

STAFF REPORT

Agenda Item No.:	2
Work Plan:	State Forests Work Plan
Topic:	Marbled Murrelet Management
Presentation Title:	Endangered Species Management Plan
Date of Presentation:	November 16, 2022
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SUMMARY

- Division staff developed the final draft Endangered Species Management Plan (ESMP) for the marbled murrelet in accordance with requirements detailed in OAR 635-100-0140 and consultations with Oregon Department of Fish and Wildlife staff.
- The plan provides justification for the Board approved role, “contribution to conservation”, that ODF-managed lands play in marbled murrelet conservation in Oregon.
- Division staff will submit the final ESMP to the Oregon Fish and Wildlife Commission in January 2023.

CONTEXT

In July 2021, the Oregon Fish and Wildlife Commission (Commission) reclassified the marbled murrelet (*Brachyramphus marmoratus*) from threatened to endangered under the Oregon Endangered Species Act (Oregon Revised Statute 496.171 to 496.192; ORS). This decision triggered a statutory requirement for state land-owning or managing agencies to develop an ESMP for the listed species. The Oregon Endangered Species Act (OESA) establishes a process of plan development and approval (ORS 496.182), and plan content requirements have been established by the Commission in Oregon Administrative Rule (OAR 635-100-0140).

In November 2021, the Commission identified the Oregon Department of Forestry (ODF) as an agency that can play a role in the conservation of this species due to existing management of terrestrial marbled murrelet habitat in Oregon (OAR 635-100-0140). Following this finding, ODF was tasked with determining the role ODF managed lands play in the conservation of marbled murrelets (ORS 496.182(8)(a)(B)). This role may include, but is not limited to conservation, contribution toward conservation, or take avoidance. In determining the role, ODF was obligated to balance: (1) the statutory requirements, rules, and policies applicable to the management of ODF lands; (2) the social and economic impacts that conservation would have on the state; (3) the conservation needs of the species; (4) the purpose of the land; and (5) the roles of other ownership categories

when determining the role of ODF lands in the conservation of marbled murrelets. These factors needed to be balanced consistent with the biological aspects of species management identified by the Oregon Department of Fish and Wildlife (ODFW) and the statutory or constitutional obligations of ODF including the land's statutory purpose.

In March 2022, the Board of Forestry (Board) approved the Division's recommendation for the role ODF lands play in marbled murrelet conservation. The final ESMP will then be submitted to the Commission for review and approval in January 2023. The Commission must approve the ESMP as submitted or modified by July 2023, as a final decision is required within 2 years of the reclassification decision (ORS 496.182).

BACKGROUND AND ANALYSIS

The Commission voted to reclassify the marbled murrelet (*Brachyramphus marmoratus*) from threatened to endangered (uplist) under the OESA in July 2021. The uplisting decision triggered a statutory requirement for state landowners and land managing agencies to develop an ESMP for the listed species. In November 2021, the Commission identified ODF as an agency that manages terrestrial marbled murrelet habitat in Oregon that can play a role in the conservation of this species.

ODF State Forest lands play a disproportionate role in marbled murrelet conservation in Oregon. ODF state lands comprise less than 4% of the forest cover in the Coast Range. Yet just over 16% of existing terrestrial murrelet habitat is on these lands. Marbled murrelet life history stages require both terrestrial and marine habitat types. ODF has no capacity to influence the marine habitat threats (e.g., forage fish availability, oil spills, gillnet entanglement, ocean acidity) that can affect adult murrelet survival and breeding success, in addition to global drivers of climate change on either habitat type. These limitations are such that ODF managed lands can't recover murrelets in Oregon but do contribute to conservation since protection of occupied habitat helps ensure the agency is not directly contributing to any population impacts or declines of known occupied marbled murrelet habitat.

ODF's Marbled Murrelet Operational Policies (ODF 2013) and current Northwest Oregon State Forests Management Plan (FMP; ODF 2010), are consistent with ODFW's stated conservation needs for the species and the contributions of nonfederal lands to the larger goal of murrelet conservation and recovery. Therefore, ODF has determined these policies in conjunction with agency implementation of the ODFW survival guidelines, provide a substantial contribution to conservation of the species. However, other statutory mandates and environmental factors limit State Forests' capacity to provide for conservation as defined under the OESA. The purpose of the land includes a full range of social, economic, and environmental benefits.

ODF's development of an ESMP was concurrent with design of a draft Western Oregon Forests Habitat Conservation Plan and associated Forest Management Plan. The ESMP aligns with the current FMP (ODF 2010), which is not connected to an incidental take permit issued under Section 10 of the federal ESA. Thus, ODF provided descriptions for plan implementation, monitoring, and reassessment for both current and future management planning approaches within the ESMP. A Commission approved ESMP for the marbled murrelet will supersede survival guidelines for the species on ODF lands.

Furthermore, an incidental take permit or statement issued by a federal agency for a species listed under the federal Endangered Species Act shall be recognized by the state as a waiver of any state protection measures or requirements otherwise applicable to the actions allowed under the federal permit. In the event, ODF is issued an incidental take permit associated with an approved Habitat Conservation Plan, this federally issued permit will supersede the ESMP requirements.

RECOMMENDATION

Information only.

NEXT STEPS

1. The ESMP will be submitted to the Oregon Fish and Wildlife Commission by January 16, 2023.
2. The Fish and Wildlife Commission will have six months to approve the plan as submitted or modified (i.e., by July 16, 2023).

ATTACHMENT

1. Marbled Murrelet Endangered Species Management Plan, Oregon Department of Forestry, State Forests Division



Photo Credit: Brett Lovelace and Oregon State University

MARbled MURRELET ENDANGERED SPECIES MANAGEMENT PLAN

11/16/2022

**Oregon Department of Forestry
State Forests Division**

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Executive Summary

The Oregon Fish and Wildlife Commission (Commission) voted to reclassify the marbled murrelet (*Brachyramphus marmoratus*) from threatened to endangered (uplist) under the Oregon Endangered Species Act (OESA) in July 2021. The uplisting decision triggered a statutory requirement for state landowners and land managing agencies to develop an Endangered Species Management Plan (ESMP) for the listed species. In November 2021, the Commission identified the Oregon Department of Forestry (ODF) as an agency that manages terrestrial marbled murrelet habitat in Oregon that can play a role in the conservation of this species.

ODF-managed State Forest lands include Board of Forestry Lands (BOFL) and Common School Forest Lands (CSFL). These lands play a disproportionate role in marbled murrelet conservation in Oregon. ODF lands comprise less than 4% of the forest cover in the Coast Range. Yet just over 16% of existing terrestrial murrelet habitat is on these lands. Marbled murrelet life history stages require both terrestrial and marine habitat types. ODF has no capacity to influence the marine habitat threats (e.g., forage fish availability, oil spills, gillnet entanglement, ocean acidity) that can affect adult murrelet survival and breeding success, in addition to global drivers of climate change on either habitat type. These limitations are such that ODF managed lands cannot recover murrelets in Oregon, but do contribute to conservation since protection of occupied habitat helps ensure the agency is not directly contributing to any population impacts or declines of known occupied marbled murrelet habitat.

ODF's Marbled Murrelet Operational Policies (ODF 2013) and current Northwest Oregon State Forests Management Plan (FMP; ODF 2010), are consistent with the Oregon Department of Fish and Wildlife's (ODFW) stated conservation needs for the species and the contributions of nonfederal lands to the larger goal of murrelet conservation and recovery. Therefore, ODF has determined these policies in conjunction with agency implementation of the ODFW survival guidelines, provide a substantial contribution to conservation of the species. However, other statutory mandates and environmental factors limit State Forests' capacity to provide for conservation as defined under the OESA. The purpose of the land includes a full range of social, economic, and environmental benefits.

The ODF's development of an ESMP was concurrent with design of the Western Oregon Forests Habitat Conservation Plan (HCP) and associated Forest Management Plan. The ESMP aligns with the current FMP (ODF 2010), which is not connected to an incidental take permit (ITP) issued under Section 10 of the federal Endangered Species Act (ESA). Thus, ODF provided descriptions for plan implementation, monitoring, and reassessment for both current and future management planning approaches within the ESMP. A Commission approved ESMP for the marbled murrelet will supersede survival guidelines for the species on ODF State Forests. Furthermore, an ITP or statement issued by a federal agency for a species listed under the federal Endangered Species Act, shall be recognized by the state as a waiver of any state protection measures or requirements otherwise applicable to the actions allowed under the federal permit.

In the event the ODF is issued an ITP associated with an approved HCP, this federally issued permit will supersede the ESMP requirements.

Background

In July 2021, the Oregon Fish and Wildlife Commission (Commission) reclassified the marbled murrelet (*Brachyramphus marmoratus*) from threatened to endangered under the OESA (Oregon Revised Statute 496.171 to 496.192; ORS). This decision triggered a statutory requirement for state landowners and land owning or managing agencies to develop an Endangered Species Management Plan for the listed species. The state OESA establishes a process of plan development and approval (ORS 496.182), and plan content requirements have been established by the Commission in Oregon Administrative Rule (OAR 635-100-0140).

In November 2021, the Commission identified the Oregon Department of Forestry (ODF) as an agency that can play a role in the conservation of this species due to existing management of terrestrial marbled murrelet habitat in Oregon (OAR 635-100-0140). Following this finding, ODF was tasked with determining the role State Forests play in the conservation of marbled murrelets (ORS 496.182(8)(a)(B)). This role may include, but is not limited to conservation, contribution toward conservation, or take avoidance. In determining the role, ODF was obligated to balance: (1) the statutory requirements, rules, and policies applicable to the management of State Forests; (2) the social and economic impacts that conservation would have on the state; (3) the conservation needs of the species; (4) the purpose of the land; and (5) the roles of other ownership categories when determining the role of State Forests in the conservation of marbled murrelets. These factors needed to be balanced consistent with the biological aspects of species management identified by the Oregon Department of Fish and Wildlife (ODFW) and the statutory or constitutional obligations of the ODF including the land's statutory purpose.

In March 2022, the Board of Forestry (Board) approved ODF's recommendation for the role State Forests play in marbled murrelet conservation. ODF developed an ESMP consistent with the Board approved "contribution to conservation" role in accordance with requirements detailed in OAR 635-100-0140 and consultations with Oregon Department of Fish and Wildlife staff. The ESMP will be submitted to the Commission for review and approval by January 16, 2023. The Commission must approve the ESMP as submitted or modified by July 2023, as a final decision is required within 2 years of the reclassification decision (ORS 496.182).

