IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF LANE

CASCADIA WILDLANDS, an Oregon non-profit corporation; DEFENDERS OF WILDLIFE, a District of Columbia non-profit corporation; AUDUBON SOCIETY OF PORTLAND, an Oregon non-profit corporation; OREGON WILD, an Oregon non-profit corporation, the CENTER FOR BIOLOGICAL DIVERSITY, a California non-profit corporation, and David Eisler, Petitioners, vs. OREGON FISH AND WILDLIFE COMMISSION, an agency of the State of Oregon, Respondent.	Case No. **PETITION FOR REVIEW** (Administrative Procedure Act, ORS 183.484 *et seq*.)

INTRODUCTION

1.

Petitioners Cascadia Wildlands, Defenders of Wildlife, the Center for Biological Diversity, Oregon Wild, the Audubon Society of Portland, and David Eisler ("Petitioners") bring this Petition for Review against the Oregon Fish and Wildlife Commission ("Commission" or "Respondent") under the provisions of the Oregon Administrative Procedure Act ("APA").

2.

By petition dated June 23, 2016 and pursuant to ORS 496.176(5), Cascadia Wildlands, the Center for Biological Diversity, Coast Range Forest Watch, Oregon Wild, the Audubon Society of Portland, and the Oregon Chapter of the Sierra Club petitioned the Commission to reclassify, or "uplist", the marbled murrelet (*Brachyramphus marmoratus*) from "threatened" to "endangered" status under the Oregon Endangered Species Act. On February 9, 2018, the Commission voted 4 to 2 to "accept the Petitioners' recommendation to reclassify the marbled murrelet as endangered under the Oregon Endangered Species Act" and directed its staff "to develop survival guidelines for adoption at the time of reclassification" at the June 7, 2018 Commission meeting.

3.

At the February 9 meeting, the Commission determined that the murrelet qualified as an endangered species under Oregon law based on a combination of threats and risk factors affecting the species, including "specialized habitat requirements, past and ongoing loss and degradation of older forest nesting habitat, low reproductive potential and poor contemporary breeding success, uncertainties associated with recent population trends derived from at-sea surveys due to bird movement, high extinction probabilities inferred from demographic models, increasing threats and stressors in both the marine and terrestrial environments, and inadequacies of current programs and regulations for retaining and recruiting suitable nesting habitat on nonfederal lands."

4.

The Commission then provided notice of two potential options to be voted on by the Commission at the subsequent June 7, 2018 Commission meeting:

> 1)Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as proposed by staff, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.
>
> 2) Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as modified

by the Commission, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.

5.

Even though no notice was given for additional testimony, at the June 7, 2018 hearing the Commission took extensive testimony from timber industry representatives arguing against the uplisting of the species to endangered status. Most of these arguments surrounded the potential economic impacts the listing would have on the timber industry.

6.

Although the Commission can only consider information related to the biological status of the species in making listing determinations, following the testimony from the timber industry regarding economic impacts at the June 7, 2018, meeting the Commission voted "to deny the petitioners recommendation to reclassify the marbled murrelet as endangered under the Oregon endangered species act," directly contradicting the prior vote to list the species as endangered.[1] The Commission did not revisit any of its earlier findings from the February 9, 2018 meeting relating to the biological status of the species, which formed the basis for the endangered status finding, and never officially rescinded the prior vote to list the species as "endangered."

7.

Petitioners seek uplisting to "endangered" status for the murrelet because, despite being listed by the state as "threatened" since 1995, the Commission has not taken any steps to protect or recover the species. The Commission has authority over state land-owning agencies concerning listed species and the management of their habitats. Three state forests managed by the Oregon Department of Forestry provide extensive nesting habitat for the murrelet in

[1] Petitioners attach the Cover Letter, Agenda Item Summary, and Background and Basis for the June 7, 2018 Commission meeting ("Exhibit A"). These items describe the Commission's February 9, 2018 determination that the murrelet meets the requirements to be uplisted to endangered status, and the next steps contemplated by the agency. Petitioners never received a denial letter from the Commission or the Oregon Department of Fish and Wildlife ("Department") as required by OAR 635-100-0110(7), and therefore Petitioners cannot attach an official denial order.

Oregon's Coast Range, but this agency does not sufficiently protect the species, which has resulted in widespread nesting habitat loss for the murrelet on state-owned forest land in Oregon. The listing of the murrelet as "endangered" will require the Commission to enact "survival guidelines" for the species, which are quantifiable rules designed to prevent any loss of individual members of the species until a full endangered species management plan is developed in coordination with state land owning agencies. These plans must ensure the survival and recovery of the species. Endangered status could also compel Oregon's Board of Forestry to revise its rules pertaining to the protection of the species on Oregon's private timberlands as well.

8.

Petitioners seek a declaration that the Commission violated the APA and Oregon's Endangered Species Act when it ignored its previous findings and denied the petition to list the marbled murrelet as endangered under the Oregon Endangered Species Act.

9.

Specifically, Petitioners seek: (1) a declaration that the Commission acted outside the range of discretion delegated to the agency by law and acted contrary to statute in denying the previously granted petition and refusing to list the species as endangered; (2) a declaration that the Commission acted contrary to its officially stated previous agency position without explanation; and (3) a declaration that the Board's denial of the petition is unsupported by substantial evidence in the record and unsupported by documented and verifiable information as the law requires.

PARTIES

10.

Petitioner CASCADIA WILDLANDS is an Oregon non-profit corporation headquartered in Eugene, Oregon. Founded in 1998, Cascadia Wildlands represents over 15,000 members and supporters, and has a mission to educate, agitate, and inspire a movement to protect and restore Cascadia's wild ecosystems. Cascadia Wildlands envisions vast old-

growth forests, rivers full of salmon, wolves howling in the backcountry, and vibrant communities sustained by the unique landscapes of the Cascadia Bioregion. Cascadia Wildlands has been extensively involved the conservation and management of the marbled murrelet and its habitat since the organization's inception.

11.

Petitioner CENTER FOR BIOLOGICAL DIVERSITY ("the Center") is a national non-profit organization dedicated to the preservation, protection and restoration of biodiversity, native species, and ecosystems. The Center works through science, law, and policy to secure a future for all species, great or small, hovering on the brink of extinction. The Center has over 63,000 members and more than 1.6 million online supporters worldwide, including members within this district. The Center has offices in Tucson, Arizona; Silver City, New Mexico, Washington, D.C., Oakland, Los Angeles, and Joshua Tree, California; and Portland, Oregon.

12.

The Center's members and staff value and benefit from rare species' continued existence in the wild, and the organization has long advocated on behalf of the marbled murrelet and sought to strengthen protections for the bird and its habitat. For example, the Center submitted comments to the U.S. Fish and Wildlife Service supporting continued protection for the marbled murrelet in response to a 90-day finding on a petition to remove the species from the list of endangered and threatened wildlife (Federal Register: Volume 73, Number 192, October 2, 2008). The Center also submitted comments on a proposed revision of the species' critical habitat and has intervened in several lawsuits by timber industry organizations seeking to remove or weaken protections for the murrelet. The Center was a signatory to the petition to list the marbled murrelet as endangered that was denied and is the subject of this Petition.

13.

The Center's Endangered Species Program has long followed and advocated for additional protections for old-growth forest lands in Oregon by attending and testifying at Department of Fish and Wildlife, Board of Forestry and State Land Board meetings, advocating for stronger protections for imperiled wildlife on state and private timber lands, and participating in litigation to provide greater protections for imperiled species on Oregon's forests. The Center's members enjoy exploring Oregon's forests and observing, detecting, and attempting to photograph marbled murrelets. The Center, its members, and staff derive academic, recreational, conservation, and aesthetic benefits from rare species' existence in the wild. If species such as the marbled murrelet are lost, so too is the Center's ability to study and enjoy them. Activities that harm native species or their habitat also harm our staff and members' interests, values, and quality of life.

14.

Petitioner AUDUBON SOCIETY OF PORTLAND is an Oregon non-profit corporation with a mission to promote the enjoyment, understanding and protection of native birds, other wildlife and their habitats. Audubon Society of Portland currently has approximately 16,000 members, including many who use Oregon's coastal forests for a wide variety of recreational purposes. Audubon has been involved with marbled murrelet related issues for more than 30 years.

15.

In the late 1980s, Audubon Society of Portland commissioned a study by wildlife biologist David B. Marshall, concerning the health and viability of marbled murrelet populations on the West Coast. Based on the results of this study, in January 1988, Audubon

Society of Portland formally petitioned the U.S. Fish and Wildlife Service to list the marbled murrelet under the Federal Endangered Species Act.

16.

After initiating this petition, Audubon Society of Portland continued to advocate for federal and state protection and designation of critical habitat for the species. In April 1991, Audubon Society of Portland filed suit in Federal District Court in Seattle in order to compel the U.S. Fish and Wildlife Service to discharge its mandatory duty under the Endangered Species Act by listing the murrelet as a threatened species. The Fish and Wildlife Service ultimately complied with this request in September 1992. Audubon Society of Portland continued to litigate in order to compel the U.S. Fish and Wildlife Service to designate critical habitat for the marbled murrelet. In recent years, Portland Audubon has intervened in two lawsuits attempting to delist the marbled murrelet to ensure the species remains protected.

17.

Audubon Society of Portland also owns and manages the 216-acre Ten Mile Creek Sanctuary on the Oregon Coast that is within a designated Globally Significant Important Bird Area. Audubon Society of Portland holds annual survey trainings for marbled murrelets and contributes data to inland survey efforts. The organization also sponsors educational, scientific research activities that involve study of marbled murrelets and other birds and their natural habitat.

18.

Audubon Society of Portland has been actively engaged in advocating for marbled murrelets at the state level, including sitting on multiple advisory committees that looked at issues including the "greatest permanent value" of state-owned forest lands, Oregon Department of Forestry funding, marbled murrelet management, and conservation issues with

the Board of Forestry. Audubon staff and members have also testified numerous times regarding harvest levels on state forests and state forest management plans. Audubon Society of Portland has participated in litigation to prevent illegal take of murrelets on Oregon State Forest lands. Audubon Society of Portland is currently on the review team for the Oregon Department of Forestry Marbled Murrelet Draft Technical Report for Oregon Forest Practices Act rule development. The Audubon Society of Portland was a signatory to the petition to list the marbled murrelet as endangered that was denied is the subject of this Petition.

19.

Petitioner, DEFENDERS OF WILDLIFE is a national nonprofit conservation organization headquartered in Washington, D.C., with offices throughout the country. Founded in 1947, Defenders is a science-based conservation organization with over 408,000 members nationwide, including more than 10,000 in Oregon. Defenders is dedicated to the protection of all native wild animals and plants in their natural communities and the preservation of the habitats on which they depend. Defenders advocates for new approaches to wildlife conservation that will help keep species from becoming endangered, and it employs education, litigation, research, legislation and advocacy to defend wildlife and habitat. Defenders is one of the nation's leading advocates for endangered species and wildlife conservation. Defenders has had a presence in Oregon since 1985, and through the Northwest Program field office has been actively involved in the conservation and management of the marbled murrelet in both Oregon and Washington.

20.

Petitioner OREGON WILD was founded in 1974 as a non-profit conservation corporation that works to represent the public interests of over 20,000 members and supporters. Oregon Wild has offices and staff in Portland, Bend, Eugene, and Wallowa County, Oregon as

well as board members from across the state. Oregon Wild is dedicated to the protection, conservation, and restoration of Oregon's wildlands, wildlife, and waters as an enduring legacy for future generations. That work includes restoring naturally functioning ecosystems that include a full complement of native species playing out their role on the landscape, including imperiled species like the marbled murrelet.

21.

Petitioner, DAVID EISLER, is a member of Oregon Wild and Cascadia Wildlands, but has additional personal interests in the marbled murrelet listing petition at issue here. Mr. Eisler is a private forester and owner of timber lands who has dedicated his life to the protection and improvement of Oregon's natural resources, including its forests and the species that rely on them, such as the marbled murrelet. He owns 154 acres of timber lands near Walton, Oregon in the Coast Range, which is actively managed to become suitable habitat for the marbled murrelet and northern spotted owl. He is a founding member of the Siuslaw Watershed Council and is on a collaborative working group on the Siuslaw National Forest that works to apply the most recent biological and silvicultural research concerning thinning forestry practices and the resultant harvest contracts.

22.

Mr. Eisler actively seeks out marbled murrelets, and has seen a marbled murrelet drop into the canopy of what was then his neighbor Swanson Superior's property. This forest was subsequently clearcut and no longer supported the species; however, Mr. Eisler later purchased this property and currently manages it in order to restore its function as mature forest habitat. To further state efforts at conserving and recovering the marbled murrelet and increase protections for the species, Mr. Eisler paid $3,000 to biologist Max Beeken to develop state listing petitions for the Northern Spotted Owl and the Marbled Murrelet. The final product of

that initial effort is the listing petition that is at issue here. Mr. Eisler believes that the Commission's denial of the petition he funded the best available scientific data gathered by the biologist that he commissioned, and therefore his money and best intentioned efforts have been squandered by the Commission's failure to properly uplist the species to endangered status. The Commission's decision therefore adversely affects Mr. Eisler's interests and aggrieves him personally.

23.

Respondent FISH AND WILDLIFE COMMISSION ("Commission") is an agency of the State of Oregon. The Commission formulates general state programs and policies concerning management and conservation of fish and wildlife resources and makes decisions affecting the management of wildlife resources of the state, including the implementation of the Oregon Endangered Species program. In specific regard to imperiled species, the Commission "[s]hall conduct investigations of wildlife species native to this state and shall determine whether any such species is a threatened species or an endangered species" and "[b]y rule, shall establish and publish, and from time to time may revise, a list of wildlife species that are threatened species or endangered species." ORS 496.172.

THE NATURE OF PETITIONERS' INTERESTS

24.

Petitioners, including the organizations' members and staff, have academic, recreational, conservation, and aesthetic interests in the inventorying and protection of marbled murrelets and their habitat. Petitioners have interests in the proper and lawful management of forestlands in Oregon, and in Respondent's compliance with Oregon laws surrounding the protection of threatened and endangered species. By this action, Petitioners seek to further

their interests in the conservation of imperiled species that the legislature expressly wished to have considered through the promulgation of the Oregon Endangered Species Act.

25.

Organizational Petitioners are all registered non-profit corporations with charitable missions that include protecting and restoring Oregon's environment, wildlife, and biological diversity. Mr. Eisler has professional and personal interests in the conservation and recovery of the marbled murrelet and personally funded the drafting of the listing petition at issue here. Petitioners therefore have a specific and particular interest in the recovery of the marbled murrelet, and have spent considerable resources protecting the species and Oregon's state and private forestlands, which play a unique and important role in the ongoing recovery of the marbled murrelet.

26.

Petitioners have dedicated substantial time, money, and resources toward the conservation of the marbled murrelet. Petitioners all have staff members in Oregon who work on murrelet issues and the reform of forest management in Oregon. Petitioners have hosted and continue to host public outreach and educational events about the marbled murrelet, including presentations by experts, outdoor excursions, and other events. The marbled murrelet is regularly featured in their newsletters and on their websites. Petitioners were Plaintiffs in a recent federal lawsuit to halt clearcutting that they alleged was leading to "take" of the marbled murrelet on state forests in Oregon in violation of the federal ESA. Petitioners believe that the ecological, social, education, recreational, economic, and aesthetic benefits of marbled murrelet conservation are great enough to warrant this substantial investment.

27.

The marbled murrelet inhabits state and private forestlands in Oregon, which are threatened by timber harvests that would destroy the habitat these birds rely on for breeding. The status of the species under the Oregon Endangered Species Act directly affects the management of these lands, and the protections afforded the species.

28.

Petitioners submitted the listing petition to the Commission that is the subject of this Petition, rendering Petitioners parties to the agency proceeding. The Commission's denial of Petitioners' listing petition adversely affects and aggrieves Petitioners. The denial nullifies the time, energy, and resources Petitioners have put into the listing petition itself. The Commission's determination also causes severe and direct injury to Petitioners' substantial interests in the conservation and recovery of the marbled murrelet. Petitioners have substantial interests in the recovery and conservation of the marbled murrelet and are thus adversely affected and aggrieved by the lack of protection for murrelet habitat on Oregon's forestlands which is contrary to Oregon law.

LEGAL BACKGROUND

Oregon's Endangered Species Act

29.

Pursuant to the Oregon Endangered Species Act, "[i]t is the policy of the State of Oregon that wildlife shall be managed to prevent serious depletion of any indigenous species and to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of this state." ORS 496.012.

30.

To these ends, the Commission's long-term goal for species listed as threatened or endangered under the state Endangered Species Act is to manage the species and their habitats

so that the status of the species improves to a point where listing is no longer necessary. OAR 635-100-0080.

31.

The lists of threatened and endangered species established pursuant to ORS 496.172 (2) shall include: those species of wildlife listed as of May 15, 1987, as a threatened species or an endangered species pursuant to the federal Endangered Species Act of 1973 (P.L. 93-205, 16 U.S.C. 1531), as amended; and those species determined as of May 15, 1987, by the State Fish and Wildlife Commission to be threatened species or endangered species. ORS 496.176.

32.

