for successful reproduction of this important species. The birds often nest in large, prominent snags or trees with broken tops. These trees have a limited life span and are vulnerable to damage from forest practices. When using the nesting sites, the birds are also sensitive to human disturbance.

Osprey resource site

The resource site includes the active nest tree and any identified key components such as perching, fledging and replacement nest trees. An active nest tree is one that has been used by osprey within the past five nesting seasons.

Osprey are fish-eating raptors. After foraging, an adult osprey eats part of a fish in a tree near the nest and delivers the remainder to the nest. These same trees are also used as perches by osprey fledglings when learning to fly. Perching and fledging trees tend to

be taller and larger in diameter than nest trees, and have broken or dead tops, forks or lateral branches high in the crown. This allows easy access for osprey as well as views of their surroundings.

Protect the resource site

- The goal is to avoid resource site abandonment or reduced use of the site. This is accomplished by maintaining site integrity and avoiding disturbance during the critical period of use when nest construction, mating and rearing of young occur.
- During forest operations, the active nest tree and perching, fledging and replacement trees must be left standing and protected from damage.
- The operation must be designed to protect the trees from windthrow. A buffer is not required around the nest tree. However, some sites may

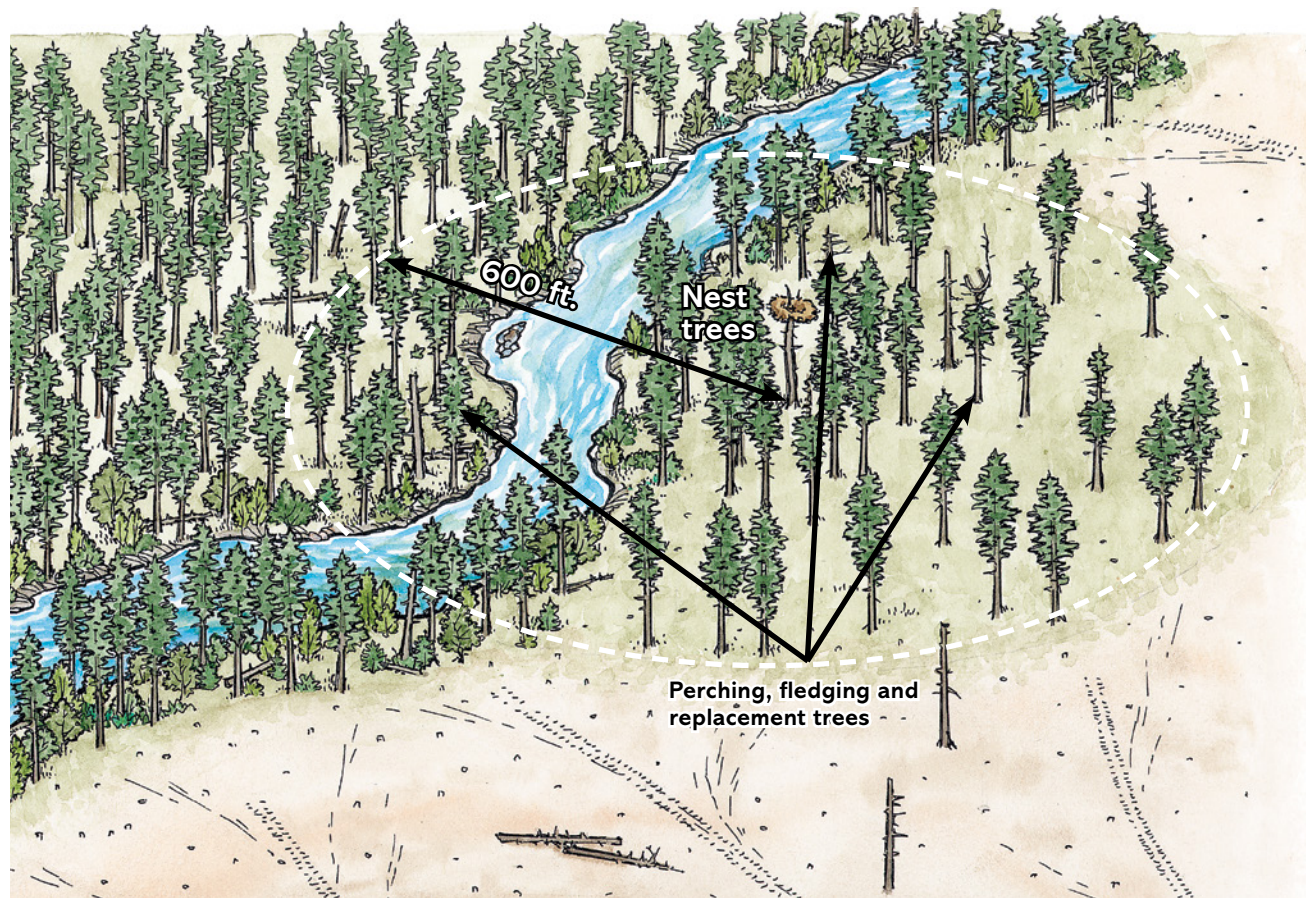
benefit from a buffer or additional trees to protect the nest tree from windthrow.