Factors Influencing Marbled Murrelet Recovery

2021 State Review

ODF's statutory obligation to provide a full range of social, economic, and environmental benefits to the people of Oregon must be balanced with the conservation needs of the species. ODFW (2021) provided a biological assessment to the Commission to determine if the species was in danger of extinction based on the likelihood of survival. This assessment was informed by peer

reviewed scientific information and other best available data relevant to the species' biological and legal status in Oregon. This review identified the following conclusions:

- Marbled murrelets occupy a limited geographic distribution that is divided between terrestrial and marine habitat types. The species' dual habitat needs to support various life history stages leads to uncertainty for understanding how various impacts from both environments, including climate change, forage fish population dynamics, habitat loss through forest fragmentation, and predation, affect marbled murrelet survival and reproduction (ODFW 2021).
- From 1993-2017, the federal Northwest Forest Plan's Marbled Murrelet Effectiveness Monitoring Program noted a 9.9% increase in net change of higher probability nesting habitat across all land ownerships in Oregon (Lorenz et al. 2021). The gains in nesting habitat primarily occurred on state (43.4% net change) and federal lands (13.0% net change) while nesting habitat losses (-10.2% net change) were noted on all other lands (private, tribal, county, and municipal; Lorenz et al. 2021).
- Remaining habitat is highly fragmented and primarily exists on federal lands in Oregon (Lorenz et al. 2021). Yet, conserving nesting habitat on these lands may not be sufficient to achieve long-term murrelet conservation and recovery. Incorporation of nonfederal (additional) lands is necessary to provide large, unfragmented, and contiguous nesting habitat to benefit this species, including any increases to core habitat size (Lorenz et al. 2021).
- From 2000-2019, the Northwest Forest Plan's Marbled Murrelet Effectiveness Monitoring Program documented an annual 2.2% increase in murrelet at-sea abundance in Oregon (McIver et al. 2019). However, it remains unclear if population changes in Oregon are explained by interannual movements of murrelets between Washington and California. Despite these apparent increases, murrelet survival will likely experience increased predation rates resulting from additional forest fragmentation and edge effects (ODFW 2021).
- Habitat edges created by forest fragmentation increase predation risk/pressure that contribute to murrelet nest failure (ODFW 2021). This issue is exacerbated in areas where human activities (e.g., campgrounds, trails, parks) occur in murrelet habitat and anthropogenic sources of food are available to corvid species that depredate murrelet nests such as Steller's jay (*Cyanocitta stelleri*), common raven (*Corvus corax*), and American crows (*Corvus brachyrhynchos*; Goldenberg et al. 2016; ODFW 2021). Additional sources of adult and juvenile predation include recovering raptor populations

of bald eagles (*Haliaeetus leucocephalus*) and peregrine falcons (*Falco peregrinus*; ODFW 2021).

- Marbled murrelet survival and reproductive success is dependent on sufficient prey resources in marine habitat (Betts et al. 2020). It remains unclear how ocean and weather conditions, competition with commercial or recreational fisheries, and other oceanic factors may impact murrelet recruitment (ODFW 2021).
- Marbled murrelets were determined to be highly sensitive to climate change effects (USFWS 2009; Case 2014) that will influence loss of available nesting habitat from increased potential of wildfires, insect and disease outbreaks, in addition to impacts to marine habitat from increases in water temperature and acidity (Tillman and Siemann 2011).
- Implementation of state and federal programs and regulations has decreased the threat to marbled murrelets on public lands (state and federal); however, murrelet habitat continues to decline on private lands (Lorenz et al. 2021, ODFW 2021).

2012 Federal Review

In 2012, the Marbled Murrelet Recovery Implementation Team identified the top five mechanisms, ranked in order of importance, contributing to sustained low recruitment of murrelets in Oregon and the south coast of Washington (ODFW 2021):

1. Loss of terrestrial habitat
2. Nest predation
3. Changes in marine forage
4. Cumulative and interactive effects
5. Post-fledging mortality

1995 State Review

In 1995, ODFW listed marbled murrelets as state-threatened based on the following combination of natural and human-induced factors that would affect the species' "natural reproductive potential" (ODFW 2021):

- Limited geographic distribution
- Nesting habitat alteration (habitat loss and degradation)
- Natural large-scale disturbances (e.g., fires, windstorms)
- Small population size
- Declining population
- Predation
- Adverse ocean and weather conditions (effects of variability on prey resources)

- Gillnet fisheries (i.e., entanglement)
- Other fisheries (i.e., competition for prey resources with fisheries)
- Oil spills
- Pollution (mainly, effluent discharges from pulp and paper mills)

Overview of ODF Marbled Murrelet Policies

Prior to the approval of a Commission-approved ESMP, ODF has been implementing the Commission’s mandatory survival guidelines (OAR 635-100-0137) and existing agency operational policies (ODF 2013; Appendix A) for activities occurring on lands managed by ODF. The survival guidelines are considered necessary to ensure the survival of individual members of the species (ORS 496.182(2)(a)) in the absence of an ESMP and were voluntarily implemented by ODF prior to their adoption as mandatory in 2021. ODF currently surveys all potential nesting habitat that is within or adjacent to an operation or forest activity using a widely accepted standardized survey protocol (Evans et al. 2003).

ODF’s development of an ESMP was concurrent with the design of a draft Western Oregon State Forests Habitat Conservation Plan (HCP; ICF 2022) and companion Western Oregon State Forests Management Plan. The ESMP aligns with the current Northwest Oregon State Forests Management Plan (FMP; ODF 2010), which is not connected to an ITP. A Commission-approved ESMP for the marbled murrelet will supersede survival guidelines for the species (OAR 635-100-0140(8)). Furthermore, pursuant to ORS 496.172(4), an Incidental Take Permit (ITP) or statement issued by the U.S. Fish and Wildlife Service for a species listed under the federal Endangered Species Act, is recognized by the state as a waiver of any state protection measures or requirements otherwise applicable to the actions allowed under the federal permit. In the event ODF is issued an ITP associated with an approved HCP, this federally issued permit will supersede the ESMP requirements.

Endangered Species Management Plan Requirements

This plan presents ODF’s response to the statutory requirement for land owning or managing agencies to develop an ESMP for marbled murrelets and addresses the following seven minimum requirements for contributing to the conservation of this species:

1. What state land is covered by the plan?

The ESMP will cover all lands managed by ODF within the extent of the inland breeding range of marbled murrelets (Fig. 1). These lands fall within the following ODF State Forests districts: Astoria, Forest Grove, Tillamook, West Oregon, and Western Lane (including Coos and Southwest units). This does not include the Elliott State Research Forest, former Common School Forest Lands (CSFL) that have been decertified or current CSFL that may be decertified in the future (ORS 530.450 to 530.520).



Figure 1. Distribution of lands managed by the Oregon Department of Forestry State Forests Division within extent of the marbled murrelet inland breeding range.

2. What role that state land is to play in conservation of the species and how the agency defined that role?

As defined in ORS 496.171, “conservation” means the use of methods and procedures necessary to bring a species to the point at which the measures provided under ORS 496.171 to 496.182 are no longer necessary. Acknowledging this definition, ODF determined the role lands managed by the agency play in conservation of murrelets as a “contribution to conservation.” This decision is supported by the agency’s protection of occupied habitat to ensure there are no direct impacts to known occupied marbled murrelet habitat. ODF’s operational policies (ODF 2013) for take avoidance (i.e., compliance with Section 9 of the federal ESA) under the agency’s current FMP (ODF 2010) are largely aligned with ODFW’s mandatory survival guidelines, and ODF is taking measures to implement any requirements therein that are additive to existing policy (e.g., project-specific consultation with ODFW, trash management at public use areas). Taken together, the policies and survival guidelines represent actions that surpass measures for meeting compliance requirements with the state and federal ESAs.

a. The statutory or constitutional requirements, rules and polices applicable to the agency’s programs

The majority of State Forests managed by ODF are owned by the Board of Forestry and commonly referred to as Board of Forestry Lands (BOFL). The statutory requirements and rules applicable to BOFL include ORS 530.050, OAR 629-035-0020, 629-035-0030, and 629-035-0105, among others. The purpose of these lands is to manage for “Greatest Permanent Value” (GPV). As provided in OAR 629-035-0020, GPV means “healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon.” OAR 629-035-0020 establishes that “to secure the greatest permanent value of these lands to the state, the State Forester shall maintain these lands as forest lands and actively manage them in a sound environmental manner to provide sustainable timber harvest and revenues to the state, counties, and local taxing districts. This management focus is not exclusive of other forest resources and must be pursued within a broader management context that includes protection, maintenance, and enhancement of native wildlife habitats.” In addition, the goal for management of CSFL is the maximization of income to the Common School Fund over the long-term and within the context of other applicable state and federal mandates (ORS 530.450 through 530.520).

ODF’s FMP (OAR 629-035-0105, ODF 2010) takes a multi-resource approach to forest management, and presents guiding principles, a forest vision, and resource management goals that set the long-term direction for these lands. The resource management goals and strategies are intended to achieve a balance between the resources and achieve the greatest permanent value through a system of integrated management that will likely benefit murrelets and other species of concern. The FMP provides management direction for ODF managed lands and is

founded upon an approach called structure-based management. Structure-based management is designed to produce and maintain an array of forest stand structures across the landscape in a functional arrangement.

The integrated management strategies are intended over time to result in habitat conditions on the landscape and in aquatic and riparian areas that will provide functional habitat conditions for native species. The long-range desired future condition envisions 30-50% complex forest (this includes 15-25% of older forest structure and 15-25% layered forest structure); both stand types have the potential to provide suitable habitat for marbled murrelets (ODF 2010). The FMP also includes requirements for retention of existing old-growth trees and patches, other leave trees in harvest units, and management of riparian areas for mature forest conditions. These strategies may not result in marbled murrelet habitat; however, the FMP represents a substantial contribution to conservation beyond using a take avoidance approach to compliance for ESA-listed species. The context of other relevant mandates and external factors precludes the ODF's ability to define the role for agency managed lands as conservation of marbled murrelets exclusively.

b. The social and economic impacts that conservation would have on the state

The social and economic impacts conservation would have on the state relate primarily to timber revenue produced from ODF managed lands. The agency is required to distribute 63.75% of the gross revenue from timber sales to the counties and local taxing districts where harvest occurs on Board of Forestry lands. ODF retains the remaining 36.25%, which is used to fund the management of the lands. The counties, schools, and local taxing districts in turn provide critical services to local communities. Timber sales on ODF managed lands further support local economies by providing job opportunities in the woods and at local mills. Conservation of marbled murrelets on ODF lands must be balanced with these important economic contributions mandated in statute and rule.