The Commission, by rulemaking following a petition or *sua sponte*, may add or remove any wildlife species from either the list of threatened or endangered species, or change the status of any species on the lists, upon a determination that the species is or is not a threatened species or an endangered species. ORS 496.176(2). A threatened species is "[a]ny native wildlife species the commission determines is likely to become an endangered species within the foreseeable future throughout any significant portion of its range within this state." ORS 496.004(17). An endangered species is "[a]ny native wildlife species determined by the commission to be in danger of extinction throughout any significant portion of its range within this state." ORS 496.004(6).

33.

A determination that a species is a threatened species or an endangered species shall be based on documented and verifiable scientific information about the species' biological status. ORS 496.176(3). "Verifiable" means scientific information reviewed by a scientific peer review panel of outside experts who do not otherwise have a vested interest in the process. ORS 496.171(4).

34.

The Commission is required to review the status of all threatened species and endangered species listed under ORS 496.171 to 496.192. Each species shall be reviewed at least once every five years to determine whether verifiable scientific information exists to justify its reclassification or removal from the list. ORS 496.176(8).

35.

Any person may also petition the commission to, by rule, add, remove or change the status of a species on the list. ORS 496.176(5). A final determination on the petition must be made by the Commission within 12 months. *Id.* If the petition is denied, the petitioner may seek judicial review as provided in ORS 183.484. *Id.*

36.

To list a species as a threatened species or an endangered species under ORS 496.004 and 496.171 to 496.182, the Commission shall determine that the natural reproductive potential of the species is in danger of failure due to limited population numbers, disease, predation or other natural or human actions affecting its continued existence. To the extent possible, the Commission is to assess the relative impact of human actions on the affected species. In addition, the commission shall determine that one or more of the following factors exists: (a) That most populations are undergoing imminent or active deterioration of their range or primary habitat; (b) That overutilization for commercial, recreational, scientific or educational purposes is occurring or is likely to occur; or (c) That existing state or federal programs or regulations are inadequate to protect the species or its habitat. ORS 496.176(3).

37.

If the Commission determines that a species is a threatened or endangered species, it shall be added to the list or its status shall be changed appropriately. ORS 496.176(1).

38.

If the Commission denies a listing petition, "the commission shall so advise the petitioner in writing within ten (10) working days of that denial, and shall provide the basis for the commission's decision." OAR 635-100-0110(7).

39.

At the time the Commission adds a species to the list of threatened species or endangered species under ORS 496.172, the Commission is required to establish, by rule, quantifiable and measurable guidelines that it considers necessary to ensure the survival of individual members of the species. These guidelines may include measures to avoid take and protecting important resource sites, such as spawning beds, nest sites, nesting colonies or other sites critical to the survival of individual members of the species. ORS 496.182(2). Survival guidelines apply only to actions on state-owned, managed, or leased lands. OAR 635-100-0135(1).

40.

Endangered species enjoy heightened protections under Oregon law. For endangered species, the Department of Fish and Wildlife and land-owning state agencies are required to cooperatively develop "endangered species management plans" that provide for the conservation of the species. The Commission ultimately approves these plans after ensuring they are consistent with separate species survival guidelines, which are required for endangered species, and other statutory obligations. ORS 496.182. There is also a process to exempt state agencies from complying with species survival guidelines for threatened species, but not for endangered species. ORS 496.182(3).

Oregon's Administrative Procedures Act

41.

Oregon law allows an affected party to challenge the Commission's decision on a petition to list or change the status of a species under Oregon's Administrative Procedures Act. The Commission's denial of a petition to list a species under the Oregon ESA allows the petitioners to seek judicial review as provided in ORS 183.484. ORS 496.176(5)(f).

42.

Under Oregon law, "any person adversely affected or aggrieved by an order or any party to an agency proceeding is entitled to judicial review of a final order, whether such order is affirmative or negative in form." ORS 183.480(1).

43.

"For review of orders other than contested cases, the court shall remand the order to the agency if it finds the agency's determination to be: (A) Outside the range of discretion delegated to the agency by law; (B) Inconsistent with an agency rule, an officially stated agency position, or a prior agency practice, if the inconsistency is not explained by the agency; or (C) Otherwise in violation of a constitutional or statutory provision." ORS 183.484. Additionally, a court shall set aside or remand the order if it finds that the order is not supported by substantial evidence in the record. *Id.* Substantial evidence exists to support a finding of fact when the record, viewed as a whole, would permit a reasonable person to make that finding. *Id.*

FACTUAL BACKGROUND

The Marbled Murrelet

44.

The marbled murrelet (*Brachyramphus marmoratus*), is a forest-nesting seabird that has been protected as a "threatened" species under the Oregon Endangered Species Act since 1995, and the Federal Endangered Species Act since 1992.

45.

The marbled murrelet is a small, robin-sized, diving seabird that feeds primarily on fish and invertebrates in near-shore marine waters. It spends the majority of its time on the ocean, roosting and feeding, but comes inland up to 80 kilometers (50 miles) to nest in forest stands with old growth forest characteristics. These dense, shady forests are generally characterized by large trees with large branches or deformities for use as nest platforms. Murrelets nest in stands varying in size from several acres to thousands of acres; however, larger, unfragmented stands of old growth appear to be the highest quality habitat for marbled murrelet nesting. Nesting stands are dominated by Douglas fir in Oregon and Washington and by old-growth redwoods in California.

46.

Due to the extensive loss of older forests used for nesting sites, the species is declining. Current estimates indicate that the population has declined by 50 to 80 percent from historical estimates. Along the Oregon coast, recent surveys have shown a decline in murrelet numbers during the 1990s. Loss of viable nesting habitat is thought to be a primary factor responsible for an estimated annual 4 percent to 7 percent decline in marbled murrelet populations in Washington, Oregon, and California. Even if older growth habitat areas are protected, it is unlikely that murrelet population numbers will increase due to the naturally low reproductive rate. The continued loss of nesting habitat would devastate this imperiled species.

47.

The primary cause of marbled murrelet population decline is the loss and modification of nesting habitat in old growth and mature forests through commercial timber harvests, human-induced fires, and land conversions, and to a lesser degree, through natural causes such as wild fires and wind storms. In general, forest management practices maximize timber

production cut and replant forest stands every 40 to 60 years. Since it takes 100 to 250 years to grow marbled murrelet nesting habitat, this time frame frequently does not allow old-growth characteristics to develop, thus eliminating large areas from providing future nesting habitat, and thereby limiting the ability of the species to breed and recover as the Oregon ESA intends. OAR 635-100-0080.

48.

Continued harvest of old growth and mature forests also perpetuates the loss and fragmentation of remaining habitat. Fragmentation of existing forest habitat into small patches surrounded by open space degrades the habitat quality and increases the threats to the species. Increased forest fragmentation can reduce nesting success by allowing increased predation of murrelet nests by raptors (great horned owls, sharp-shinned hawks, peregrine falcons) and corvids (jays, ravens, crows). The species is also experiencing low recruitment due in part to changes in the marine environment, where low prey abundance has led to nesting failure. Climate change is anticipated to drastically exacerbate these impacts. These concerns, coupled with anthropogenic threats and stressors, indicate the species is in danger of extinction, a danger that could be made imminent with a localized climatic or human caused disaster, such as an oil spill or forest fires, and is further exacerbated by the loss of habitat caused by timber extraction.

49.

A 20-year status report for the species published by the U.S. Fish and Wildlife Service in 2016 found that:

> "[g]iven declining murrelet population trends as well as habitat losses, in many areas, it is uncertain whether their populations will persist to benefit from potential future increases in habitat suitability. This underscores the need to arrest the loss of suitable habitat on all lands, especially on nonfederal lands and in the relatively near term (3 to 5 decades)."

Review of the Listing Petition

50.

In June 2016, Cascadia Wildlands, the Center for Biological Diversity, Coast Range Forest Watch, Oregon Wild, the Audubon Society of Portland, and the Oregon Chapter of the Sierra Club formally petitioned the Oregon Fish and Wildlife Commission to reclassify the murrelet from threatened to endangered pursuant to ORS 496.176. The petition set forth verifiable scientific information about the biological status of the species. The petition presented evidence that the species is suffering a decline in breeding productivity, nest success, and genetic diversity. The petition also set forth data showing significant localized population declines since the time of listing. The petition to list the species as endangered is attached hereto ("Exhibit B").

51.

The petition presented evidence that the loss of nesting habitat is highly correlated with declining populations through most of the range of the species. Between 1996 and 2006 alone, there was a 10 percent loss in murrelet nesting habitat across the range of Washington, Oregon, and California.

52.

In September 2016, following review of the petition, the Commission determined that substantial scientific information existed to justify proceeding with the petition to uplist the species to endangered status. The Commission thereby accepted the petition for further evaluation. This decision initiated the rulemaking process, which includes (1) consultation with affected agencies, tribes, local governments, other states, various organizations, and the public; (2) a review of the biological status of the Marbled Murrelet in Oregon to determine if circumstances meet legal criteria for reclassification; and (3) peer review of the Oregon

Department of Fish and Wildlife's biological status review report. Following acceptance of the petition, the Department notified interested and affected parties, and solicited scientific information and other data relevant to staff review. The Department then began its biological status review of the species.

53.

This was the first time since the species was state-listed in 1995 that a status review of the marbled murrelet has been conducted.

54.

In September 2017, the Department released its draft "Status Review of the Marbled Murrelet (*Brachyramphus marmoratus*) in Oregon and Evaluation of Criteria to Reclassify the Species from Threatened to Endangered under the Oregon Endangered Species Act." This report was followed by a 42-day comment period. After the comment period concluded, the Department reviewed the comments and then released a revised final status review of the murrelet. The Department's status review was designed to help inform the Commission's decision as to whether the species should be listed as endangered.

55.

Consistent with the Commission's mandate to base any reclassification decision on documented and verifiable scientific information, the Department's peer-reviewed status review focuses on information relevant to the species' biological and legal status in Oregon. The Department solicited independent peer reviews from four individuals with scientific subject matter expertise, including biologists from the U.S. Fish and Wildlife Service, USGS, and Oregon State University.

56.

In the status report, the Department concluded that the species has "experienced declines across much of their North American range in recent decades." It also determined these declines were primarily linked to loss and degradation of older forest nesting habitat, mortality from gillnet fisheries and oil spills, and to heavy predation pressure and changes in prey resources that reduced breeding success. Similarly, it determined that extinction risk was high in Oregon, with a greater than 80% chance of extirpation by 2060 in the Siskiyou Coast Range (the coastal region south of Coos Bay) and by 2100 in the remainder of the Oregon Coastal Range.

57.

The Department staff recommended that the Commission "[a]mend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as proposed by staff, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies."

58.

The Commission received 3,893 public comments on the listing proposal, with 89 percent in support of listing the species as endangered.

59.

In February 2018 at a meeting in Portland, Oregon, the Commission voted to accept the petition to reclassify the murrelet from threatened to endangered status. The Commission determined that the likelihood of survival of the species had diminished such that the species was in danger of extinction throughout a significant portion of its range within Oregon.

60.

Portland is within the range of the marbled murrelet, and is also the place most convenient for the majority of Oregon residents concerned about the species to attend a hearing and present testimony.

61.

At the February 9, 2018 meeting, the Commission determined that all of the factors required for reclassification were met. Based upon the peer-reviewed status review prepared by the Department, the Commission found that most murrelet populations are undergoing imminent or active deterioration of their range or primary habitat, especially on state forest land. The Commission further determined that overutilization of marbled murrelet habitat for commercial timber purposes is occurring or is likely to occur, resulting in further habitat loss and harm to the species. Following a presentation by the Department of Forestry, the Commission also determined that existing state or federal programs or regulations are inadequate to protect the species or its habitat. ORS 496.176(3).

62.

The Commission thereby determined all three factors for reclassification were met, concluding that: (a) the species had specialized requirements and was suffering from past and ongoing loss and degradation of older forest habitat; (b) further habitat loss and degradation was occurring due to timber harvests on nonfederal lands and wildlife predation on federal lands, and (c) the threat posed by inadequate state and federal programs and regulations has decreased since state listing, but inadequate mechanisms exist on state land because the ongoing loss of suitable habitat on state lands has been substantial.

63.

The Commission based its decision most heavily on the combination of threats and risk factors affecting the continued existence of the species in Oregon. After consideration of the

verifiable science in the record, the Commission voted at the February 9, 2018 meeting to classify the murrelet as "endangered" and grant the listing petition. The Commission then instructed Department staff to develop survival guidelines for adoption when rulemaking was conducted to officially list the species as endangered.

64.

Marbled murrelets, despite being listed as a threatened species, do not have survival guidelines as mandated by ORS 496.182, because that law was passed in the months following the state listing of the murrelet in 1995. The Department determined that the statute did not require the development of guidelines for species already on the list; however, survival guidelines would be necessary if the status of the species were changed from threatened to endangered, or following any species status review where the Commission determines that the species still warrants threatened or endangered status. No such review has been undertaken for the murrelet, and therefore there are no survival guidelines or an endangered species management plan for the species.

65.

On June 7, 2018, the Commission held a hearing in Baker City, where the Department presented survival guidelines for the murrelet to the Commission. Baker City is approximately 400 miles from Oregon's coast and therefore very far from the area that would be impacted by the murrelet listing, requiring interested parties to travel long distances to attend the hearing.

66.

The survival guidelines presented by the Department at the June 7 hearing were specifically developed for the reclassification of the murrelet to endangered status. In developing the survival guidelines, the Department took into consideration the conservation

needs of the species, factors influencing murrelet survival and reproduction, existing state and federal regulations, and mitigating adverse impacts on local economies. ORS 496.182.

67.

The two options for Commission action noticed for the June 7 hearing included amending the endangered species list to include the marbled murrelet along with either the survival guidelines as developed by the Department, or as modified by the Commission. Determining whether or not to list the species as endangered was not noticed as a possible action by the Commission, since that determination had already been made.

68.

At the June 7, 2018 hearing, the Commission received testimony from interested parties and Petitioners on the survival guidelines. Petitioners traveled to Baker City for the June 7, 2018 meeting and presented testimony on the draft survival guidelines prepared by the Department.

69.

At the June 7, 2018 meeting, the Commission also received extensive feedback from timber industry representatives, not weighing in on the survival guidelines, but instead urging the Commission to reverse course, and simply not to list the marbled murrelet as endangered. The industry representative's arguments were largely based on economic considerations and concerns about potential impacts to their business interests.

70.

Timber industry representatives did point to recent data from at-sea marbled murrelet counts that have shown a very slight increase in murrelets observed off the Oregon coast from 2000 to 2017. These at-sea numbers were specifically addressed at length by the Commission at the February meeting and in the Department's marbled murrelet status review. The

Commission and Department's peer review concluded that these marginal, very-recent at-sea increases did not account for species losses during the 1990s, were being influenced by extensive murrelet migration due to marine conditions, and did not contradict the modeling presented before the Commission that predicts a high-likelihood of murrelet extinction in Oregon.

71.

The Commission specifically addressed the recent at-sea findings in Oregon and still concluded that the species was in danger of extinction at the February 9, 2018 meeting. No new information on this subject was introduced at the June 7, 2018 hearing.

72.

On June 7, 2018, the Commission declined to reclassify the Marbled Murrelet as state-endangered, even though it had previously voted to do so. The Commission directed staff to draft non-mandatory survival guidelines for consideration at the August 2018 Commission meeting.

73.

If the Commission denies a listing petition, "the commission shall so advise the petitioner in writing within ten (10) working days of that denial, and shall provide the basis for the commission's decision." OAR 635-100-0110(7). The Commission never notified petitioners or provided any basis for denial regarding the marbled murrelet listing petition, and has provided no explanation for changing its prior determination.

FIRST CLAIM FOR DECLARATORY AND INJUNCTIVE RELIEF
(Review of an Agency Order)

74.

Petitioners incorporate by reference all preceding paragraphs.

75.

On February 9, 2018, the Fish and Wildlife Commission determined that, based upon the best available information, the likelihood of survival of the marbled murrelet has diminished such that the species is in danger of extinction throughout any significant portion of its range within Oregon (ORS 496.176(3), OAR 635-100-0111(1)) and that the three factors from ORS 496.176(3) and OAR 635-100-0105(6) were met: 1) that most populations are undergoing imminent or active deterioration of their range or primary habitat; 2) that overutilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is occurring or is likely to occur; and 3) that existing state or federal programs or regulations are inadequate to protect the species or its habitat.

76.

The Commission thereby determined that the species qualified to be listed as endangered and thus must be added to the state endangered species list pursuant to ORS 496.176(1).

77.

On June, 7, 2018, the Commission declined to reclassify the Marbled Murrelet as state-endangered, inexplicably reversing its prior determination contrary to the recommendation of the Department. The Commission did not revisit its prior determination that the marbled murrelet qualifies as an endangered species, and the record establishes that it does qualify for endangered status.

78.

The Commission's refusal to classify the marbled murrelet as state-endangered was not based on documented or verifiable science as required by ORS 496.176(3). "Verifiable" means scientific information reviewed by a scientific peer review panel of outside experts who do not otherwise have a vested interest in the process. ORS 496.171(4). The Department's status

report for the marbled murrelet provides peer-reviewed scientific information (*i.e.* "verifiable" science) that supports the listing of the marbled murrelet as an endangered species.

79.