- During the critical period of use, the active nest tree and any identified perch trees must be protected from disturbance. Forest operations are not allowed within 600 feet of the active nest tree or perch trees from March 1 to Sept. 15. Seasonal restriction periods can be modified if survey information shows that osprey are not nesting or are not present.
- First, identify the active nest tree. Then choose suitable perching, fledging and replacement nest trees that are likely to be used by osprey. Replacement trees should be taller than the surrounding forest, preferably dead or dead-topped trees with platforms large enough to support nests. Perch and fledging trees are also taller than surrounding forest, and can be dead or alive.

- Resting perches are used by adults when not fishing or tending the nest, and by fledglings when learning to fly. These are large, tall snags or trees that have broken or dead tops, forks or lateral branches high in the crown.
- Eight to 12 trees are adequate for perching, fledging and replacement trees, and should be located near the active nest tree.
- Activities that cause disturbance include timber harvesting, log hauling, road construction and low-flying aircraft.

Exceptions

There are exceptions to protecting osprey resource sites if ODF determines that the loss of the site will not adversely affect the local osprey population and there are no economically feasible alternatives. Check with ODF.



Eight to 12 trees, located near the nest tree, are adequate to provide perching, fledging and replacement trees. Areas of high winds may require that surrounding trees be left to protect the resource site from damage.

Restrict operations March 1 to Sept. 15. Forest operations must not cause birds to flush.

GREAT BLUE HERON

Great blue heron resource sites are protected under the OFPA. They are colonial nesters, which means there are often many nests together in what's called a "rookery." However, great blue herons do sometimes nest individually. A rookery is a cluster of large nests located near the tops of trees. The rookery is usually located near water and is used year after year.

Great blue heron resource site

The resource site includes the active nest tree and any identified key components such as a forested area around the nest tree that has perching, fledging and replacement nest trees. An active nest tree is one that has been used by great blue herons within the past three nesting seasons.