Public interest in recreating on ODF lands has increased in recent years and continued growth is expected. Some recreational activities may be incompatible with conservation and protection of marbled murrelet nesting habitat including activities such as camping and off-highway vehicle use. These activities are already restricted in designated occupied murrelet habitat under current policy and ODFW's survival guidelines. However, they might reasonably be expected to be curtailed, or eliminated entirely, across much larger areas under a conservation framework as defined above.

c. *The purpose of the state land*

ODF's current marbled murrelet policies (2013) and FMP (2010), in conjunction with the survival guidelines (OAR 635-100-0137), provide a substantial contribution to conservation of the species. However, other statutory mandates and environmental factors limit State Forests' capacity to provide for conservation as defined under the OESA. The purpose of the land includes a full range of economic, social, and environmental benefits. ODF is directed to provide these benefits in the context of an actively managed forest landscape that includes the harvest of timber and other forest products (See statutory requirements and rules in Section 2a).

ODF lands represent a relatively small portion of the total range of the species in Oregon. The Tillamook and Clatsop State Forests play an important role in marbled murrelet conservation on the North Coast, but lands managed by ODF are scattered and smaller in size elsewhere. Federal lands provide larger habitat patches in the remainder of the species range. Ocean conditions, particularly the availability of forage fish, can affect adult survival and breeding success. ODF has no capacity to influence ocean conditions. Likewise, effects of at-sea predators are beyond our control. Large-scale disturbances, either on land (e.g., fires, windstorms) or at-sea (e.g., oil spills), are difficult to predict or prevent. As are the effects of climate change on habitat and resources on land or in the ocean. These limitations are such that ODF managed lands can't recover murrelets in Oregon, but do contribute to conservation since protection of occupied habitat helps ensure the agency is not directly contributing to any population impacts or declines of known occupied marbled murrelet habitat.

d. *The roles that land other than state land will play in the conservation of the species*

Overview

The majority of high probability marbled murrelet nesting habitat currently persists on federal lands (312,027 of 517,686 acres; 60%), including the Siuslaw and Rogue River-Siskiyou National Forests, and forests owned by the Bureau of Land Management (ODFW 2021). ODF lands play a limited but important role in marbled murrelet conservation in Oregon. ODF managed lands comprise less than 4% of the forest cover in the Coast Ranges (i.e., the range of the murrelet in Oregon), yet just over 16% of existing marbled murrelet habitat is on ODF lands. The remaining 24% persists across all other ownerships (e.g., private, county, tribal).

Federally Managed Lands

Management of marbled murrelet nesting habitat on federal lands has been implemented with conservation and restoration strategies identified in the 1994 Northwest Forest Plan (NWFP; USDA and USDI 1994a, b). Federally managed lands affected by the adopted plan included 18 national forests and 7 Bureau of Land Management (BLM) districts (ODFW 2021). This plan provided substantially more habitat for marbled murrelets than existed at the start of the plan, securing large contiguous blocks of murrelet nesting habitat, while improving or maintaining the distribution of populations and habitat (Lorenz et al. 2021). The most recent monitoring effectiveness report determined the plan was successful at conserving murrelet nesting habitat on federally managed lands 25 years after implementation (Lorenz et al. 2021). In 2016, the BLM Resource Management Plan (RMP) for Northwestern and Coastal Oregon replaced the 1995 RMP developed to align with the NWFP.

ODF will continue to coordinate with federal land management agencies to share data and designate marbled murrelet management areas (MMMA) according to existing policy (ODF 0213) when occupied habitat on federal lands is adjacent or overlaps ODF managed lands.

Other Nonfederally-Managed Lands

ODF is responsible for administering the Forest Practices Act (FPA) in Oregon. The FPA (ORS 527.610 to 527.992 and OAR Chapter 629, Divisions 600 to 665) lists protection measures specific to nonfederal (e.g., private or state-owned) forestlands in Oregon. These measures include specific rules for resource protection (OAR 629-665), but the rules do not address protection of marbled murrelet resource sites. Furthermore, FPA protection measures established for resource sites do not expressly address the take of any state or federal ESA-listed species. In November 2016, the Board of Forestry (Board) directed ODF to initiate a rule analysis for marbled murrelets. The rulemaking process to address protection of marbled murrelet resource sites on nonfederal lands regulated by the Forest Practices rules is on the Board's workplan, completion date is still to be determined. In August 2022, the Board reviewed draft rules for the Private Forests Accord (PFA) that includes proposed changes to the FPA based on recommendations made by timber and conservation groups. Although the PFA specifically addressed state and federal ESA-listed aquatic species, rules targeting stream buffer increases may have the potential to increase available nesting habitat for marbled murrelets on nonfederal lands in narrow riparian buffers along streams.

3. How the agency will manage the state land to achieve its defined role;

Current Management Planning

ODF has developed policies specific to marbled murrelets on state forest lands, which are intended to avoid "take" (e.g., harass, harm, wound, kill) and protect suitable habitat around identified occupied sites (See Appendix A). The agency plans timber sales only after surveys for marbled murrelets have been conducted in potentially suitable habitat. ODF has conducted over 32,000 individual surveys for marbled murrelets at more than 1,300 unique sites since 1992. This represents the largest survey effort for marbled murrelets by any land manager in Oregon, Washington, or California. ODF designates protected MMMAs, which includes "occupied habitat" identified through surveys and associated "buffers." Currently, there are 113 MMMAs located on lands managed by ODF (See Appendices B 1-4) that include 20,338 total acres of designated habitat (Table 1). Some management activities are allowed in MMMAs, but only after consultation and agreement from the USFWS that the activity as proposed has a low likelihood of take of marbled murrelets.

Table 1. Summary of acres associated with Oregon Department of Forestry designated marbled murrelet management areas (MMMAs), September 2022.

District	Acres	
	DOH^a	Buffer^b
Tillamook	6,387.5	1,111.6
Astoria	2,039.3	1,425.0
Western Oregon	2,941.9	2,262.0
Western Lane	1,852.6	942.5
Coos ^c	1,197.2	178.3
Southwest ^c	0.0	0.0
Total	14,418.5	5,919.4

^aDesignated occupied habitat.

^b100 meter buffer applied to DOH.

^cCoos and Southwest Units are managed within the Western Lane District, but are represented individually for the purposes of this table.

ODF’s policies are largely aligned with ODFW’s mandatory survival guidelines. As of September 2022, ODF has coordinated seven projects with ODFW on survival guideline implementation. ODF is also taking measures to implement any requirements therein that are additive to existing policy (e.g., trash management at public use areas). Taken together, the policies and survival guidelines represent more than just measures for compliance with the state and federal ESAs. They also represent a positive contribution to conservation since protection of occupied habitat helps ensure the management of ODF lands is not directly contributing to any negative population impacts or declines of known occupied marbled murrelet habitat.

The ODF FMP takes a multi-resource approach to forest management, and presents guiding principles, a forest vision, and resource management goals that set the long-term direction for these lands. The resource management goals and strategies are intended to achieve a balance

between available resources and the greatest permanent value through a system of integrated management that will likely benefit murrelets and other species of concern (ODF 2010). The FMP provides management direction for ODF managed lands and is founded upon an approach called structure-based management (ODF 2010). Structure-based management is designed to produce and maintain an array of forest stand structures across the landscape in a functional arrangement.

State forests are mostly young forests. More than 95% of ODF-managed lands within the inland extent of the species are less than 90 years old (Fig. 2). Over time, the integrated management strategies on ODF managed lands are intended to result in landscape scale habitat conditions that support terrestrial and aquatic areas for native species. Under the FMP, the long range desired future condition envisions 30-50% complex forest, which includes 15-25% of older forest structure (i.e., snags, large trees and down wood, similar structures to old growth forests) and 15-25% layered forest structure (multiple canopy layers present; ODF 2010). Existing forest conditions within the inland extent of the marbled murrelet range include < 10% (72,638 acres) of complex forest that occurs on state forest lands, with 2% (15,895 acres) in older forest structure and 8% (56,743 acres) in layered forest structure (Fig. 3). Both stand types have the potential to provide suitable habitat for marbled murrelets. The FMP also includes requirements for retention of existing old-growth trees and patches, other leave trees in harvest units, and management of riparian areas for mature forest conditions (ODF 2010).

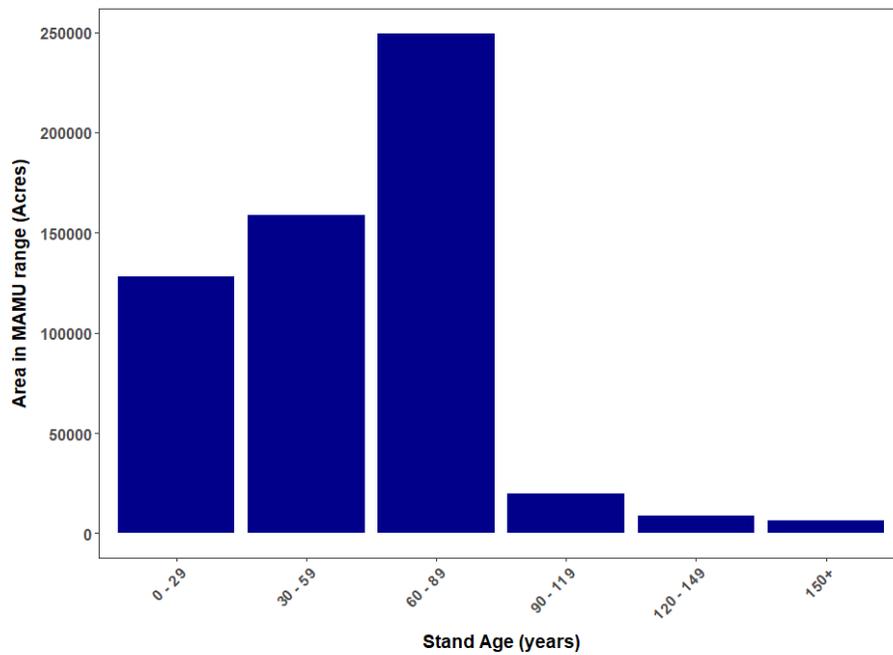


Figure 2. Distribution of stand age classes on Oregon Department of Forestry managed lands within the inland range of the marbled murrelet, September 2022.