At the June 7, 2018 hearing, the Commission was presented with evidence from the timber industry, state politicians, and county representatives that the listing of the murrelet would cause economic harm. No verifiable peer-reviewed scientific information was provided to respond to the factual findings in the Department's status report for the species, including the loss of habitat and its impacts on murrelets.

80.

There is no peer reviewed scientific information in the record to support the Commission's June 7, 2018 decision denying the listing petition. Rather, it appears that the Commission based its ultimate decision on economic considerations following the testimony of the timber industry.

81.

The Commission's consideration of economic factors and failure to consider peer-reviewed scientific information in declining to classify the murrelet as state-endangered is a violation of ORS 496.176(3), which states that listing determinations by the Commission shall be based on documented and verifiable scientific information about the species' biological status.

82.

By making a determination that the murrelet is an "endangered species" at the February 9 hearing but failing to list the species as endangered because of its improper considerations of economic impacts, the Commission acted outside of the range of discretion delegated to the

agency under law and violated the requirements of Oregon's Endangered Species Act, ORS 496.176, in violation of ORS 183.484.

SECOND CLAIM FOR DECLARATORY AND INJUNCTIVE RELIEF
(Review of an Agency Order)

83.

Petitioners incorporate by reference all preceding paragraphs.

84.

On February 9, 2018, the Commission determined that the marbled murrelet is an endangered species and granted the murrelet listing petition, finding that all of the factors for uplisting the species to endangered status were met. On June 7, 2018, the Commission inexplicably reversed its determination, and issued a final order denying the murrelet listing petition. This decision was inconsistent with its February 9, 2018 vote and determination, and the basis for the reversal was left unexplained by the Commission. No information was provided in the record to undermine the Commission's earlier findings that: (1) the murrelet was in danger of extinction, (2) the murrelet was experiencing active habitat deterioration, especially on state lands, (3) the murrelet's habitat was being overutilized for commercial timber harvest purposes, and (4) while federal and state regulatory mechanisms had improved since the time of listing, these mechanisms are still inadequate to protect the species, especially on state forest lands.

85.

Petitioners never received any explanation or justification for the denial as required by OAR 635-100-0110(7).

86.

By declining to list the species as endangered at its June 7, 2018 hearing, in direct contravention with its February 9, 2018 determination, the Commission acted inconsistently

with its prior agency position without adequately explaining or addressing the inconsistencies between the two positions in violation of ORS 183.484.

THIRD CLAIM FOR DECLARATORY AND INJUNCTIVE RELIEF
(Review of an Agency Order)

87.

Petitioners incorporate by reference all preceding paragraphs.

88.

The Commission's June 7, 2018, determination denying the petition to list the marbled murrelet as endangered under the Oregon ESA was not supported by substantial evidence in the record. ORS 183.484(5)(c).

89.

The Commission could deny the petition to list the marbled murrelet as endangered only upon a finding that the marbled murrelet is not an endangered species.

90.

An endangered species is defined as "[a]ny native wildlife species determined by the commission to be in danger of extinction throughout any significant portion of its range within this state." On February 9, 2018, the Commission determined that the marbled murrelet met the requirements to be listed as an endangered species, and set forth findings in the record to support that determination, as set forth herein.

91.

At the February 9, 2018 hearing, the Commission determined that, based upon the best available information, the likelihood of survival of the marbled murrelet has diminished such that the species is in danger of extinction throughout any significant portion of its range within Oregon (ORS 496.176(3), OAR 635-100-0111(1)) and that all of the three factors from ORS 496.176(3) and OAR 635-100-0105(6) were met: 1) that most populations are undergoing

imminent or active deterioration of their range or primary habitat; 2) that overutilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is occurring or is likely to occur; and 3) that existing state or federal programs or regulations are inadequate to protect the species or its habitat.

92.

The record before the agency at the February 9, 2018 hearing, including the Department's status report for the species, further supported this decision and formed the evidentiary basis for the Commission's vote.

93.

No substantial evidence was put into the record, on June 7, 2018 or otherwise, that would support the Commission's determination to deny the listing petition. Rather, the record evidence, including the reasoned analysis provided by the Department, supports the February 9, 2018 decision to grant the listing petition.

94.

At the June 7, 2018 hearing, the Commission did not address the factors from ORS 496.176(3) and OAR 635-100-0105(6) or reverse its earlier findings that demonstrated that the murrelet is an endangered species. There is no evidence in the record that addresses, or much less refutes, the Commission's findings at the February 9, 2018 hearing that the species is endangered.

95.

The Commission's decision to reverse its earlier determination and deny the petition to list the marbled murrelet as endangered is not supported by substantial evidence in the record in violation of ORS 183.484.

FOURTH CLAIM FOR DECLARATORY AND INJUNCTIVE RELIEF

(Review of an Agency Order)

96.

Petitioners incorporate by reference all preceding paragraphs.

97.

The Commission provided notice of two potential options to be voted on at the June 7, 2018 hearing in Baker City:

> 1) Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as proposed by staff, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.
>
> 2) Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as modified by the Commission, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.

98.

Notice was not provided that the Commission would take additional evidence at the June 7 hearing as to the status of the species or hold another vote on whether the marbled murrelet qualified as an endangered species. Although the timber industry representatives at the meeting testified to this effect, the rest of the interested public and the petitioners themselves were unaware that this was a potential issue to be taken up by the Commission at this rulemaking hearing.

99.

Petitioners were provided with no notice that the Commission was going to re-consider its petition, or its previous determination that the statutory factors supporting uplisting were met. Despite failing to provide notice to the public that they would have an opportunity—or a need—to present additional testimony on the murrelet's endangered status, timber industry representatives and others at the meeting testified at length on this issue. The lack of notice

deprived Petitioners of the ability to gather evidence, support, and witnesses for the hearing. At prior hearings surrounding the murrelet's endangered status, Petitioners organized the submission of thousands of comments and input from the scientific community and broader conservation community. Petitioners had no opportunity to address arguments by the timber industry at the June 7, 2018 hearing because of the lack of notice.

100.

The Commission thereby failed to provide proper notice for the hearing, resulting in a prejudicial process that lead to the ultimate decision to reverse its earlier vote in violation of ORS 183.335 and associated rulemaking statutes.

101.

The Commission's decision to deny the petition without providing notice to the public or a meaningful opportunity for the petitioners or interested members of the public to meaningful weigh in on the subject violates the Oregon APA, specifically ORS 183.335.

102.

The Commission held the June 7 meeting in Baker City, Oregon, hundreds of miles outside of the geographical area impacted by the murrelet listing and in a location extremely difficult for the majority of people, including petitioners, to travel to, in direct violation of ORS 183.335. The February 9, 2018 meeting, on the other hand, was held in Portland, within the range of the murrelet and within the area most convenient for the majority of interested persons to present testimony.

103.

Accordingly, the Commission's June 7, 2018 decision in Baker City to decline to list the marbled murrelet as endangered was conducted outside the range of discretion delegated to

the agency by law or was otherwise contrary to the requirements of Oregon's rulemaking statutes in violation of ORS 183.484.

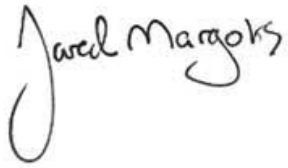
PETITIONERS' PRAYER FOR RELIEF

Petitioners respectfully request that this Court:

1. Declare that the Commission violated Oregon's Endangered Species Act, ORS 496.171 through ORS 496.182; statutory rulemaking requirements under ORS 183.335 and associated statutes; and the Oregon APA, in unlawfully reversing its determination and refusing to list the marbled murrelet as endangered;
2. Set aside the order or remand the order to the agency and direct them to make an order in compliance with Oregon's Endangered Species Act and APA;
3. Order the Commission to enact survival guidelines for the marbled murrelet pursuant to ORS 496.182;
4. Award Petitioners their reasonable fees, costs and expenses associated with this litigation pursuant to ORS 183.497 or other authority; and
5. Grant Petitioners such other and further relief as the Court deems just and equitable.

Respectfully submitted and dated this 2nd day of August, 2018.

Nicholas S. Cady, OSB #113463
P.O. Box 10455
Eugene, Oregon 97440
Tel: (541) 434-1463
nick@cascwild.org



Jared M. Margolis (OR Bar #146145)
Senior Attorney
Center for Biological Diversity
2852 Willamette St. #171
Eugene, OR 97405
(802) 310-4054
jmargolis@biologicaldiversity.org

Attorneys for Petitioners

CERTIFICATE OF FILING

I hereby certify that I electronically filed the foregoing with Lane County Circuit Court by using the Oregon Judicial Department's online filing system on August 2, 2018.

Nicholas S. Cady, OSB #113463
P.O. Box 10455
Eugene, Oregon 97440
Tel: (541) 434-1463
nick@cascwild.org
Attorney for Petitioners

CERTIFICATE OF SERVICE

I hereby certify that on August 2, 2018 I served a true copy of the petition for judicial review and accompanying documents to the following parties in person and by United States Postal Service, certified or registered mail, return receipt requested at the addresses set forth below:

Ellen Rosenblum
Attorney General
1162 Court Street NE
Salem, OR 97301-4096

Michael Finley, Chair
Fish and Wildlife Commission
4034 Fairview Industrial Drive SE
Salem, OR 97302

Nicholas S. Cady, OSB #113463
P.O. Box 10455
Eugene, Oregon 97440
Tel: (541) 434-1463
nick@cascwild.org
Attorney for Petitioners

Oregon Fish and Wildlife Commission

June 7, 2018

EXHIBIT G

SUBJECT

Marbled Murrelet Reclassification and Adoption of Survival Guidelines

PRINCIPAL STAFF PERSONS

Christina Donehower, Strategy Species Coordinator
Phone: 503-947-6099 Email: Christina.E.Donehower@state.or.us

Rod Krahmer, Forest Program Coordinator
Phone: 503-947-6083 Email: Rod.W.Krahmer@state.or.us

Martin Nugent, Threatened, Endangered, and Sensitive Species Coordinator
Phone: 503-947-6309 Email: Martin.Nugent@state.or.us

COMMISSION ACTION REQUESTED

Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.

DOCUMENTS ATTACHED

1. Agenda Item Summary
2. Background and Basis for the Commission's Decision to Reclassify the Marbled Murrelet as Endangered
3. Notice of Proposed Rulemaking, Statement of Need, and Fiscal Impact Statement
4. Draft Oregon Administrative Rules
5. Sample Notification Letters to State Agencies
6. Public Correspondence

RELATED STATUTES

ORS 496.012, 496.138, 496.171 - 192, 498.026

RELATED RULES

OAR Chapter 635, Division 100

Read and Approved by:

Division Administrator _____ **Date** 05-22-2018

Attorney General /s/ Erin L. Donald **Date** 5-23-18

Director _____ **Date** 5-25-2018

Agenda Item Summary

BACKGROUND

The Oregon Endangered Species Act (OESA) requires particular state agencies to develop plans for the management and protection of endangered species (ORS 496.182(8), OAR 635-100-0140(6)), and to comply with survival guidelines adopted by the Oregon Fish and Wildlife Commission (Commission) for threatened species (ORS 496.182(2), OAR 635-100-0130).

Survival guidelines are quantifiable and measurable guidelines that the Commission considers necessary to ensure the survival of individual members of the species (ORS 496.182(2)(a); OAR 635-100-0100(13)). They may include take avoidance and protecting resource sites such as nest sites or other sites critical to the survival of individual members of the species (ORS 496.182(2)(a)). Survival guidelines only apply to actions proposed on lands owned or leased by the state, or for which the state holds a recorded easement (OAR 635-100-0135(1)); they do not apply to private lands (ORS 496.192(1)) or other non-state public lands.

On February 9, 2018, the Commission decided that the Marbled Murrelet (*Brachyramphus marmoratus*) warrants reclassification from threatened to endangered, or "uplisting", under the OESA. The issue of reclassification had been under review for more than a year and was first initiated by a petition from several conservation groups. In making its reclassification decision, the Commission determined that under the legal standard in ORS 496.176(3) uplisting is warranted because the species is in danger of extinction throughout any significant portion of its range within Oregon and at least one of the following three factors is satisfied: 1) that most populations are undergoing imminent or active deterioration of their range or primary habitat; 2) that overutilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is occurring or is likely to occur; and 3) that existing state or federal programs or regulations are inadequate to protect the species or its habitat. The background and basis for the Commission's decision are summarized in Attachment 2.

As part of its action at the February 2018 meeting, the Commission directed Oregon Department of Fish and Wildlife (Department) staff to develop Marbled Murrelet survival guidelines for adoption at the time of reclassification in June 2018. Survival guidelines were not required for the species when it was first state-listed in May 1995. The survival guidelines requirement became effective in July 1995.

PUBLIC INVOLVEMENT	• Addressed questions of interested persons, including the news media • Conducted meetings, calls, and correspondence with interested persons • Carried out consultation with interested and affected parties as required by OAR 635-100-0105(10) • Maintained/updated the Department's Marbled Murrelet webpage to help keep the public informed of the rulemaking process and to facilitate public involvement • Presented information at four Commission meetings where the Commission took public comment
ISSUE 1	**Development of Survival Guidelines for Marbled Murrelet**
ANALYSIS	Proposed Marbled Murrelet survival guidelines and supporting documents are provided in Attachments 3-4. In developing survival guidelines, staff considered conservation needs of the species and existing state and federal programs and regulations, while also mitigating adverse impacts on local economies (ORS 496.182(2)(b)). These survival guidelines help to address several key threats to the Marbled Murrelet, including human activities that remove or modify suitable habitat, disrupt or disturb nesting murrelets, or increase predation of murrelet eggs or young. They are intended to minimize potential for take of Marbled Murrelets on state lands. For affected state land-owning and managing agencies, survival guidelines will serve as interim murrelet protections until endangered species management plans are developed and approved by those agencies (required within 18 months of uplisting) and reviewed and approved by the Commission (required within 24 months of uplisting) (ORS 496.182(8)(a)(C), (D)). Once the Commission approves an affected state agency's endangered species management plan for the Marbled Murrelet, that agency's plan supersedes their obligations under survival guidelines for the species (OAR 635-100-0140(8)).
ISSUE 2	**Requirements on the Commission and Affected State Agencies Following Uplisting**
ANALYSIS	**Procedural Steps under the OESA:** Within 4 months of listing an endangered species, the Commission, in consultation and cooperation with state land-owning and managing agencies, must determine whether state lands can play a role in the conservation of that species (ORS 496.182(8)(a)(A)). If so, an affected state land-owning or managing agency must determine, in consultation with the Department, what role its lands will play in the conservation of the endangered species (ORS 496.182(8)(a)(B)). To do so, the agency

must consider the survival guidelines adopted by the Commission, additional information provided by the Department on the conservation needs of the endangered species, the social and economic impacts of implementing needed conservation measures, and the agency's statutory obligations.

The affected agency must then develop and approve an endangered species management plan and submit it to the Commission for review and approval (ORS 496.182(8)(a)(C)). Commission approval is based on whether the plan achieves the role defined by the agency (ORS 496.182(8)(a)(D)). Given the biological needs of the species, and in consultation with state agencies, the Commission may modify the endangered species management plan to make it consistent with the agency's role (ORS 496.182(8)(a)(D)). The Commission must approve the endangered species management plan within 24 months of listing the species as endangered. In the absence of an approved endangered species management plan, state land-owning or managing agencies will follow survival guidelines (ORS 496.182(3)).

The Commission must also determine whether state agencies other than land-owning and managing agencies can serve a role in the conservation of the endangered species (ORS 496.182(8)(b)). If so, the Commission must notify the affected agencies in writing (OAR 635-100-0150(1)). Those agencies must then determine their role consistent with OAR 635-100-0150(1) and provide the Commission with a written description of their role (OAR 635-100-0150(3)). There is no statutory or rule time frame for this determination.

Marbled Murrelet Nesting Habitat on State Lands:
Based on 2012 habitat suitability data, recorded nest locations, and inland survey results, Marbled Murrelet nesting habitat on state-owned lands is mostly found on property managed by the Oregon Department of Forestry (ODF) and Oregon Department of State Lands (ODSL). The ODF manages Board of Forestry-owned lands, including the Tillamook and Clatsop State Forests located in the northern Oregon Coast Range and smaller tracts of state forest land scattered in western Oregon. The ODSL manages the Common School Fund forest lands in the Elliott State Forest (most of which is owned by the State Land Board) located in the southern end of the Oregon Coast Range. Suitable Marbled Murrelet habitat also occurs on some state parks managed by the Oregon Parks and Recreation Department (OPRD), and state wildlife areas owned and managed by the Department. Small parcels of suitable Marbled Murrelet habitat occur on lands owned or managed by the Oregon Department of Transportation (ODOT).

Notification of Affected State Agencies:
The Department has already been consulting with a wide range of interested and affected parties on the Marbled Murrelet rulemaking process. As described above, the Department, ODF, ODSL, OPRD, and ODOT are the state land-owning and managing agencies with known holdings of murrelet nesting habitat. There might also be situations where state agencies other than land-owning and managing agencies could undertake actions with potential to violate Marbled Murrelet survival guidelines and where additional consultation with the Department is required (OAR 635-100-0130).