Protect the resource site

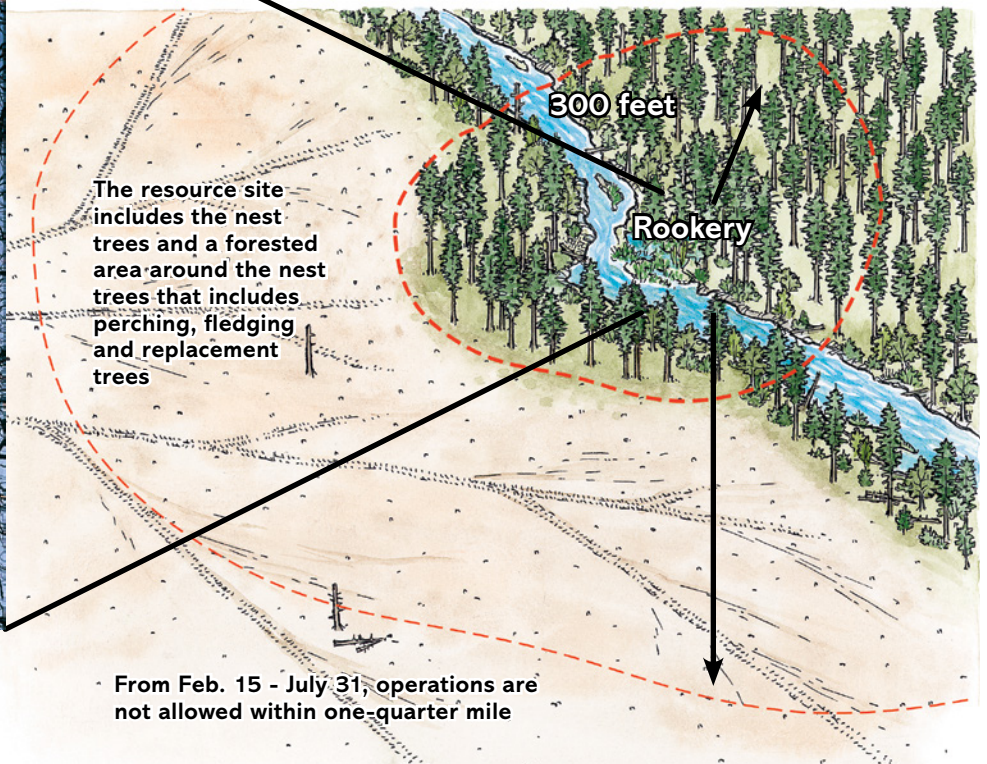
- The goal is to avoid resource site abandonment or reduced use. This is accomplished by maintaining site integrity and avoiding disturbance during the critical period of use when nest construction, mating and rearing of young occur.



- During forest operations, the active nest tree and perching, fledging and replacement nest trees must be left and protected from damage. The operation must be designed to protect the resource site trees from windthrow.
- During the critical period of use, the active nest tree and any key components must be protected from disturbance. Forest operations are not allowed within one-quarter mile of the active nest trees Feb. 15 to July 31. Seasonal restriction periods can be modified if survey information shows that herons are not nesting or are not present.



These great blue heron nests have plenty of space for these large birds to fly in and out. Older trees with open branching are chosen.



- First, identify the active nest trees. Then choose a vegetative area around the nest trees. Trees used as nest sites should be tall, with plenty of space for these large birds to fly in and out. Older trees with open branching are ideal. A 300-foot area around the outermost nest trees is needed to give a visual screen around the rookery and protect nesting, perching, fledging and replacement trees from windthrow.
- Activities likely to cause the birds to flush from the nest include timber harvesting, log hauling, road construction and low-flying aircraft.

BAND-TAILED PIGEON

Certain band-tailed pigeon mineral sites are protected under the OFPA. Band-tailed pigeons nest primarily in Douglas-fir trees within closed-canopy conifer or mixed-conifer forests.



Nests are loosely constructed twig platforms and are located from 6 feet to 120 feet off the ground. Band-tailed pigeons need closed-canopy forests for nest sites and open-canopy forests for foraging, as well as mineral sites. Mineral sites such as springs, estuaries, wastewater sites or livestock salting areas are used more frequently if they have an abundance of nearby perching locations. Use is also dependent upon the salt content of the site. These birds are known to travel long distances away from mineral and nest sites for food (more than 30 miles).

Exceptions

There are exceptions to protecting a great blue heron resource site if ODF determines that the loss of the site will not adversely affect the local population and there are no economically feasible alternatives. Check with ODF.

Band-tailed pigeon resource site

The resource site includes the mineral watering site and any identified key components, such as surrounding trees for band-tailed pigeons to perch in.

Protect the resource site

ODF will notify you if there is a protected band-tailed pigeon mineral spring resource site near your planned operation when you submit your Notification of Operation form. Only sites listed in the 1984 ODF and ODFW agreement are protected. Other sites may warrant voluntary protection. A conflict may exist if an operation has the potential to modify or destroy the resource site or cause abandonment of the site. Conflicts are solved by working with ODF, and may include measures such as:

- conducting a site inspection with ODF and applicable wildlife agencies
- implementing timing restrictions for forest operations outside the use season of June to September
- developing a plan for protecting habitat around the resource site
- revising forest operations to avoid the resource site
- retaining buffers around mineral springs
- retaining trees for band-tailed pigeons to perch in to rest and before dropping down to use a mineral spring

AMERICAN BEAVER

The American beaver occurs statewide in all ecoregions of Oregon where suitable habitat occurs. Beavers are known as ecosystem engineers for their ability to change the environment where they live.