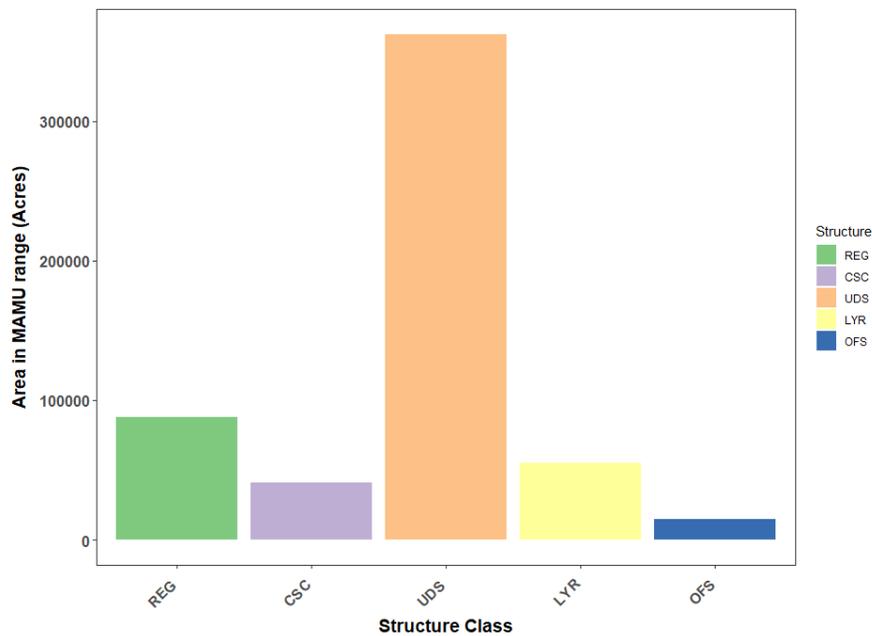


Figure 3. Distribution of existing stand structure classes on Oregon Department of Forestry managed lands within the inland breeding range of the marbled murrelet, September 2022. Stand structure classes include REG= regeneration, CSC= closed single canopy, UDS= understory, LYR= layered, and OFS= older forest structure.

While not all these strategies will result in creating or enhancing marbled murrelet habitat, the FMP represents a substantial contribution to conservation beyond just the take avoidance approach to compliance for ESA-listed species. The context of other relevant mandates and external factors precludes the ODF's ability to define the role for ODF-managed lands as conservation of marbled murrelets exclusively.

Future Management Planning

In 2018, ODF began working on the Western Oregon State Forests Habitat Conservation Plan (HCP; ICF 2022). The plan includes species specific conservation actions for murrelets while allowing for timber harvest. HCP implementation is projected to increase the quantity and quality of marbled murrelet habitat by the end of the permit term (70 years). In October 2020, the Board voted to advance the Draft HCP into the National Environmental Policy Act process. To date, this has resulted in a Public Draft HCP and Draft Environmental Impact Statement (EIS) that have both been through the federal public comment process. The final HCP, EIS and ITPs are anticipated to be completed summer of 2023.

ODF is also working on a new FMP that is designed to be implemented with the HCP which is expected to be completed in 2024. The statutorily established timelines associated with the ESMP require ODF to proceed with development of the ESMP, while working to complete the HCP and associated FMP. The ESMP will align with the current FMP (ODF 2010), which is not directly connected to an ITP.

A Commission approved ESMP for the marbled murrelet will supersede survival guidelines for the species (OAR 635-100-0140(8)). Furthermore, pursuant to ORS 496.172(4), an ITP or statement issued by a federal agency for a species listed under the federal Endangered Species Act, shall be recognized by the state as a waiver of any state protection measures or requirements otherwise applicable to the actions allowed under the federal permit. This is most directly related to an ITP associated with an approved HCP.

4. Whether the agency will monitor implementation of the plan, and if so, how, and when;

Current Management Plan Implementation

Under existing take avoidances polices, ODF designates protected MMMAs, which includes occupied habitat identified through field surveys and associated buffers. Some management activities are allowed in MMMAs, but only after consultation and agreement from the USFWS that the activity as proposed has a low likelihood of take of marbled murrelets. In addition, ODF's existing FMP seeks to produce and maximize a functional arrangement of forest stand structure types across the landscape to achieve desired future conditions (ODF 2010). The long range desired future condition envisions 30-50% complex forest, which includes 15-25% of older forest structure (i.e., snags, large trees and down wood, similar structures to old growth forests) and

15-25% layered forest structure (multiple canopy layers present). Existing forest conditions within the inland extent of the marbled murrelet range include < 10% (72,638 acres) of complex forest that occurs on state forest lands, with 2% (15,895 acres) in older forest structure and 8% (56,743 acres) in layered forest structure (Fig. 2). Both stand types have the potential to provide suitable habitat for marbled murrelets. FMP integrated forest and resource management strategies are implemented and reviewed in 10-year planning cycles (ODF 2010). Using an adaptive management framework, these ongoing planning cycle reviews evaluate the extent to which the array of stand conditions at that point in time meets the habitat needs of covered species, and whether additional layered and older forest structure stands are needed to meet that goal. These 10-year implementation plans integrate district operations and are used in the development of annual operations plans.

Future Management Plan Implementation

Under an approved HCP, ODF will conserve, maintain, and enhance marbled murrelet habitat in designated Habitat Conservation Areas (HCAs; ICF 2022). Murrelet habitat currently represents the second largest proportion of covered terrestrial species habitat (23%) within the designated HCAs. Murrelet habitat inside and outside HCAs is projected to increase from 117,059 total acres at the permit start to 264, 725 total acres by the end of the 70-year permit term (126% increase; ICF 2022).

The HCP contains compliance and effectiveness monitoring requirements that will meet ESA regulatory standards. ODF will be required to finalize the monitoring and adaptive management program during first five years of plan implementation. The monitoring framework will be operationalized by ODF as part of a 10-year Implementation Planning Cycle that will align with a concurrent Forest Management Plan that is currently being developed (ICF 2022). The monitoring and adaptive management program will be assessed during these 10-year comprehensive Implementation Planning Cycle reviews to ensure that any adjustments that need to be made are integrated into the associated Implementation Plan for the subsequent decade.

Marbled murrelet habitat and species monitoring will be conducted annually, but ODF will summarize and report results at the required 5-year mid-point check-ins and again at each 10-year comprehensive review to the USFWS (ICF 2022). Monitoring specific to marbled murrelets will be conducted following standard field survey protocols that are expected to include passive acoustic sampling that will be verified with audio-visual surveys to determine the preferable acoustical method. Monitoring will consist of tracking occupancy status in designated occupied habitat and documenting use of suitable and highly suitable habitat inside and outside HCAs, in addition to stands that have not been previously surveyed (ICF 2022). Marbled murrelet responses to stand management activities in HCAs will be documented as well. A complete survey of suitable and highly suitable habitat will be completed by year 20 of the permit term (ICF 2022).

5. *Whether the agency will reassess and review the plan and its implementation, and if so, how, and when.*

ODF recognizes existing agency marbled murrelet policies (ODF 2013) and the FMP (ODF 2010) are living documents that can be updated in response to new science and sampling methods, changes to listing status, or land use practices. Current agency policy necessitates periodic review as new information becomes available. If USFWS or ODFW issue new guidance, ODF will be responsive (i.e., adjust current policy for alignment) and consult as needed for any areas of uncertainty. For example, ODF has coordinated with ODFW and Oregon Parks and Recreation Department (OPRD), to improve trash management actions at public use areas by participating in the Crumb Clean Campaign¹.

Current Management Plan Assessment and Review

ODF will continue to use an adaptive management framework to evaluate the extent to which the array of stand conditions at a given point in time meets the habitat needs of marbled murrelets, and whether additional layered and older forest structure stands are needed to meet that goal during the 10-year Implementation Planning Cycles for the existing FMP (ODF 2010). These 10-year implementation plans will be used in the development of annual operations plans.

Future Management Plan Assessment and Review

ODF will continually evaluate the HCP's robust species and habitat monitoring program to ensure that the latest accepted techniques and technologies are used, in addition to determining whether the agency is in compliance and if the HCP has been effective at meeting the biological goals and objectives (ICF 2022). In accordance with the ITP terms required by USFWS, ODF will conduct habitat monitoring annually to track changes in habitat quality and quantity, but will summarize and report results at 5-year intervals. The monitoring and adaptive management program will be assessed during these 5-year mid-point check-ins, in addition to the 10-year comprehensive reviews to ensure that any adjustments that need to be made are integrated into the associated Implementation Plan for the subsequent decade (ICF 2022).

6. *How the agency's plan relates to other state agency endangered species management plans, federal recovery plans and state and other recovery efforts;*

Other State Endangered Species Management Plans

ODF understands that different mandates and objectives for other state land managing agencies will result in differences among individual ESMPs. ODF acknowledges the agency owns and manages a greater proportion of forested state lands within the extent of the inland breeding range of marbled murrelets than any other state agency. This provides ODF a limited, but important role in marbled murrelet conservation in Oregon, where ODF managed lands comprise

¹ The [American Bird Conservancy](#) is leading efforts to expand the California Department of Parks and Recreation [Crumb Clean Campaign](#) into Oregon.

less than 4% of the forest cover in the Oregon Coast Range with over 16% of existing marbled murrelet habitat occurring on these lands.

ODF’s current policies align with ODFW’s mandatory survival guidelines, and the Commission considers these guidelines necessary to ensure the survival of individual members of the species (ORS 496.182(2)(a)) in the absence of an ESMP. ODF is taking measures to implement any requirements therein that are additive to existing policy. For example, ODF has coordinated with ODFW and OPRD to improve trash management actions at public use areas by participating in the Crumb Clean Campaign.

Federal Recovery Plans

ODF’s existing management practices prevent loss of occupied nesting habitat, minimize loss of unoccupied suitable habitat, and accelerate the development of new suitable habitat using silvicultural techniques such as retention harvest or variable density thinning. Thus, ODF’s policies support several recovery actions described in the *USFWS Recovery Plan for the Threatened Marbled Murrelet* (1997) within the Oregon Coast Range (Zone 3) and Siskiyou Coast Range Zones (Zone 4; Table 2). This is accomplished by implementing: 1. ODF policies specific to marbled murrelets on state forest lands that align with ODFW’s mandatory survival guidelines to avoid "take" while protecting suitable habitat around identified occupied sites through the designation of occupied habitat and associated buffers (MMMA’s; ODF 2013), and 2. a FMP with a long-term structure-based management approach designed to produce and maintain an array of older forest stand structures across the landscape in a functional arrangement that minimizes edge effects where possible and retains large, contiguous forest blocks (ODF 2010). The combination of these policies supports an array of habitat conditions that provide older forest structure for marbled murrelet nesting habitat, contributing to increased population growth of the species.