Following reclassification of the Marbled Murrelet, the Department proposes to formally notify ODF, ODSL, OPRD, and ODOT in writing that some of the lands they manage have a role to play in the conservation of the species, and that they will be required to develop and adopt an endangered species management plan for the Marbled Murrelet (Attachment 5a). The Department also proposes to inform additional state agencies other than these land-owning and managing agencies of the new Marbled Murrelet survival guidelines (Attachment 5b). Staff recommend that the Commission support notification now to allow affected state land-owning and managing agencies as much time as possible to develop endangered species management plans and to ensure that other state agencies are aware of the rule changes and their responsibilities under the new requirements.

OPTIONS

1) Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as proposed by staff, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.

2) Amend the State List of Threatened and Endangered Species to reclassify the Marbled Murrelet as endangered, adopt survival guidelines for the species as modified by the Commission, determine that state lands have a role to play in the conservation of the Marbled Murrelet, and direct staff to notify and consult with affected state agencies.

STAFF RECOMMENDATION

Option 1

DRAFT MOTION 1	I move: A) To determine that the natural reproductive potential of the Marbled Murrelet is in danger of failure due to limited population numbers, disease, predation, or other natural or human actions affecting its continued existence, and that the following factor(s) exist(s) *[state one or more applicable factors from below]* a) That most populations are undergoing imminent or active deterioration of their range or primary habitat; b) That overutilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is occurring or is likely to occur; c) That existing state or federal programs or regulations are inadequate to protect the species or its habitat. B) To adopt the reasoning and interpretations contained in Attachment 2; C) To amend OAR 635-100-0125 to reclassify the Marbled Murrelet as endangered in the State List of Threatened and Endangered Species.
DRAFT MOTION 2	Adopt Survival Guidelines for Marbled Murrelet as proposed by staff, or Adopt Survival Guidelines for Marbled Murrelet as modified by the Commission.
DRAFT MOTION 3	Determine that state lands have a role to play in the conservation of the Marbled Murrelet; and thereby direct staff to notify affected state agencies in writing in the form of Attachment 5 and consult with state agencies pursuant to ORS 496.182(7) as they set priorities for establishing endangered species management plans.
EFFECTIVE DATE	June 21, 2018

Background and Basis for the Commission's Decision to Reclassify the Marbled Murrelet as Endangered under the Oregon Endangered Species Act

Petition and Procedural Background

In June 2016, Cascadia Wildlands, the Center for Biological Diversity, Coast Range Forest Watch, Oregon Wild, the Audubon Society of Portland, and the Oregon Chapter of the Sierra Club (Petitioners) petitioned the Oregon Fish and Wildlife Commission (Commission) to reclassify, or "uplist", the Marbled Murrelet (*Brachyramphus marmoratus*) from threatened to endangered under the Oregon Endangered Species Act (OESA).

In September 2016, the Commission found that the petition presented substantial scientific information to justify proceeding with the requested action and accepted the petition for further evaluation. This decision initiated the rulemaking process, which includes 1) consultation with affected agencies, tribes, local governments, other states, various organizations, and the public; 2) a review of the biological status of the Marbled Murrelet in Oregon to determine if circumstances meet legal criteria for reclassification; and 3) peer review of the Oregon Department of Fish and Wildlife's (Department) biological status review report.

Following the Commission's acceptance of the petition, the Department notified interested and affected parties and solicited scientific information and other data relevant to staff review. The Department subsequently began its biological status review of the species. In September 2017, the Department released its draft "Status Review of the Marbled Murrelet (*Brachyramphus marmoratus*) in Oregon and Evaluation of Criteria to Reclassify the Species from Threatened to Endangered under the Oregon Endangered Species Act" for invited peer review and for public comment. Following the close of the 42-day comment period, staff revised the draft and prepared a final status review report. All comments received were considered in the development of the final report. In January 2018, the Department released its final "Status Review of the Marbled Murrelet (*Brachyramphus marmoratus*) in Oregon and Evaluation of Criteria to Reclassify the Species from Threatened to Endangered under the Oregon Endangered Species Act" (ODFW 2018, hereafter 'Status Review').

At the February 2018 Commission meeting in Portland, staff presented the Department's Status Review, and the Commission received written comments and oral testimony from the public. The Commission voted to accept the Petitioners' recommendation to reclassify the Marbled Murrelet as endangered under the OESA, and directed staff to develop survival guidelines for adoption at the time of reclassification at the June 2018 Commission meeting.

Current Legal Status in Oregon

The Washington, Oregon, and California distinct population segment of the Marbled Murrelet was listed as threatened under the federal Endangered Species Act (federal ESA) in 1992 (57 FR 45328). The U.S. Fish and Wildlife Service (USFWS) determined that the species was threatened by loss and modification of older forest nesting habitat, mainly due to timber harvest, as well as mortality from gillnet fishing operations in Washington State and the effects of oil spills (57 FR 45328). Federal critical habitat for the Marbled Murrelet was first designated in 1996 (61 FR 26256), revised in 2011 (76 FR 61599), and reaffirmed in 2016 (81 FR 51348). The USFWS completed a recovery plan for the Marbled Murrelet in 1997 (USFWS 1997).

The Marbled Murrelet was listed as threatened under the OESA in 1995 (OAR 635-100-0125), also owing mainly to habitat loss (ODFW 1995).

Legal Framework

The Commission has exclusive statutory authority to designate threatened and endangered wildlife species under the OESA (ORS 496.176(2)). This includes establishing, publishing, and periodically revising, by rule, a list of wildlife species that are threatened or endangered (ORS 496.172(2)).

The OESA defines threatened and endangered species as follows:

> Threatened Species: Any native wildlife species the Commission determines is likely to become an endangered species within the foreseeable future throughout any significant portion of its range within this state (ORS 496.004(17)(a)).
>
> Endangered Species: Any native wildlife species determined by the Commission to be in danger of extinction throughout any significant portion of its range within this state (ORS 496.004(6)(a)).

The OESA requires the Commission to base any reclassification decision on documented and verifiable scientific information (ORS 496.176(3), OAR 635-100-0105(1)). The Department's peer-reviewed Status Review focused on information relevant to the species' biological and legal status, and was designed to help inform the Commission's decision. The peer review process was intended to ensure that the Department incorporated the best available scientific and other information into the Status Review, and characterized the information accurately and objectively. The Department solicited independent peer reviews from four individuals with scientific subject matter expertise: Gary Falxa, Fish and Wildlife Biologist (Retired), USFWS; Deanna Lynch, Fish and Wildlife Biologist, USFWS; S. Kim Nelson, Research Wildlife Biologist, Oregon State University; and John Piatt, Research Wildlife Biologist, U.S. Geological Survey.

The OESA (ORS 496.171-496.192) and its implementing rules (OAR Chapter 635 Division 100) set out criteria and procedural requirements which must be met if the Commission is to reclassify a species from threatened to endangered. Specifically, the Commission must determine that the likelihood of survival of the species has diminished such that the species is in danger of extinction throughout any significant portion of its range within Oregon (ORS 496.176(3), OAR 635-100-0111(1)). In addition, the Commission must determine that at least one of the following factors exists: 1) that most populations are undergoing imminent or active deterioration of their range or primary habitat; 2) that overutilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is occurring or is likely to occur; or 3) that existing state or federal programs or regulations are inadequate to protect the species or its habitat (ORS 496.176(3), OAR 635-100-0105(6)).

Basis for the Commission's Decision

The basis for the Commission's decision to reclassify the Marbled Murrelet as endangered under the OESA is summarized below and also reflected in the Commission's record of proceedings. That record

includes, but is not limited to, the petition, the Department's evaluation of the petition, scientific and other evidence provided to the Department by external parties, the Department's Status Review, the Department's responses to peer reviewer and public comments, and written and oral comments received from conservation organizations, science or research institutions, industry, state and local governments, elected officials, and individuals.

The Commission determined that, based upon the best available information, the likelihood of survival of the Marbled Murrelet has diminished such that the species is in danger of extinction throughout any significant portion of its range within Oregon (ORS 496.176(3), OAR 635-100-0111(1)) and that one or more of the three factors from ORS 496.176(3) and OAR 635-100-0105(6) exist:

1) that most populations are undergoing imminent or active deterioration of their range or primary habitat;
2) that overutilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is occurring or is likely to occur; and
3) that existing state or federal programs or regulations are inadequate to protect the species or its habitat.

The Commission based its decision most heavily on the combination of threats and risk factors affecting the continued existence of the Marbled Murrelet in Oregon. These threats and risk factors include, but are not limited to, specialized habitat requirements, past and ongoing loss and degradation of older forest nesting habitat, low reproductive potential and poor contemporary breeding success, uncertainties associated with recent population trends derived from at-sea surveys due to bird movement, high extinction probabilities inferred from demographic models, increasing threats and stressors in both the marine and terrestrial environments, and inadequacies of current programs and regulations for retaining and recruiting suitable nesting habitat on nonfederal lands. A brief synopsis of these factors is provided below. These items represent only a fraction of the many, complex issues discussed and considered by the Commission since receiving the petition.

Habitat Requirements

Marbled Murrelets are unique among North American alcids in that they nest primarily in coastal old-growth and late-successional forests. They do not construct a nest, per se, but rather lay their single egg on a large or deformed tree branch high in the canopy. Large platforms with moss, lichen, or other nesting substrate, foliage cover above and around the nest, high densities of large trees, multiple canopy layers, and proximity to openings in the canopy that provide flight access are among important habitat features (Nelson et al. 2006). Occupied stands in Oregon are mostly old-growth or fire-regenerated, naturally-planted stands dominated by Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), or Sitka spruce (*Picea sitchensis*) (Grenier and Nelson 1995, Nelson and Wilson 2002). Most nests have been found in trees 80 years or older in Oregon (Hamer and Nelson 1995b, Nelson and Wilson 2002), though nesting has been documented in some younger and mature trees within the Sitka spruce/western hemlock forest type; these younger and mature trees had structural elements (deformities or dwarf mistletoe infestations) characteristic of older trees (Nelson and Wilson 2002).

Marbled Murrelets use nearshore marine waters for resting and feeding on small schooling fish and marine invertebrates (Burkett 1995, Piatt et al. 2007, Nelson et al. 2006). They depend upon productive marine waters in close proximity to suitable forest nesting habitat for successful reproduction, and must commute from nest-sea when provisioning their chick. During the breeding season in Oregon (April through September), murrelets are typically concentrated within 2 km [1.2 miles] of the shore when at sea (Strong et al. 1995, Falxa et al. 2016). Highest murrelet densities during the breeding season have been observed offshore of large blocks of potential nesting habitat (Raphael et al. 2015, Raphael et al. 2016b).

Nesting Habitat Loss and Degradation

There is strong evidence of large-scale loss of older forests since European settlement within the Marbled Murrelet range in the Pacific Northwest and northwestern California (e.g., Booth 1991, Teensma et al. 1991, Bolsinger and Waddell 1993, Ripple 1994, Perry 1995, USFWS 1997, Wimberly et al. 2000, McShane et al. 2004, Strittholt et al. 2006, Ohmann et al. 2007, Davis et al. 2015). In the Oregon Coast Range, Wimberly and Ohmann (2004) estimated that large-conifer forests declined by 58% between 1936 and 1996, with corresponding increases in small-conifer forests during this period. Habitat loss and degradation were primary factors in the initial federal and state listings of the Marbled Murrelet in the 1990s (CDFG 1994, ODFW 1995, Desimone 2016, USFWS 1997, 57 FR 45328).

Since the 1990s, further habitat losses have occurred, mainly due to timber harvest on nonfederal lands and wildfire on federal lands (Raphael et al. 2016a). Based on Northwest Forest Plan (NWFP) estimates, higher-suitability nesting habitat declined in Oregon from approximately 853,400 acres in 1993 to 774,800 acres in 2012, a net loss of 78,600 acres (-9.2% change) (Raphael et al. 2016a). Losses were greatest on nonfederal lands during this period; 59,200 acres (21.1%) of higher-suitability habitat were lost on nonfederal lands compared to 19,400 acres (3.4%) on federal lands (Raphael et al. 2016a).

Past habitat removal has created large gaps that fragment population distribution within the core of the Marbled Murrelet range (Ralph et al. 1995a, USFWS 1997, RIT 2012); in Oregon, large habitat gaps occur in the northwest portion of the state as well as the coastal strip between Reedsport and the Siskiyou Mountains (RIT 2012; Fig. 2 in ODFW 2018). Most remaining nesting habitat persists on public lands in Oregon, including the Siuslaw and Rogue River-Siskiyou National Forests, forests owned by the Bureau of Land Management, and the state-owned and managed Tillamook, Clatsop, and Elliott State Forests (Raphael et al. 2016a; Fig. 2 in ODFW 2018). The full extent of occupied habitat on private lands is unknown since state regulations for forest practices do not require pre-project wildlife surveys by private landowners (Tucker and Weikel 2017a); it is generally assumed to be low given available forest stand inventory and harvest data (Greber et al. 1990, Ohmann et al. 2007) and the Department's examination of the 2012 habitat suitability data produced by Raphael et al. (2016a) for Oregon (see ODFW 2018 for details).

Reproductive Potential and Measures of Breeding Success

Marbled Murrelets are relatively long-lived and have delayed sexual maturity and low fecundity (Nelson 1997). They lay only one egg per clutch and re-nesting rates are low, so nest success (number of

fledglings produced per pair of adults that attempt breeding in a given year) has substantial influence on the demographic measure of fecundity (number of female offspring fledged per adult female per year) (Burger 2002, Peery and Henry 2010).

Across the federally-listed range, nearly all available estimates indicate poor contemporary breeding success (e.g., McShane et al. 2004; Peery et al. 2004; Beissinger and Peery 2007; Crescent Coastal Research 2008, 2013; Lorenz et al. 2017). Data for Oregon are sparse, but nest success has been estimated at roughly 36% (n = 22 nests, S. K. Nelson, pers. comm.). Ratios of juveniles to adult birds counted at sea provide recent productivity indices of 0.025-0.060 for Oregon (Crescent Coastal Research 2008); while these juvenile:adult ratios have known limitations, they are an order of magnitude lower than what population models indicate is necessary to maintain stable populations (0.18-0.28) (Beissinger and Nur 1997). In the first year of an Oregon telemetry study by Oregon State University, none of the 61 murrelets monitored from May to July were known to have nested or attempted nesting in 2017, presumably due to poor ocean conditions that limited prey availability (Rivers 2018).

Population Size and Trend

There is widespread agreement that Marbled Murrelet populations in Washington, Oregon, and California have undergone considerable declines since European settlement (Ralph 1994, McShane et al. 2004). Declines from historical levels have been largely inferred from anecdotal information (e.g., Nelson et al. 1992) and loss of older forest nesting habitat over the last 150-200 years (e.g., Bolsinger and Waddell 1993, Wimberly et al. 2000, Wimberly and Ohmann 2004, Strittholt et al. 2006, Ohmann et al. 2007, Davis et al. 2015). Compared to Alaska and British Columbia, Oregon's Marbled Murrelet population is small (see COSEWIC 2012, Environment Canada 2014).

There are no available surveys that provide a continuous assessment of Marbled Murrelet population trends in Oregon from 1995 to the present. A significant decline (>50%) on Oregon's central coast was first detected in 1996 through at-sea surveys conducted from 1992-1999 (Strong 2003). The NWFP's Marbled Murrelet Effectiveness Monitoring Program monitored murrelets at sea in Oregon nearly annually from 2000-2015, and did not find evidence of a population decline during that period for Oregon (Lynch et al. 2017). It appears that the Oregon population may now be fluctuating around a new, lower baseline. Based on this monitoring program, the Oregon population was estimated at 10,975 birds in 2015 and was likely somewhere between a range of 8,188 and 13,762 birds. The fairly wide confidence limits for these population estimates reflect the challenges of monitoring a highly mobile seabird that is sparsely and patchily distributed, as well as constraints on survey effort.

While the most recent at-sea surveys (2000-2015) did not detect a population decline in Oregon during that period (Lynch et al. 2017), a growing body of evidence indicates that Marbled Murrelet distribution and trend are most closely tied to the amount and trend of suitable nesting habitat, for which the habitat trend is downward in Oregon (see Raphael et al. 2016b). Raphael et al. (2016c) summarized key sources of uncertainty associated with trend estimates. In addition, there may be a time lag before population response due to habitat change is detected by current at-sea monitoring methods since murrelets are long-lived, have high breeding site fidelity, and may survive at sea for many years (Ralph et al. 1995a, Miller et al. 2012, Raphael et al. 2016b).

Dispersing birds may be confounding resident population size and trend estimates. For example, Oregon State University researchers found that many murrelets captured and radio-tagged in Oregon in 2017 subsequently moved into Washington and California waters, likely due to poor ocean conditions that reduced prey availability off Oregon (Rivers 2018). These birds were failed breeders or non-breeders that will presumably return to nest in Oregon in future years, but many would have been counted in at-sea surveys elsewhere (S. K. Nelson, pers. comm.). These results suggest that extensive bird movement could complicate conclusions about population size or trend from at-sea surveys, particularly at the state scale. These findings are so far consistent with those of Peery et al. (2010) in central California, who concluded that most birds moving into Conservation Zone 6 (Santa Cruz Mountains) from the north were not true immigrants but rather "visitors" as few nested or contributed offspring to the resident population.