Except as needed for road maintenance, operators must submit a written plan to ODFW prior to removing beaver dams and other natural obstructions from waters of the state during forest operations. If the beaver dam is within 25 feet of a culvert, it is considered road maintenance.

A written plan for beaver dam or obstruction removal must demonstrate that:

- a beaver dam or obstruction threatens existing forests or plantations
- beaver dam removal is part of a population control program approved by ODFW
- retaining the beaver dam or obstruction would result in greater environmental harm than benefit

Non-emergency beaver conflict

Beaver trapping regulations are the responsibility of ODFW, and do impact private lands. Contacting your local ODFW office is a good idea if you have a non-infrastructure beaver conflict. You will have 30 days to work with ODFW on non-lethal solutions before lethal action is allowed. After 30 calendar days, forest landowners may choose to lethally remove beaver at their discretion.

Note that the 30-day wait period prior to lethal beaver removal only applies to large landowners who own 5,000 or more forested acres.

Emergency beaver conflict

You can address immediate threats to infrastructure caused by beaver without advance notice to ODFW. In the case of emergency beaver conflict, a landowner may:

- destroy the beaver dam
- install mitigation devices (e.g., beaver deceivers), as long as these are in compliance with fish passage requirements (Recommended reading: Oregon Forest Resources Institute's Wildlife in Managed Forests: American Beaver)
- lethally remove the beaver without advance notification, but any lethally removed beaver must be reported to ODFW



Recreational beaver trapping

Recreational trapping (i.e., trapping not associated with damage) of beaver on private forestlands, other than small forestlands, must be for personal use only. A licensed fur trapper, who is not the landowner or an agent of the landowner may trap a beaver on privately owned forestland. But they may not sell or exchange the pelt of the beaver unless it was trapped on small private forestland.

Beavers trapped for damage reasons on forestland other than small forestland, those taken after the 30 days, or those taken due to damaging infrastructure, may still be sold.

Damage beaver trapping

All take of beaver on private forestlands must be reported to ODFW, where records will be maintained in the agency's wildlife damage complaint system. This action can be accomplished by the landowner or the person doing the taking (landowner's agent). ODFW will likely require the following information:

- name of the person who committed the take of the beaver
- location of the take
- reason for the take
- number of beavers taken

Contact information for ODFW beaver reporting:

dfw.state.or.us/agency/directory/contact_us.asp

WILDLIFE FOOD PLOTS

Wildlife food plots are areas on small forestlands that, instead of being used for growing and harvesting a forest tree species, are planted with vegetation capable of substantially contributing to wildlife nutrition.

Establishing wildlife food plots

Landowners may establish wildlife food plots within the boundaries of their land as long as they meet these requirements:

- They cannot exceed 2.5% of the small forestland, if the small forestland is 500 acres or less in size.
- They cannot exceed 2.0% of the small forestland, if the small forestland is more than 500 acres but not more than 1,000 acres in size.
- They cannot exceed 1.0% of the small forestland, if the small forestland is more than 1,000 acres in size.

Because establishing a food plot is an exception to reforestation requirements, only areas subject to reforestation requirements are eligible. Areas naturally devoid of trees are not eligible for use as a food plot under this rule, but may still be good areas to conduct voluntary habitat enhancement projects. A written plan is required for the establishing a food plot, and any changes to the food plot or forest management, including reforestation, requires notification to ODF. (See the Reforestation chapter.)

AMPHIBIANS

The Riparian Management chapter of this manual describes specific no-cut buffer widths required along streams. These rules are intended to benefit both fish and stream-associated amphibians. Amphibians that are sensitive to temperature and moisture fluctuations may live in small Type N streams. Forest operators are encouraged to retain portions of green live trees and snags in timber harvest units as blocks of intact vegetation along small Type N streams, to benefit amphibians.