Table 2. Oregon Department of Forestry alignment of existing management policies with actions necessary to address recovery objectives as described in the 1997 USFWS Recovery Plan for the Threatened Marbled Murrelet.

Recovery Action	Survey Needs^a	FMP^b
<i>Establish marbled murrelet Conservation Zones and develop landscape-level management strategies for each zone.</i>	X	X
<i>Identify and protect terrestrial and marine habitat areas in each marbled murrelet Conservation Zone.</i>	X	X
<i>Monitor marbled murrelet populations and habitat and survey potential breeding habitat to identify potential nesting areas.</i>	X	X
<i>Implement short-term actions to stabilize the marbled murrelet population.</i>	X	X
<i>Implement long-term actions to stop population decline and increase marbled murrelet population growth.</i>	X	X

^aOperational policies (ODF 2013) and ODFW Survival Guidelines.

^bOregon Department of Forestry 2010 Northwest Oregon State Forests Management Plan.

7. *What process the agency used in developing the plan, including the review and approval process, if any.*

This plan presents ODF’s response to the statutory requirement to develop an ESMP (ORS 496.182(8), OAR 635-100-0140(6)). The plan was developed in consultation with ODFW and received periodic review by the Board during public meetings that included opportunities for public engagement and input. The following timeline provides an overview of the ODF ESMP pathway for development, review, and submission to the Commission (Figure 4).

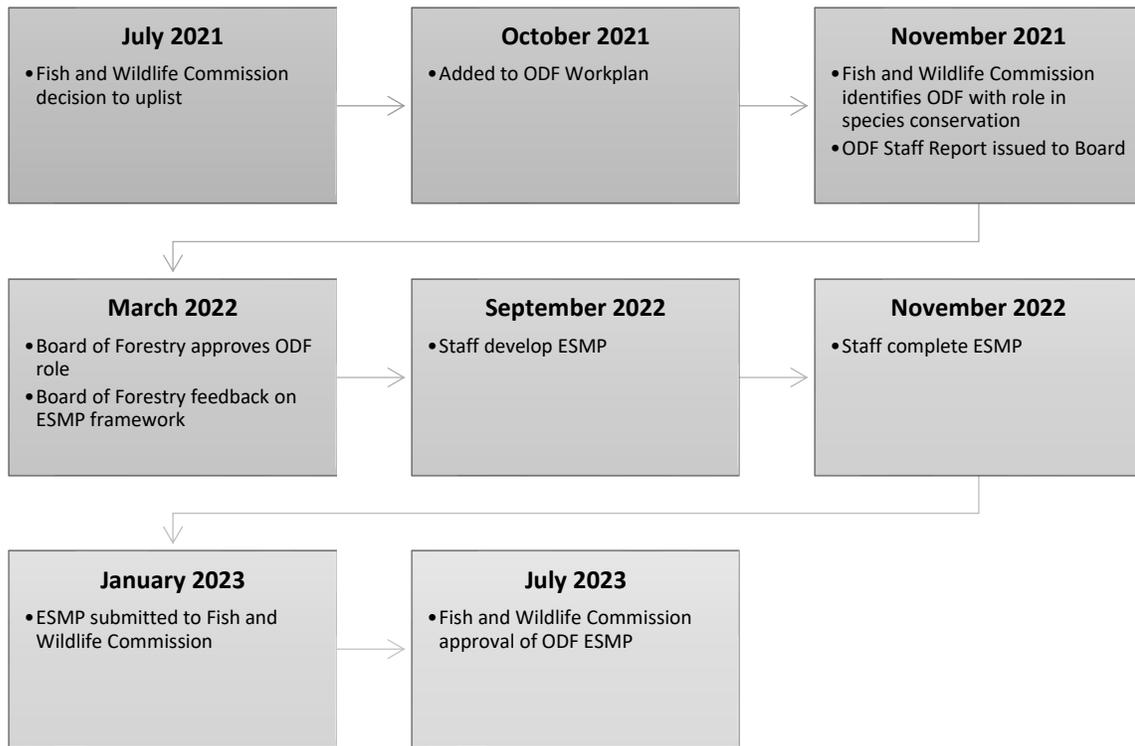


Figure 2. Development Timeline for ODF Endangered Species Management Plan.

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Appendix A. ODF Marbled Murrelet Policy (2013)

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August 28, 2013
State Forests Division Operational Policy

Marbled Murrelet Operational Policies	Number: 1.1.0
	Effective Date: August 28, 2013
	Revision: 1.3 Page: Page 1 of 11
Authorizing Signature: <i>Michael L. Gordon</i>	Division Chief
Database Keywords: T & E; threatened and endangered species; marbled murrelet; disturbance; take avoidance	

1.1.1.0 Purpose

The purpose of this policy is to reduce the risk of liability for unpermitted “take” of marbled murrelets, a threatened species under the federal Endangered Species Act, arising out of timber harvest-related activities on state forest lands, by protecting marbled murrelet habitat. The Oregon Department of Forestry, State Forests Division, will designate protected areas in State forest lands, including “occupied habitat” and “buffers,” and will seek the review and advice of the U.S. Fish and Wildlife Service (USFWS) and make decisions in alignment with that advice, as outlined in these policies.

1.1.2.0 Policy Statements and Standards

It is the policy of the State Forests Division to reduce the risk of liability for unpermitted “take” of marbled murrelets by applying the following policies and standards:

Identifying Survey Needs

- 2.1 Identify potentially suitable habitat (defined in 6.15) to receive systematic surveys in the Systematic Survey Zone.
 - 2.1.1 Surveys of potentially suitable habitat in the Systematic Survey Zone will exclude non-habitat and areas already surveyed for marbled murrelets, if those surveys met protocol standards.
 - 2.1.2 Potentially suitable habitat will be identified using standard definition of habitat outside of the North Coast Survey Zone (defined in 6.15.1).
- 2.2 Identify potentially suitable habitat (defined in 6.15) that is within or adjacent (defined in 6.1) to an operation or activity within the Operational Survey Zone (defined in 6.12) or the North Coast Survey Zone (defined in 6.11).
- 2.3 Require surveys of potentially suitable habitat on lands managed by the State Forests Division, or as necessary on adjacent federal lands, only for the following activities:
 - 2.3.1 Planned harvest operations in the Operational Survey Zone or North Coast Survey Zone that contain potentially suitable habitat.
 - 2.3.2 Planned harvest operations in the Operational Survey Zone or North Coast Survey Zone that do not contain potentially suitable habitat but are adjacent to potentially suitable habitat.

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- 2.3.3 Other activity(s) in the Operational Survey Zone or North Coast Survey Zone that may have impacts on potentially suitable habitat and so require the Unit Forester to consult with the Area Biologist.
- 2.3.4 Areas identified to receive surveys in the Systematic Survey Zone.
- 2.4 Consider survey waivers when determined appropriate. Document and retain survey waivers and any associated protection measures recommended by ODF Biologists.

Conducting Surveys

- 2.5 Coordinate survey activities across districts, and develop and administer appropriate personal services contracts.
- 2.6 Conduct surveys applying the following standards:
 - 2.6.1 Establish a survey area to include, at minimum, all contiguous potentially suitable habitat within ¼ mile of a proposed timber sale boundary.
 - 2.6.2 Establish survey sites within a survey area that do not exceed 140 acres in size, and require only potentially suitable habitat within the site to be surveyed.
 - 2.6.3 Distribute survey stations throughout all survey sites, with at least one survey station for every 30 acres.
 - 2.6.4 Conduct a minimum of five visits per year for two consecutive years at all sites.
 - 2.6.5 Conduct a minimum of nine visits per year where murrelet detections occur. If murrelets are detected during the first year of survey, conduct a total of 18 visits over two years. If murrelets are detected only during the second year of survey, conduct a minimum of 14 visits over two years.
 - 2.6.6 Conclude surveys when confident that observed behavior is an indication of occupancy, or when no murrelet activity has been observed by the fifth visit of the second year and all survey visits followed the appropriate spacing through the season.
 - 2.6.7 Conduct surveys between May 1 and August 5. Schedule one-half of the visits to a site prior to June 20, and one half after June 20, with at least two visits scheduled during the normal “peak” of murrelet activity, after June 30 and before July 18.
 - 2.6.8 Ensure that regularly scheduled visits are spaced more than six days apart, but not more than 30 days. When murrelet presence is detected at a site, triggering the need to conduct four additional visits, the last four visits must be separated by at least two days each.
 - 2.6.9 Conduct surveys using a certified surveyor (defined in 6.3).
 - 2.6.10 Evaluate survey results consistent with 1.1.2.11.
- 2.7 Seek advice from USFWS on the use of tree climbing in lieu of audio-visual surveys in particular circumstances. Make decisions on the use of tree climbing in alignment with that advice.
- 2.8 Notify sale purchasers when marbled murrelet detection indicative of occupancy is observed in the vicinity (within ¼ mile) of a sold timber sale. When determined appropriate: establish a Marbled Murrelet Management Area (MMMA) (1.1.2.15 – 1.1.2.18); develop a biological

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assessment (1.1.2.24); and modify timber sale contract as necessary to apply appropriate protection standards (1.1.2.19 – 1.1.2.25).

- 2.9 Accept surveys conducted under 1.1.2.6 and 1.1.2.7 as valid for a five-year period and up to April 1 of the sixth year once an area has been surveyed to policy standards and murrelet occupied habitat has not been designated. Initiate new surveys prior to conducting or continuing operations after this period.
- 2.10 Conduct systematic surveys until all remaining potentially suitable habitat within the Systematic Survey Zone has been surveyed or until a murrelet behavior that is indicative of occupancy is observed.

Evaluating Survey Results

- 2.11 Review all survey results by December 31 of the survey season, classify sites, and make recommendations for proposed management activities. Site classifications include occupied, presence, probable absence, and historic (see Definitions 6.16). For subcanopy detections that may not be indicative of occupancy, seek review and advice from USFWS and make decisions on site classification in alignment with that advice.
- 2.12 If a subcanopy detection indicative of occupancy occurs during systematic surveys in the Systematic Survey Zone, the State Forests Division will designate occupied habitat and an associated buffer following 1.1.2.15 – 1.1.2.18, and evaluate whether and where a shift to operational surveys is warranted.
- 2.13 Document and retain decisions related to the annual review of survey results.
- 2.14 Evaluate reports of murrelet activity outside of State Forests Division surveys to determine the validity and reliability of the survey data. Take appropriate actions, which could include but are not limited to, assessing surveyor qualifications, exercising quality control/quality assurance procedures in alignment with State Forest Division surveys, conducting additional surveys and seeking advice from the USFWS.