Demographic Models and Extinction Probabilities

In the most recent demographic modeling for the federally-listed range, McShane et al. (2004) projected population size by Conservation Zone over 40 years; Conservation Zone 3 (Oregon Coast Range) and the northern part of Conservation Zone 4 (Siskiyou Coast Range) occur in Oregon. Among their assumptions were that annual adult survivorship was 83-92%, nest success was 0.324-0.460 for Zone 3 and 0.230-0.324 in Zone 4, juvenile:adult ratios were 0.080 for Zone 3 and 0.084 for Zone 4, and that 90% of adults breed in most years (the latter was reduced to 50% in "severe El Niños", modeled to occur in 3 of every 25 years). They forecasted mean annual rates of decline of 2-6% across all zones initially. Earlier modeling efforts produced similar rates of decline of 4-7% per year for the federally-listed range (Beissinger 1995, Beissinger and Nur 1997).

McShane et al. (2004) also reported extinction probabilities by zone over 100 years. For the entire federally-listed population, the probability of extinction within 100 years was 16%, with a mean 3-state population size of 45 birds at the end of 100 years (all within Zone 1 in Washington State). For Oregon specifically (Zones 3-4), the probability of extinction exceeded 80% by 2060 for Zone 4 and exceeded 80% by 2100 for Zone 3. Projections were especially sensitive to immigration rates and fecundity. Under the model inputs and assumptions, these results suggest high extinction risk for Marbled Murrelets in Oregon within the century.

Key Threats, Stressors, and Climate Change Effects

Forest Habitat Alteration

As discussed above, Marbled Murrelets have experienced both past and contemporary habitat loss. However, it is also the distribution and quality (how far inland, how isolated, how fragmented, etc.) of remaining habitat that is important. Remaining habitat is highly fragmented in Oregon, and most of it persists on public lands. Raphael et al. (2016a) classified nearly 90% of potential habitat on nonfederal lands as "edge", whereas federal lands had lower (>70-80%) but still high proportions of edge. Edge effects can degrade otherwise suitable forest remnants through changes in abiotic or biotic conditions. Lack of buffers and heavy thinning adjacent to murrelet habitat can also contribute to habitat loss and degradation (Raphael et al. 2016b). Examples of adverse edge effects that could result from recent

clearcuts (and logging/thinning adjacent to occupied sites) include elevated predator densities and predation levels, greater windthrow damage, and reduced epiphyte abundance needed for nesting substrate relative to forest interiors (Nelson and Hamer 1995b, McShane et al. 2004, van Rooyen et al. 2011). Fidelity to breeding areas (Divoky and Horton 1995) as well as the time it takes for nesting habitat to develop (decades to centuries) (Falxa et al. 2016) may limit the ability for murrelets to colonize new sites, at least in the short-term.

Adverse Oceanic Conditions

Variability in ocean conditions (winds, temperatures, upwelling patterns) can affect marine productivity, and ultimately, the distribution, abundance, timing, and quality of prey available to murrelets. Marbled Murrelets consume a diverse group of prey, suggesting some degree of flexibility in prey choice and the capacity to switch when necessary (Burkett 1995, Nelson 1997). This makes sense from an adaptive standpoint because prey populations are naturally dynamic. Nevertheless, the evidence indicates that the flexibility to switch prey and alter their activity budget are not adequate to ensure reproductive success during years when ocean productivity is extremely poor (Ronconi and Burger 2008). Because murrelets are long-lived, short-term phenomena such as typical El Niño events or a year with poor ocean productivity would not be expected to adversely affect murrelet populations over the long-term. However, murrelets may not be able to compensate for long periods of unfavorable conditions or increased variability in prey resources (for example, during regime shifts associated with the Pacific Decadal Oscillation), especially in combination with other anthropogenic threats and stressors. Climate change is expected to exacerbate these impacts.

A growing body of evidence indicates that low recruitment in the murrelet is linked, in part, to changes in the marine environment (Peery et al. 2004, Becker and Beissinger 2006, Becker et al. 2007, Norris et al. 2007, Gutowsky et al. 2009, USFWS 2009, Lorenz et al. 2017). During the breeding season, reductions in prey quality or quantity may lead to nest abandonment or failure. During the pre-breeding season, murrelets may fail to initiate nesting altogether without sufficient food resources. Centennial shifts toward lower quality prey types have been documented in both central California and the Salish Sea (Becker and Beissinger 2006, Norris et al. 2007, Gutowsky et al. 2009). Murrelet breeding success appears to be positively associated with an abundance of mid-trophic level prey and cooler ocean temperatures (Becker et al. 2007). Oregon's coastal surface waters have warmed an average of 0.5°F per decade over the latter half of the 20th century and are expected to increase by approximately an additional 2.2°F by the mid-21st century (Mote et al. 2010). The waters off Oregon are also becoming more stratified. The thermocline is 10-20 m [33-66 ft] deeper off Oregon in the early 21st century than it was in the middle of the 20th century (Huyer et al. 2007). Stronger stratification will make ocean mixing due to wind patterns less effective at bringing nutrients to the surface, thereby reducing primary productivity (Osgood 2008, Hoegh-Guldberg and Bruno 2010).

Harmful algal blooms and biotoxins, low-oxygen "dead zones" in the ocean, contaminants in prey, and fishing pressures also have potential to affect murrelets in the marine environment (USFWS 2009), though the magnitude of their effects is uncertain.

Large-scale Disturbances

Disturbances have always played a role in shaping forests. Because current habitat is now limited and disconnected, severe disturbances have the potential to remove key patches that cannot be replaced in the near-term. For example, the 2002 Biscuit Fire in southern Oregon removed over 14,000 acres of suitable habitat (McShane et al. 2004, Raphael et al. 2016a), and the 2017 Chetco Bar Fire impacted over 20,000 acres of federally-designated Marbled Murrelet critical habitat with high to moderate severity burns (Vaughn 2017, p. 14, Table 12). While multiple factors (e.g., climate, weather, topography, vegetation structure/composition/fuels, fire suppression) affect the duration and intensity of fire across the landscape, many studies have concluded that fires are becoming larger and more frequent in the West (e.g., Stephens 2005, Westerling et al. 2006, Kitzberger et al. 2007, Littell et al. 2009, Miller et al. 2009, Westerling 2016).

Predation

Many known or potential murrelet nest predators have seen significant increases in abundance in recent decades (see Burger 2002, Piatt et al. 2007, Halbert and Singer 2017). Evidence throughout the range from both real and artificial murrelet nests indicates that predation is a leading cause of nest failure (Nelson and Hamer 1995b, USFWS 1997, McShane et al. 2004, USFWS 2009) and that corvids (jays, crows, ravens) have the greatest impact (USFWS 2009). Forest fragmentation may contribute to elevated predation rates by increasing predator densities or activity along forest edges (Nelson and Hamer 1995b). Anthropogenic food sources from campgrounds, trails, picnic areas, or other human settlements tend to support elevated levels of corvids, which can lead to higher nest depredation for nearby murrelets (Marzluff and Neatherlin 2006, Bensen 2017, Goldenberg et al. 2016), and perhaps for murrelets nesting further away (West and Peery 2017).

Recovering raptor (e.g., Bald Eagles *Haliaeetus leucocephalus*, Peregrine Falcons *Falco peregrinus*) populations pose a new potential threat to adult and juvenile murrelet survival (Piatt et al. 2007, RIT 2012). This is of particular concern given that murrelet population growth is thought to be influenced most by adult and subadult survival (McShane et al. 2004). Depredation of adult murrelets by Peregrine Falcons, Sharp-shinned Hawks (*Accipiter striatus*), Common Ravens (*Corvus corax*), Northern Goshawks (*A. gentilis*), and Bald Eagles has been documented, but there is no information on mortality rates (McShane et al. 2004).

Oil Spills

Marbled Murrelets are especially vulnerable to oil spills because they feed in local concentrations close to shore and spend most of their time swimming on the sea surface (King and Sanger 1979, Wahl et al. 1981). Exposure to oil (e.g., ingestion during preening, fouling of plumage) can impair thermoregulation, flight ability, reproductive behavior, and/or physiological functions, with lethal or sub-lethal effects (USFWS 2005). A spill could also cause indirect mortality or effects (i.e., if prey base is negatively impacted) (Carter and Kuletz 1995, Peterson et al. 2003). For example, even low levels of oil can result in developmental defects and mortality in Pacific herring (*Clupea pallasii*) embryos (Incardona et al. 2007, 2015).

In 1999, the New Carissa cargo vessel that ran aground and split apart on the southern Oregon coast released over 70,000 gallons of fuel, killing or injuring an estimated 2,465 seabirds, including 262 Marbled Murrelets (USFWS 2009). This spill has had the greatest documented murrelet mortality in Oregon (USFWS 2009). Large oil spills remain a serious threat given the volume of shipping traffic along the West Coast and Columbia River as well as ports, oil facilities, and oil trains operating in Oregon.

Climate Change Effects

There are currently few indications that Marbled Murrelets south of Canada will see benefits from a warming climate (USFWS 2009). Given their low reproductive potential, specialized habitat requirements in both terrestrial and marine environments, breeding site fidelity, and restricted distribution, Marbled Murrelets may not be as resilient as some other species to changing conditions. A recent assessment by Case (2014) described the Marbled Murrelet as highly sensitive to climate change; of the 114 Pacific Northwest bird species analyzed, the Marbled Murrelet had the highest climate-sensitivity score.

There is already strong evidence that climate change is affecting ecosystems in the Pacific Northwest and globally (IPCC 2014, Blunden and Arndt 2016, Dalton et al. 2017). Under even the most optimistic scenarios, Oregon's climate is expected to warm at least 2-5°F by the 2050s and 2-7°F by the 2080s. In the Coast Range specifically, Dalton et al. (2017) noted that warmer, drier conditions may lead to conifer forests shifting to more drought-tolerant mixed forests and increasing impacts from wildfire and the fungal disease Swiss needle cast, which stunts Douglas-fir growth. Climate change effects that reduce growth of moss or other canopy epiphytes that provide nesting substrate for Marbled Murrelets could also impact the species (COSEWIC 2012).

Climate change effects in the marine environment that affect murrelet prey resources are of particular concern (USFWS 2009). Climate models indicate that ocean warming is accelerating and will continue in the future, though changes in upwelling patterns that help to drive marine productivity are less certain (Dalton et al. 2017). There is also evidence that the timing of the annual upwelling cycle may change with changes in climate, and that such changes can affect breeding success of the Marbled Murrelet. For example, reproductive failures for the Cassin's Auklet (*Ptychoramphus aleuticus*) and extremely poor reproductive success for the Marbled Murrelet in 2005 were attributed to the change in timing of the wind-driven upwelling, which resulted in low prey resources at a critical time of their reproductive cycle (Sydeman et al. 2006, Ronconi and Burger 2008).

Unusually warm ocean conditions from 2014-2016 provide additional insights into the ecological effects that a warmer future ocean along the Oregon coast might have. An anomalously warm water mass known as "The Blob" (Bond et al. 2015) formed in the Gulf of Alaska in fall 2013 and spread across the entire North Pacific by 2014. These warm waters combined with a strong El Niño the following year, keeping sea surface temperatures elevated off the Oregon coast through 2016. During "The Blob", the zooplankton community off of the Oregon coast was dominated by small, lipid-poor tropical and subtropical copepods and gelatinous zooplankton, including new species not previously detected off Newport since sampling began in 1969, krill biomass was the lowest on record, and marine reptile and fish species were observed thousands of kilometers outside of their usual ranges (Peterson et al. 2015).

A number of forage fish species declined in abundance in 2013-2016, and a mass starvation of Common Murres (*Uria aalge*) was observed from southern California to the Aleutian Islands. Murre breeding success was also diminished off California and Oregon, and murres failed altogether in Alaska at many colonies in 2015 and 2016. Several other species of seabirds and marine mammals suffered starvation or breeding failures from southern California to the Bering Sea of Alaska during this period (J. F. Piatt et al., in prep.).

State and Federal Programs and Regulations

The Department's status review examined a wide range of state and federal programs and regulations pertinent to the status of the Marbled Murrelet and/or its habitat in Oregon. In the terrestrial environment, federal forest lands have largely been managed under the NWFP since 1994, though the Bureau of Land Management adopted a new Western Oregon Resource Management Plan for their lands in 2016. On nonfederal lands, commercial timber harvest is regulated under the Oregon Forest Practices Act. The Oregon Forest Practices Act (in and of itself) currently provides limited protection of Marbled Murrelet habitat. The Oregon Department of Forestry is undertaking a rulemaking process pertaining to Marbled Murrelet resource sites, but the outcome of that process will not be known for about 18 months (L. Tucker, pers. comm.). Management of state forest lands is additionally guided by applicable forest plans, agency mandates, and operational policies that include protective measures for Marbled Murrelet habitat.

Overall, the Department's review found that the threat posed by inadequate state and federal programs and regulations has decreased since state listing. For example, implementation of the NWFP reduced the rate of habitat loss due to timber harvest on federal lands. However, loss of higher-suitability potential habitat on nonfederal forest lands in Oregon was substantial (21%) from 1993 to 2012, and most of this loss was attributed to timber harvest (Raphael et al. 2016a); this suggests that a mechanism is still needed to reduce continued habitat loss and fragmentation. Fisheries management is another example of state and federal programs and regulations that have been strengthened since the 1990s, improving protections for murrelet prey resources in Oregon. Several marine reserves and marine protected areas have been established, and there is now greater oversight of forage fish management at state and federal levels.

Literature Cited

References identified in this document are provided in the Literature Cited section of the Department's Status Review (ODFW. 2018. Status review of the Marbled Murrelet (*Brachyramphus marmoratus*) in Oregon and evaluation of criteria to reclassify the species from threatened to endangered under the Oregon Endangered Species Act. Oregon Department of Fish and Wildlife, Salem, Oregon.), with the exception listed in full below:

Rivers, J. 2018. The Oregon Marbled Murrelet Project: science to inform conservation and management of Oregon's coastal forests. Oregon State University presentation to the Oregon Fish and Wildlife Commission, February 9, 2018, Portland, Oregon.

PETITION TO UPLIST THE MARBLED MURRELET FROM THREATENED TO ENDANGERED UNDER OREGON'S ENDANGERED SPECIES ACT

PETITIONERS

Cascadia Wildlands is a non-profit, public interest environmental organization head quartered in Eugene, Oregon. Cascadia Wildlands educates, agitates, and inspires a movement to protect and restore Cascadia's wild ecosystems, including the species therein. We envision vast old-growth forests, rivers full of wild salmon, wolves howling in the backcountry, and vibrant communities sustained by the unique landscapes of the Cascadia bioregion. We have worked for over a decade on marbled murrelet issues in the Pacific Northwest.

The **Center for Biological Diversity** is a non-profit conservation organization with more than 1 million members and supporters dedicated to the conservation of endangered species and wild places, including members throughout the Pacific Northwest. The Center has been working to protect the marbled murrelet and its habitat for more than a decade.

Coast Range Forest Watch is a volunteer-run conservation group based in Coos Bay, Oregon. They perform citizen science surveys for the endangered marbled murrelet and advocate for the protection of ecologically sensitive areas in Oregon's Coast Range.

Oregon Wild is a non-profit, public interest conservation organization. For more than four decades, Oregon Wild has worked to protect and restore old-growth forests in Oregon, as well as the fish and wildlife that depend on them, including marbled murrelet. Oregon Wild has worked extensively to protect remaining habitat, and restore degraded habitat in the Siuslaw National Forest and on BLM lands, however, that work is being undercut by the lack of adequate protections on state and private lands in Oregon.

The **Audubon Society of Portland** is a non-profit environmental organization dedicated to wildlife conservancy in Portland, Oregon, U.S. Founded in 1902 and incorporated in 1909, it is one of the oldest such organizations in the world. The Audubon Society of Portland has been a loud and consistent voice advocating for the conservation of marbled murrelets and its habitat.

The **Oregon Chapter of the Sierra Club** represents the organization's 20,000 members in Oregon and has worked to protect Oregon's environment and natural resources since 1978. Today, the Sierra Club employs eight staff in Oregon who work with volunteer leaders to advance the chapter's conservation priorities, including a priority on the protection of the mature and old-growth forests relied upon by the marbled murrelet.

Submitted via electronic mail this 21st day of June 2016 to: odfw.commission@state.or.us

Pursuant to ORS 496.176, the above petitioners formally request that the Oregon Commission on Fish and Wildlife (Commission) reclassify by rule the marbled murrelet (*Brachyramphus marmoratus*) from "threatened" to "endangered" under the State of Oregon Endangered Species Act.

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EXECUTIVE SUMMARY

The marbled murrelet (*Brachyramphus marmoratus*) is a member of the alcid family. The marbled murrelet was protected as "threatened" under the federal Endangered Species Act (ESA) in 1992 and under the Oregon Endangered Species Act in 1987. While the marbled murrelet spends most of the year foraging in coastal waters, it is the only alcid in the Pacific Northwest that flies inland to nest and rear its young. From April to September, marbled murrelets fly up to 85 km inland to nest on large branches in the canopies of late-successional and old-growth coastal forests. Due to the high rate of timber harvest in Oregon over the past 150 years, only a small percentage of coastal late-successional and old-growth forests remain. Oregon's state forests contain over 23,000 acres of known occupied murrelet habitat, as well as extensive additional unsurveyed suitable habitat that is critical for the murrelet's persistence.