Designating Marbled Murrelet Management Areas

- 2.15 On ODF-managed lands, design MMMA's containing designated occupied habitat and associated buffers.
- 2.16 Designate as occupied habitat all contiguous potentially suitable habitat in a survey area if a subcanopy detection indicative of occupancy is observed in any site within that survey area. When data or circumstances indicate that a different extent or configuration appropriately designates the occupied habitat, seek review and advice from the USFWS. Make decisions on the designation of occupied habitat in alignment with that advice.
- 2.17 Designate a 100-meter-wide buffer to protect designated occupied habitat, unless, after review, the USFWS agrees that a different extent or configuration, or both, adequately buffers the designated occupied habitat. Buffers will be clearly delineated within the MMMA's.
- 2.18 Document and retain decisions and related materials regarding MMMA designation. The District Forester will approve the MMMA design, and communicate these decisions to the Area Directors and Deputy Division Chief.

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Protecting Designated Occupied Habitat and Associated Buffer

- 2.19 Prohibit timber harvest-related activities and stream restoration projects in designated occupied habitat unless ODF seeks USFWS review and advice for how the activity could proceed with a low likelihood of “take”. Exceptions to this prohibition would only proceed in alignment with that advice.
- 2.20 Apply seasonal restrictions in designated occupied habitat as noted in 1.1.2.25
- 2.21 Permit stream restoration activities and timber harvest-related activities, other than clearcut harvest, in designated buffers.
- 2.22 Prohibit clearcut harvest in designated buffers unless ODF seeks USFWS review and advice for how the activity could proceed with a low likelihood of “take”. Exceptions to this prohibition would only proceed in alignment with that advice.
- 2.23 Apply seasonal restrictions in designated buffers as noted in 1.1.2.25.
- 2.24 Involve an Area Biologist when applying 1.1.2.19 – 1.1.2.23. The Area Biologist will prepare a biological assessment at Unit Forester request. ODF will review the biological assessment with the USFWS prior to implementation of a planned management activity in a MMMA and will proceed in alignment with that advice.
- 2.25 Seasonal Restrictions: Some activities are known or have the potential to disturb murrelets. The following activities are restricted between April 1 and September 15, unless otherwise stated or the district is under a fire emergency. Restriction distances apply to the likely nesting habitat.
 - 2.25.1 Prohibit aircraft conducting work for ODF (including Type I helicopters) from flying within 1320 feet (0.25 miles). Over flights must be greater than 500 feet above the likely nesting habitat.
 - 2.25.2 Prohibit small aircraft conducting work for ODF, including single engine airplanes and Type II and III helicopters, from flying within 360 feet of likely nesting habitat from April 1 through August 5. Allow these activities from August 6 to September 15 with daily timing restrictions. Over flights must be greater than 500 feet above the likely nesting habitat.
 - 2.25.3 Prohibit timber harvest-related activities within 300 feet from April 1 through August 5. Allow these activities from August 6 to September 15 with daily timing restrictions. Hauling on commonly used roads (i.e. mainlines and most connectors) is not considered a disturbance and is not prohibited or otherwise restricted unless exceptionally loud or sustained or both. Some yarding-related activities, such as use of tailhold and guyline anchors are not seasonally restricted.
 - 2.25.4 Prohibit the use of heavy equipment for road maintenance activities on roads that are not commonly used (see definition 6.3) in or within 300 feet from April 1 through August 5. Allow these activities from August 6 to September 15 with daily timing restrictions. Consult with the Area Biologist to seek exemptions for maintenance activities that are short in duration on roads not commonly used or that are not likely to cause disturbance. Road maintenance activities on commonly used roads are not considered disturbance and are not prohibited or otherwise restricted

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unless exceptionally loud or sustained or both. Road grading and ditch-cleaning are not considered disturbance and are permitted without restriction.

- 2.25.5 Repair of existing mainlines and connectors is permitted when rain, wind, or fire events cause catastrophic disturbances that create safety hazards or could result in violations of state or federal laws. Such catastrophic disturbances may require removal of downed, root-sprung, and leaning trees in designated occupied habitat.
- 2.25.6 Prohibit the use of explosives associated with rock quarries in or within 1.0 miles of likely nesting habitat, and the use of explosives associated with road construction in or within 0.25 miles. Consult the Area Biologist for restrictions on use of explosives associated with other activities, and for site-specific evaluation of blasting activities.
- 2.25.7 Prohibit use of pile driving within 300 feet of likely nesting habitat from April 1 to August 5. Allow these activities from August 6 to September 15 with daily timing restrictions.
- 2.25.8 Prohibit use of rock crushing within 540 feet of likely nesting habitat from April 1 to August 5. Allow these activities from August 6 to September 15 with daily timing restrictions.
- 2.25.9 Prohibit burning in or within ¼ mile from April 1 to September 15.
- 2.25.10 Prohibit tree climbing in or within 300 feet of designated occupied habitat from April 1 through August 5. Allow these activities from August 6 to September 15 with daily timing restrictions.
- 2.25.11 Minimize disturbance from recreational activities that are permitted by the State Forests Division.
- 2.25.12 Allow deviations from these standards only after a site-specific review by the Area Biologist, documentation of recommendations, and the application of recommended restrictions. The Area Biologist will consider site-specific, topographic features and the location of the likely nesting habitat when considering deviations from these standards.

Alignment of Marbled Murrelet Management Areas Designated Prior to 2013 with Current Policy

- 2.26 Over time, review and evaluate survey results associated with MMMA designated prior to 2013 and records of subcanopy detections obtained prior to 2013, and designate occupied habitat and associated buffers to align with policies 1.1.2.15– 1.1.2.18. Continue this process until all pre-2013 MMMA and subcanopy detections indicative of occupancy have been evaluated and boundaries of MMMA are modified or a MMMA created, as applicable.
- 2.27 Review timber harvest-related activities within ¼ mile of any survey area associated with any subcanopy detection indicative of occupancy to ensure that occupied habitat is designated and buffered from the proposed activities as described in policies 1.1.2.15 – 1.1.2.18. Continue this process until all pre-2013 MMMA and subcanopy detections indicative of occupancy have been evaluated and boundaries of MMMA are modified or a MMMA created, as applicable.
- 2.28 When requested by the District Forester, evaluate the classification of a MMMA.

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- 2.28.1 Evaluations may be made when a catastrophic disturbance has rendered the habitat unsuitable, or after a minimum of five consecutive years of surveys consisting of a minimum of nine survey visits each year. Evaluate survey results consistent with standards listed in 1.1.2.11.
- 2.28.2 The District Forester will change a MMMA to a historic classification only if, after review, the USFWS advises that this designation is appropriate. The District Forester will obtain signature approval for the classification change from the Area Director and Deputy Division Chief.

Additional Operational Policies

- 2.29 Communicate with the USFWS: 1) when needed to effectively implement this policy; or 2) when unanticipated situations occur that are not addressed within this policy.
- 2.30 Hold in confidence sensitive species related site-specific information when appropriate after consultation with the Oregon Department of Justice.
- 2.31 Review this policy periodically, as new information becomes available.

1.1.3.0 Key Parties

District Foresters, Staff and Area Biologists, Staff Biological Specialist, Unit Foresters, T & E Coordinators, Area Directors and Deputy Division Chief.

1.1.4.0 Authorities

- 4.1 ORS 530.050 – Management of lands acquired; power of forester.
- 4.2 ORS 530.490 – Management, control and protection of Common School Forest Lands and Elliott State Forest; easements.
- 4.3 ORS 530.500 – Authority of State Forester in management, protection, utilization and conservation of lands and waters.
- 4.4 ORS 496.004(6)(a)(b) and 496.171 through 496.192 – Threatened or Endangered Species.
- 4.5 OAR 629-035-0000 through 629-035-0110 – Management of State Forest Lands, including the Northwest, Southwest and Elliott State Forest Management Plans.
- 4.6 Common School Forest Land Agreement – A contract between the Oregon State Land Board and Oregon Departments of Forestry and State Lands.

1.1.5.0 References

- 5.1 Alegria, J., L. Folliard, J. Lint, S. Madsen, T. Max, and L. Webb. 2002. *Southwest Oregon Inland Survey Assessment for Marbled Murrelets*. USFS/BLM Report. 41pp.
- 5.2 Evans Mack, D., W. P. Ritchie, S. K. Nelson, E. Kuo-Harrison, P. Harrison, and T. E. Hamer. 2003. *Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research*. Pacific Seabird Group Technical Publication Number 2. Available from <http://www.pacificseabirdgroup.org>.
- 5.3 Federal Endangered Species Act; Available from <http://www.fws.gov/endangered/laws-policies/index.html>.

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5.4 ODF Directive #0-7-0-030 Geographic Information System (GIS).

5.5 ODF Policy 3.4.0. Annual Operations Planning.

5.6 *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources* (Oregon Department of Fish and Wildlife 2008); Available from http://www.dfw.state.or.us/lands/inwater/Oregon_Guidelines_for_Timing_of_%20InWater_Work2008.pdf.

1.1.6.0 Definitions

- 6.1 Adjacent – potentially suitable habitat that borders an operation’s boundary or is within 100 m of the boundary.
- 6.2 Buffer – 100-meter-wide buffer designed to protect occupied habitat, unless, after review, the USFWS agrees that a different extent or configuration, or both, adequately buffers the designated occupied habitat. The designated occupied habitat and associated buffer together comprise a MMMA.
- 6.3 Certified Surveyor – a surveyor that has successfully completed a training program consistent with the marbled murrelet observer training protocol as described in Appendix C of 5.2, and who has documentation to demonstrate that the training was completed within the year surveys are conducted.
- 6.4 Commonly used road – road that receives frequent traffic during the murrelet breeding season includes mainline roads and most connectors. Roads not commonly used include spur roads and closed roads. Consult the Area Biologist regarding infrequently used connectors as some may be more appropriately classified as not commonly used for purposes of applying seasonal restrictions.
- 6.5 Designated occupied habitat - all contiguous potentially suitable habitat in a survey area if a subcanopy detection indicative of occupancy is observed in any site within that survey area, unless, after review, the USFWS agrees that a different extent or configuration, or both, appropriately designates the occupied habitat. Designated occupied habitat and an associated buffer together comprise a MMMA.
- 6.6 Disturbance – actions during the breeding season likely to disrupt marbled murrelet reproductive activities.
- 6.7 Felling – direct removal of trees in timber sale areas, or for roads, landings, or rock pits.
- 6.8 Marbled Murrelet Management Area (MMMA) – an area containing designated occupied habitat and an associated buffer that will be subject to special management considerations for the purpose of maintaining habitat suitable for successful nesting. As per policies 1.1.2.26 – 1.1.2.28, MMMA’s designated prior to 2013 will be brought into alignment with policies 1.1.2.15 – 1.1.2.18.
- 6.9 Marbled Murrelet Survey Zone – in general, all coniferous forest land within 50 miles of the Coast with the exception of Southwest Oregon where some areas within 50 miles of are excluded based on extrapolation from the *Southwest Oregon Inland Survey Assessment for Marbled Murrelets* (Alegria et al. 2002). There are three zones within the Marbled Murrelet Survey Zone: the Operational Survey Zone, the North Coast Survey Zone, and the Systematic Survey Zone.