There is no ongoing effort or plan to recover marbled murrelets or their habitat on state or private forest lands in Oregon. While the federal ESA prohibits take of the species on these lands, surveys are not required on private lands, survey efforts for murrelets in general are not reliable in predicting an absence of the species, and standing rulings and a systemic lack of oversight and enforcement of the federal ESA on non-federal lands leaves a regulatory void that threatens the survival and recovery of the murrelet.

Oregon's State forestlands and private timberlands with late-successional forest are critical refuges for the marbled murrelet in Oregon, yet the amount of nesting habitat within those State forests continues to decrease as logging projects are routinely authorized in late-successional stands. The majority of this logging proceeds without first conducting surveys for the species, and there is no comprehensive strategy to ensure the species' continued survival that applies to state or private lands. The Oregon Department of Forestry (ODF) and Department of State Lands (DSL) formerly operated under a Habitat Conservation Plan (HCP) on the Elliott State Forest that provided a 50-year

plan for recovery and maintenance of nesting habitat for the murrelet. The state has since abandoned that plan, opting instead to initiate planning for logging in formerly reserved areas while only conducting surveys to avoid direct take of existing nests. The most urgent conservation measure required for the persistence of the species is the conservation of habitat, especially habitat on state and private lands. The recently released twenty year monitoring report for the marbled murrelet cited the urgent need to "arrest the loss of suitable habitat on all lands, especially on non-federal lands in the relatively near term." (Falxa & Raphael 2016). However, Oregon is currently working towards disposing the 93,000-acre Elliott State Forest and aggressively logging and removing habitat on the north coast state forests.

To ensure the persistence of the species, administrative rules or a comprehensive plan must apply to both state and private lands in Oregon. Substantial declines in marbled murrelet populations are associated with continuing habitat loss, increased rates of predation due to habitat fragmentation, and decreased marine prey sources. There is also an alarming lack of juveniles, raising concerns about the species' reproductive success. Some areas of the state will likely experience marbled murrelet extirpation. The Oregon Fish and Wildlife Commission must reclassify the marbled murrelet from "threatened" to "endangered" on the Oregon Endangered Species List to ensure the very survival of this unique seabird and ultimately its recovery.

BIOLOGY AND ECOLOGY OF THE MARBLED MURRELET

The marbled murrelet (*Brachyramphus marmoratus*) is a dove-sized alcid with a long, slender bill. Its non-breeding plumage is counter-shaded with white feathers ventrally and black feathers dorsally, and its breeding plumage is a cryptic mottled ("marbled") brown pattern (National Geographic Society 1987).

Marbled murrelets are unique among seabirds in that they fly long distances inland to nest in old-growth forest (Lank et al. 2003). The nesting of marbled murrelets (hereafter murrelets) was an ornithological mystery until 1974 when the first nest was found by an arborist in central California. Marbled murrelets lay a single egg per breeding season (Nelson & Hamer 1995) on a mossy limb in the forest canopy. Breeding lasts from March until September, during which murrelets make daily trips from their nests in old-growth trees to the ocean to forage on small fish and invertebrates (Marshall 1988). Repeated nest site surveys suggest high site fidelity, similar to other alcids (Evans-Mack et al. 2003, Nettleship & Birkhead 1985).

Although murrelets primarily nest in late successional coastal forests within 30 miles of the coast, nest sites have been found as far as 55 miles inland (Nelson & Hamer 1995, McShane et al. 2004). Grenier & Nelson (1995) found that occupied murrelet sites in Oregon were characterized as older forests containing large and tall dominant trees. Murrelet habitat use during the breeding season is positively associated with the presence and abundance of mature and old-growth forests, large core areas of old growth, low amounts of edge habitat, reduced habitat fragmentation, proximity to the marine environment, and forests that are increasing in stand age and height (USFWS 2009). Additionally, studies have shown that murrelet nest trees are larger in diameter and taller than non-nest trees (Hamer & Meekins 1999, Nelson & Wilson 2002). Suitable marbled murrelet nesting platforms are branches at least 4 inches in diameter and 33 feet above the forest floor. The presence of suitable nesting platforms is the most important factor in murrelet nesting habitat choice (Burger 2002, McShane et al. 2004). Preferred murrelet nesting habitat also contains a high density of large trees with mossy platforms (Manley 1999, Nelson & Wilson 2002). Although marbled murrelets generally nest in old-growth, they also nest in younger forests (60-80 years old) that include remnant trees with platforms or mistletoe platforms in the Sitka spruce/western hemlock forest type (Nelson & Wilson 2002).

Murrelets are generally year-round residents in marine waters adjacent to inland nesting habitat (Nelson 1997). Additionally, their abundance at sea is highly correlated with the presence of large, unfragmented old-growth forests adjacent to at-sea foraging habitat regardless of marine conditions (Miller et al. 2002, Raphael et al. 2015). Raphael et al. (2002) found that the number of murrelets entering a watershed is strongly correlated with the amount of unfragmented late-successional forest in the watershed. Raphael et al. (2015) looked at the relationship between at-sea factors (e.g., sea surface temperatures) and inland nesting habitat on murrelet abundance. They found that murrelet populations decline when the amount and cohesiveness of inland suitable habitat declines and that nearshore abundance was correlated with the amount of higher-suitability nesting habitat in the adjacent terrestrial environment. This correlation was not observed for at-sea factors (Raphael et al. 2015). It is therefore critical to conserve suitable nesting habitat to ensure the survival of the marbled murrelet (Falxa & Raphael 2016)

POPULATION STATUS

Murrelets in Washington, Oregon, and California collectively comprise a single Distinct Population Segment (DPS), which was protected as a threatened species under the federal ESA on October 1, 1992 (57 Fed. Reg. 45328). Although limited, anecdotal, and qualitative in nature, the historical data on murrelet populations suggest a general decline in population numbers and range over time (Carter & Erickson 1992, Ralph & Miller 1995, USFWS 1997). The historical and presently known distribution of murrelets within the DPS stretches from the central California coast north to the 49th parallel along the international border with Canada.

Numerous studies show localized population decreases and high rates of nest failure in response to ongoing anthropogenic factors such as habitat loss and fragmentation (Burger 2002, Burger & Waterhouse 2009, Piatt et al. 2007, Raphael et al. 2015, Peery et al. 2009, Nelson & Hamer 1995, Hamer & Meekins 1999, Manley 1999, Manley & Nelson 1999, Bradley 2002, Hébert

& Golightly 2007, Nelson & Wilson 2002, Manley 2003, Peery et al. 2004, Falxa & Raphael 2016). The Northwest Forest Plan (NWFP) divided the DPS into six Conservation Zones spanning the three states: Puget Sound (Zone 1), Western Washington Coast Range (Zone 2), Oregon Coast Range (Zone 3), Siskiyou Coast Range (Zone 4), Mendocino (Zone 5), and Santa Cruz Mountains (Zone 6). The NWFP also established an effectiveness monitoring program which includes annual at-sea population surveys for murrelets during the breeding season (Huff 2006, Miller et al. 2006, Raphael et al. 2007). The latest NWFP murrelet population monitoring shows a non-significant trend in Oregon's waters (Falxa et al. 2014), which include all of Conservation Zone 3 and the northern portion of Conservation Zone 4. However, steep declines were reported for the Washington population (Figure 2), underlining the need for greater conservation measures in Oregon to sustain the DPS as a whole.

The most troubling indicator of extinction risk in marbled murrelet populations is a steep decline in breeding productivity. Peery et al. (2007) determined that the ratio of adults to juveniles detected at sea may be an effective way of determining breeding productivity in murrelet populations. Since 2004, data on nesting success from radio telemetry studies and adult to juvenile ratios confirm that breeding success is too low to sustain murrelet populations (Becker et al. 2007, Norris et al. 2007, Ronconi & Burger 2008, Crescent Coastal Research 2008). Low nest success is also thought to be a contributing factor to population declines, with nest success rates far too low to sustain the population (Beissinger & Nur 1997, Bradley et al. 2002, Cam et al. 2003, Peery et al. 2004). Furthermore, evidence suggests the weakening of the marbled murrelet population genetic structure could compromise the long-term conservation of the species (Piatt et al. 2007).). Piatt et al. (2007) concluded:

> [M]urrelets appear to comprise three genetic units: (1) western and central Aleutian Islands; (2) eastern Aleutian Islands to northern California; and (3) central California. . . . Loss of any of these populations would result in loss of a portion of the species' genetic resources and/or local adaptations, and may compromise its long-term viability.

(Piatt et al. 2007, p. 43). Since the currently listed population encompasses all of one genetic unit as mentioned above and a portion of another, loss of the population could compromise the long-term viability of the species as a whole.

Piatt et al. (2007) confirm that the genetic diversity of the species is critically dependent on the viability of the Washington, Oregon, and California DPS. Using allelic richness as a measure of the robustness and diversity of murrelet population genetic structure, Peery et al. (2009) concluded that allelic richness has declined from historic levels in the northern California to southeast Alaska populations. This suggests that the murrelet gene pool is shrinking and may face a genetic bottleneck in the future unless declines in breeding success are abated.

The static or declining population trends coupled with extremely low numbers of juveniles and a shrinking gene pool suggest that the natural reproductive potential of the species is in danger of failure. The USFWS (2010) concluded:

> Based on the evaluation of the threats and the murrelet's population status and trends, we have determined that the murrelet is likely to become endangered in the foreseeable future unless the current population decline is arrested. Nothing in our assessment indicates that the currently observed population decline is transient. Rather, our threats assessment indicates that it is reasonable to expect that the species will continue to be exposed to a broad range of threats across its listed range.

The decline of the marbled murrelet population in Washington, Oregon, and California has not been sufficiently arrested since the USFWS analysis. Greater state level protections for the marbled murrelet are essential to its survival.

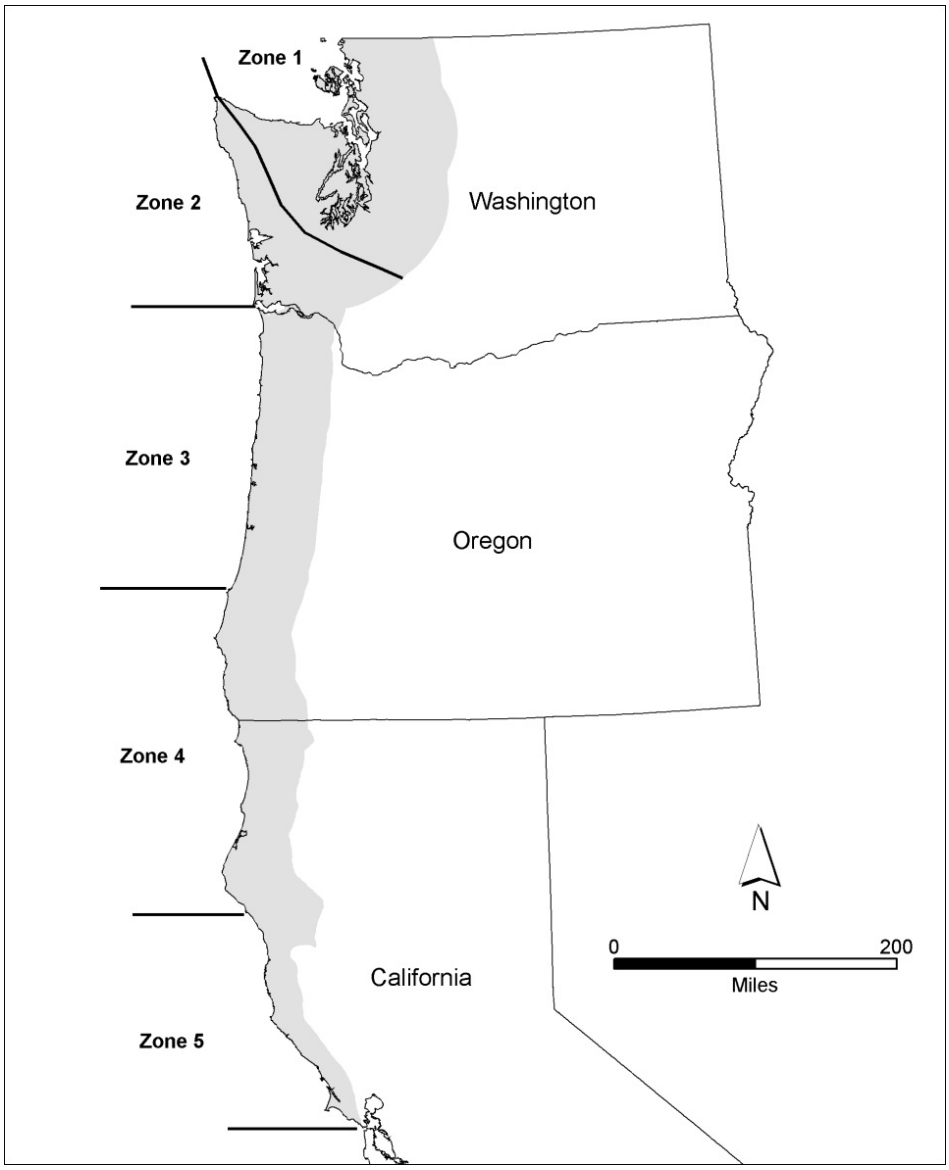

Figure 1. Marbled Murrelet Conservation Zones. Adapted from USFWS (1997), Falxa et al. (2014).

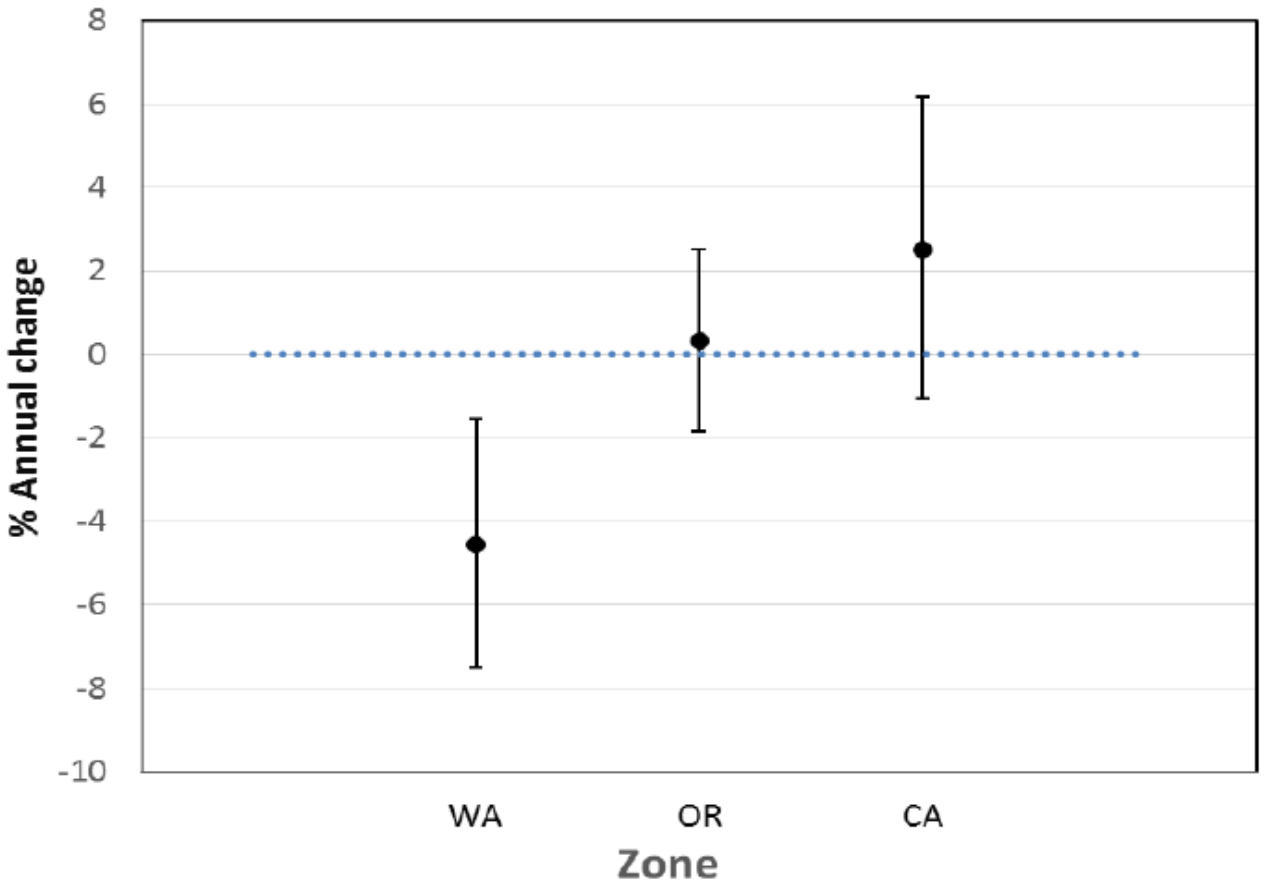

Figure 2. Average annual percentage change in marbled murrelet populations in Washington, Oregon, and California from 2000-2013. Adapted from Falxa et al. (2015).

Destruction and Degradation of Habitat in Oregon

Murrelets inhabit two distinct ecosystems. Much of the year is spent foraging at sea, with a terrestrial nesting period from spring until early fall. While rearing their young, adults fly from the nest to the ocean to fish. Marbled murrelets spend the remainder of the year foraging at sea, generally near their nesting habitat. Both the murrelet's terrestrial and marine habitats face substantial threats.

Terrestrial nesting habitat continues to decrease across the Washington, Oregon, and California DPS from timber harvest. The habitat that remains is increasingly fragmented by the edges created by logging. Habitat fragmentation results in increased nest predation rates.

Although less is known about the extent of marine habitat degradation, substantial threats to murrelet foraging habitat and prey species exist. These threats include human overfishing of murrelet prey species, changing oceanographic conditions due to climate change, oil spills, derelict fishing gear, anoxic events ("dead zones"), and biotoxins produced by algae and diatom blooms.

Terrestrial Habitat

The largest threat to the murrelet is the destruction or modification of nesting habitat. The widespread removal of murrelet nesting habitat by timber harvest was the primary reason for protecting murrelets under the federal ESA in 1992 (USFWS 1992) and the Oregon ESA in 1987. The murrelet is likely facing severe population reductions within the next 20 to 100 years due to extensive nesting habitat loss (USFWS & BLM 1994, Beissinger 2002, Raphael et al. 2015). Loss of nesting habitat is highly correlated with declining populations through most of the species' range (Burger 2002, Burger & Waterhouse 2009, Piatt et al. 2007, Raphael et al. 2015, Falxa & Raphael 2016). There is substantial continuing loss of murrelet nesting habitat in Oregon on federal, state, and private lands. Between 1992 and 2006 alone, murrelet nesting habitat is estimated to have

decreased by 10 percent across the range of the Washington, Oregon, and California DPS (USFWS 2004, Raphael et al. 2015).

Strittholt et al. (2006) estimated that the Central Pacific Coastal Forest ecoregion, which includes nearly all of the murrelet habitat from the Olympic Peninsula to the Oregon-California border, historically contained nearly 9 million acres of old-growth forest. In 2006, the estimated area of conifer forests greater than 150 years of age in the Central Pacific Coastal Forest ecoregion was 1.65 million acres (Strittholt et al. 2006). This represents an 82 percent decline in late-successional forests within the ecoregion since pre-colonial times. This estimate is very close to previous estimates of habitat loss over the last 150 years in the region (Teensma et al. 1991, Booth 1991, Ripple 1994, Peery 1995, USFWS 1997).

The Central Pacific Coastal Forest ecoregion, which includes all of the Oregon coast, is the most heavily impacted ecoregion outside of population centers such as the Willamette Valley and Puget Lowlands (Strittholt et al. 2006). This ecoregion contains only 18 percent of the estimated levels of historical old conifer forests, and the remaining older forests are within Oregon's coastal checkerboard of industrial forestlands which are highly fragmented (Strittholt et al. 2006). The Strittholt et al. (2006) analysis used Landsat images that are now more than 15 years old, and habitat loss has continued since their study (Raphael et al. 2015).

The majority of high quality suitable murrelet habitat in Zone 3 occurs along the central Oregon coast on USFS and BLM lands. Alternatively, northwest Oregon contains less suitable habitat that is generally lower in quality and found in small, scattered patches. Remaining suitable habitat is largely found on state lands and has been subject to a long history of timber harvest and wildfire. In western Oregon, private forest industry lands consist of younger age classes than federal and state lands; 90 percent of the stands on private lands are 60 years of age or younger (Adams et al. 2001). On non-federal lands in western Oregon, only about 5 percent of the stands have an

average stand diameter of 21 inches or greater. In the Oregon Coast Range, 64 percent of the land is privately owned, while 12 percent is State owned and 24 percent is managed by Federal agencies (Wimberly & Spies 2000).

Given that less than half of higher quality habitat in the NWFP area is under federal ownership, protections on private and state lands are critical to the species. Although most private timberlands support second- and third-growth forest stands that do not represent suitable murrelet habitat, some suitable habitat still remains on private lands. However, on private timberlands in Oregon, no surveys are required for marbled murrelets prior to timber harvest in suitable murrelet habitat. Thus, private forest lands not owned by timber companies are not likely to contribute murrelet habitat in the future if the regulatory framework remains the same (McShane et al. 2004).

State lands in the Oregon Coast Range are comprised mostly of the Elliott, Clatsop, and Tillamook State Forests. These forests have a history of fire and heavy logging, but the majority of the Clatsop and Tillamook forests are maturing into murrelet habitat, and there are many documented murrelet nest sites in these forests. The Elliott, which burned around 150 years ago, represents one of the largest contiguous blocks of suitable murrelet habitat along the Oregon coast, and is in the NWFP conservation zone with the largest at-sea population counts (Falxa et al. 2014).

The Oregon Department of Forestry was harvesting approximately 35 to 45 million board-feet of timber from the Elliott annually (ODF 2011), until a lawsuit in 2013 alleging ongoing take of marbled murrelets halted timber production in older stands. Since 2013, primarily only younger stands have been subject to logging in the Elliott. Approximately half of the Elliott State Forest's 90,000 acres remain prime murrelet habitat, with survey efforts continuing to be very successful.

Aside from timber harvest, natural sources of murrelet habitat loss include wildfire, insect outbreaks, and windthrow events (Lynch et al. 2009). Windthrow events may become more severe as fragmentation increases (McShane et al. 2004), especially with the extent of clearcutting and

heavy thinning across land ownerships. Wildfire events are projected to increase in severity and frequency due to climate change (Millar et al. 2006). Additionally, insect outbreaks may also increase in severity as climate change affects ecosystems (Millar et al. 2006).

Aside from loss of mature forest habitat, local and regional fragmentation of nesting habitat across the DPS is a key contributor to species decline. Numerous studies indicate the importance of large areas of contiguous mature and old-growth forest to murrelet terrestrial nesting habitat (Ripple et al. 2003, Raphael 2006, Meyer et al. 2002, Hébert & Golightly 2007). Ripple et al. (2003) found that murrelets in western Oregon do not nest near clearcuts but may nest adjacent to young or mature forests.

While little is known about predation on adult murrelets at sea, predation has consistently been the primary cause of murrelet nest failure (McShane et al. 2004). McShane et al. (2004) report that the majority (78%) of murrelet nest failures are due to predation. Murrelets that nest in close proximity to forest stand edges are more vulnerable to predation by corvids, primarily common ravens (*Corvus corax)* and Steller's jays (*Cyanocitta stelleri*) (Nelson & Hamer 1995, Raphael et al. 2002), because the predators have easier access to nests without the presence of protective mature forest canopy (Meyer et al. 2002). Compounding this edge effect, corvid populations have been shown to increase in clear cuts (Ripple et al. 2003). Corvid abundance is highly correlated with murrelet nest predation (Marzluff & Neatherlin 2006). Additionally, nest predation is likely higher than observed data suggest because often no evidence is left behind following nest predation by corvids, making nest predation sites entirely unobservable (Hébert & Golightly 2007). Human presence near murrelet nesting habitat further aggravates nest predation by attracting predators (Ripple et al. 2003, Hébert & Golightly 2007).

Ripple et al. (2003) suggested that murrelet choice of nesting sites might be the result of an anti-predator strategy to protect eggs and young. The authors also suggest eliminating clear cutting

within 1 km of a murrelet nest site to protect nests from predation. Currently there are no measures in place to address corvid predation of murrelet nests in Oregon.

The consequences of habitat fragmentation include: negative effects on murrelet population viability and size, local or regional extirpation or displacement, fewer nesting attempts, failure to breed, reduced fecundity, reduced nest abundance, lower nest success, increased predation rates and reduction in adult survival (Raphael et al. 2002). Generally, optimal murrelet habitat contains large core areas and low amounts of overall edge (Meyer & Miller 2002, Raphael et al. 2002). A study in British Columbia documented a decline in breeding success with increasing proximity to clear cuts (Zharikov et al. 2006). Malt & Lank (2007) have shown that rates of corvid predation increase with increasing murrelet nesting habitat edge.

Habitat fragmentation decreases the amount and heterogeneity of nesting habitat, decreases habitat patch size, decreases the amount and quality of core habitat, increases the amount of edge around nesting habitat and further isolates patches of nesting habitat (McShane et al. 2004). Hard edges along murrelet nesting habitat can cause an increase in frequency and severity of windthrow events, further reducing the amount of suitable nesting habitat (McShane et al. 2004). As mentioned earlier, Peery et al. (2009) found that habitat fragmentation due to extensive logging of old-growth forests in northern California changed murrelet population structures, leading to increased risk of local extirpation (Peery et al. 2009). In British Columbia, van Rooyenetal et al. (2011) found that hard edges compromised epiphyte micro-climates, thus reducing mossy landing platforms, while soft and natural edges did not. Further habitat fragmentation will continue to isolate populations and increase the chance of local extirpation of murrelet populations. The marbled murrelet recovery plan suggests one of the most important factors to ensure the survival of the species is to decrease habitat fragmentation across the landscape (USFWS 1997, Raphael et al. 2015, Falxa & Raphael 2016).

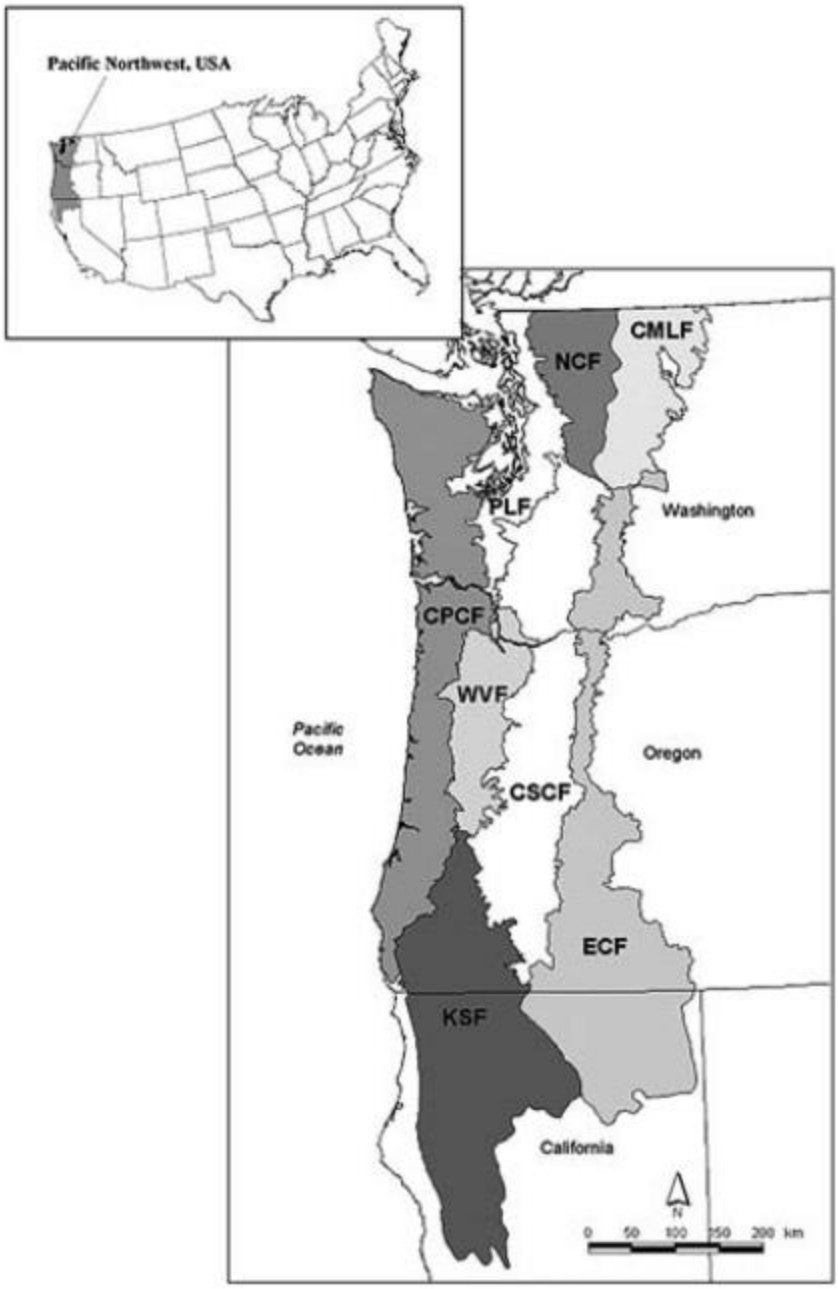

Figure 4. Ecoregions used in the Strittholt et al. analysis, including the Central Pacific Coastal Forest ecoregion (CPCF). Figure from Strittholt et al. (2006).

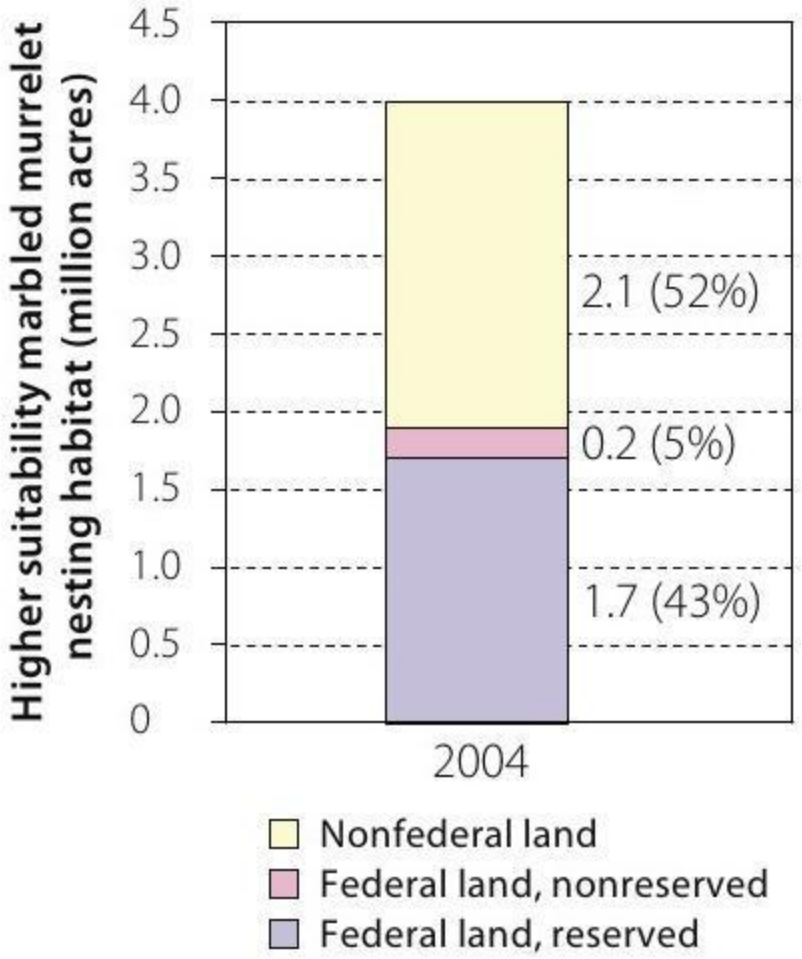

Figure 5. Higher suitability marbled murrelet habitat across the Northwest Forest Plan Area by ownership. Adapted from Rapp (2007).

Marine Habitat

Threats to murrelet marine habitat include changes in prey availability and quality, dead zones, algal blooms and the potential exacerbation of these conditions from climate change (USFWS 2010).

There is a documented decline in the trophic level of murrelet prey species in California (Becker & Beissinger 2006). A shift to lower trophic-level food sources negatively influences murrelet breeding because murrelets are less likely to initiate nesting when they cannot feed on quality middle and high trophic-level food during the breeding season (Becker & Beissinger 2006). Murrelet prey species distribution and abundance depends on oceanographic conditions which drive upwelling in the California current system (Smith 1983). Oceanographic conditions are affected by El Niño Southern Oscillation (ENSO) events which reduce upwelling and Pacific Decadal Oscillation (PDO) events which alternate between cool and warm water cycles by decade (Schwing et al. 2002).

Murrelets are negatively affected by warm cycles such as ENSO and PDO warm cycle events that reduce upwelling (Ainley et al. 1995, Burger 1995, Burger 2000), which are increasing in severity (Snyder et al. 2003). Peery et al. (2004) suggest reduced quotas for fisheries targeting murrelet prey species may be needed to increase murrelet productivity. While no data exist for Oregon, studies in Washington have shown that poor oceanographic conditions lead to much larger murrelet home range size (Lynch et al. 2009). When marine prey sources near nesting habitat are insufficient, murrelets must venture further from nests or forego breeding entirely (McShane et al. 2004).

While their direct effect on murrelets has not been studied, algal blooms and dead zones in Oregon's coastal waters are assumed to be harmful to murrelet foraging habitat (USFWS 2010, Becker & Beissinger 2006). Anoxic events may be negatively affecting murrelet food supply due to

associated fish and invertebrate mortality (Grantham et al. 2004, Chan et al. 2008). In Oregon, these events overlap in area with the highest murrelet densities on the Oregon coast (USFWS 2010).

Algal blooms and associated biotoxins are reportedly increasing (Lopez et al. 2008). In 1989, two marbled murrelets were found killed by paralytic shellfish poison (PSP), a biotoxin associated with algal blooms (McShane et al. 2004). Domoic acid, a biotoxin associated with diatom blooms, was responsible for the mortality of 2 out of 17 radio tagged murrelets in California (Peery et al. 2006). The extent to which algal blooms are occurring and affecting murrelet populations is not known but is assumed to negatively affect murrelet foraging habitat (USFWS 2010, Becker & Beissinger 2006).