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- 6.10 Nesting Season – April 1 to September 15.
- 6.11 North Coast Survey Zone – an area of the Oregon north coast where murrelets are known to use habitat types with fewer than five platform trees within a 100-m radius circle, and possibly just a single platform tree in a very young stand.
- 6.12 Operational Survey Zone—area identified to receive surveys prior to an operation or timber sale using the standard definition of potentially suitable habitat (≥ 5 platform trees within a 100-m radius). Includes ODF-managed lands within the Marbled Murrelet Survey Zone but outside of the Systematic Survey Zone and the North Coast Survey Zone.
- 6.13 Platform tree – any tree having a single platform capable of hosting a nest for a marbled murrelet.
- 6.14 Platform – “a relatively flat surface at least 10 centimeters (four inches) in diameter and 10 meters (33 feet) high in the live crown of a coniferous tree” (Evans Mack et al., 2003). A platform can be created by a wide bare branch, moss or lichen covering a branch, mistletoe, witches brooms, other deformities, and structures such as squirrel nests. It includes the limb and any deformities or epiphytic cover on the limb, such that a three-inch diameter limb with moss that increases the overall diameter to four inches is considered a platform under this definition.
- 6.15 Potentially suitable habitat – for survey purposes potentially suitable habitat is defined as 1) mature (with or without an old-growth component) and old growth coniferous forests; and 2) younger coniferous forests that have platforms. On ODF lands, the following stand criteria will apply:
 - 6.15.1 Outside the North Coast Survey Zone potentially suitable habitat is defined as:
 - 6.15.1.1 Stands within or adjacent to a project area that are at least 60 years old in which at least five trees within a 100-m radius contain platforms suitable for nesting murrelets;
 - 6.15.1.2 Stands dominated by western hemlock and Sitka spruce that are at least 80 years old; or
 - 6.15.1.3 Stands dominated by Douglas fir that are at least 100 years old.
 - 6.15.2 Within the North Coast Survey Zone potentially suitable habitat is defined as stands of any age where there is a single suitable platform tree.
- 6.16 Site classification
 - 6.16.1 Historic -- A site previously designated as a MMMA that has been determined to no longer be occupied by marbled murrelets under existing policy.
 - 6.16.2 Occupied -- A site designated as occupied by murrelets based on the observation of subcanopy behaviors indicative of occupancy during State Forests Division surveys, or the observation of nest trees, eggshell fragments, or other evidence of murrelet reproductive activities.
 - 6.16.3 Presence -- A site where murrelets were detected, but a subcanopy behavior indicative of occupancy was not observed. Additional survey effort is required at areas with birds present to determine whether or not a site is occupied.
 - 6.16.4 Probable Absence -- A site where no murrelets were detected after the requisite number of surveys.

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- 6.17 Subcanopy behaviors – behaviors occurring at or below the forest canopy, and that strongly indicate the site has some importance for breeding, including flying through the canopy, circling below canopy, and landing.
- 6.18 Survey area – all contiguous potentially suitable habitat within ¼ mile of proposed project boundaries, or if a survey technique other than intensive surveys was implemented (e.g. general surveys, nest searches), the area under observation.
- 6.19 Survey site – the unit by which survey visits are designed and carried out, and the unit to which the requisite number of visits applies; usually limited to not exceeding 140 acres.
- 6.20 Systematic Survey Zone – area identified to receive systematic surveys of potentially suitable habitat rather than operational surveys. Includes all of the Forest Grove District and portions of the Astoria and Tillamook Districts that are east of the North Coast Survey Zone.
- 6.21 Take – to “harass, harm, pursue, hunt, shoot, wound, kill, trap capture, or collect, or to attempt to engage in any such conduct” related to federally-listed T&E species. The USFWS considers forest-related management activities as having the potential to “harm or harass” federally-listed T&E species.
- 6.22 Timber harvest-related activities – includes the following activities: 1) felling 2) yarding (including tailholds); 3) construction of new roads; 4) road improvement (including road reconstruction).

1.1.7.0 Responsibilities

- 7.1 Area Biologist – determine and document survey needs; grant survey waivers; document decisions to not conduct surveys; advise regarding special survey requirements; select survey contractor; ensure application of survey standards. Discuss with USFWS about use of tree climbing; document tree climbing recommendations. Responsible for annual survey evaluation procedure; document and retain site classification decisions, including rationale, level of certainty in survey results for occupied sites and others as appropriate, and recommendations for proposed management activities; submit copies to the District Forester and Staff Biologist; summarize survey results. Develop recommendation for addressing evidence of murrelet use found outside of State Forests Division surveys and implement District Forester’s decision. Jointly design MMMA and align MMMA designated prior to 2013 with current policy; document design; submit to District Forester. Assist Unit Forester in developing prescriptions for MMMA; prepare biological assessments for operations in MMMA at Unit Forester request. Determine survey site layout for reevaluating a MMMA designation, and develop and document recommendation for adjustments; submit copy of decision to Unit Forester. Communicate with the USFWS; Communicate with the Oregon Department of Fish and Wildlife per 1.1.2.11, 2.14, 2.15, 2.28 and 2.29. Assist Districts as requested.
- 7.2 Area Director – provide signature approval for proceeding with proposed management activities when there has been an occupied or historic site classification; provide signature approval of a change to an MMMA designation; review MMMA designation decisions.
- 7.3 District Forester – determine whether to use tree climbing in lieu of surveys; approve recommendations for proposed management activities and provide rationale for alternative course of action and document (1.1.2.11); submit copies to Area Director and Deputy Division Chief for approval. Determine and document course of action regarding evaluation of murrelet activity outside SFP surveys. Approve a recommendation to designate a

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- MMMA; document rationale for boundary adjustments to a MMMA; submit copies to Unit Forester and Staff Biologist. Responsible for procedure to evaluate designation of a MMMA; approve change to an MMMA, obtain signature approval from Area Directors and Deputy Division Chief; provide copies to Area and Staff Biologists and Unit Forester.
- 7.4 Staff Biologist – Select survey contractor and review draft and final reports. Review annual survey results; assist with designating occupied habitat and buffer: when agreement not reached, make final determination regarding delineation of occupied habitat and buffer; collate survey summaries and coordinate posting of survey summary on internal web site; retain MMMA documentation. Assist in re-evaluating a MMMA; initiate re-evaluation of use of systematic surveys if occupied behaviors are observed in the Systematic Survey Zone. Communicate with the USFWS; assist with BAs as requested; consult and advise as requested; and, act as primary contact for interpreting policy, procedures and guidance.
- 7.5 Staff Biological Specialist – select survey contractor; coordinate survey activities among districts, and perform contract administration. Assist with annual survey evaluation and site classification; manage survey information and shapefiles. Assist with MMMA designations; store digitized MMMA layout information. Assist with BA preparations as requested. Assist with the re-evaluation of MMMA.
- 7.6 State Forests Deputy Division Chief –provide signature approval for proceeding with proposed management activities when there has been an occupied or historic classification; review MMMA designation decisions; provide signature approval of a change to an MMMA designation; State Forests Division Chief – approve this policy, and any future changes.
- 7.7 District T & E Coordinator – responsible for identifying potentially suitable habitat procedure. Coordinate survey activities and perform contract administration related to surveys on respective districts. Create shapefiles and submit to Salem biological assistant. Assist with survey evaluations and site classifications; jointly address evidence of murrelet activity found outside State Forests Division surveys. Assist with designing a MMMA; digitize MMMA layout. Assist with reevaluating a MMMA designation.
- 7.8 Unit Forester – responsible for granting survey waiver procedure: regarding survey waivers; document modifications/protection measures used when survey waiver granted; ensure surveys are completed prior to management activities. Responsible for tree climbing in lieu of surveys procedure. Collaborate on annual survey evaluation and site classification by providing local expertise on District conditions. Responsible for procedure to designate a MMMA: jointly develop recommendation to designate MMMA; obtain District Forester approval. Involve Area Biologist in developing management prescriptions; ensure management prescriptions are implemented and disturbance restrictions are applied. Retain decisions related to activities evaluated outside SFP surveys; initiate biological survey report requests; assist Area Biologist with reevaluation of a MMMA designation; discuss future management of MMMA classified as historic.

1.1.8.0 Revision History

October 29, 2004	1.0	New Document
January 15, 2008	1.1	Updates
July 19, 2010	1.2	Updates
August 28, 2013	1.3	Updates