In general, areas for which climate change projections have been prepared predict conditions that are unfavorable for murrelets (Lynch et al. 2009). Oceanographic climate-related factors affecting murrelets that are projected to change include: increased ocean acidification, increased sea surface temperatures, increased winds near coasts, changes in upwelling seasonality and magnitude, increased frequency and area of dead zones, increased stratification of upper ocean waters, more frequent ENSO warm events, sea level rise, timing shifts and changing flow levels of freshwater inflows, potential turbidity increases of nearshore waters due to shoreline erosion, increased intensity of winter storms and changing distribution of marine species as sea surface temperatures rise, among others (USFWS 2009). With the myriad potential negative effects of climate change to marbled murrelets, protecting nesting habitat is paramount to conserving the species in Oregon.

Inadequacy of Existing Regulatory Mechanisms

The marbled murrelet (*Brachyramphus marmoratus*) is a sea bird that has declined in population over the past century. Accordingly, the marbled murrelet was listed as a "threatened" species under the federal Endangered Species Act (ESA) in 1992, 16 USC §§1531 - 1544. 57 Fed.

Reg. 45328 (Oct 1, 1992); 50 CFR §17.11 (1993). Since that listing, marbled murrelets have been protected pursuant to the Northwest Forest Plan on federal lands in Oregon.

While the implementation of the Northwest Forest Plan (NWFP) in 1994 has somewhat reduced the annual rate of habitat loss on federal land, habitat loss is still occurring at a rate higher than predicted before the implementation of the plan (Raphael 2006, Raphael et al. 2015). Raphael et al. (2006) estimate that between 1994 and 2003, as many as 279,000 acres of suitable habitat were lost across the DPS. The US Forest Service estimated in 2007 that only 48 percent of higher quality murrelet nesting habitat in the Northwest Forest Plan area is under federal ownership (Rapp 2007). Further, between 2004 and 2009, the USFWS has authorized incidental take associated with the removal of 850 acres and the degradation of 715 acres of murrelet nesting habitat in Conservation Zone 3, and the removal of 4,472 acres of nesting habitat in Conservation Zone 4. The USFWS also authorized incidental take associated with the degradation of 22,723 acres of nesting habitat in Conservation Zone 4 (Lynch 2009). Additionally, both Region 6 of the Forest Service and Oregon's BLM Districts have initiated the process to revise their management plans, which could result in substantial reductions in protections for marbled murrelet habitat on federal lands.

The marbled murrelet is also protected by Section 9 of the Endangered Species Act which entails a prohibition on "take." 16 U.S.C. § 1531 et seq. "Take" has been defined to include the adverse modification of occupied habitat. Both citizens and the USFWS are permitted to sue violators for taking or killing marbled murrelets. However, this prohibition is practically inapplicable to private lands in Oregon because of the lack of survey requirements on private lands, the statutes' respective notice provisions,[1] and a general lack of enforcement by the USFWS.

[1] To bring a Section 9 citizen suit, a plaintiff must give the potential violator and the USFWS 60 days' notice of the alleged violations. Under state law, a timber producer must only provide the state with 15 days' notice prior to logging. Because citizen suits under the Act are only prospective, in that the only potential relief is injunctive, these suits are nearly impossible to successfully prosecute.

As an example of the lack of enforcement, as part of a due diligence study undertaken by the Department of State Lands in 2013 regarding the timber appraisal of three tracts of lands under consideration for disposal from the Elliott State Forest, the appraisers interviewed a number of private landowners potentially interested in buying the parcels. When asked how marbled murrelet occupancy would affect their interest in the parcels, several private timber operators believed a private timber company could harvest occupied murrelet habitat without regulatory action. When Kevin Maurice with the USFWS was asked by the contractor about these remarks, he indicated that the USFWS does not pursue violators of the federal ESA, even when violations are known (Whitler 2013).

The marbled murrelet is also afforded protections by state law, ORS 496.171 to 496.192, otherwise known as the Oregon Endangered Species Act. The Oregon Department of Fish and Wildlife (ODFW) administers the Oregon Endangered Species Act. Under the Oregon ESA, ODFW works with other state agencies and private landowners to develop regulations to help recover imperiled species. ORS 496.182. Further, the statute prohibits take of state-listed threatened and endangered (T&E) species on state-owned lands, and requires the promulgation of quantifiable and measurable guidelines to prevent the loss of individual members of the species. However, ODFW only develops such survival guidelines for T&E species listed after 1995. Because the marbled murrelet was listed prior to 1995, ODFW has not developed survival guidelines for the species. Additionally, private and commercial timber owners are exempt from the requirements imposed by the Oregon Endangered Species Act. ORS 496.192.

However, the Forest Practices Act (FPA) and associated administrative rules apply to state and private lands. The FPA is not intended to be a substitute for compliance under the federal or state ESAs. Instead, it is specifically stated in the FPA that compliance with forest practices rules does not substitute for or ensure compliance with the federal ESA. Under the FPA, landowners must

submit a written plan when harvesting near a "specific site involving threatened or endangered wildlife species" OAR 629-605-0170 (1)(b), (4)(b); OAR 629-605-0190. The Oregon Department of Fish and Wildlife has the responsibility to notify the landowner if a written plan is required (e.g., if the landowner is operating near a known threatened or endangered species site). It is the landowner's responsibility to develop the written plan and it must contain information on the techniques and methods that will be employed for resource protection. OAR 629-605-0170 (7) (d). The ODFW maintains a database of known threatened and endangered species sites that is compiled using available information. But because private landowners are not required to survey for threatened and endangered species nor are they required to notify ODFW of any threatened or endangered species sites on their lands, all of the marbled murrelet sites currently known to the Department are on public lands (state and federal ownerships). Murrelets are thus effectively without any protection on private lands where habitat remains.

The Oregon Department of Forestry (ODF) manages its forest lands "to secure the greatest permanent value of those lands to the state[.]" ORS 530.050. Pursuant to that directive, ODF may sell forest products and enter into timber sale contracts. ORS 530.050(2), (3). In addition, ODF may permit the use of its lands for other purposes so long as those uses are not detrimental to the best interests of the state—interests that include protecting fish and wildlife. ORS 530.050(4). ODF has adopted rules governing the management of state forest lands, *see* OAR chapter 629, division 35, and it defines the phrase "greatest permanent value" as used in ORS 530.050 to mean "healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits." OAR 629-035-0020(1). The State Forester is required to actively manage state forest lands to provide sustainable timber harvest and revenues in a way that "[p]rotects, maintains, and enhances native wildlife habitats[.]" OAR 629-035-0020(2), (2)(b).

Given that the USFWS has not published guidance on how to avoid take of marbled murrelets, and ODFW has not developed guidelines under the state ESA, the State Forests Division developed, and ODF has adopted, policies to protect listed species, including a set of policies specifically concerning marbled murrelets. Through its Marbled Murrelet Operational Policies, ODF seeks to "[m]inimize the disruption of [the marbled murrelet's] reproductive activities" and to "maintain habitat suitable for successful nesting" in marbled murrelet occupied sites. Marbled Murrelet Operational Policies 1.1.2.0.

In addition, ODF will use reasonable measures to "avoid direct take of marbled murrelets" and to "minimize the risk of any potential take incidental to [its] management practices." Marbled Murrelet Operational Policies 1.1.1.0. Pursuant to those policies, ODF surveys areas proposed for commercial logging and establishes Marbled Murrelet Management Areas (MMMAs) in locations that ODF determines are occupied by marbled murrelets.

Most of the existing murrelet nesting habitat existing on state lands can be found in the Elliott, Clatsop, and Tillamook State Forests. Other smaller plots of ODF lands in the coast range provide additional murrelet nesting habitat. While the Clatsop and Tillamook State Forests are managed by ODF and the Oregon Board of Forestry (BOF), the Elliott State Forest is managed under the authority of the Oregon Department of State Lands (DSL) and the State Land Board (SLB) with a mandate that any proceeds from the Elliott State Forest will benefit the State's Common School Fund. The DSL and SLB have agreed to allow ODF and BOF to plan and authorize logging activities and annual operating plans in the Elliott State Forest. New forest management plans have recently been completed and approved by the ODF and BOF for each of these State forests – one specific to the Elliott State Forest in 2011, and a Northwest Forest Management Plan for the Clatsop and Tillamook in 2010. Both management plans authorize increased timber harvest levels.

The State of Oregon developed and operated multi-species Habitat Conservation Plans (HCPs) between 1995 and 2001 for the Elliott State Forest and the lands managed under the Northwest Forest Management Plan, including the Tillamook and Clatsop State Forests. The HCPs set guidelines for the recovery of the murrelet and included a system for ODF to acquire Incidental Take Permits (ITP) for marbled murrelets or spotted owls associated with proposed timber projects. When the HCPs expired in 2001, the state began the process of renewing HCPs for the Elliott State Forest and lands under the Northwest Forest Management Plan, but both of those processes were abandoned before completion. Since the expiration of the HCPs, the state has operated under a "take avoidance policy," under which take of marbled murrelets is supposed to be avoided. However, the murrelet take-avoidance measures used by ODF have little oversight or regulation from state or federal wildlife agencies. Instead of preparing a comprehensive analysis of the effect on murrelets by timber projects by renewing HCPs, the state has instead developed a land classification of Marbled Murrelet Management Areas (MMMAs) which is applied to known occupied murrelet nesting habitat. These MMMAs afford only slight protection for murrelets as they often fail to include all local contiguous occupied habitat as recommended in the PSG survey protocol (Evans-Mack et al. 2003), and they are often too small to provide adequate nesting opportunities for healthy murrelet populations.

In 2013, these policies were challenged in a lawsuit brought by Cascadia Wildlands, Portland Audubon, and the Center for Biological Diversity, arguing essentially that the state's policies permitted "take" of marbled murrelets in violation of Section 9 of the federal ESA. After the Court halted over a dozen timber sales on the Elliott State Forest, the state agreed to halt all older timber harvest on the Elliott State Forest and to revise its murrelet policies to better protect occupied sites. However, there is no comprehensive murrelet conservation strategy for state lands, and no regulation by ODFW or the Oregon Board of Forestry for private lands, leaving a regulatory void in Oregon for

this imperiled species on more than 75 percent of coastal forests. The State of Oregon's management of murrelet habitat on ODF managed lands, especially the Elliott, Clatsop, and Tillamook State Forests, has led to declining populations of the threatened murrelet such that extinction is likely and reclassifying the species to endangered is necessary to ensure its survival.

UPLISTING REQUEST

Pursuant to OAR 635-100-0111, "[t]he commission shall reclassify a wildlife species from threatened status to endangered status if it determines that the species meets any of the factors set out in OAR 635-100-0105(6).[2] In addition, the commission shall also determine that the likelihood of survival of the species is in danger of extinction throughout any significant portion of its range within the state." As set forth herein, marbled murrelets are suffering a decline in breeding productivity (Peery 2007, Becker et al. 2007, Norris et al. 2007, Ronconi & Burger 2008, Crescent Coastal Research 2008), nest success (Beissinger & Nur 1997, Bradley et al. 2002, Cam et al. 2003, Peery et al. 2004), and genetic diversity (Peery et al. 2004). Numerous studies have shown significant localized population declines (Burger 2002, Burger & Waterhouse 2009, Piatt et al. 2007, Raphael et al. 2015, Peery et al. 2009, Nelson & Hamer 1995, Hamer & Meekins 1999, Manley 1999, Manley & Nelson 1999, Bradley 2002, Hébert & Golightly 2007, Nelson & Wilson 2002, Manley 2003, Peery et al. 2004). Current protections are insufficient to protect the species, as their persistence is uncertain if the current trend of habitat destruction continues. The recently published 20-year status report of the species found that:

> [g]iven declining murrelet population trends as well as habitat losses, in many areas, it is uncertain whether their populations will persist to benefit from potential future increases in

[2] OAR 635-100-0105(6) reads: "In addition to the criteria set forth in sections (3) and (4) of this rule, in listing a wildlife species as endangered or threatened, the commission shall determine that the natural reproductive potential of the species is in danger of failure due to limited population numbers, disease, predation or other natural or human actions affecting its continued existence and, to the extent possible, assess the relative impact of human actions. In addition, the commission shall determine that one or more of the following factors exist: (a) That most populations of the species are undergoing imminent or active deterioration of their range or primary habitat; (b) That overutilization of the species or its habitat for commercial, recreational, scientific or educational purposes is occurring or is likely to occur; or (c) That existing state or federal programs or regulations are inadequate to protect the species and its habitat.

> habitat suitability. This underscores t*he need to arrest the loss of suitable habitat on all lands*, especially on nonfederal lands and in the relatively near term (3 to 5 decades).

(Falxa & Raphael 2016, emphasis added).

Due to these factors, marbled murrelets are likely facing a severe population reduction in the foreseeable future due to anthropogenic habitat destruction (USFWS & BLM 1994, Beissinger 2002, Raphael et al. 2015). The loss of nesting habitat is highly correlated with declining populations through most of the range of the species (Burger 2002, Burger & Waterhouse 2001, Piatt et al. 2007, Raphael et al. 2015). Between 1996 and 2006 alone, there was a 10 percent loss in marbled murrelet nesting habitat across the range of the Washington, Oregon, and California DPS (USFWS 2004, Raphael et al. 2015). While murrelet nesting habitat on federal forest lands has had increased protection since the implementation of the Northwest Forest Plan, only 48 percent of the remaining higher quality nesting habitat of the murrelet is on federal lands (Rapp 2007). Private forestlands make up 64 percent of coast range forests (Wimberly & Spies 2000) and have minimal oversight from federal or state wildlife agencies.

An uplisting of the marbled murrelet will compel the development of survival guidelines for the species and allow the Commission to:

> work with private landowners, affected cities, affected counties and affected local service districts, as defined in ORS 174.116 (Local government and local service district defined), to mitigate the adverse impact on local economies when the commission adds a species to the list of threatened species or endangered species pursuant to ORS 496.172 (Commission management authority for threatened or endangered species).

ORS 496.182(2)(b). The majority of private lands are second- and third-growth forests that do not provide suitable marbled murrelet habitat. Therefore, it may be feasible to specifically target remaining habitat on private lands and work with impacted land owners to mitigate impacts through collaborative efforts with the Commission and Department.

Further, given the abundance of habitat on state lands, primarily on the Elliott, Tillamook, and Clatsop State Forests, listing of the marbled murrelet as endangered will allow the Department

to engage with Oregon Department of Forestry and Board of Forestry on how these lands can contribute to the conservation and recovery of the marbled murrelet. Currently, all state policy is focused on take-avoidance of the murrelet, but an endangered listing would encourage proactive measures to facilitate recovery of the species to bring a species to the point at which the protections under both state ESA and federal ESA are not required.

Petitioners envision numerous steps and proactive measures that could be taken to facilitate the recovery of this species at the state level. The Department, in conjunction with the Oregon Department of Forestry could work with impacted private timberland owners to identify the remaining high quality habitat on private lands and to identify measures to survey for and protect the species therein, and measures of mitigation and compensation for the landowners.

The Department will also be able to work with the Board of Forestry in developing a firm conservation plan for the species that involves the great deal of suitable habitat, and habitat that is close to becoming suitable, on state forestlands. Proactive conservation would result in the development of a comprehensive plan for the species that could replace the reactive survey and take-avoidance strategy that has been problematic for the Oregon Department of Forestry. Such a plan could involve both a strategic system of reserves for the species and a focus on selective restorative forest improvement projects to help accelerate development of older forest characteristics necessary for the murrelet in forests nearing maturity that are abundant on the North Coast forests.

The purpose of this restoration thinning is to create new murrelet habitat without impacting existing habitat. Accordingly, such projects should only occur in young even-aged plantations using the existing road system, roads should be decommissioned after one entry, and no thinning should occur within an occupied site or its buffer. Occupied sites, as identified pursuant to the Pacific Sea Bird Group Protocol, need to be buffered from any logging, including thinning, by at least 200 meters to prevent edge effects, canopy openings, and entry of the stand by corvids.

Given the drastic indications of declining breeding success, marbled murrelet populations will continue to decline along the West Coast, and stricter regulatory measures will inevitably be necessary. But given the abundance of suitable habitat on state land in Oregon, and that the remaining bulk of the West Coast population is found off the Oregon Coast, the state has the opportunity to proactively head off further decline of the species and leverage our state resources to bring the species to the point where both state and federal protections are no longer needed. Petitioners will gladly assist the Department and Commission in these processes, and put the energies of Oregon's robust conservation community behind the state in crafting and implementing this plan.

Accordingly, pursuant to ORS 496.176, Petitioners formally request that the Oregon Fish and Wildlife Commission reclassify by rule the marbled murrelet (*Brachyramphus marmoratus*) from "threatened" to "endangered" under the Oregon Endangered Species Act. Petitioners look forward to the Commission's written response within 90 days of receipt of a petition concerning whether the petition presents substantial scientific information to warrant the action requested. Please contact Petitioners with any questions concerning this Petition. To contact Petitioners please address:

Nick Cady, Legal Director
Cascadia Wildlands
PO Box 10455
Eugene, Oregon 97440
nick@cascwild.org
(541) 434-1463

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