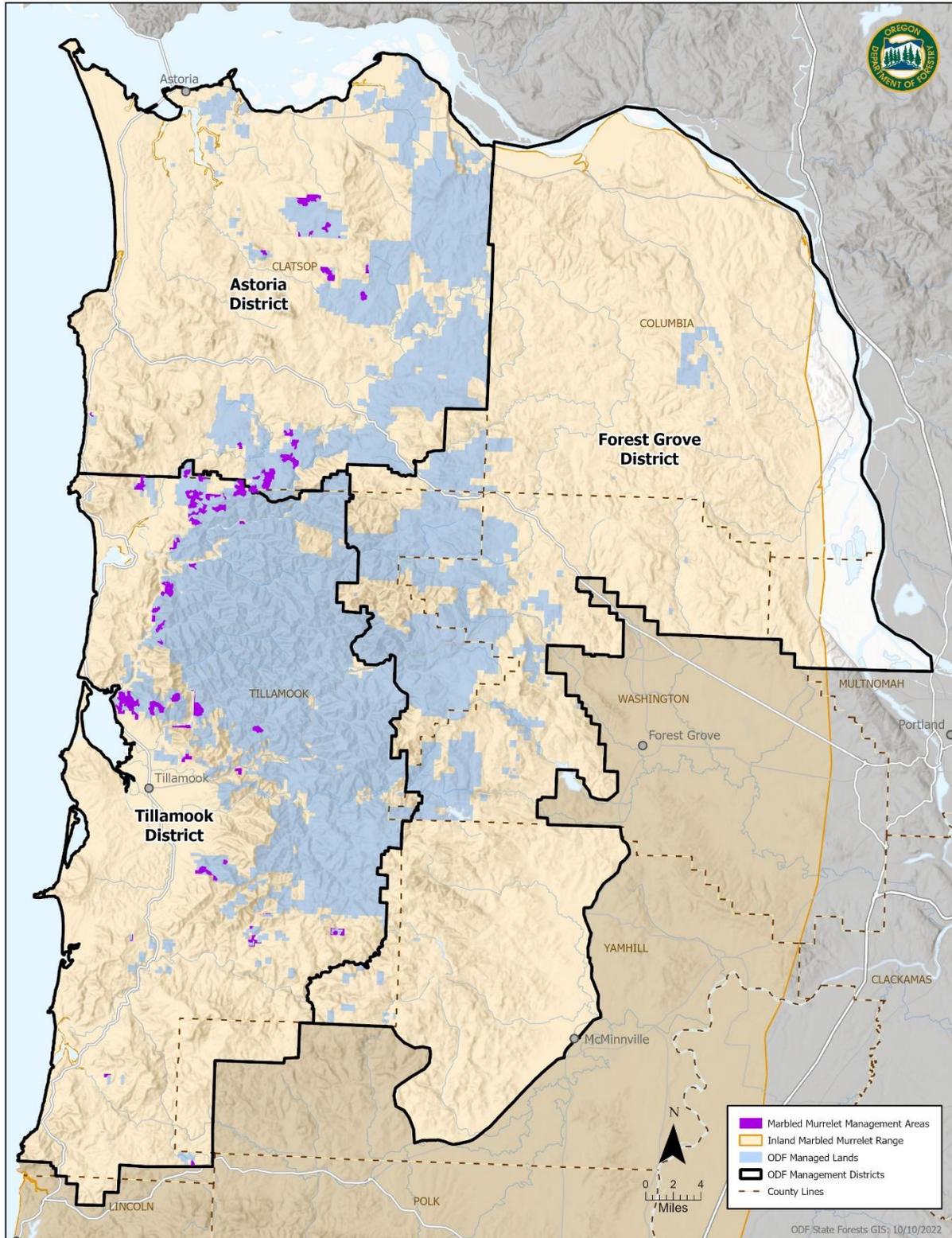
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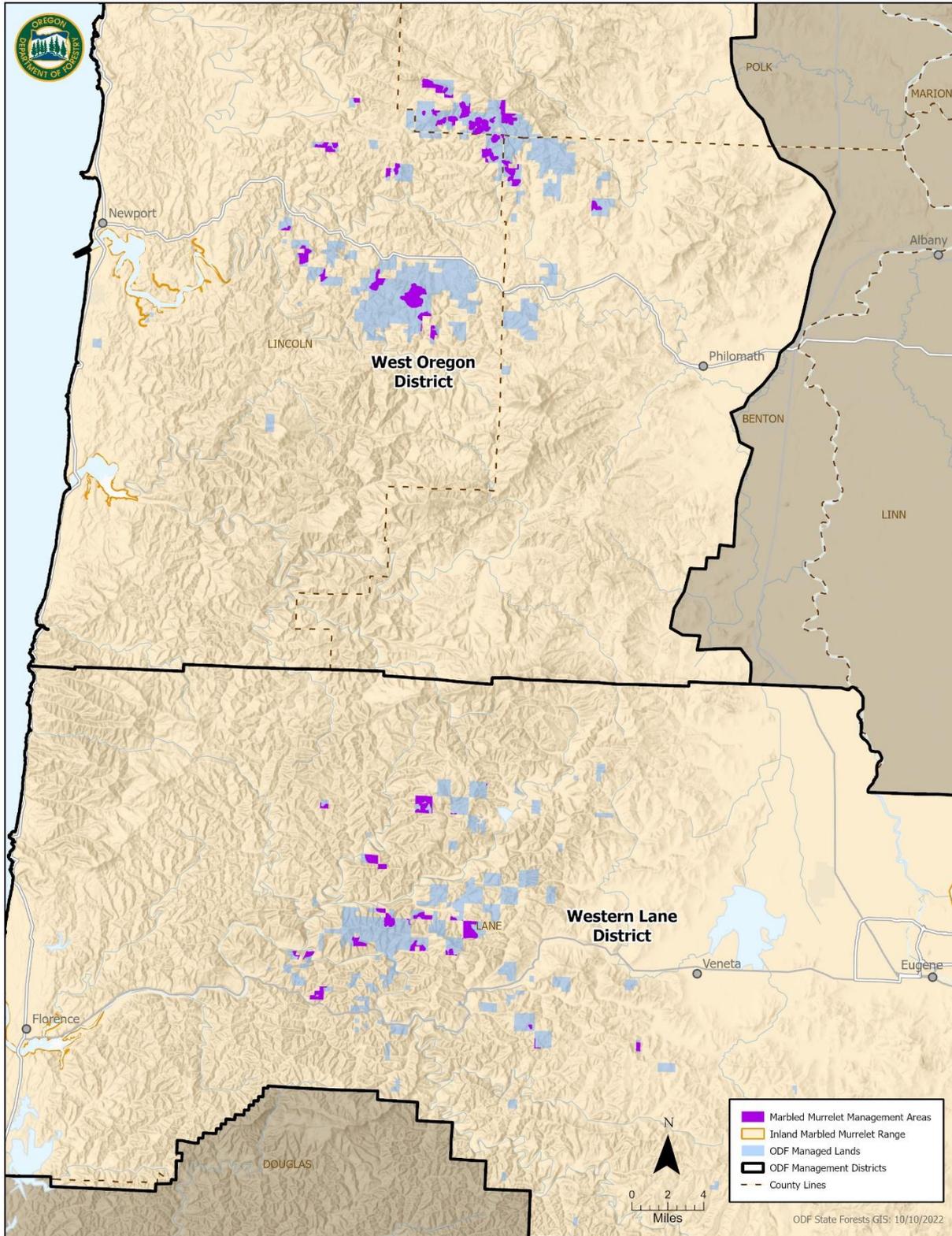
1.1.9.0 Procedures

Procedures and Guidance will be updated to support the 2013 revision of this policy.

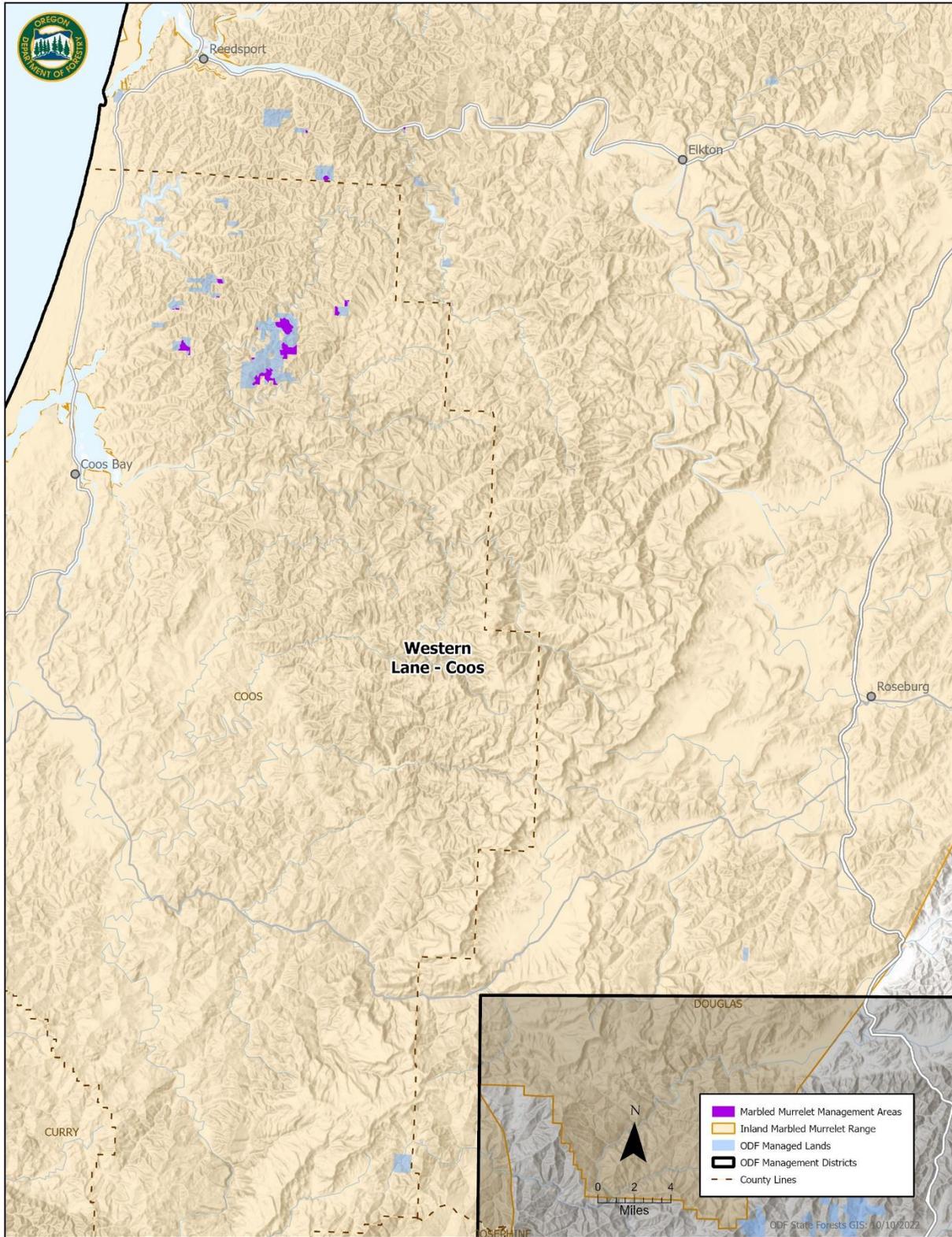
Appendix B-1. Oregon Department of Forestry marbled murrelet management areas in Astoria, Tillamook, and Forest Grove Districts, September 2022.



Appendix B-2. Oregon Department of Forestry marbled murrelet management areas in West Oregon and Western Lane Districts, September 2022.



Appendix B-3. Oregon Department of Forestry marbled murrelet management areas in Coos Unit of Western Lane District, September 2022.



Appendix B-4. No marbled murrelet management areas exist in Southwest Unit of Western Lane District, September 2022.

